Medical Officer's annual report [to] Durban Corporation.

CITY OF DURBAN

Annual Report

OF

CITY MEDICAL OFFICER OF HEALTH

YEAR ENDING 31st DECEMBER, 1958

DURBAN CORPORATION

CITY OF DURBAN

ANNUAL REPORT

OF

CITY MEDICAL OFFICER

OF

HEALTH

* * *

YEAR ENDING 31st DECEMBER, 1958

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ANNUAL REPORT: 1958

INTRODUCTION

REPORT 'A'

REPORT 'B'

* * *

City Health Department,

640 Smith Street,

DURBAN.

15th August, 1959.

To His Worship the Mayor and
Councillors of the City of Durban.

I have the honour to present the fifty-sixth Annual Report on the activities of the City Health Department for the year 1958.

Tuberculosis:

Bantu tuberculosis during 1958 still maintained its unenviable reputation as the City's greatest public health problem. Over the last five years the annual notifications of Bantu residents suffering from this disease have been as follows :-

1954	1061	1956	1963
1955	1341	1957	2216
	1958 - 1962		

Typhoid:

Cato Manor continued to function as the main focus in the City for the propagation of intestinal infections. As an example, this area contributed during the year 197 Bantu cases of typhoid fever out of a City total of 278 for all races.

Until such time as the inhabitants are all evacuated from the area and re-settled elsewhere, or until they learn to subscribe to the elementary principles of hygiene and to banish from their midst conditions favourable for the development of flies, so long will this neighbourhood remain a source of constant anxiety to the City's health authorities and a threat to the rest of the town.

Cato Manor:

The most significant event which occurred at Cato Manor during the year was the elimination of the slum settlement known as "Raincoat". This matter is referred to in Report 'B' (Housing).

Kwa Mashu - Health Services:

The first houses at this Township were occupied on the 22nd March, 1958.

During the year the Health Department was directed to reduce its estimate in respect of services at Kwa Mashu from £30,000 to £22,000. This reduction could only have been effected by seriously restricting all programmes in the area relating to child health and health education.

I again find it necessary, in respect of this great human project, to quote Lord Beaconsfield's dictum that "the health of the people is the most important of all problems".

Kwa Mashu - Clinical and Hospital Services:

These are, of course, the responsibility of the Provincial Administration. On representations from this Department, the Director of Provincial Hospitals was approached during November 1958, to ascertain the Administration's proposals in regard to the provision of these services at Kwa Mashu. Correspondence then ensued relating to the questions of the

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erection of a hospital, and to the establishment of a polyclinic, and also to a proposal to hold a joint meeting in January to discuss the selection of a site for the clinic.

In the meantime, Departmental medical surveys were conducted at the Township which indicated the urgent need for the establishment of an out-patient clinic especially for the treatment of minor complaints, owing to the time and cost involved in travelling to and from the King Edward VIII Hospital.

Indian Shack Building:

Illegal shack building operations by Indians increased during the year and this development was especially noticeable in the Wentworth/ Merebank district.

The Natal Health Consultative Committee:

This body was established during 1958 with a constitution somewhat similar to that of the Witwatersrand and Pretoria Public Health Consultative Committee. The Council approved of this Department's representation on the Committee.

Isipingo Rail Health Committee : Future Status:

At a Council meeting held on the 3rd February, 1958, a Sub-Committee was established to examine and report as soon as possible on the desirability of incorporating the area of the above Health Committee within the City of Durban.

Subsequently, the City Medical Officer of Health was invited to join the Sub-Committee and, with this development, comprehensive surveys were carried out by the Department in respect of the public health circumstances of the areas controlled by the Isipingo Rail Health Committee and the Isipingo Beach Town Board. The findings of these surveys were reported to the Sub-Committee.

During the course of its labours the Sub-Committee met several time but was unable to make a unanimous decision as to the nature of the recommendation which should be forwarded to the Council. However, in July the Council resolved that the Administrator-in-Executive Committee be advised that the Council did not favour the incorporation of either of the above local authority areas.

Civil Defence:

The Department was represented on the Sub-Committee appointed by the Departmental Committee (Heads of Departments) in July to undertake a preliminary study of the proposals submitted for the establishment of a permanent civil defence organisation in Durban and elsewhere. It will be appreciated that certain aspects of the work of such an organisation are of special concern to a Public Health Department and to its three related Voluntary Aid organisations. This is especially true of any civil defence schemes based on the large coastal towns of the Union.

Proposed Oil Refinery - Durban Harbour:

Undoubtedly, the most important issue which confronted the Department during 1958, was the proposal to establish an oil refinery in the harbour area on a site near Salisbury Island. In June, departmental reports were called for from the City Engineer, the Chief Officer of the Fire Department and the City Medical Officer of Health, and a close analysis of the position was made.

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In its report this Department recommended against the proposal on the grounds that "from the public health standpoint the proposed refinery can only be regarded as a potential and undesirable addition to the growing number of sources of air pollution and smell (and consequently of impaired health) with which the City already had to contend".

The other Departments concerned adopted a similar attitude and, after consideration of all the reports,the Council resolved that it could not support the establishment of an oil refinery on the site mentioned above, on account of the deleterious effect it could have on the amenities and the long term planning of the City, particularly the area surrounding the Bay.

Sale of Pre-Cut and Pre-Wrapped Meat:

Another new issue which faced the Department during the year arose when an application was submitted by a large departmental store for a retail butcher's licence. This was for the purpose of selling pre-cut and pre-wrapped meat.

Presumably, this was the first time such an application had been received by any local authority in the Union. In these circumstances, the Department had no precedent to work on and was fully conscious of the heavy responsibility laid on it to arrive at a correct decision. After much consideration, it decided to report favourably on the application; therefore it became involved in a very lenghty and complicated licence hearing which ultimately went to appeal.

The procedure approved was as follows. All meat is obtained from the Municipal Abattoir and removed to an approved wholesaler's premises where it is stored and handled in a chilled condition. Here the meat is pre-cut and pre-packed in the chilled room, each cut being parcelled in a transparent wrapper, and each packet being labelled with the name of the cut, the grade, the weight and the price. In addition, the name of the supplier and the date of cutting is included on the label in code.

On delivery to the butchery section of the departmental store, the meat is immediately placed in a chilled display unit and sold on a self-service basis. At the conclusion of each days business, any unsold parcels of meat are stored in a chilled chamber within the premises.

Tests carried out by the Department established the fact that meat handled and stored in this manner remained sound and palatable for some days, and further, that no bacterial deterioration took place during this period.

At the time of writing the Department has had no reason to modify its previous views on this application.

Dry-Cleaners' Establishments:

Some three years ago a new type of equipment came on to the local market in which chemical solvents such as perchlorethylene were used. Such a unit is compact and was probably designed for use in smaller premises.

Ever since the introduction of this new development in dry cleaning, representations have been made to the Department to allow businesses operating the new technique to establish themselves in blocks of flats and other residential accommodation. This is contrary to the provisions of the by-laws.

During the year the Department collected much material and obtained technical advice on the new process. At the end of 1958 it still adhered to its view that it was undesirable for the legal restrictions in

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in respect of residential buildings to be removed. At the time of writing, it is apparent that this subject will be dealt with again more fully in the next Annual Report.

Conferences:

Representatives of the Department attended the following conferences during the year :-

South African National Council for Child Welfare - Bloemfontein (August)

Health Officials' Association of Southern Africa - Johannesburg (October)

Conference on Industrial Ophthalmology - Johannesburg (November)

The last-mentioned conference was convened by the South African National Council's Bureau for the Prevention of Blindness. Its theme was "The Prevention of Eye Accidents" and its proceedings proved most stimulating and instructive.

Office Accommodation.

On a number of occasions in recent years, the Department has endeavoured to secure additional accommodation and, although some improvement was effected by the occupation of a portion of the Old Infants' School, conditions have remained unsatisfactory and, as a result, staff efficiency has suffered. As it seemed likely that the proposed new block of buildings for the Department in Old Fort Road would not be ready for several years, an effort was made in July to obtain additional accommodation by recommending that the two charitable organisations also housed in the above School be moved to quarters elsewhere. The proposal was referred to the Sub-Committee re Office Accommodation but by the end of the year no decision had been taken on the matter.

Appendices.

There are four appendices to this Report.

Appendix I.

This reflects the experience of the Department in dealing with the mosquito problem arising from the Bluff swamps. A fairly full account of these is given as they may be of interest to others further afield who may encounter similar sets of circumstances elsewhere.

Appendix II.

This is a short memorandum on the activities of the Institute of Family and Community Health which carries out a number of public health activities in the southern part of the City.

Appendix III.

The view has often been expressed that Public Health should look beyond the present horizon and also interest itself in diseases of a non-communicable nature. No excuse is therefore made for the inclusion in this Report of an article by Dr. G.D. Campbell and Dr. W.G. McNeill entitled "Initial Experiences in a Bi-Racial Sub-Tropical Diabetic Clinic". A portion of this article has already been published in the "British Medical Journal" but this is the first occasion that the article has appeared in its entirety.

In this connection I wish to express my warm appreciation to the two authors for their kindness in allowing their paper to appear in this Report. I am quite sure that it will be read with much interest, especially by clinicians and by public health workers, who are concerned with the health and well-being of the Bantu and the Indian in South Africa.

Appendix IV/...

Appendix IV.

As a special feature cancer statistics were included in last year's Report. These are followed this year by statistics, on a race basis on the incidence of coronary thrombosis in Durban. It is suggested that even a superficial study of the figures will disclose that the opportunities for research in this field in Durban are excellent.

Acknowledgements.

To His Worship the Mayor, to City Councillors, and to Council's officials, I wish to express my thanks for all the assistance, cordial support, and courtesy, extended to the Department during 1958. To the members of the Press, too, I wish to express my grateful appreciation for their kindly co-operation.

Lastly, I wish to acknowledge with gratitude and keen appreciation the loyal and efficient service of my own staff, and to thank them, one and all, for the valuable support they have accorded me throughout the year.

I have the honour to be,
Ladies and Gentlemen,
Your obedient servant

G.D. English, M.B., Ch.B., D.P.H., D.T.M. & H.
CITY MEDICAL OFFICER OF HEALTH.

CITY OF DURBAN

REPORT OF THE CITY MEDICAL OFFICER OF HEALTH

for the

YEAR ENDED 31st DECEMBER, 1958

* * *

REPORT 'A'

I. NATURAL CONDITIONS AND STATISTICS

1. Area

Following incorporation of the Kwa Mashu Bantu Township to the north of the City in 1957, the Bay of Natal - except those parts covered by water - was added to the Municipal area of Durban during 1958. The inclusion of Kwa Mashu increased the area of Durban by 2,996 acres, and the addition of the Bay lands has further enlarged the City by another 88 acres, giving a total area of 51,228 acres (80.04 square miles).

2. Valuation

	1958	1957
Rateable value of land	£69,785,480	£69,554,540
Rateable value of buildings	113,069,630	108,229,870
	£182,855,110	£177,784,410

Rates: Land - 7d in £: Buildings - 3⅛d. in £:
Agricultural - 1/- per acre per annum.

N.B.: No rateable valuations are available for the Kwa Mashu Township as, in terms of Ordinance 5 of 1958, the Council may not levy rates on properties in this area without the prior consent of the Administrator of Natal. The area of the Bay of Natal has not yet been valued.

3. Geographical Data and Climate

Durban is situated on the East coast of the Province Natal at longitude 31° East and latitude 29° 52 minutes 30 seconds South. The climate is sub-tropical, the summer being temperate with a high humidity and the winter is mild. Durban is the largest port of South Africa and is the principal harbour for shipping to and from the Middle and Far East.

The City is generally well planned; and as there are over 3,000 acres set aside for parks, recreational facilities and the like, it also possesses ample open spaces.

4. METEOROLOGICAL DATA (By Courtesy of the City Engineer)

1958	24 Hour Shade Temperature		Relative Humidity *			Barometer			Rainfall		
Month	Max.	Min.	Max.	Min.	Mean.	Max.	Min.	Mean.	Points	No. of Days on Which Rain Fell	Highest Fall
January	91	65	78	66	73.6	31.500	29.700	30.130	2500	18	800
February	89	64	98	58	72.6	30.050	28.808	29.909	2469	12	980
March	84	67	74	52	65.3	30.274	29.834	30.010	624	13	204
April	82	67	85	49	69.5	30.172	29.830	30.007	2389	14	810
May	79	64	73	48	63.5	30.290	29.842	30.047	171	6	70
June	73	58	75	45	56.9	30.486	29.770	30.197	210	2	160
July	74	62	74	50	62.0	30.432	30.024	30.173	123	2	80
August	81	60	84	39	66.3	30.534	29.300	30.137	38	3	18
September	78	60	84	45	69.3	30.438	28.844	30.060	1152	10	735
October	80	64	82	48	69.1	30.332	29.686	30.046	271	12	90
November	84	69	90	55	75.6	30.128	29.472	29.906	1182	16	335
December	86	69	88	44	67.1	30.138	29.730	29.874	795	20	165
Maximum for the Year	91	69	98	66	75.6	31.500	30.024	30.197	2500	20	980
Minimum for the Year	73	58	73	39	56.9	30.050	28.808	29.874	38	2	18

* Readings taken from interior hygrograph. No wet and dry bulb readings available.

5. Population (Estimated)

	1958	(Ratio)	1957
Europeans	154,763	(27.10%)	151,678
Coloureds	25,003	(4.38%)	23,838
Bantu	185,835	(32.54%)	179,157
Asiatics	205,543	(35.98%)	197,411
All races	571,144		552,084

6. Births

Race	Legitimate	Illegitimate	Still	Total	Rates		
					Birth	Illegitimate	Still Births per 1,000
Europeans	3,158	61	33	3,252	21.01	1.88%	10.15
Coloureds	773	198	17	988	39.51	20.04%	17.21
*Bantu	2,285	3,858	102	6,245	-	-	-
Asiatics	5,731	102	253	6,086	29.61	-	-
Total	11,947	4,219	405	16,571	-	-	-

* The figures for Bantu births are unreliable owing to the fact that probably few of the extra-institutional births are registered.

7. Deaths

In the 1957 Annual Report, deaths were recorded in accordance with the abbreviated list of 50 causes of mortality of the International Code of the World Health Organisation. It has since been established that whilst this Code is satisfactory in certain other respects, it is not sufficiently detailed for public health investigations and statistical research. Accordingly, the Department has now adopted the abbreviated list of 150 causes of mortality published in the International Code. (See Schedule - Page 5).

Death Rates

European	9.43	(9.29)
Coloured	8.48	(8.43)
Bantu	18.92	(23.52)
Asiatic	7.37	(8.77)
All races	11.73	(13.68)

Note: Asiatic Death Rate

The remarkably low death rate amongst the Asiatics is probably due to the fact that, in accordance with following a formula supplied by the Department of Census and Statistics, the Asiatic population over the past two years has been estimated to have increased by 30,000 persons. However, it is doubtful whether such is accurate, as the natural increase, i.e. births over deaths, gives only a 9,000 increase. On this basis the death rate for this race would be 8.40 which is in keeping with the average trend over the past years.

In this connection, the following observations furnished by the Director of Census and Statistics in a letter dated 8th June, 1959 are of interest.

"Figures for 1958 are not yet available, and preliminary figures are not available for the municipal area of Durban only.

The Death rate of Asiatics for the whole Union is now more or less equal to that of the white population, whereas some years ago (1945-1947) the average rate for Asiatics was 13.3 compared with 8.9 for whites.

As you are aware, the age distribution of a population has an appreciable influence on the death rate. The Asiatic population of the Union is appreciably "younger" than the white population (that is, the average age is lower) and the death rate of Asiatics is therefore lower than it would have been if the age distribution were similar to that of the white population.

As far as the municipal area of Durban is concerned, the 1951 population census figures show that no less than 60 per cent of the Asiatics were under 21 years of age, whereas only 33 per cent of the whites were under 21."

Infantile Deaths

Included in the attached schedule of deaths are infantile deaths for the year, comprising Europeans 92, Coloureds 47, Bantu 1,690, and Asiatics 418.

Maternal Deaths

Cause of Death	E.	C.	B.	A.	Total
Eclampsia	-	1	-	1	2
Pregnancy associated with other conditions	-	-	1	-	1
Abortion without mention of sepsis or toxaemia	-	1	2	-	3
Abortion with sepsis	1	-	1	2	4
Abortion with toxaemia, without sepsis	-	-	-	1	1
Delivery complicated by retained placenta	-	-	1	-	1
Delivery complicated by other postpartum haemorrhage	-	-	3	2	5
Delivery complicated by disproportion of malposition of foetus	-	-	-	1	1
Puerperal sepsis	-	-	1	2	3
Other and unspecified complication of the puerperium	-	-	-	1	1
Total	1	2	9	10	22

Maternal Mortality

Race	Registered Deaths from causes due to child-birth	No. of Births			Death Rate calculated on live births	Death Rate calculated on live and still births
		Live	Still	Total		
European	1 (-)	3,219 (2,990)	33 (35)	3,252 (3,025)	0.31 (-)	0.31 (-)
Coloured	2 (2)	971 (842)	17 (32)	988 (874)	2.06 (2.37)	2.02 (2.28)
Bantu	9 (8)	6,143 (5,328)	102 (133)	6,245 (5,461)	1.46 (1.50)	1.44 (1.46)
Asiatic	10 (15)	5,833 (5,139)	253 (176)	6,086 (5,315)	1.71 (2.91)	1.64 (2.82)

(Parenthesis - 1957)

CAUSES OF DEATH

(Classified according to International Intermediate List of 150 Causes from Sixth Revision, World Health Organisation, 1948).

Ref.	Cause of Death	Eur.	Col.	Bantu	Asiatic	TOTAL
A. 1	Tuberculosis of Respiratory System	13	8	214	31	266
2	Tuberculosis of Meninges and Central Nervous System	-	1	17	13	31
3	Tuberculosis of Intestines, Peritoneum and Mesenteric Glands	-	-	10	1	11
4	Tuberculosis of Bones and Joints	-	-	-	-	-
5	Tuberculosis, All Other Forms	2	1	27	2	32
6	Congenital Syphilis	-	-	-	1	1
7	Early Syphilis	-	-	-	-	-
8	Tabes Dorsalis	-	-	-	-	-
9	General Paralysis of Insane	-	-	-	-	-
10	All Other Syphilis	-	2	7	1	10
11	Gonococcal Infection	-	-	-	-	-
12	Typhoid Fever	-	-	20	1	21
13	Paratyphoid Fever and Other Salmonella Infections	-	-	2	1	3
14	Cholera	-	-	-	-	-
15	Brucellosis (Undulant Fever)	-	-	-	-	-
16	Dysentery, All Forms	1	4	101	6	112
17	Scarlet Fever	-	-	1	-	1
18	Streptococcal Sore Throat	-	-	-	-	-
19	Erysipelas	-	-	-	-	-
20	Septicaemia and Pyaemia	1	-	1	1	3
21	Diphtheria	3	-	13	15	31
22	Whooping Cough	-	-	5	2	7
23	Meningococcal Infections	-	-	3	1	4
24	Plague	-	-	-	-	-
25	Leprosy	-	-	-	-	-
26	Tetanus	-	-	* 68	* 7	* 75
27	Anthrax	-	-	-	-	-
28	Acute Poliomyelitis	-	-	-	-	-
29	Acute Infectious Encephalitis	1	1	2	4	8

*Includes 63, 3 and 66 Tetanus Neonatorum respectively

Ref.	Cause of Death	Eur.	Col.	Bantu	Asiatic	TOTAL
A. 30	Late Effects of Acute Poliomyelitis and Acute Infectious Encephalitis.	-	-	-	-	-
31	Smallpox	-	-	-	-	-
32	Measles	-	1	30	4	35
33	Yellow Fever	-	-	-	-	-
34	Infectious Hepatitis	2	-	2	-	4
35	Rabies	-	-	-	-	-
36	Typhus and Other Rickettsial Diseases	-	-	-	-	-
37	Malaria	-	-	-	-	-
38	Schistosomiasis	1	-	1	1	3
39	Hydatid Disease	1	-	-	-	1
40	Filariasis	-	-	-	-	-
41	Ankylostomiasis	-	-	-	-	-
42	Other Diseases due to Helminths	-	1	1	-	2
43	All Other Diseases Classified as Infective or Parasitic	-	-	1	-	1
44	Malignant Neoplasm of Buccal Cavity and Pharynx	10	1	1	1	13
45	Malignant Neoplasm of Oesophagus	6	1	10	-	17
46	Malignant Neoplasm of Stomach	30	4	-	17	51
47	Malignant Neoplasm of Intestine, Except Rectum	21	1	1	2	25
48	Malignant Neoplasm of Rectum	6	1	-	1	8
49	Malignant Neoplasm of Larynx	3	1	-	-	4
50	Malignant Neoplasm of Trachea, and of Bronchus and Lung not specified as Secondary	45	3	12	4	64
51	Malignant Neoplasm of Breast	22	3	3	2	30
52	Malignant Neoplasm of Cervix Uteri	6	-	10	4	20
53	Malignant Neoplasm of Other and Unspecified Parts of Uterus	10	2	2	2	16
54	Malignant Neoplasm of Prostate	12	-	1	-	13
55	Malignant Neoplasm of Skin	-	-	-	-	-
56	Malignant Neoplasm of Bone and Connective Tissue	2	-	1	2	5
57	Malignant Neoplasm of all Other and Unspecified Sites	62	6	32	9	109
58	Leukaemia and Aleukaemia	4	1	3	-	8
59	Lymphosarcoma and Other Neoplasms of Lymphatic and Haematopoietic System	10	1	3	2	16
60,	Benign Neoplasms and Neoplasms of Unspecified Nature	9	-	1	5	15

Ref.	Cause of Death	Eur.	Col.	Bantu	Asiatic	TOTAL
A. 61	Nontoxic Goitre	-	-	-	-	-
62	Thyrotoxicosis with or without Goitre	-	-	-	-	-
63	Diabetes Mellitus	4	-	2	14	20
64	Avitaminosis and other Deficiency States	1	-	325	46	372
65	Anaemias	-	-	-	-	-
66	Allergic Disorders; All Other Endocrine, Metabolic and Blood Diseases	6	2	6	17	31
67	Psychoses	-	-	-	-	-
68	Psychoneuroses and Disorders of Personality	1	-	-	-	1
69	Mental Deficiency	-	-	-	-	-
70	Vascular Lesions Affecting Central Nervous System	173	8	63	156	400
71	Nonmeningococcal Meningitis	3	3	19	9	34
72	Multiple Sclerosis	5	-	-	-	5
73	Epilepsy	2	-	5	2	9
74	Inflammatory Diseases of Eye	-	-	-	-	-
75	Cataract	-	-	-	-	-
76	Glaucoma	-	-	-	-	-
77	Otitis Media and Mastoiditis	-	-	1	-	1
78	All Other Diseases of the Nervous System and Sense Organs	15	-	6	10	31
79	Rheumatic Fever	-	-	-	-	-
80	Chronic Rheumatic Heart Disease	11	-	9	27	47
81	Arteriosclerotic and Degenerative Heart Disease	340	13	51	142	546
82	Other Diseases of Heart	121	6	82	94	303
83	Hypertension with Heart Disease	33	7	22	48	110
84	Hypertension without Mention of Heart	-	-	4	7	11
85	Disease of Arteries	18	2	11	1	32
86	Other Diseases of Circulatory System	16	-	3	7	26
87	Acute Upper Respiratory Infections	-	-	-	-	-
88	Influenza	-	-	1	4	5
89	Lobar Pneumonia	9	3	48	16	76
90	Broncho-Pneumonia	73	-	351	271	695

Ref.	Cause of Death	Eur.	Col.	Bantu	Asiatic	TOTAL
A. 91	Primary Atypical, Other and Unspecified Pneumonia	23	25	25	18	91
92	Acute Bronchitis	1	-	2	21	24
93	Bronchitis, Chronic and Unqualified	7	2	5	20	34
94	Hypertrophy of Tonsils and Adenoids	-	-	-	-	-
95	Empyema and Abscess of Lung	-	-	11	1	12
96	Pleurisy	1	-	-	-	1
97	All Other Respiratory Diseases	13	4	16	6	39
98	Diseases of Teeth and Supporting Structures	-	-	-	-	-
99	Ulcer of Stomach	2	-	-	2	4
100	Ulcer of Duodenum	-	-	-	-	-
101	Gastritis and Duodenitis	-	-	-	1	1
102	Appendicitis	-	-	2	-	2
103	Intestinal Obstruction and Hernia	8	3	7	4	22
104	Gastro-Enteritis and Colitis, Except Diarrhoea of the Newborn	11	14	640	89	754
105	Cirrhosis of Liver	18	-	19	7	44
106	Cholelithiasis and Cholecystitis	7	-	1	1	9
107	Other Diseases of Digestive System	19	3	27	5	54
108	Acute Nephritis	4	-	1	1	6
109	Chronic, Other and Unspecified Nephritis	20	4	19	22	65
110	Infections of Kidney	3	-	1	2	6
111	Calculi of Urinary System	-	1	2	-	3
112	Hyperplasia of Prostate	2	-	-	-	2
113	Diseases of Breast	-	-	-	-	-
114	Other Diseases of Genito-Urinary System	6	-	1	1	8
115	Sepsis of Pregnancy, Childbirth and the Puerperium	-	-	1	2	3
116	Toxaemias of Pregnancy and the Puerperium	-	1	-	2	3
117	Haemorrhage of Pregnancy and Childbirth	-	-	4	2	6
118	Abortion without mention of Sepsis or Toxaemia	-	1	2	-	3
119	Abortion with Sepsis	1	-	1	2	4
120	Other Complications of Pregnancy, Childbirth and the Puerperium	-	-	1	2	3
121	Infections of Skin and Subcutaneous Tissue	-	-	2	3	5
122	Arthritis and Spondylitis	1	-	1	1	3
123	Muscular Rheumatism and Rheumatism, Unspecified	-	-	-	-	-

Ref.	Cause of Death	Eur.	Col.	Bantu	Asiatic	TOTAL
A. 124	Osteomyelitis and Periostitis	1	-	1	-	2
125	Ankylosis and Acquired Musculoskeletal System	-	-	-	-	-
126	All Other Diseases of Skin and Musculoskeletal System	2	-	-	-	2
127	Spina Bifida and Meningocele	1	-	1	-	2
128	Congenital Malformations of Circulatory System	8	2	7	-	17
129	All Other Congenital Malformations	3	2	9	12	26
130	Birth Injuries	5	1	29	27	62
131	Postnatal Asphyxia and Atelectasis	11	2	55	8	76
132	Infections of the Newborn	4	6	102	44	156
133	Haemolytic Disease of Newborn	1	1	3	1	6
134	All Other Defined Diseases of Early Infancy	-	-	45	8	53
135	Ill-defined Diseases Peculiar to Early Infancy, and Immaturity Unqualified	31	14	150	57	252
136	Senility without mention of Psychosis	15	7	10	3	35
137	Ill-defined and Unknown Causes of Morbidity and Mortality	45	5	508	35	593
AE. 138	Motor Vehicle Accidents	22	7	49	25	103
139	Other Transport Accidents	3	-	11	2	16
140	Accidental Poisoning	2	-	6	5	13
141	Accidental Falls	2	2	4	3	11
142	Accident caused by Machinery	1	-	-	-	1
143	Accident caused by Fire and Explosion of Combustible Material	-	-	8	9	17
144	Accident caused by Hot Substance, Corrosive Liquid, Steam and Radiation	2	1	6	4	13
145	Accident caused by Firearm	1	-	-	-	1
146	Accidental Drowning and Submersion	6	4	3	11	24
147	All other Accidental Causes	19	4	37	10	70
148	Suicide and Self-Inflicted Injury	12	4	12	15	43
149	Homicide and Injury Purposely Inflicted by Other Persons (Not in War)	2	4	54	8	68
150	Injury Resulting from Operations of War	-	-	-	-	-
	TOTALS:-	1,460	212	3,516	1,516	6,704

II. INFECTIOUS DISEASES

General

No case of formidable epidemic disease was notified during the year.

City notifications of typhoid fever were high, two-thirds of the patients having contracted the infection in the Cato Manor area. This locality comprises a collection of Bantu shack settlements inhabited by approximately 80/100,000 persons. Here, on all sides, conditions of insanitation of varying degrees are met with and the situation is aggravated by the primitive conceptions of hygiene held by many of the shack dwellers.

The incidence of scarlet fever continued to be fairly high and, as usual, was to all intents and purposes confined to the European section of the population.

Diphtheria notifications showed an increase over 1957, although the total number of cases was less than those recorded for the years 1955 and 1956. The prevalence of diphtheria on such a scale, however, leaves no room for complacency and the need for continual vigilance concerning this infection is ever present.

Poliomyelitis notifications showed a marked decrease, which was not unexpected after the two preceding years of high incidence, a factor which must have undoubtedly raised the overall immunity of the townspeople to a high level.

Smallpox.

Passengers from a ship on which two cases of smallpox had occurred 16 days prior to disembarkation were placed under surveillance. All remained well.

Typhus

No cases of epidemic or murine typhus fever were reported during the year. Durban's freedom from this disease has continued since 1952.

Typhoid Fever

Set out below is a table indicating the number of notifications for the last four years, according to their racial distribution:

CITY CASES

	1955	1956	1957	1958
European	8	5	6	7
Coloured	3	1	1	5
Asiatic	16	9	5	20
Bantu	73	52	110	246
Total	100	67	122	278

It will be seen that, over the years, by far the greatest number of cases occurred amongst the Bantu. It is certainly surprising, that despite the marked increase in Bantu cases during 1958, the incidence of the disease in other races has been so little affected; more especially is this so when consideration is given to the part played by the Bantu in the daily lives of the other racial groups in the spheres of food-handling, domestic help, and the care of children.

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Of the 246 Bantu cases notified in 1958, 197 were admitted to hospital from the Cato Manor area and there the particularly unhygienic and insanitary 'suburbs' of "Raincoat","Mgangeni", "Manasa", "Jeepcoat", "Nsimbini" and "Tusini" accounted for 115 of the cases. The pattern of the disease distribution in 1958 was therefore similar to that recorded in 1957, when 52 of the 83 notifications from the Cato Manor area were drawn from the same insalubrious spots mentioned above.

Forming the major part of Cato Manor Shackland is the Emergency Camp. This is owned by the Council and is provided with roads, standpipe water supplies, and - except for a couple of small areas - with ablution and latrine blocks. The houses in the Camp are, on the whole, of a better standard than those erected in the remainder of the shack area.

Set out below is a table illustrating the monthly incidence of the disease in the Emergency Camp, in the remainder of the Cato Manor shack areas and in the rest of the City.

Area	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Emergency Camp	14	19	14	15	22	9	5	5	1	-	3	2	109
Shacks	11	15	9	10	17	10	8	3	-	4	3	1	91
Rest of City	8	6	8	12	11	5	4	2	4	6	4	8	78
Totals	33	40	31	37	50	24	17	10	5	10	10	11	278

From the above table it will be observed that typhoid notifications commenced to increase at the beginning of the year and reached a peak in May; they then fell off fairly sharply in June and thereafter maintained a steady average until the end of the year. It is generally accepted that about 3% of typhoid cases remain as carriers for a year or so and this no doubt accounts for the smouldering endemicity of the disease in the City, more especially in the shack areas. The onset of the hot weather, combined with the greater rainfall and increase in fly-breeding together with the need of the inhabitants of the shack areas to use more water - no doubt in many instances drawn from the polluted Umkumbaan stream - are all factors which contribute to the increasing flow of cases in the first quarter of the year.

It is of interest to note that 22 of the 109 cases notified from the Emergency Camp had been resident there for 6 months or less and that 22 of the 91 cases reported from the remainder of the shack settlements had likewise only lived there for the same short period. It would almost seem that the long-standing residents tend to acquire some immunity to the disease by a kind of "salting" process apart from that developed as a result of the immunisation measures carried out by the Department.

Again it is noteworthy that in the Emergency Camp, 33 of the cases used pit latrines and that the same type of convenience was similarly in the service of 76 of the 91 cases from the remaining shack areas; a further 8 of the latter simply went to the surrounding scrub.

The inhabitants most severely afflicted at Cato Manor (including the Emergency Camp) were those which fell in the age-group 5 - 14 years. In this group there were 60 cases. This was followed by the age-group 14 - 24 years with 54 cases and by the 24 - 44 age-group with 53 cases. As regards sex, 112 of the patients were females and 88 males.

In the remainder of the City however, the 24 - 44 year old and 14 - 24 year old age-groups are equally afflicted with 26 cases each. Only 10 cases occurred in the 5 - 14 year old group. Here also the sex grouping was reversed, 44 male and 34 female cases being recorded.

The fact that at Cato Manor the women and children bore the brunt of the infection was no doubt due to (1) their constant and persistent exposure to the risks inherent in this insanitary environment and (2) the grossly polluted streams flowing through the area. Despite repeated warnings and the fact that a wholesome and safe supply of water had been provided, it was certainly a commonplace sight to see children bathing in those streams and to observe women frequently using them for the purpose of washing their clothes.

In contrast to the situation which prevailed in the Cato Manor shack settlements, the prevalence of the disease in Bantu areas provided with satisfactory housing and sanitary conditions was very much less. For instance, at Chesterville and at Lamont only 8 and 4 cases were reported respectively, and at the Umlazi Glebe Lands and at the Kwa Mashu Township 2 and 1 respectively.

As regards Chesterville, it should be specially noted that it not only lies immediately adjacent to the shack settlements but access to it is mainly through the same neighbourhood.

In the shack areas illegal food vendors are numerous and not infrequently the polluted streams serve as convenient points for washing their equipment, as well as their fresh produce.

Intensive investigations into each notification and the re-investigation of cases from time to time by Bantu Health Assistants failed to provide common sources of infection. Bacteriological examination of the stools of the family contacts of cases was undertaken in an endeavour to trace carriers, but,unfortunately, without positive result. In the worst affected areas, soil samples were taken at depths of 1" and 4" and submitted for bacteriological examination, but despite the gross general pollution of the soil with dejecta, pathogenic organisms were not isolated. Investigations into blocked sewers (in the Emergency Camp) and the associated areas of contamination and their possible relationship to proven cases were undertaken, again without result.

Control measures included extensive and intensive immunisation and health education programmes. The co-operation of the Natal Chamber of Industries and the Durban Chamber of Commerce was sought in an attempt to encourage their members whose employees lived at Cato Manor, to send their Bantu staffs for immunisation. Especial emphasis was laid on food-handlers. Fly-spraying was carried out regularly and frequently: latrine and ablution blocks were erected at "Manasa" and "Jeepcoat" two notoriously insanitary areas, and towards the end of the year, as a result of the Mayor's active interest and support, "Raincoat", the worst of all the slum areas at Cato Manor, was demolished. The inhabitants were, for the most part, re-settled in the Emergency Camp: in the meantime one can only wonder whether carriers will not start a fresh focus of infection, especially when the primitive habits of some of the re-housed persons is taken into account.

The response to the free immunisation service was disappointing. In the worst affected areas the inhabitants displayed a very apathetic attitude toward the risk of infection and this was often coupled with an utter disregard of the basic precepts of sanitation and hygiene.

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It is certainly a matter of much surprise and even astonishment that the disease did not assume even greater and more alarming proportions and show its effects elsewhere in the City.

Of the 7 European cases of typhoid fever, one patient, a child, was in the habit of bathing in a local polluted stream, whilst another spent each week-end out of Durban. The sources of infection in the remaining 5 cases no doubt lay within the City, but intensive investigations failed to locate the sources of their illness. It would have been interesting to know if the phage-types of the organisms from these patients and those of the Bantu cases from Cato Manor corresponded in any way.

Deaths from typhoid fever amongst City cases numbered 24 - 22 Bantu and 2 Asiatics.

Diphtheria

City notifications numbered 171 with a racial distribution as follows: Europeans 38, Coloureds 6, Asiatics 57 and Bantu 70. This total represents an increase of 60 cases over that reported last year; nevertheless this figure is lower than those recorded during the period from 1953 to 1956 when 280, 260 and 195 annual notifications were received. The increase in 1958 was most evident amongst the Asiatic and the Bantu sections of the community, the numbers for these groups for the previous year being 31 and 37 respectively.

Six of the European patients were over 10 years of age and of these one died. One case of cutaneous diphtheria occurred in an infant of six months of age.

An analysis of the notifications reveals that of the total notifications 14 were in respect of carriers, 3 of whom were over 10 years of age. The racial distribution of the carriers was Europeans 5, Coloureds 1, Asiatics 7 and Bantu 1.

Of the actual cases apart from the carriers, 139 were under 10 years of age and this figure was made up of 28 Europeans, 5 Coloureds, 48 Asiatics and 58 Bantu.

It is evident that amongst the European community many parents fail to protect their children by ensuring that they are immunised against the disease. There is really no good reason why the disease should not be almost entirely, or even completely, eliminated from this section of the community, or for that matter, from other sections as well.

Poliomyelitis

In contrast to the 163 cases recorded in 1957, only 27 cases were notified during 1958. The table below sets out the racial distribution of the cases notified during the past 3 years:

Race	1956	1957	1958
European	82	113	13
Coloured	18	7	1
Asiatic	26	16	7
Bantu	32	27	6
Total	158	163	27

It will be observed that, as in previous years, the European community was the worst afflicted.

The monthly incidence during 1958 is reflected below, the corresponding figures for the preceding two years being given for purposes of comparison.

City Poliomyelitis Cases

Month	1956	1957	1958
January	4	46	1
February	7	47	4
March	2	28	2
April	2	18	2
May	10	9	3
June	2	3	1
July	7	3	1
August	5	1	2
September	11	1	-
October	10	3	4
November	22	3	1
December	76	1	6
Total	158	163	27

It will be observed that cases occurred sporadically throughout the year, with the lowest number occurring during the winter months.

Fifteen of the cases occurred in the 1 - 4 year group, and 8 in the 5 - 14 year old group. In the case of the Asiatics and Bantu the 1 - 4 year old group was most afflicted, whilst among the European community the 5 - 14 year old group predominated. Two persons over 14 years contracted the infection and both were Europeans.

Contacts

All contacts were investigated and the Union Department of Health was furnished with a completed questionnaire for every case of poliomyelitis. In cases previously immunised, blood and stool specimens were taken from members of the families concerned and submitted to the Poliomyelitis Research Foundation for virological studies. Very few results are yet to hand.

Incidence of Poliomyelitis in the Previously Inoculated

Of the 27 cases of poliomyelitis only 6 patients had been previously immunised; of these, two had 3 inoculations, three had 2 inoculations, and one case had 1 inoculation. This last case had only been immunised five days before the onset of his illness. Of the three patients who had had 2 inoculations, two suffered from the disease in a non-paralytic form and the third was discharged with no residua. Of the two fully immunised cases one had only paresis of the legs, and the remaining case had a paresis of the muscles of deglutition.

Deaths

There were no deaths from poliomyelitis during the year.

Encephalitis

City notifications numbered 35, as follows: 15 Europeans, 1 Coloured, 6 Asiatics, and 13 Bantu, resulting in an overall notification rate of 0.061. Deaths from this disease comprised 1 European, 1 Coloured, 4 Asiatics, and 2 Bantu. Compared with 1957 there has been an increase of 9 cases, with 3 more deaths.

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It is of interest to note that 4 of the European cases occurred in one family in which twin sisters aged 11 years, and two other sisters aged 10 and 7 years respectively,were affected. The aetiological factor was not established.

The remaining cases of known aetiology comprised 2 cases of whooping cough encephalitis, one case of chicken-pox encephalitis, one case of measles encephalitis, 2 cases of virus meningo-encephalitis, and 8 cases of mumps encephalitis, 3 of whom were European and 5 were Bantu.

Scarlet Fever

City notifications totalled 161, fourteen less than in the previous year. One Asiatic and one Bantu case were reported and it is of note that the Bantu case died, scarlet fever being given as the cause of death. It is possible that many more cases of this disease occur amongst the non-European community, but remain either not notified or undiagnosed. No outbreaks of note occurred in any institutions in the City.

Cerebro-Spinal Meningitis

City cases notified comprised 6 Europeans, 2 Coloureds, 4 Asiatics and 11 Bantu, making a total of 23 cases. This reflects an increase of 5 cases over the previous year.

Conditions in many of the Bantu settlements in the City greatly favour widespread dissemination of this disease and it is therefore pleasing, yet surprising, to note the low incidence of this disease.

Leprosy

Ten cases of leprosy were notified during the year, viz: 1 Coloured, 2 Asiatics and 7 Bantu. In both 1956 and 1957, 12 cases were notified.

Brucellosis

One case, occurring in an Asiatic, was notified.

Gonococcal Ophthalmia

Fourteen Asiatic and 106 Bantu cases were notified, but there is little doubt that the incidence of this disease is higher.

Malaria

Eighteen imported cases, comprising 15 Europeans, 1 Asiatic and 2 Bantu were notified. Nine of the European cases were admitted to local hospitals from ships arriving in Durban. Two cases contracted the disease in Zululand. The remaining cases were infected in various parts of Central Africa.

Adeno-virus Infection in a School

Early in November a report was received that absenteeism at a day school had increased suddenly, the cause apparently being due to a condition which affected the eyes, and the patients suffered from sore throats, headaches, and a high fever. Investigations revealed that 20% of the pupils were absent and that the disease had been prevalent in the school for at least 7 days. Enquiries of the various general practitioners treating the cases revealed the following pattern of illness:

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Onset sudden with severe headache, unrelieved by salicylates, itchy eyes, and a "stuffy" nose. The positive physical signs found were a fever of up to 104°F., conjunctivitis, generalised glandular enlargement, the glands being shotty and not painful. Slight neck rigidity and a doubtful Kernig's sign was noted in some cases. The disease lasted on the average 5 days, and no sequelae were noted. Various laboratory tests were carried out on different cases but no uniform picture was obtained.

When 81 of the 205 pupils were absent, the school was closed by the headmaster and as this occurred only several days before the annual December school holidays no inconvenience was caused. No reports of a spread of the disease were received thereafter.

Subsequently, reports received from the Poliomyelitis Research Foundation on virological studies of blood, mouth washings and stools taken from 6 cases in different stages of the disease, failed to shed any definite light on the etiology.

Public health control measures at the time of the outbreak included closure of the swimming bath, quarantine of cases for 14 days, and proposals for certain structural improvements at the school.

No similar outbreaks occurred elsewhere which was surprising considering that many of the children affected had brothers and sisters attending other schools.

* * *

III. OTHER INFECTIOUS OR COMMUNICABLE DISEASES

Amoebiasis

The problem of amoebiasis is still receiving a great deal of attention, and in Durban, where the incidence is known to be relatively high among the Bantu population, it is the subject of intensive research.

I am indebted to the Director of the Amoebiasis Research Unit in Durban (Dr. R.Elsdon-Dew) for the following information:

"1. A start has been made on the new Institute of Parasitology, and twin foundation stones were laid on the 15th January by the Chancellor of the University of Natal, the Honourable Denis G. Shepstone, and by the President of the C.S.I.R., Dr. S.M.Naudé. The building should be ready for occupation by the end of 1959.

2. The Director has been asked to make contact with the World Health Organisation with the object of distributing a questionnaire aimed at assessing the incidence of the disease, viz. the incidence of the parasite in various countries all over the world.

3. Work on activity of various drugs against E.histolytica in the bowel has been continued and a number of drugs have been tested. The work is continuing, as is work on the efficacy of drugs in the treatment of liver abscess.

4. A survey was carried out to assess the incidence of Tricocephalus in Indian and African children, and its importance as a cause of dysentery in children. Work has also been carried out on the incidence of amoebic liver abscess in children.

5. Laboratory investigations included work on the possible role of amoebae in the process of auto-immunisation, and further work on E.hartmanni as an entity.

6. The future is full of promise and we are indeed looking forward to the opportunities which will be afforded by the additional accommodation."

Bilharzia

In my Annual Report for 1956 reference was made to the work of the Ad Hoc Bilharzia Committee which functioned under the chairmanship of the Chief Regional Health Officer, Natal. The feeling of the Committee as regards the bilharzia problem was that the accent should be on research and that, as this was being carried out on an intensive scale at Nelspruit, Eshowe, and Tzaneen, there was little point in conducting similar experiments in Durban. Surveys had been carried out in Durban in 1956 and served only to confirm that a high percentage of the Bantu population is infected with the parasite. The Committee felt further that mass treatment, in the light of our present state of knowledge, was so fraught with complications such as allergic manifestation, hyperinfestation, and re-infection that it did not warrant trial at present. There was, moreover, the over-riding and unresolved difficulty as to which authority was financially responsible for treatment.

However, the advent of 1958 brought with it the first settlers to the Kwa Mashu Township and, because the site of this Scheme is well-watered, the whole question of the prevention of bilharzia received fresh impetus.

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Interrogation surveys carried out by the Health Education Section at Kwa Mashu during the latter part of 1958 showed that a large number of children suffered from haematuria. It could not be established with any degree of certainty whether the disorder had been contracted before or after the arrival of the patients at Kwa Mashu.

A brief urinary survey, carried out by the Senior Clinical Medical Officer (City Venereologist) disclosed that out of 40 children, over 70% were passing ova of Schistosoma haematobium.

In conjunction with Dr. J.H.Jackson of the staff of the Chief Regional Health Officer, Natal, this Department instituted a snail survey covering the main water courses and dams at Kwa Mashu. This survey confirmed that both bilharzia vectors (Physopsis Africana and Biomphalaria Pfeifferi) were present in the area and that conditions were favourable for their development, but that only a small percentage were actually infested with Schistosoma species.

Further observations were made on the habits and practices of the population from which it was apparent that large numbers of children used the water-courses for ablution and bathing purposes, and that many women used this medium for the washing of clothes.

In all respects conditions appeared right for a widespread infection of the population with bilharzia. All possible methods of control were examined and the problem was approached along the following three lines:

1. Health Education: Extensive use was made of the departmental film on bilharzia, and many group talks and lectures were also given;
2. Drainage Works: The co-operation of the Construction Engineer at Kwa Mashu was sought and obtained on the all-important aspect of permanent drainage. A start has been made with the canalisation of water courses, and the Engineer has undertaken to cement out all such canals subject to availability of funds;
3. Alternative bathing and washing facilities: The importance of swimming pools was strongly stressed by this Department. In November, 1958, approval was obtained for the allocation of funds for this purpose, and by the end of the year construction on the first pool had been commenced. At the same time the Council approved the installation of individual ablution (shower) facilities in all new houses.

The question of molluscicidal treatment of the rivers and dams was not lost sight of and was still being investigated at the close of the year. The provision of clinic facilities was being actively pursued with the Provincial Administration. Up to the end of 1958 no out-patient clinic facilities had been established in the area but strong representations had been made to the Administration in this respect.

Food Poisoning

During the course of the year the following four minor outbreaks of food poisoning were investigated:

1. During May a report was received to the effect that several persons had taken ill after drinking orange-juice from a water-dispensing cabinet in a City office. The cabinet had not been used for quite some time and had been brought into service again with the object of dispensing orange-juice to the members of the staff.

   In order to carry out this operation, a large glass container, filled with orange-juice, was placed in an inverted position at the top of

the apparatus. From this position the juice flowed through piping within the cabinet and issued from a tap fitted with a push button.

After being in operation for a day the tap became clogged with particles of orange. To overcome this obstruction a metal sieve was fitted over the opening of the glass container and, on the following day, the cabinet was again operating satisfactorily.

That evening the young son of an office worker took ill after drinking the orange-juice and, during the following morning five staff members also sickened after refreshing themselves from the same source. Symptoms comprised nausea, and/or vomiting,a metallic taste in the mouth and a fairly rapid onset. These symptoms suggested some form of metallic poisoning as the cause of the disorder, due, most probably, to the action of the acid contents of the cabinet on its metal surfaces.

On bacteriological examination of samples of the orange-juice, no significant organisms were discovered but chemical analysis revealed that it contained 2.7 parts of lead per million which was considered a sufficient quantity to give rise to the toxic symptoms mentioned above.

2. During July, an investigation was carried out, in collaboration with the South African Police, to discover the cause of death of a young European male, aged 33 years, who was reputed, according to a post-mortem examination, to have probably died from food-poisoning. On enquiry it was ascertained that the deceased had dined out with three others and that he was the only member of the party who had ordered grilled trout. After a few mouthfuls, the deceased lodged a complaint regarding its taste. The rest of the trout was thereupon tasted by the Catering Manager of the hotel and, for good measure, the Chef consumed the whole of another trout. Both maintained that the suspected trout was fit for consumption and neither suffered any ill-effects. Shortly after this incident the diner complained of chest pains; two and-a-half hours after the meal he vomited. Half-an-hour later, he collapsed and expired.

   Samples from the consignment of trout were submitted for bacteriological and chemical examination with negative findings. The history of this case suggests that the cause of death may have had no relation to food.

3. A report was received during September that a European adult and a child had taken ill with symptoms of food-poisoning seven hours after partaking of their evening meal. Tinned peas in which a "burrweed"-like object had been found during the meal was suggested by the family as a possible cause. This was subsequently identified as a common legume weed, Medicago denticulata which is, however, not listed as being poisonous. Peas remaining in the tin were submitted for bacteriological examination but no significant organism was found.

4. During December the Department followed up a Press report that six members of a family had been admitted to Addington Hospital suffering from symptoms of food-poisoning after eating their Christmas turkey.

   On investigation it emerged that the turkey had been purchased on the 23rd December and kept under refrigeration until the 25th; it was then cooked and eaten for Christmas dinner. On the 26th, the turkey was served cold, and up to this stage, no member of the family had suffered any ill effects.

   After the 25th, the turkey was no longer stored in refrigeration, but was kept at room temperature and transported to a South Coast resort.

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On the evening of the 27th the family consumed the remains of the turkey and within three to four and a half hours sickened with the usual symptoms of food-poisoning. Investigations carried out at the hospital failed to trace the organism responsible.

Medical Examination of Bantu seeking Registration

The Medical Officer, Municipal Bantu Administration Department, has kindly submitted the following report in regard to the above service carried out by his Department.

"A total of 113,424 Bantu of all ages passed through the Medical Section at Ordnance Road during the year. Of this number, 96,220 were adults and 17,204 juveniles. The figures for 1957 were 101,429 and 21,651 respectively. This large drop of approximately 10,000 is mainly due to the fact that a growing number of employers do not sign off their Bantu employees when they go on annual vacation and as a consequence, when an employee returns to work it is not obligatory for him to pass a medical examination.

The number of Bantu referred to hospital for further investigation and treatment was 2,605. Venereal conditions accounted for 1,220 of this amount, 948 were suffering from bilharzia and 89 had tuberculosis of the lungs. Scabies is still prevalent in juveniles arriving in Durban for the first time and 253 cases were treated at the King Edward VIII Hospital.

Although nearly all juveniles are subjected to a urine inspection test, it is only occasionally this is done in an adult. Over a period of three months during the year, a limited survey of adult urines was undertaken. From time to time when pressure of work permitted, batches of from 12 - 20 adults taken consecutively had their urines inspected until the number just topped the 2,000 mark. The survey showed that 9.6% had a urinary contamination of which 7% appeared to be of gonorrhoeal origin and about 2½% bilharzia. These figures in the absence of laboratory confirmation are but a general indication of the trend which for a town of Durban's peculiar position, can be considered as quite satisfactory.

With regards to clothing, hygiene and nutrition I can see a slow but steady improvement from year to year and gross malnutrition is only seen, and then on very rare occasions, in the young recent arrivals from the kraals. The number of cases which required delousing was the lowest of the past 12 years.

An interesting side thought is the steadily growing number of juvenile smokers, many of the addicts apparently being not more than 12 - 14 years of age. One might ascribe this to urbanisation but the percentage of stained fingers appears to be just as great in the recent arrival from the kraal as it is in the sophisticated young man about town.

A total of 105,327 vaccinations was performed and as far as I am able to ascertain none of the vaccinated had unpleasant complications."

* * *

IV. TUBERCULOSIS

1. Introduction

The number of known City cases of pulmonary tuberculosis, is set out hereunder:

European	765
Coloured	497
Asiatic	1,850
Bantu	6,451
Total	9,563

During the course of the year a new filing system was introduced and the documentation of cases established on a fresh basis, so adapted as to complement the revised field programmes. In the course of the change-over, the opportunity was taken to review the case records of all European and Coloured patients, whilst a start was made on those dealing with Asiatic and Bantu patients. Corrections for inward and outward transfers and the elimination of 'lost' cases and those that have died, resulted in the removal of some 7,000 individual records from the list of current cases. In the case of the Bantu, the figures given in the table above must be accepted with some reserve, as this section of the community is always on the move, with many changing their residential addresses with a frequency that makes it quite impossible to follow them up continually for assessment of the state of their disease.

2. Statistics of City Cases

(i) Notifications

(a) Pulmonary Tuberculosis

For purposes of comparison the notifications over the last decade are set out below:

Year	European	Coloured	Asiatic	Bantu	Total
1948	176	139	543	1,163	2,021
1949	189	153	465	1,018	1,825
1950	160	133	419	1,035	1,747
1951	181	120	516	1,052	1,869
1952	182	108	385	1,188	1,863
1953	170	122	371	1,145	1,808
1954	168	85	288	1,061	1,602
1955	154	101	242	1,341	1,838
1956	144	119	497	1,963	2,723
1957	146	125	419	2,216	2,906
1958	95	92	416	1,962	2,565
Total	1,765	1,317	4,561	15,144	22,767

Comment:

In all races except the Bantu, there has been a marked decrease in notifications, ranging from 34.9% and 26.4% for Europeans and Coloureds to 11.5% and 0.7% for Asiatics and the Bantu respectively. Whilst there has been a steady decrease in the number of European notifications over the last nine years with the fall most marked during the last three years, the Bantu notifications for the latter period have shown a marked increase. The variations in the number of Coloured and Asiatic notifications over the years makes comment difficult, although the overall

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picture is one of improvement. In view of the ever increasing population of Durban, the attack rate reflects the position more correctly.

(b) Non-pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1958	2	2	79	55	138
1957	2	11	62	124	199

Comment:

Here again the overall picture is one showing a decrease in notifications, especially amongst Asiatics. Whether this is really the position or one due to failures in notification, is difficult to say but no doubt some decrease in the incidence of non-pulmonary tuberculosis is in progress.

(c) General

Once again it has been observed that practically all notifications have been forwarded either by the Durban and Cato Manor Clinics or by the various Hospitals, only nine notifications being received from private practitioners. This may be explained to some extent by the fact that many private practitioners refer the majority of their cases to the Chest Clinics for investigation and treatment.

(ii) Attack Rate

This rate represents the number of notifications for 1,000 head of population and thus changes in the size of the population of the City are taken into account and a clearer indication of the trend of tuberculosis can be obtained.

The figures for the different racial groups are set out below and, in order that comparisons may be made, the rates for the last four consecutive years are given.

Race	1955	1956	1957	1958
European	1.03	0.94	0.96	0.61
Coloured	5.40	6.18	5.24	3.68
Asiatic	1.46	2.90	2.12	2.02
Bantu	7.81	11.16	12.37	10.55

Comment:

The overall picture shows a decline in the attack rate for all races and it is therefore hoped that the peak has now been passed and that the present trend will continue in the future. The decline in the Bantu attack rate is welcome although there is room for considerable improvement. The continuance of a decline in this dread disease will be closely allied to the future financial and economic circumstances of the people and to the degree of improved control exercised over the infectious cases. The latter is being achieved more effectively now than in the past.

Notwithstanding the overall picture, the position amongst the Bantu is very far from satisfactory.

Here mention may be made of an X-Ray survey which was carried out at the Bantu Administration Department. During the course of one day, some 400 Bantu who presented themselves for pre-employment registration, were X-Rayed at this centre. Four cases of tuberculosis

and four suspect cases were discovered, an incidence of between 1% and 2%. A previous survey carried out in 1950, when some 31,000 Bantu were X-Rayed, showed a very slightly lower incidence.

(iii) Deaths: City Cases

(a) Pulmonary Tuberculosis

In order to compare numerically deaths with notifications, the subjoined table has been prepared so as to correspond, both in the period covered, and in racial groups concerned, with the table reflected on page 21.

Year	European	Coloured	Asiatic	Bantu	Total
1948	55	42	216	385	698
1949	40	40	207	351	638
1950	34	28	142	378	582
1951	33	39	143	385	600
1952	35	28	105	396	564
1953	25	29	43	321	418
1954	21	17	42	192	266
1955	8	6	28	270	312
1956	28	14	30	273	345
1957	17	11	32	196	256
1958	6	7	23	135	171

Comment:

Among all races there has been a marked decrease in the number of deaths during the year under review. The general trend however, shows a gradual decrease over the last decade, with a sharp decrease beginning in 1953, at a stage no doubt when the effects of modern tuberculostatic drugs began to become apparent.

(b) Non-pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1957	2	2	70	15	89
1958	2	2	54	16	74

(c) Death Rate: City Cases

Pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1955	0.06	0.33	1.69	0.17	0.65
1956	0.18	0.72	1.55	0.17	0.66
1957	0.11	0.46	1.09	0.16	0.46
1958	0.084	0.32	1.15	0.15	0.46

Comment:

In order that the attack rate may be compared with the death rate, the figures for the latter are given for the last four years. A decrease in the death rate is apparent in all races except the Bantu, which shows an increase. It is becoming increasingly clear that many cases are now being kept alive by means of modern treatment methods, and that a fair proportion of ambulant patients, especially amongst the Bantu, attend clinics only when their condition deteriorates. Such patients not

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only act as potent reservoirs of infection but the disease process tends to take on a chronic course which frequently results in such persons remaining infectious despite treatment over long periods.

3. Hospital Facilities

The list of hospitals and settlements admitting cases from Durban remains the same as that recorded in the Annual Report for 1957.

As mentioned previously a number of tuberculosis cases are always to be found in General Hospitals such as Addington, King Edward VIII Hospital, and the South African Railways Hospitals, and naturally the General Hospitals endeavour to transfer established cases to the institutions previously listed as soon as possible.

Admissions of City cases to the various hospitals during the year totalled 2,382 cases, comprising 158 Europeans, 119 Coloureds, 415 Asiatics and 1,690 Bantu. Discharges during the year were made up of 141 Europeans, 98 Coloureds, 337 Asiatics, and 1,285 Bantu, making a total of 1,861. Patients who absconded from hospital or left against advice numbered 193 comprising 8 Europeans, 11 Coloureds, 34 Asiatics, and 140 Bantu.

Every effort was subsequently made to ensure attendance of these cases at clinics in the hope that outpatient treatment would, at least, render the disease less infectious. With the pressure of co-operative patients awaiting admission, it is only to be expected that the hospital authorities show a reluctance to re-admit such cases later on.

The establishment of transit settlements, to which patients could be legally committed, detained and, where practicable, repatriated to their homes still appears to be the only answer to the problem created by those Bantu patients who abscond from hospital, who refuse hospital treatment, and who seriously misbehave in hospital. To this group could be added those persons who cannot be prevailed upon to attend outpatient clinics. To-day these unco-operative patients wander throughout the length and breadth of the City leaving a trail of infection amongst their friends and acquaintances and, no doubt, to a lesser extent, amongst other members of the general public.

4. Settlements

The need for the establishment of more Bantu settlements remains as pressing as ever. Preliminary negotiations for a site were instituted with the Government Department of Native Affairs and two proposed sites were inspected. Unfortunately in one case a satisfactory agreement with the seller could not be reached, and in the second case the site proved unsuitable. Nevertheless, efforts are still being made to establish at least one tuberculosis settlement of approximately 500 beds near Durban.

5. Case Follow Up

Improvement in the follow-up of cases discharged from hospitals has continued as notifications of discharges of patients from hospitals are now, on the whole, more promptly received. Statistical recording of revisits to cases and where especially warranted, to contacts, was introduced during the course of the year; from the beginning of August 1,257 revisits were made to Europeans, 685 to Coloureds, 2,274 to Asiatics and 6,217 to Bantu making a total of 10,433 revisits.

6. Contacts

The follow-up of contacts of notified cases has impreved considerably, especially in regard to the Bantu, and a system of recording this aspect of the field work was introduced during the year. Bantu contacts referred to clinics during the year totalled 6,904 and of these 61% actually attended. Of those attending from the beginning of August to the end of the year, 3.5% were found to be suffering from active pulmonary tuberculosis. In regard to Asiatics, 3,689 contacts were referred to clinics and 69.5% actually attended. The yield of cases from these contacts during the period August to December was 2.6%. These figures reveal the need for careful and conscientious follow up work amongst contacts and highlights an often forgotten fact that pulmonary tuberculosis is an infectious disease.

7. Imported Cases

The hospitals and clinics in Durban serve as magnets, with the result that never-ending streams of Bantu patients from all over Natal and even beyond its boundaries seek treatment at these institutions whose high reputations have reached them. Many of these patients suffer from tuberculosis and after hospital treatment live in the City, but only a proportion continue with their treatment. Those on outpatient treatment frequently default and change their addresses so often that case follow up becomes in impossibility.

8. King George V Hospital

The City and its Health Department are indeed fortunate in having the facilities of this Hospital so near at hand and so readily available; here it is desired to acknowledge gratefully the courtesy, co-operation and assistance which the Medical Superintendent and his staff have at all times extended to this Department.

The following report, embracing the activities of the hospital has been kindly furnished by the Medical Superintendent.

"1. Bedstate (31.12.1958)

European beds	136	
Coloured beds	50	
Asiatic beds	66	
Bantu beds	764	
Mixed Non-European Surgical beds	87	
Mixed Non-European Children's beds	183	
Total Non-European beds	1,150	
Total number of beds available		1,286

One 62 Non-European ward under repair.

2. Number of admissions

European	274	
Coloured	147	
Asiatic	264	
Bantu	1,980	
Total		2,665

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3. Number of discharges

European	275	
Coloured	146	
Asiatic	262	
Bantu	1,957	
Total		2,640

4. Average stay of Patients: (Approximate figures)

Europeans	Coloureds and Indians	Bantu
3.57 months	3.90 months	5.37 months

5. Transfers and Deaths - 1958 (Proved P.T.B. Cases)

Regular and Irregular Discharges

P.T.B.	Total	Regular Discharge	Transfer Total	Death	Irregular Discharge
EUROPEAN					
Male	146	95	19	17	15
Female	53	33	13	4	3
Child	1	-	1	-	-
	200	128	33	21	18
COLOURED					
Male	73	37	18	9	9
Female	41	21	11	3	6
Child	9	6	2	1	-
	123	64	31	13	15
ASIATIC					
Male	89	39	23	9	19
Female	81	53	14	10	3
Child	30	13	11	6	-
	200	105	48	25	22
BANTU					
Male	735	336	155	83	161
Female	649	366	56	81	146
Child	348	149	155	41	3
	1,732	851	366	205	310

6. Patients discharged during 1958 (Proved P.T.B. Cases)

(a) Deaths

Groups	Total P.T.B. Discharges	Number of Deaths	% Age of Deaths
European all ages	200	21	10.5%
Coloureds all ages	123	13	10.5%
Asiatics all ages	200	25	12.5%
Bantu all ages	1,732	205	11.8%
Child all races	388	48	12.4%
Adult Males all races	1,044	118	11.3%
Adult Females all races	823	98	11.9%
Grand Total	2,255	264	11.7%

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(b) Transfers

Groups	Total Regular Discharges & Transfers	Number of Transfers	% of Transfers
Europeans all Ages	161	33	20.5%
Coloured all Ages	95	31	32.6%
Asiatics all Ages	153	48	31.6%
Bantu Children	304	155	51%
Bantu Adults	913	211	23.1%
Bantu all Ages	1,217	366	30%
Grand Total	1,626	476	29.4%

(c) Irregular Discharges

Groups	Total P.T.B. Patients Discharged Alive	Number of Irregular Discharges	% of Irregular Discharges
European Adult Male	129	15	11.7%
European Adult Female	49	3	5.9%
Coloured Adult Male	64	9	14%
Coloured Adult Female	38	6	15.8%
Asiatic Adult Male	80	19	23.9%
Asiatic Adult Female	71	3	4.2%
Bantu Adult Male	652	161	23.1%
Bantu Adult Female	568	146	25.7%
Children all Races	340	3	.87%
Grand Total	1,991	365	18.4%

N.B. Adult refers to patients 15 years and over.
Children refers to patients under 15 years.

Distribution of Irregular Discharges: 1958

Group	Total P.T.B.	Total Discharged Alive	Left Against Medical Advice	Abscon-ded	Discip.	Total Irregular Dischar-ges
EUROPEAN						
Male	146	129	10	+2	+3	15
Female	53	49	-	+2	+1	3
Child	1	1	-	-	-	-
Total	200	179	10	4	4	18

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Group	Total P.T.B.	Total Discharged Alive	Left Against Medical Advice	Abscon-ded	Discip.	Total Irregular Dischar-ges
COLOURED						
Male	73	64	6	-	4	10
Female	41	38	5	1	-	6
Child	9	8	-	-	-	-
Total	123	110	11	1	4	16
ASIATICS						
Male	89	80	10	3	6	19
Female	80	70	2	1	-	3
Child	30	24	-	-	-	-
Total	199	174	12	4	6	22
BANTU						
Male	735	652	96	26	39	161
Female	649	568	80	60	6	146
Child	348	307	3	-	-	3
Total	1,733	1,527	179	86	45	310

(d) Re-admissions

Of the 2,255 patients discharged during the year, 358 were cases who had been re-admitted to hospital. On a racial basis, 35.5% of the European cases discharged were re-admissions, 21.9% were Coloureds, 14.5% Asiatics and 12.8% Bantu, resulting in an overall percentage of 15.9%.

7. Number and Classification of Chest Operations Performed at King George V Hospital during 1958

Surgical resections	148
Thoracoplasties	37
Plombage (and removals of plombage)	7
Decortications	9
Thoracotimies	24
Diagnostic Chest procedures	340
Other Major and Minor Chest procedures	17
General Major and Minor operative procedures	196
Cardio-pulmonary function Investigations	80
Electro-convulsive therapy	44
	902

Full use of all available Non-European beds has been made throughout the year with as rapid a turnover of patients as far as practically possible.

Convalescent and chronic infectious patients were transferred, when suitable, to Santa settlements or Mission Hospitals.

The demand for European beds has dropped again during 1958, the type of cases admitted being mainly young European adults and European males beyond middle age, the latter category chiefly presenting the chronic type of disease.

The first 3 wards in the new block will be opened early in January, 1959.

The principles of treatment have not materially changed since my last report.

Progress with the network of treatment centres in Natal and Zululand

At present 2,800 beds are available for P.T.B. cases at Mission Hospitals and S.A.N.T.A.Settlements in Natal and this number will be increased in the near future (viz. - New Settlements and additions to Mission Hospitals).

The Out Patient treatment centres are treating more cases every year and attendances seem to improve now that this form of treatment has gained the confidence of the Bantu.

Our Consultants keep up close and constant liaison with their areas by 2 monthly visits, miniature X-ray surveys of their areas and the weekly interpretation of X-rays sent to them by post from the District Surgeons and Mission Hospitals. Consultants refer cases to King George V Hospital for surgery and other forms of specialised treatment."

Comments

Whilst there was a temporary reduction of beds available during the year, the number of admissions increased by 206. This is no doubt closely bound up with the average stay of patients in the hospital, a period which is yearly becoming less. In 1954 the average stay in hospital for patients of the various racial groups was - Europeans 6.2 months, Coloureds and Asiatics 7 months, and Bantu 12 months. In 1958 the periods were reduced to almost half, being - Europeans 3.6 months, Coloureds and Indians 3.9 months, and Bantu 5.4 months. Apart from financial considerations, this state of affairs has a most profound public health significance, as it enables more patients to be isolated and rendered non-infectious, makes room for the acute and so more easily curable cases, and affords many more patients the opportunity to start along the right road to full recovery.

The number of irregular discharges (310) shows an increase over the previous year, (250), and is particularly disquieting when it is realised that many of these patients will endeavour to evade treatment for as long as they are physically able to do so. The proportion of persons discharged for disciplinary reasons is but another reflection of the prevalent attitude to the conventions of law and order.

The percentage of re-admissions is worthy of note but no conclusion is offered.

Finally, of the total admissions numbering 2,665, it is desired to record that 856 were City cases.

9. Outpatient Services

(a) Durban Chest Clinic

In addition to Durban cases attending the clinic, many patients come from far beyond the City limits with the inevitable result that the Bantu section of the clinic works at full capacity throughout the year. City cases living at a distance from the centre of the town experience difficulty in attending regularly and the need for small peripheral clinics is becoming increasingly evident.

The very close liaison maintained between this Government institution and the City Health Department continued during the year and special mention must be gratefully made of the whole-hearted co-operation at all times rendered by the Clinic staff.

During the year, various administrative changes were made in the Tuberculosis Section of this Department and these were fully integrated with the work of the Chest Clinic. In all instances these innovations were successfully introduced to the mutual benefit of both organisations.

The Superintendent of the Durban Chest Clinic has kindly furnished the sub-joined report in respect of the activity of his unit during 1958:

"Diagnostic treatment services for lung tuberculosis has continued during the year with no change in policy. The demand on services has been constant, and approximately the same number of X-rays, (71,366) were done as last year, (71,634). The number done for each race is also about equal to that done last year.

The number of Bantu non-European patients done could have been greater, but we have been obliged to limit intake of patients daily, to the number that can be adequately managed for the day, by the X-ray Department and Medical Officers. Even with this limitation, the three Medical Officers on the non-European side have to work under pressure to get through their daily work.

Just about 50% of patients X-rayed are Bantu and 50% of these Bantu come from outside the Borough of Durban. The scattered distribution of our patients, would partly account for the high defaulter rate of re-attendance of patients, on out-patient treatment. These are mainly Bantu.

A sample survey was done of the recall rate of patients for September, 1958, (i.e. the percentage of patients presenting for X-ray, who are recalled for re-X-ray and interview by the Medical Officer on account of suspicious appearance of the original miniature X-ray).

	Europeans	Indians	Bantu
Borough	4%	5%	11%
Ex-Borough	7%	7%	21%

The particularly high recall for ex-Borough Bantu should be noted.

A pleasing feature of our figures was a decline in notifications as compared to the previous year, although an equal number of X-rays were done. Only Borough notifications will be compared, as difficulty is experienced by Medical Officers in notifying ex-Borough cases, on account of vagueness of address as given by patients. Hence ex-Borough notifications cannot be accepted as accurate. The numbers are too low.

	BOROUGH NOTIFICATIONS				
	European	Coloured	Indian	Bantu	Total
1957	60	68	246	1,214	1,588
1958	35	33	174	889	1,131

Tuberculin tests were performed as a routine on all children under 10 years and all contacts under 20 years who present for X-ray. This is done as a diagnostic aid and a preliminary test to B.C.G. vaccination which was commenced here in October of the previous year. A total of 825 B.C.G. vaccinations was done. The Heaf Multiple puncture tuberculin test has been used on the European side for some months as a trial with apparatus on loan by the agents.

Contact attendance has been steady and good.

As far as welfare is concerned, we rely mainly on the Natal Anti-Tuberculosis Association, who make payments to patients unable to work, on our recommendation. This service is much appreciated, as application for financial aid to the Native Affairs Department is not practical for out-patient purposes, as it takes a few months for money to come through. The Natal Anti-Tuberculosis Association is also helpful in finding work for patients, but experiences difficulty in placing patients who are only fit for light jobs or part-time employment. The need of a sheltered workshop is particularly felt for non-Europeans, to aid rehabilitation after discharge from hospital, and to permanently place those patients who will never be able to go back to open competitive labour. The number of such patients is unknown, but certainly large, and they frequently resort to crime to subsist, and are referred to us from the gaol.

The City Health Department has co-operated well and in particular, its Health Visitors have been of great assistance in the treatment of patients at home.

Diagnostic and Treatment Services

		Europeans	Coloureds	Indians	Bantu	Total
X-RAYS						
Borough	Large	2,939	1,144	5,832	11,755	
	Miniature	8,020	1,118	8,595	13,201	
	Total	10,959	2,262	14,427	24,956	
Ex-Borough	Large	744	120	2,309	6,335	
	Miniature	1,596	85	2,159	5,414	
	Total	2,340	205	4,468	11,749	
Total Attendances		13,299	2,467	18,895	36,705	71,366
NOTIFIED CASES						
Borough		35	33	174	889	
Ex-Borough		-	8	35	516	
Total		35	41	209	1,405	1,690
MANTOUX TESTS		1,790	307	1,672	1,600	5,369
STREPTOMYCIN INJECTIONS		1,868	1,804	8,011	18,032	29,715
OTHER INJECTIONS		451	20	525	1,199	2,195
B.C.G. INOCULATIONS		110	75	349	291	825 "

(b) Cato Manor Clinic

For a number of years, negotiations have been in progress between the Union Department of Health and the City Council regarding the establishment and administration of a static clinic at 229/231 Booth Road, Cato Manor. In May, 1957, the Council resolved that the premises at the above address be leased to the Union Government for clinic purposes and that the rental form a charge against the Borough Fund Account, under protest. This arrangement proved unacceptable to the Governmenment which maintained that the responsibility for the running and the maintenance of the clinic, including the provision of staff and equipment, rested with the City Council.

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In November, 1957, the Council re-affirmed its resolution of May, 1957. In February, 1958, the Union Department of Health again stated that it was not prepared to establish and operate a clinic at Cato Manor but added that, should the Council proceed with the establishment of such a clinic, the Department would be prepared, under certain conditions, to provide medical cover and an X-Ray unit. In July the Council urged that the current arrangement whereby the Durban Chest Clinic provided a tuberculosis service at Cato Manor in premises owned by the local authority should be allowed to continue, without prejudice, until such time as the findings of the Borckenhagen Commission (appointed by the Union Government to enquire into financial relations between the Union Government, the Provincial and Local Authorities) became known and were implemented.

By the end of the year no reply had been received by the Council from the Government regarding the above proposal.

The work of the clinic is discussed in the report set out below which is furnished by courtesy of the Superintendent of the Durban Chest Clinic:

"Cato Manor Section

Tais section of the Durban Chest Clinic continued to function (on a part-time basis) during the past year in the disused shop set aside by the Bantu Administration Department. Attendance rates increased considerably and as shown in the table below many aspects of this service could now warrant a full time staff. It must be remembered that at the onset this clinic was established as a treatment centre for those who were unable to afford the bus fare to town; this work coupled with the introduction of a Mass X-Ray Machine (70 mm.) now provides a full tuberculous diagnostic and treatment clinic. As mentioned in a previous report this in itself is a unique undertaking, but perhaps of far greater value is the "preventative side" of this work. To ensure a steady turnout of a large number of Bantu family contacts to the central chest clinic is heart-breaking work, and this is best shown by the large numbers of infants and children who fail to return for Mantoux readings. However, in Cato Manor the clinic is situated in the midst of a location and this particular aspect presents no such problem. This is reflected in the marked increase in the number of B.C.G. vaccinations given. Here one must mention the excellent liaison maintained with the City Health Department. Each morning a team of Health Assistants (in the charge of a Senior Health Inspector), calls at the clinic before proceeding to their respective areas, to discuss problem patients and to make sure that others have attended.

Two research projects were undertaken during the year (the use of I.N.H. resistant B.C.G. vaccine and a comparison between the Heaf and Mantoux tests). These subjects form the basis of a separate paper and will not be discussed in this report.

Comments

1. A large proportion of patients attending this clinic suffer from some other (non-pulmonary) medical condition requiring attention. It is not possible to treat these people in this chest unit and they must be sent to town.

2. Although the attendance figures here show a marked increase, a large number of residents still bypass this clinic and go to the chest clinic in town. Further intensive propaganda would prevent

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this occurrence and would ease the congestion in the central clinic, as these patients state "they have never heard of the clinic in Cato Manor" !

3. A large number of chronic tuberculosis patients now attend this clinic for out-patient treatment. These people are helped financially by the Natal Anti-Tuberculosis Association pending the arrival of their Government Invalidity Grants. Without the help of this Association their lot would indeed be pitiful. The clinic is also most grateful for the assistance given by the Corporation Welfare Department whose office is situated in the building next door.

4. The rehabilitation of Ex-Tuberculous hospital patients and the finding of suitable work for these people remains a major problem.

Diagnostic and Treatment Services

X-RAYS	
Follow-up Cases	3,656
New Cases	7,880
Total Attendances	11,536
MANTOUX TESTS	3,049
STREPTOMYCIN INJECTIONS	12,090
B.C.G. INOCULATIONS	1,253
OTHER INJECTIONS	522
NOTIFIED CASES	
Borough	256
Ex-Borough	47

"

Comments

1. This report does not reflect work performed by the Government Mass X-Ray Section amongst industrial workers by actual visits to factories.
2. The attendances for the Durban Chest Clinic are about the same as last year although it is of note that the intake of Bantu patients had to be limited during the year. Attendances for X-Ray examination at Cato Manor Clinic show an outstanding increase over the previous years, viz:

   1958 - 11,536; 1957 - 6,888; 1956 - 4,610.

3. B.C.G. vaccination, initiated last year, continued to be offered to contacts as a priority group, but is also done, when indicated, in children and adolescents. In addition, B.C.G. vaccination was made available to two hospital institutions in the City and many new-born babies were vaccinated.

(c) Mobile Mass X-Ray Unit

This unit is operated by the Union Department of Health and has continued to perform excellent service with the staff of the commercial and industrial concerns.

During the year the Mobile X-Ray Section undertook 88 industrial surveys, some ten less than in 1957. Once a week, as a routine, the van assisted at the Durban Chest Clinic, when a number of pre-employment X-Rays were carried out. In this way congestion at the Chest Clinic itself was relieved. The staffs and inmates of the Prisons and Gaols were X-Rayed during the year and follow-up clinics were conducted in conjunction with the District Surgeon.

In all, the Durban van X-Rayed 42,133 persons, comprising 7,337 Europeans; 1,016 Coloureds; 12,705 Asiatics; and 21,075 Bantu. The overall total prevalence rate of pulmonary tuberculosis was 0.98%, a reduction when compared with the previous year's figure; when the rate was 1.45%. In the Bantu group the drop is from 1.98% in 1957 to 1.05% in 1958. This latter reduction is particularly noteworthy when it is estimated that the percentage of tuberculosis infection in the Bantu, as a whole, approximates 2%. Amongst the Coloured workers the rate rose from 1.03% in 1957 to 1.54% in 1958. Of 8,458 skilled labourers of all races, 0.95% were found to be suffering from pulmonary tuberculosis, compared with 1.07% found amongst 16,206 unskilled labourers.

All recalls from the surveys were investigated at the Durban Chest Clinic and it is of note that the attendance was excellent. More than 2,000 persons are now attending these "industrial" clinics and the close liaison with the factory medical staff continues.

(d) B.C.G. Vaccination at Magazine Barracks

During 1957 a survey and B.C.G. vaccination campaign was carried out at the Magazine Barracks which belong to the Council. Here 4,959 Asiatics consisting of male Corporation employees and their families, are housed in 46 different blocks of buildings. Each family unit consists of one or two rooms served by communal latrines and wash-houses. Although a small proportion of the Barracks has been rebuilt, living conditions are not generally of a high standard, the population density being some 188 persons per acre. However, the policy is to house new employees elsewhere and also gradually to find alternate accommodation for Barrack families in other schemes.

For the Mantoux Tests P.P.D. (10 T.U.) was used and all results were read after 72 hours. All persons who were considered negative (area of induration less than 6 m.m. in diameter) were given B.C.G. vaccine.

On the whole the response from the residents was excellent and the Department wishes to record its keen aporeciation of the kindly co-operation and interest exhibited by the inhabitants to this project.

A brief report, furnished through the courtesy of the Medical Officer in Charge of the Durban Chest Clinic is subjoined, the statistics for the 1957 survey being given in parenthesis for comparative purposes.

"Approximately one year after the initial survey the Barracks were again visited by this Unit. The same specially numbered X-Ray cards were distributed and the residents were X-Rayed. All children born during the past year were brought into the survey, Mantoux tested and, if found negative, given B.C.G. (as were those who failed to complete the B.C.G. vaccination at the previous visit). There is now, theoretically speaking, a complete community who are Mantoux positive (either naturally acquired or following B.C.G. vaccination).

A random sample of 133 children who had previously been given B.C.G. were also re-Mantoux tested (in order to test the efficiency of the B.C.G.).

Six new cases of tuberculosis were discovered (none of these persons had been given B.C.G.).

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Although 42 persons died during the year no deaths were attributed to tuberculosis.

Total number residents	4959	(5176)
Total number X-Rayed and/or Mantoux tested	4956	(5162)
Total number left Barracks	319	
Total number died since last survey	42	
Total number 'new' cases of tuberculosis	6	"

(e) Springfield Health Centre

The staff of the King George V Hospital continued to carry out excellent work of an intensive nature in the Durban Corporation Indian Housing Scheme at Springfield.

The Medical Superintendent of the Hospital reports that during 1958 members of this community attended fairly regularly for their X-Ray examinations and for their Mantoux tests and that all known cases were closely supervised. Contacts and tuberculin positive reactors are being treated prophylactically.

Emanating from the findings of certain field work carried out by the staff of the Department, the possibility of sewage acting as a vehicle for the dissemination of M. tuberculosis is at present being investigated and various studies on an organism are also in progress.

(f) Institute of Family and Community Health

The programme of the Institute has remained the same as for 1957 and the following comments have been furnished by the Acting Head of the Institute:

"Estimated Resident Population

Merebank:	Indian	-	8,575	
	Coloured	-	587	
	Bantu	-	332	9,494
Lamont Location:	Bantu	-		14,311
			Total:	23,805

Pulmonary Tuberculosis:
Incidence rate of new cases per 1,000 population (comparable rates for 1956 and 1957 are given).

		1956	1957	1958
Merebank:	Indian	2.5	0.67	1.2
	Coloured	3.8	-	-
	Bantu	25.3	6.4	12.1
Lamont Location:	Bantu	7.5	5.5	4.2

Both Lamont Location and Merebank have had an increase in population and families as compared to 1957. Although the trend in Lamont Location continues to decline, that for Merebank has increased.

One of the possible explanations may be the fact that new families moving into Lamont Location are more evenly distributed whilst in Merebank the new families have been accommodated in already grossly overcrowded areas."

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10. Supplementary Feeding of Indigent Tuberculosis Cases

At the beginning of September the Natal Anti-Tuberculosis Association again recommended that the Municipality should take advantage of the offer made by the Union Department of Health to refund to local authorities 7/8ths of the costs of any approved scheme for the supply of supplementary rations to indigents suffering from tuberculosis in a communicable form. This offer had previously been considered by the Council during 1957 in consequence of which representations were made to the Government through the United Municipal Executive advocating that the State undertake this service through its Food Distribution Scheme. However, no further action was taken in the matter after the Government had predicated that supplementary feeding was one of the many aspects of the care and treatment of tuberculosis patients and was no less a part of their therapy than the administration of drugs.

In November, the City Medical Officer of Health was directed to report on the recommendation from the above Association after obtaining information from the large local authorities. In December, an enquiry was directed to the Association to ascertain whether it would be prepared to undertake the administration of any scheme approved by the Council. By the end of the year no further action had been taken pending the receipt of replies from the Association and from the local authorities referred to.

It is unfortunate that, in any approved scheme, the costs of administration are not subject to refund as these, of course, may be high in relation to the rest of the costs. It is certainly doubtful whether, without such a subsidy, any large local authority could justifiably afford to embark on a fully-fledged scheme though less ambitious schemes are certainly practical propositions.

11. Staff and Activities

In last year's Annual Report reference was made to the steps taken to increase the staff establishment of the Section by (1) the creation of one post for a European Health Inspector to organise and supervise the work of the non-European Health Assistants and (2) by the creation of six additional Bantu Health Assistant posts. In addition, mention was made of the proposal to purchase a light bus-type vehicle.

The posts in question were filled during the first few months of 1958, and the vehicle for the use of the Health Inspector was delivered during the month of April. As a result of these measures the field work received a considerable impetus. By March, considerable progress had been made in tracing Bantu defaulters and contacts and very soon the number of home visits carried out by the Bantu Health Assistants surpassed by a large margin the highest figure recorded the previous year. Naturally, the programmes in the field were greatly facilitated by the use of the special vehicle.

By June, it became possible, as a result of the re-organisation of the Section, to submit figures, apart from other statistics, showing the number of visits to non-European contacts and the number of these contacts who reported at the Clinic for X-Ray examination. The percentage figure for that month was 63% and for the remainder of the year a high standard of attendances was consistently maintained.

It is evident that the increase in the number of the non-European Health Assistants, coupled with the supervision and control exercised by a Health Inspector not only increased the amount of work covered in the field but also lead to greater efficiency in its performance.

The staff of the City Health Department engaged on tuberculosis work consists of five European Health Visitors, one European Health Inspector, two European clerks and two European lady assistants, together with fifteen Bantu and five Asiatic Health Assistants, all falling under the immediate direction of the Assistant Medical Officer of Health.

The Bantu and Asiatic Health Assistants include in their duties all the non-European follow-up work associated with venereal disease cases and contacts.

(a) European Health Visitors

Each European Health Visitor is allocated a district in which she carries out domiciliary work amongst Europeans and Coloureds. When necessary, she assists in the investigation of Bantu and Asiatic cases, although this rarely necessitates a visit to the patient's home, as all such field work now falls within the province of the European Health Inspector. Such being the case European Health Visitors are now forbidden to enter and perform duties in Bantu areas on security grounds. In addition to the investigation and follow-up of cases and contacts, the Health Visitors attend the Durban Chest Clinic periodically to maintain liaison with the medical staff attending their cases. An important part in the work of the Health Visitors relates to the administration of streptomycin injections to, and the supervision of, those patients in their own homes who are unable to attend an out-patient clinic, as evidenced by a total of 1,600 injections given during the year. Applications and investigations for financial assistance and other aids are dealt with by the Health Visitors, who also establish the domicile of the patients. They advise patients and their families on matters of personal hygiene and play a most important role in health education of persons suffering from tuberculosis. All the Health Visitors are members of the local Care Committee of the Natal Anti-Tuberculosis Association.

(b) Non-European Health Assistants

Performing duties of a character similar to the Health Visitors but on a simpler and more limited scale, the non-European Health Assistants operate amongst the Asiatic and Bantu communities. Naturally they do not carry out any home treatments.

(c) General

During the year considerable administrative changes were made in the Section and these have resulted in more statistical data becoming available. These steps coupled with the appointment of a European Health Inspector to supervise the non-European staff, have increased the efficiency of the Section considerably; time and money too have been saved on travelling as a result of co-ordination of the work of individuals.

The table below sets out the number of visits made by the field staff during 1958, the previous year's figures being given in parenthesis for comparative purposes.

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	1958	1957
European	9,026	(8,471)
Bantu	23,042	(10,642)
Asiatic	6,114	(4,817)
Total	38,182	(24,380)

The great increase in the volume of the work done is directly attributable to three factors, namely, increased supervision, provision of the light bus type vehicle, and co-ordination of all facets of the work.

It is, as was anticipated in my previous report, becoming increasingly clear that the clerical establishment requires strengthening with the creation of an additional post for a non-European clerk. Finally, it is pleasing to record that the quality of the work performed and consequently the service rendered by the non-European staff has materially and noticeably improved.

12. Health Education

Lectures and film demonstrations were given to the Health Assistants during the year and each Health Assistant received individual coaching from the Health Inspector in the course of his work.

The Health Education Section of the Department carried out work amongst the non-European sections of the community.

13. Domiciliary Assistance

In addition to Government Disability and Maintenance Grants made to patients, financial assistance to all races, including Indians, is given by the Care Committee of the Natal Anti-Tuberculosis Association. Where Indians only are concerned, the Friends of the Sick Association provides relief for sufferers. The Department's Health Visitors give very material assistance to the Natal Anti-Tuberculosis Association in bringing to notice needy cases and their requirements, as well as their financial disabilities. The non-European Health Assistants play their part in rendering assistance from the 'field' aspect.

Set out below is an extract from the Annual Report of the Natal Anti-Tuberculosis Care Committee, kindly furnished by the Secretary:

"Care Committee

The Care Committee meets monthly to allocate grants. The aid given is in the following main directions:

(1) Assistance to families of all racial groups where the breadwinner has developed T.B. and is unable to carry on his or her occupation. Such items as rent and food for the family are provided.

(2) Financial aid and food for those receiving ambulatory/domiciliary treatment.

(3) Aid after treatment until work is obtained.

(4) Milk for children suffering from primary T.B.

The following figures give the expenditure on assistance in recent years:

Year	Amount	Families Assisted
1949	£4,352	332
1954	10,362	923
1957	9,571	931
1958	8,850	1,007

There was a reduction of several hundred pounds in the amount paid for assistance. This is accounted for by the fact that there was less money available for Care Work, not through any less demand for assistance. Actually the amount which can be given in each individual case is not by any means sufficient to provide for the requirements but it does help particularly in regard to rent and food.

A recent decision of the Social Welfare Department to pay only a nominal 10/- per month to Coloured persons in T.B.Hospitals instead of the usual £4. 2. 6. Disability Grant has had an adverse effect upon family income as some portion of this amount has usually gone to supplement any Maintenance Grant received by the family. Further, upon discharge from hospital the patient is short of money until such time as his Disability Grant can be re-instated in full and consequently it has been necessary for the Association to give assistance in such cases. The matter is being taken up on a National basis by SANTA Headquarters.

Employment of Persons suffering from T.B.

So far as the employment of persons suffering from T.B. is concerned it has been stated that the industrial scheme in Natal is one of the best in the world. Here it is the practice in many instances to keep persons suffering from T.B. in certain stages at work thereby giving them the greatest prospect of full recovery by being able to earn money for food. Nevertheless numbers of persons with T.B. still have to be found work of some kind and it is essential that these people be brought into the ordinary economy of commerce and industry if they are to have a chance of recovery and becoming useful units of labour.

The Association has for a number of years undertaken to find work for persons suffering from T.B. who have been certified as fit to work, and it is pleasing to report that between 70 and 80 per cent of those who present themselves are eventually placed. The number found work during 1958 was 86 and the Association is indebted to those industrialists and commercial people who have been prominent in helping in this connection.

There are naturally some persons who for physical and other reasons not connected with T.B. are unemployable and these could not be found employment."

14. Recovery of Hospital Fees

In accordance with directives from the Union Department of Health dealing with the recovery of fees from tuberculosis patients, progress has been made and all cases hospitalised are investigated and particulars of the financial state of the patients recorded. When necessary, patients are required to attend for almoning. Needless to say,

where non-Europeans are concerned, the payment of even a small fee is impracticable and, even in the case of Europeans, the lengthy period of incapacitation leaves the vast majority of the patients so much poorer that they are quite unable to contribute to their hospital expenses unless they are members of a Sick Fund or Benefit Society.

15. Conclusion

The control of tuberculosis in the City of Durban requires a huge volume of work to be undertaken and from the foregoing report it will be evident that the need for expansion of the clinic service is now imperative. With the rapid growth of the new Bantu Township, Kwa Mashu, the early establishment of a tuberculosis clinic there is essential, whilst the need for a clinic in the Southern Area of Durban is becoming a pressing matter.

The need for at least one additional settlement of 500 beds remains and it is hoped that the forthcoming year will show some material progress in this regard.

During the year much progress was made in the field work and in streamlining the administrative section, at the same time increasing the availability of statistical data.

The overall picture of pulmonary tuberculosis amongst Europeans is satisfactory; amongst Coloureds and Asiatics it is fair; but amongst the Bantu, it presents a depressing picture. A material change in the Bantu situation will require the whole-hearted and energetic co-operation of this section of the community, which has, as yet, not been forthcoming.

* * *

V. VENEREAL DISEASES

It is well known that considerable numbers of cases of venereal diseases are treated each year by District Surgeons, in Institutions such as prisons and by private practitioners without any return being made to the local authority. In Durban, the only figures available for statistical purposes emanate from the Provincial and Municipal Clinics. These figures, which will be quoted in this report, will therefore reflect a lower incidence than is really the case.

New Cases

The total number of new cases which attended the clinics in the City this year was only 88.89% of the 1957 total. While significant increases in the number of cases were noted among Coloured and Asiatic males (both 'City' and 'Imported'), Coloured 'City' females and 'Imported' Asiatic females, the most marked change has been among 'City' Bantu (males and females) where new cases have fallen to only 84.73% of last year's figure. This fall in new cases has also been observed at the Cato Manor Clinic where the total was 91.31% of that of 1957. Here, the fall-off began with the clearing of adjacent notorious shack areas, the removal of their inhabitants to more distant parts of the Emergency Camp area, and the transference of some Cato Manor inhabitants to Kwa Mashu.

While some cases have to be hospitalised, the vast majority are treated as out-patients making more beds available for other conditions.

Attendances

The total attendances have fallen to 86.94% of last year's figures. There were fewer attendances in every group and though this was usually only slight, in Cato Manor the fall was to 72.68% (C.f. new cases fall off to 91.31%).

Clinical Services

The Natal Provincial Administration and the Municipality have continued the clinical services of previous years which are integrated with the polyclinics of the general hospitals. During the year discussions have been renewed by the Provincial authorities with a view to consolidating out-patient services under Municipal control.

Provincial Clinics

These are held at Addington Hospital and cater for European and Coloured males and females. The sessions total 10 hours weekly. and a part-time medical officer is in attendance.

Municipal Clinics

All non-European groups are accommodated at the Congella and Cato Manor Clinics which function for 56 hours weekly. With the occupation of the first areas of Kwa Mashu demands for clinic facilities are growing and suitable premises are being sought there.

Ante-Natal Clinics

Routine blood tests for the detection of syphilis are taken at all ante-natal clinics in the City. The few positive reactors encountered are referred to the Special Clinics where, after investigation, confirmed cases are treated. The success of these investigations is reflected in the reduction of the number of cases of congenital syphilis encountered.

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Staff

Medical: There have been no changes in the medical staff employed in the venereal diseases services.

Nursing: The trained and auxiliary nursing staff have continued unchanged during the period.

Health Assistants: Contact tracing by non-European Health Assistants has continued to assist greatly in the attempts to control venereal diseases in this City.

Propaganda

The Health Education Section has repeatedly drawn attention to the dangers of venereal diseases in talks and film shows to susceptible audiences.

Co-operation

Continued co-operation has been maintained with the various hospitals, private practitioners and pathological laboratories of the Union Government and the Medical School.

Analysis of venereal disease cases among Bantu and Asiatics treated in 1958

Diagnosis	A. New Cases		B. Attendances (All cases)	
	Male	Female	Male	Female
1. Seronegative Primary S.	182	1	550	37
2. Seropositive Primary S.	20	4	610	82
3. Secondary S.	10	9	193	413
4. Tertiary S.- clinically recognisable	2	-	4	7
5. Latent (diagnosed on result of serological test alone)	51	108	1,865	1,718
6. Neurosyphilis	-	-	25	-
7. Congenital S. under 1 year	28	38	103	138
8. Congenital S. over 1 year	6	6	28	25
TOTAL SYPHILIS	299	166	3,378	2,420
9. Gonorrhoea	2,806	3,167	11,507	11,379
10. G.C.Vulvovaginitis	-	22	-	68
11. G.C. Ophthalmia	6	9	44	51
TOTAL G.C. INFECTIONS	2,812	3,198	11,551	11,498
12. Ulcus Molle	354	6	1,346	26
13. Lymphogranuloma Venereum	-	1	7	5
14. Granuloma Inguinale	1	2	14	10
15. Venereal Warts	215	20	1,031	93
ADMISSIONS	201	678	-	-
GRAND TOTAL	3,882	4,071	17,327	14,052

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VENEREAL DISEASES

STATISTICAL SUMMARY
1958

	European				Coloured				Bantu				Asiatic				Total				Grand Total
	City		Import.		City		Import		City		Import.		City		Import		City		Import.		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
New Cases	208	39	211	10	186	63	53	-	5,176	4,472	1,101	1,033	446	203	61	37	6,016	4,778	1,426	1,080	13,300
Ward Admissions	-	1	-	-	2	2	1	-	506	439	208	213	37	8	3	2	545	450	212	215	1,422
Out-Patients Attendances	758	204	473	27	793	581	76	5	19,122	15,090	3,568	3,225	1,096	818	159	511	21,769	16,693	4,296	3,768	46,526

Rate of New Cases per 1,000 Population (City Cases only)

	European	Coloured	Bantu	Asiatic	All Races
1958	1.59	9.95	51.91	3.16	23.28
Number of Sessions	301		651		952

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VI. IMMUNISATION

The immunisation programmes were steadily maintained throughout the year and improved facilities to the public were introduced by the inauguration of the service at a number of Child Health Clinics. By this means, many mothers were saved the trouble and the expense of having to travel long distances to the main immunisation centre at Gale Street.

Owing to the increased prevalence of typhoid fever at Cato Manor at the beginning of the year the Department intensified its immunisation measures against the disease in that locality. As it was impossible to protect Bantu residents who worked in the City by this procedure - night sessions being regarded as too dangerous - letters were addressed to both the Natal Chamber of Industries and the Durban Chamber of Commerce on the subject. In these, a request was made that the attention of members of both Chambers be drawn to the situation at Cato Manor and to the necessity for all employees living there, especially food-handlers, to be immunised against the disease. For this purpose, special facilities were provided.

A recommendation was made during the year to the effect that all Bantu children who were being moved and re-settled at the Kwa Mashu Township, and who were unprotected, should be vaccinated and immunised against such diseases as diphtheria, poliomyelitis and whooping cough. In addition it was suggested that all persons involved in the scheme, both adults and children, should be X-Rayed and the latter Mantoux tested and vaccinated with B.C.G., if negative.

However, these proposals were not accepted and it was recommended, in lieu thereof, that all immunisation measures at Kwa Mashu be carried out on an entirely voluntary basis, and that steps be taken by means of propaganda, to encourage the Bantu at Kwa Mashu to avail themselves of the services provided by the Department.

From the beginning of May onwards, a special campaign was carried out in the Asiatic areas in an endeavour to bring the immunisation state of this section of the community, especially the pre-school children, up to a more satisfactory level. The attendances at the various sessions were good but great difficulty was experienced in getting parents to return with their children for the completion of their courses despite every endeavour being made by the Department to that end. Attendances for the second injection were poor, for the third, worse. For instance, during a period of three months, 14 sessions were held at five different Asiatic schools selected as centres for the campaign. At these sessions out of 2,232 subjects who attended for their first injections, only 600 attended for the second, and a bare 251 for the third.

Letters to Mothers

In the past letters were sent to all European mothers, when their children were due to be immunised. This procedure was extended to the Coloured and Asiatic population during the year and the results have been extremely satisfactory.

School Sessions

The Immunisation units visited all Government, Government-aided, private, and nursery schools which cater for pupils under 10 years of age, and immunised all the children whose parents desired to have them protected. It was encouraging to note that 85% of the school children completed the course of immunisation against diphtheria. The absentees were advised in writing to attend the nearest clinic during their school vacation, to receive their final injection.

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The following tables set out the details of the children immunised at Child Health Clinics and by means of the mobile clinic van in the field.

Diphtheria (By City Health Department)

	E.	C.	B.	A.	Total
1st Injection	1,466	733	2,785	2,949	7,933
2nd Injection	1,350	643	2,430	2,020	6,443
Booster	1,761	323	643	3,771	6,498
Total	4,577	1,699	5,858	8,740	20,874

(By Institute of Family and Community Health)

	E.	C.	B.	A.	Total
1st Injection	-	2	83	28	113
2nd Injection	-	-	40	15	55
Booster	-	2	3	1	6
Total	-	4	126	44	174

Combined Diphtheria/Whooping Cough (By City Health Department)

	E.	C.	B.	A.	Total
1st Injection	789	203	226	810	2,028
2nd Injection	582	142	130	98	952
3rd Injection	548	103	88	101	840
Total	1,919	448	444	1,009	3,820

(By Institute of Family and Community Health)

	E.	C.	B.	A.	Total
1st Injection	-	8	19	49	76
2nd Injection	-	-	9	42	51
3rd Injection	-	3	5	25	33
Booster	-	1	4	-	5
Total	-	12	37	116	165

Combined Diphtheria/Whooping Cough and Tetanus (By City Health Department)

	E.	C.	B.	A.	Total
1st Injection	1,535	463	1,049	3,682	6,729
2nd Injection	1,444	391	417	2,187	4,439
3rd Injection	1,327	375	271	1,194	3,167
Total	4,306	1,229	1,737	7,063	14,335

(By Institute of Family and Community Health)

	E.	C.	B.	A.	Total
1st Injection	-	24	797	174	995
2nd Injection	-	3	679	93	775
3rd Injection	-	6	512	105	623
Booster	-	-	83	22	105
Total	-	33	2,071	394	2,498

Poliomyelitis Immunisation

Regular immunisation sessions have been held throughout the year. European parents and young adults showed a keen interest in having their children and themselves protected against the disease. Difficulty was experienced in contacting numerous families to return for their third injection, owing to failure to notify the Department of their change of address.

As very few applications were received from the non-European community, it was decided to extend the service to the newly developed non-European areas by means of the Mobile Clinic Van, aided by the Health Education Van. The response in all areas was good. The following injections were given during the year:

Poliomyelitis (By City Health Department)

	E.	C.	B.	A.	Total
1st Injection	6,044	560	608	318	7,530
2nd Injection	5,178	137	59	137	5,511
3rd Injection	6,406	134	73	132	6,745
Total	17,628	831	740	587	19,786

The following injections were given by the Institute of Family and Community Health.

	E.	C.	B.	A.	Total
1st Injection	-	-	332	124	456
2nd Injection	6	5	41	114	166
3rd Injection	28	11	340	117	496
Total	34	16	713	355	1,118

Typhoid Control

Immunisation against typhoid was carried out routinely on two days a week throughout the year, at the immunisation centre, Gale Street, when selected groups of food-handlers were vi-tested and immunised against typhoid. Those vi-tested comprised Europeans 30, Coloureds 2, Asiatics 95, and Bantu 1,350.

As most of the notified cases of typhoid came from the Bantu population living at Cato Manor, all possible means of propaganda were employed to encourage the inhabitants of that area to seek protection against the disease. Furthermore, in order to cope with the increased attendances, the Mobile Clinic sessions in that locality were increased for a number of weeks from 2 to 8 per week. Unfortunately, the percentage of those subjects who failed to report for their second injection was high.

As already mentioned, factory managements in the City were approached through their Chambers and approximately thirty concerns availed themselves of the special service provided.

Typhoid (City Health Department)

	E.	C.	B.	A.	Total
1st Injection	57	64	8,810	306	9,237
2nd Injection	36	53	4,347	121	4,557
Boosters	13	-	160	14	187
Total	106	117	13,317	441	13,981

Smallpox Control

High priority was given to the subject of smallpox vaccination in the immunisation programmes. Throughout the year, the mobile immunisation van visited all congested areas in the City in systematic sequence. Vaccination was also carried out at Child Health Clinics and at a number of private non-European schools.

Those who presented themselves for vaccination comprised:

Europeans	1,884
Coloureds	786
Bantu	4,116
Asiatics	5,050
Total	11,836

Set out below is a list of vaccinations carried out by Government and Provincial authorities and the Municipal Bantu Administration Department:

Institute of Family and Community Health	253
Port Health Officer	1,122
Municipal Bantu Administration Department	106,001
District Surgeon	3,160
Total	110,536

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VII. HEALTH INSPECTION AND SANITATION

City Markets:

Foodstuffs offered for sale were examined daily by a Health Inspector. Unsound foodstuffs were condemned and destroyed or otherwise suitably disposed of.

During January an Indian farmer placed five lots of "mushrooms" on the auctioneer's tables for sale. In ordinary circumstances, mushrooms are not sold by the auctioneers until they have been examined by this Department. Fortunately, three lots were purchased by a local hotel. The buyer, on making closer examination, became suspicious and requested this Department's advice.

On examination it was found that the "mushrooms" closely resembled a highly poisonous variety of fungi called the "Death Cup". With the prompt and kindly assistance of the local Press and the South African Broadcasting Corporation, the buyers of the other two lots were traced and they surrendered the "mushrooms" to the Department. Thus, a possible tragedy was averted.

Food Sampling:

Each month a specified number of samples of the foodstuffs covered by the Minister of Health's authority in terms of the Food, Drugs and Disinfectants Act, was purchased and submitted to the Government Chemical Laboratory, Johannesburg and the City Analysts for examination.

In the main, the only standards infringements were those of some butchers who sold (a) minced-meat containing prohibited preservatives and (b) sausages containing preservative in excess of the maximum amount permitted. Certain butchers have been convicted more than once for these offences.

Certain samples of vegetable fat showed slight rancidity and some samples of salt were low in sodium-chloride content. In view of the fact that it was considered these deficiencies were beyond the control of the retailers, legal proceedings were not instituted and the sellers were given the opportunity of consulting their suppliers so as to obviate a recurrence.

The Department's roster of foodstuffs for chemical analysis was amended so as to include more meat and meat products and to restrict sampling of foods which experience has shown consistently comply with the prescribed legal standards.

Food-handling Premises:

As a result of departmental pressure, three businesses engaged in the handling and preparation of food closed down. They comprised a small factory which produced fruit syrup drinks in plastic containers, a tea room/fresh produce dealer and a private hotel.

Apart from the foregoing, improvement of many businesses was achieved by the Department lodging objections to the issue of trading licences where new licences were sought or where change of ownership of an existing business was involved. Furthermore, the routine application of the Food By-laws continued to contribute to raising of the hygienic standards of food-handling and preparation in City businesses.

Illegal Food Vendors

From time to time the Department has received complaints regarding the activities of certain illegal food vendors engaged in peddling so-called "home-made" jam, chutney, pickles and suchlike articles.

A successful prosecution was brought against one such trader. The general public could greatly assist in eliminating these illegal food traders by declining to buy goods which do not clearly disclose the name and address of the manufacturer.

Fruit and Vegetable Hawkers - Beach Area:

Considerable progress has been made in curtailing the activities of hawkers in the Beach Area. The former practice of these vendors in taking up permanent stands, with consequent fouling of streets and pavements, gave rise to numerous complaints in the past. Active steps have now been taken by the City Police to enforce the By-law provision which prohibits a hawker making a stand of more than twenty minutes in one spot.

Beach, Racecourse and Sports Grounds Catering:

Spot inspections on Sundays and public holidays, in addition to normal working days, were periodically made at the City beaches in connection with the general food-handling practices of firms conducting business on the sands and at other places of public resort. Particular attention was paid to the personal hygiene of waiters and hawkers employed thereon. Appropriate action was taken where contraventions of the public health legal codes were detected.

Nuisances

Titren Road Shack Area: At the beginning of the year, the City Engineer felt obliged to withdraw refuse and nightsoil removal services from the Titren Road shack settlement, an area abutting the Umbilo River at Rossburgh and comprising some 100 shanty type dwellings mainly in Indian occupancy, due to inaccessibility to service vehicles.

The resulting insanitary conditions constituted a serious health risk.

Following upon representations by this Department to the City Engineer a new access road was built and the essential sanitary services were resumed.

Sewer Blockages: Throughout the year sewer and pan blockages caused serious insanitary conditions in the Cato Manor Emergency Camp.

On occasions major blockages, requiring protracted clearing efforts, resulted in gross pollution of the Umkumbaan River and other streams. Many of the blockages followed upon misuse through ignorance, but others were brought about by deliberate abuse.

Surcharge of the sewer in the vicinity of Clairwood Race Course gave rise to several complaints. The matter was referred to the City Engineer for attention.

Caravan Camps: A complaint concerning unsatisfactory conditions at a caravan camp was investigated conjointly with representatives of the City Engineer, who exercises certain control in terms of

the Building By-laws respecting the establishment and conduct of caravan camps. As a result, improvements to meet the requirements of both Departments were called for.

Sewer Connections: In several areas, where the progressive extension of the sewerage system permitted, property owners were required to make the necessary connections. In every case the elimination of pail privies and nuisances arising from lack of waste-water disposal, brought about a marked improvement in the sanitary conditions

Cato Manor Emergency Camp

Certain sections, such as "New Look", "Kwa Bengu", "Kwa Mguni", "Mount Carmel" and "Dabula Manzi" may be regarded as meeting basic sanitary requirements. The inhabitants are of a superior type, they house themselves better and co-operate fully with the Camp authorities. As a result these areas are maintained in a comparatively clean state in good weather.

In the Camp generally, during and after rainfall, due to the nature of the soil and the lack of stormwater drainage and paving, the ground gets sodden, resulting in difficult living conditions and contributing to insanitation.

Other areas including "Mjafeta", "Fairbreeze", "Two Sticks" and "Matonsi" are generally unsatisfactory from a sanitary viewpoint though there was some improvement towards the end of the year.

In Area 4 ("Manasa" and "Jeepcoat") six new ablution/sanitary blocks were completed and brought into use - all pit-privies were closed.

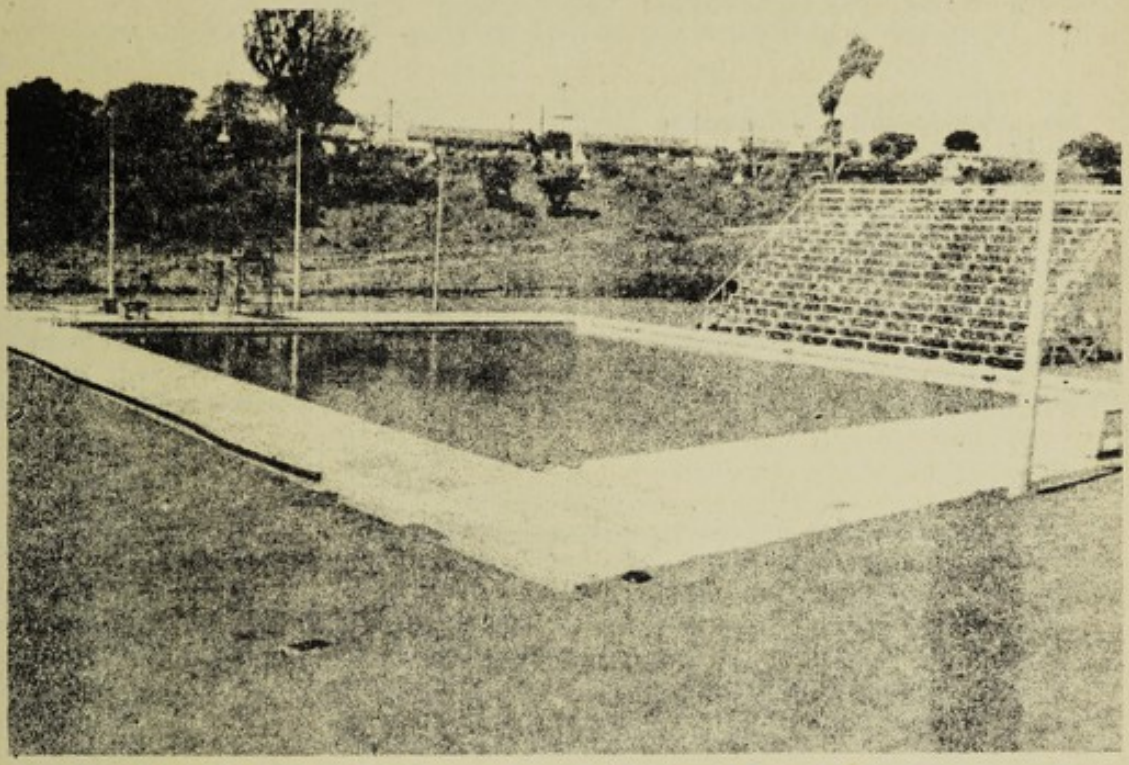
Previously the City Council experienced some difficulty in obtaining authority from the Minister of Native Affairs to expend money on the provision of these ablution/sanitary blocks. Due to the limited number which could be erected, these conveniences are inevitably badly sited in relation to a large number of shacks. An added disadvantage, from a health viewpoint, is the fouling of ground areas which takes place at night due to the reluctance of the inhabitants to venture too far from their shacks for fear of being molested.

Various roadworks in Area 4 were completed and a refuse removal service instituted.

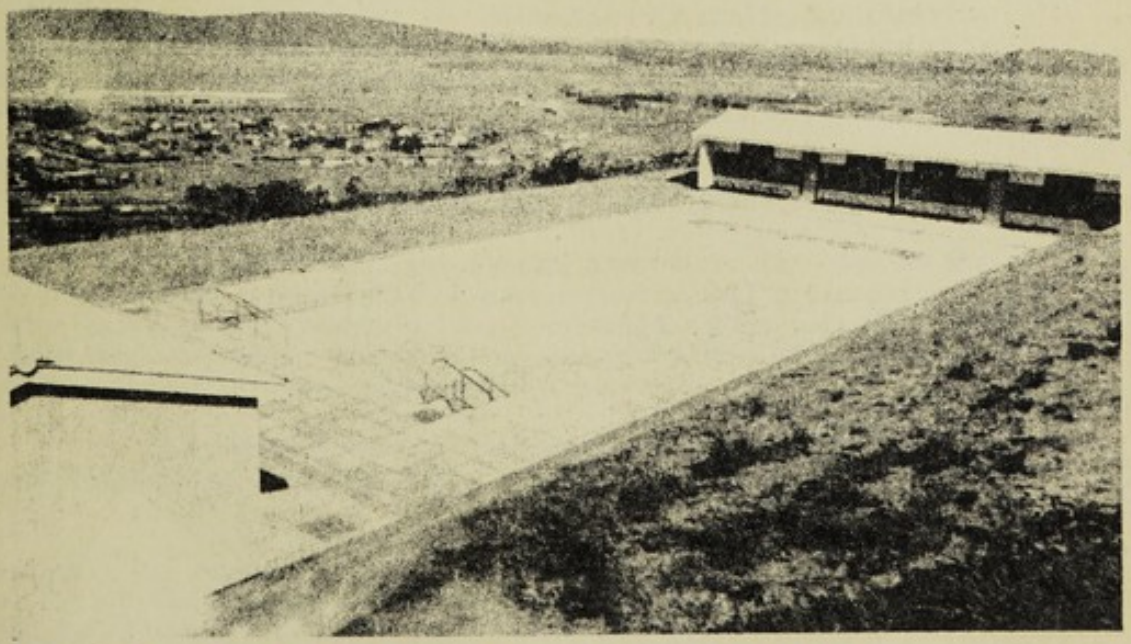
Every effort was made to keep fly prevalence at as low a level as possible. Due to the existence of pit privies yet remaining in certain sections, and to indiscriminate dumping of food and other refuse, fly-control measures were rendered difficult. The position was also aggravated by the large number of pigs, cows and goats kept in the Camp.

The provision of a modern refuse freighter for use in the Camp has brought about some improvement and permitted refuse-removal services to be extended to areas previously unserviced.

Amenities provided in non-European Areas.



Asiatic Public Swimming Bath at Springfield.



Bantu Public Swimming Bath Umlazi Glebe Area.

Umlazi Glebe

he question of providing suitable sanitary accommodation to replace the existing pit privies is now one demanding a degree of priority.

The completion of the first communal clothes-washing and ablution block provided a long overdue amenity necessary for the well-being of the community. It is strongly recommended that more of these facilities be provided in other parts of the village, as the present one is not reasonably accessible to all occupiers.

A swimming bath for the free use of the community is now under construction. It is hoped that the provision of this facility will greatly diminish bathing and paddling by children in bilharzia-infected water and thus contribute to a reduction of the disease in the Umlazi Glebe.

Kwa Mashu

This Department's programme of health inspectional control for this major Bantu housing project commenced in May, 1958, when a little over 100 houses were occupied. In the circumstances particular attention had necessarily to be paid both to the immediate health problems arising from construction works and the establishment of a firm foundation for future environmental hygienic control of the township.

A temporary refuse tipping site was established on the controlled system, with very satisfactory results.

A field hygiene staff comprising a European General Assistant, 3 Bantu Spotters and 12 Bantu Labourers was allocated to the area and it has been continually engaged on mosquito and other pest control measures. Practically no mosquito breeding was found taking place in the area. A few culicine mosquito larvae were found, and in an isolated instance one Anopheline gambia larva was found. Spotters are continually on the lookout for new potential breeding grounds.

A survey for the collection of snails to determine potential danger of bilharzia was carried out. Vector snails from several areas were identified - though examination, to date, has not disclosed the presence of human parasites.

With the co-operation of the City Engineer consideration is being given to the question of drainage to combat the snail problem.

The area is practically free from flies due to the effective refuse removal service combined with health inspection and advice given to the tenants of newly occupied houses regarding refuse storage and disposal. All dwellings are provided with a piped water supply and each has its own waterborne closet.

Rapid progress with road construction, drainage and constructional work has been made by the City Engineer's Department.

The average number of houses being completed and made available for occupation each month, has now reached the 200 mark. By the end of the year over 900 houses had been occupied and the estimated population was about 7,000.

Over 1,000 Bantu labourers and artisans are engaged on constructional work. They are housed in completed dwellings, each of which is provided with the necessary water and sanitary amenities.

The sewage disposal plant is dealing with over 100,000 gallons of sewage daily and this gallonage is increasing rapidly as the township extends.

A modern general dealer's store is already in commission and further shops are now nearing completion which will provide for a butchery, greengrocer's and an additional general dealer's businesses.

Composting

In recent years the City Engineer has developed a fairly large composting site at Springfield. Composting is a valuable means of disposing of certain refuse and wastes, and the product is an organic fertiliser rich in humus. Because the composted material contains a proportion of human waste the City Health Department has kept a watchful eye on the compost to preclude any danger to the public health from its use in market and domestic gardens. Periodically specimens have been submitted for pathological examination, and a typical report is as follows:

"Flotation for cyst and ova - negative.
Culture: S.typhi and salmonella organisms not isolated."

The City Council is planning major sewage purification works for Durban and it has been necessary for the Department to establish a standard for compost or "black soil".

Sewage Disposal: Septic Tanks

A large area of Durban is not, as yet, served by reticulated sewerage. In the main, owners have installed septic tanks and soak pits for the drainage of waste liquids. Although this Department favours disposal by the Council's water-borne sewerage, there has been no alternative but to allow septic tanks on dwelling sites. Nuisances, however, often arise in connection with industrial and commercial premises, hotels, blocks of flats, etc. Septic tanks and soak pits cannot always function satisfactorily in these types of premises particularly if the land area is limited, and the result is that the Council has perforce to provide a conservancy tanker service. Some time may elapse before the whole City is served by reticulated sewerage but, although it may entail slowing down commercial and flatted housing development for a period, this Department must press for the disapproval of building plans unless the building sites are suitable.

* * *

VIII. FIELD HYGIENE

Mosquitoes

A serious mosquito nuisance arose at the Council-owned Melbourne Road Coloured Sub-Economic Flats. Stagnation of water due to defective sub-floor drainage and corroded wastepipes was the cause. This trouble was eliminated by spraying and the carrying out of the necessary drainage work.

Some difficulty was encountered with mosquito nuisances emanating from water collecting in yachts and small craft at the Yacht bank in the Bay. Spraying measures were organised. In this regard authority to spray is now issued by the Chief Constable, immediately the necessity arises. He in turn recovers costs from the owners concerned. This arrangement eliminates the disadvantages and delay experienced in tracing and serving notices on respective owners - in some cases not resident in Durban. Nuisances from craft anchored in the Bay and outside the jurisdiction of the Council were referred to the Port Health Officer.

Mosquito nuisances were experienced at many points in the City, particularly in developing areas such as Glenmore Estate. New dwelling houses erected in close proximity to virgin bush, were the main sufferers. All possible action, including calling for bush clearing and the suppression of illegal dumping of tins and other water-holding receptacles, was taken by this Department.

A mosquito nuisance at Danville Park, Virginia Estate, was satisfactorily eliminated by reclamation.

As the climate of Durban is sub-tropical the mosquito menace is a problem requiring considerable attention. Fortunately most varieties of mosquitoes found in the City are of no public health significance, nevertheless they cause considerable nuisance to the public.

As in the case of flies, a similar pamphlet dealing with mosquitoes has been issued to all householders in order to educate them against the breeding of the pest. Little difficulty however is experienced in controlling mosquito development on occupied premises.

The biggest problem during the year has been the control of the Bluff Valley or Van Riebeeck Park swamps. Through trial and error and the adoption of new methods we have been successful in keeping breeding in these swamps down to a minimum. As this achievement is of considerable interest, a special report on the Van Riebeeck Park swamps is included in this annual report.

No sooner had residents in premises surrounding the Van Riebeeck Park area begun experiencing some relief from the mosquito nuisance when the Department became inundated with complaints from the public living on premises overlooking the Bayhead. This area is low-lying land with mangrove swamps at the head of the bay, owned by the South African Railways, and being reclaimed by them. As the result of this outbreak of breeding, close co-operation with the Railway health authorities has been established, and an all-out effort is being made to eliminate mosquito breeding in the area. Reclamation work has been speeded up and spraying measures intensified. Adult mosquito counts are taken at night in premises overlooking the area to establish the degree of infestation.

It is of interest that while the Van Riebeeck Park and Bayhead swamps are the source of considerable trouble, a further swamp known as Happy Valley which is approximately 50 acres in extent, and within a mile of the other two is free from breeding and causes no trouble. This swamp which is untainted by waste or polluted water or insecticide is apparently being effectively controlled by nature.

An important aspect of mosquito work conducted by the Department is that of aedes control in the Municipal area adjacent to the Louis Botha Airport. A European General Assistant, together with 6 Bantu labourers are engaged full-time on ditching and spraying operations. In addition, 2 Bantu Health Assistants conduct inspections on all premises in the area, surveying for breeding and giving advice where necessary.

Bluff Valley Mosquito Control

See Appendix I.

Overgrown Vacant Land

During the year 443 acres of vacant land were cleared by the Department for the purpose of eliminating mosquito nuisances and those brought about by misuse by wayfarers.

Plague: Rodent Control

It is now almost half a century since plague last broke out in Durban. This City however occupies a vulnerable position as far as this disease is concerned. More ships are visiting the harbour than ever before, many of these from Eastern ports. Rail traffic to Durban from inland centres increases annually. We cannot therefore afford to be complacent, and ignore the ever present possibility of plague being introduced into the City.

Working in co-operation with the Department of Health, which controls shipping, and with the South African Railway Administration, which controls railway and harbour properties, the anti-rodent campaign must be maintained at a high pitch.

The following gives some indication of the anti-rodent work carried out during 1958.

Premises trapped for plague index	2,248
Traps set	20,394
Traps set contiguous to harbour	8,280
Cynogas used	332½ lbs.
Rodents destroyed	3,830
Rodents destroyed contiguous to harbour	682
Poisoned baits (phosphorus) laid	248,670
Anti-coagulant (warfarin) used	2,180 ozs.
Rodents submitted for B.pestis examination	139

At the request of the Chief Regional Health Officer, Natal, rodent specimens which previously had been submitted to the Government Laboratory, Currie Road, Durban, for examination for evidence of B. pestis are now being sent to the South African Institute for Medical Research, Johannesburg. The new arrangement is working satisfactorily.

Other control measures included:

(a) Service of notice on owners of properties where rodent-proofing measures were necessary;
(b) Submitting reports on plans of proposed new buildings, incorporating the necessary rodent-proofing measures required;
(c) Investigation by Health Inspectors of some 230 rodent complaints on private properties throughout the City.

Cockroach Control

The programme in this regard consists of regular spraying of sewer manholes, storm water drains, gutter bridges, and other likely places of harbourage. Corporation buildings and properties are treated when necessary. A DDT/BHC or dieldrin solution is used, the results being excellent.

Only on special request is spraying of private premises carried out, and in this respect Health Inspectors also investigate complaints and give advice on the best methods of combating the cockroach menace.

Bugs

As in the case of cockroach control this Department restricts its activities to Corporation properties, and gives advice to householders on how best to eliminate bugs. DDT/BHC is the insecticide used, and the results are extremely effective.

Flies

A total of 242 complaints of fly nuisances were investigated by the Health Inspectorate during the year.

Poultry keepers and "backyard composters" are the main cause of the trouble in residential areas. These people, who are endeavouring to improve their gardens, are invariably ignorent of the fact that they themselves are the cause for complaint.

In order to educate the public about flies, a pamphlet entitled "Codes of Practice: House Flies" has been drawn up by the Department and distributed to residents throughout the City. This pamphlet, which has a picture of a greatly enlarged fly on its cover contains the following information:

(a) The development of the fly;
(b) Spread of disease;
(c) Breeding places;
(d) Precautionary measures;
(e) If infestation exists, what action should be taken.

On the back page of the pamphlet the above information is given in Zulu, and householders are requested to pass the pamphlets on to their Native servants.

A watchful eye is kept on racehorse stables situated in residential areas, and the Department insists that the manure from these stables be removed three times weekly.

A gross nuisance, involving the inundation of numerous dwellings by thousands of flies occurred in the lower part of Springfield Estate. This was the result of saturation of areas of land by sewage from the main sewer originating at the King George V Hospital (Tuberculosis). Spraying measures were put in hand immediately and repeated until the whole trouble was eliminated.

* * *

X. NIGHTSOIL AND REFUSE DISPOSAL

The City Engineer has kindly furnished the following particulars:-

"Water-borne Sewerage

Apart from sewerage construction in Lower Rossburgh, Waterfall Road and Koal Road Areas, Merino Heights, and a few minor extensions, sewerage reticulation in the incorporated areas has been severely limited pending the construction of the proposed new Southern Sewerage Disposal Works at Merebank.

With a view to future reticulation when circumstances permit the Hillary Main sewer was extended to Coedmore Road, and a new main sewer was laid from Bellair Road to the lower Sherwood area.

In the Old Borough minor sewerage reticulation has been extended where called for by the sub-division of land and for Glenmore Estate. Good progress however was made on the reconstruction of old main sewers in the City.

Tenders were invited for the construction of two major sewage works to serve the Central and Southern areas of the City. Tenders were received for both works and are receiving careful examination to ensure that the most efficient and economical designs are adopted which will yield an effluent satisfactory to the Department of Water Affairs.

Conservancy

The number of pails in use as at 31st December, 1958 was follows:

	1958	1957
Sydenham	5,080	(4,349)
Greenwood Park	2,417	(2,451)
South Coast	2,539	(2,250)
Bluff	2,004	(1,972)
Umhlatuzana	2,045	(2,043)
Mayville	3,725	(3,394)
	17,810	(16,489)

Refuse Removal

The quantity of refuse collected for disposal was 371,723 cubic yards as compared with 363,152 cubic yards for 1957."

Composting (Note by City Medical Officer of Health)

The Council continued to manufacture compost of which 5,351 cubic yards were sold and the revenue derived therefrom was £5,320. 6. 8. A Sub-Committee re Compost was set up in 1958 with a view to improving methods of production. However, in view of the fact that there was only a seasonal demand by the public for this commodity, it was decided to hold the question of complete mechanisation in abeyance to ascertain whether there would be any increased demand for compost following an advertising campaign.

* * *

X. AIR POLLUTION (Kindly furnished by the City Engineer, Durban)

"The monitoring and advisory system which was inaugurated in 1957 has been extended to all industries to control excessive smoke emission with the co-operation of Industries, while progress has also been made on the domestic front where 380 complaints of smoke nuisance have been investigated and, in the main, satisfactorily resolved by the use of smokeless fuels or mechanical stoking equipment.

Smoke Control By-laws.

To ensure effective control of excessive smoke emission, Smoke Control By-laws for the City of Durban were promulgated in the Provincial Gazette on the 21st August, 1958, and these By-laws fall mainly into two sections. The first relates to existing appliances and the second requires prior approval by the City Engineer of all proposed solid fuel burning appliances.

Copies of the Smoke Control By-laws have been in popular demand, and have been sent to numerous other centres who are interested in this work which has been pioneered in South Africa by Durban.

Co-operation with Industry.

The Air Pollution Section of the City Engineer's Department in the meantime advises and demonstrates all the relevant ways and means of overcoming their problem, with the intention of ensuring the gradual replacement of older equipment by more suitable appliances, and the gradual education of Managers, Engineers and Stokers in related fields of boiler efficiency and smoke abatement. It has been particularly encouraging to record the much more enlightened view that all the outside personnel concerned now take towards the necessity of smoke abatement. It is sincerely hoped that in this way there will be no need for the Corporation to have to resort to the Smoke Control By-laws to implement their recommendations which, apart from being for the good of all, are based on the most economical and feasible measures available.

Diesel Exhaust Smoke.

Since the onset of the Cleaner Air Campaign, 400 vehicles emitting excessive smoke have been taken off the road pending the necessary repairs and attention, and the special Sub-Committee formed to expedite a solution to this problem has made recommendations to the Works Committee which, if adopted, will lead to a resolution of this problem.

One of these recommendations deals with the use of a Smoke Recorder which is being developed in the United Kingdom to assess smoke density photo-electrically from a moving 'bus in the same way that smoke emission from larger boiler plants, for example, Power Stations, is recorded. The equipment consists of a flexible connection which is easily attached to the exhaust. The twin flues inside the instrument are both monitored by a single source of illumination, one absorbing fresh air and the other the diesel exhaust smoke. The obscuration which is recorded on the micro-ammeter gives an immediate indication of the smoke density. In this way, argument based purely on visual observation on the vehicle under test is short circuited and prescribed limits can be laid down at the Municipal Testing Grounds where the vehicle is tested out. In the case of a very dense smoke

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emission there is obviously no need to resort to the Smoke Meter, but as the standard improves, the importance of the Smoke Meter becomes increasingly apparent, and in this case it has the distinct advantage that the driver or owner of the vehicle can follow the readings of the meter from inside the vehicle while the vehicle is put through its paces by the Municipal Testing Ground's experienced driver.

Co-operation with the Railway.

Continued support has been received from the South African Railways Administration and a system whereby the Corporation's Air Pollution Inspectors are authorised to draw the attention of the footplate men to excessive smoke emission has proved most successful. For example, in July this year, the Corporation's Inspectors engaged on their normal duties observed 120 locomotives emitting excessive smoke and were able to draw the attention of the footplate-men on 85 of these locomotives to this fact. In 84 of these cases the excessive smoke emission was stopped immediately and in only one instance was a poor response obtained. To further emphasise the importance of smoke abatement, a film "Little and Often", illustrating the correct method of firing a locomotive to obtain the maximum efficiency and the minimum emission of smoke has been purchased by the Corporation and arrangements are now in hand to show this film to the 500 footplate-men operating daily in the Durban area.

Co-operation with Shipping.

With the co-operation of the System Manager and the Port Captain, representations are now being made to harbour craft and shipping to support the Corporation's Cleaner Air Campaign, to reduce the excessive smoke emission in the harbour. Advice, instruction and stoker demonstrations are being given to harbour craft which, in general, are coal fired. As with incoming shipping, good co-operation is being received.

Education

The connection between boiler efficiency and smoke abatement has again been emphasised in the courses organised at the Natal Technical College and the M.L.Sultan Technical College on efficient boiler operation and the support obtained reflects very creditably on the outside interest in the Corporation's Cleaner Air Campaign.

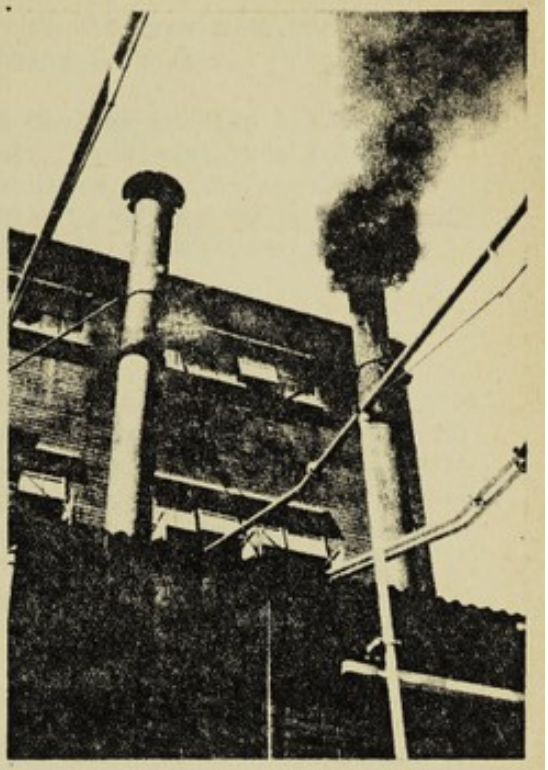
The competitive spirit has been encouraged by continuing to supply smoke observation returns to firms, arranged in order of merit, and now that firms are grouped by the amount of fuel consumed, favourable consideration should be given to a system of awards to firms showing either a good smoke record or a substantial improvement to foster interest further. At the same time a system of effectively dealing with grass refuse fires which give rise to very excessive smoke emission has been established with the Fire Department.

Odour Control.

Odour control measures have been chiefly in respect of the Oil Refinery and the Whaling Station. At the former, measures have been effective under normal working conditions, but certain mechanical breakdowns and operative failures have given rise to odour emission, and the frequency has been at times disappointing. The proposed extension to the Refinery, however, is planned to include

Smog Control.

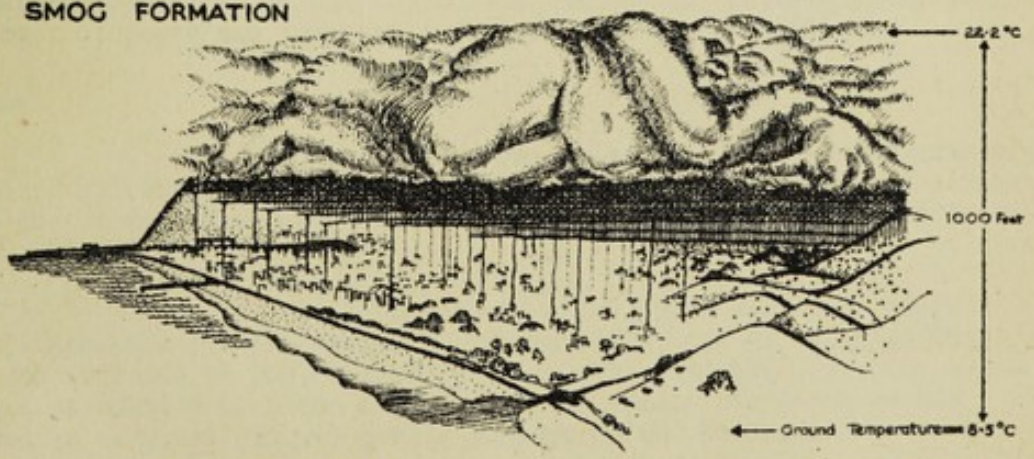
① On firing.



② 5 minutes after firing

Left hand stack fitted with steam injection secondary air door. Right hand stack unfitted.

SMOG FORMATION



INVERSION RATE = $\frac{22.2 - 8.5\ ^\circ C}{1000\ feet}$ x 100 = 1·37 °C per 100 feet = SMOG
i.e. the temperature INCREASE of 1·37 °C per 100 feet stops Smog dispersal.

Under NORMAL CONDITIONS the Temperature is REDUCED by 2°C per 100 feet and Smog disperses vertically.

extensive modifications to the whole problem of the treatment of excessive odour control processes, and should be operating this year.

Odour control at the Whaling Station has been unsatisfactory, and representations made by this Department have led to the investigation of additional odour control measures, and the results obtained in the laboratory have been sufficiently promising to justify their application on the full scale plant. Work in this connection is now in hand.

The Meteorological Aspect.

In conclusion reference must be made to the unique investigations being made in Durban to correlate the relationship between the smoke and inversion conditions which are particularly prevalent during the winter months. The following table shows, for example, how the number of inversions during the Winter Season falls off during the Summer, and it has definitely been established that an inversion rate of about 1° C per 100 ft. invariably gives rise to smog conditions in Durban.

DURBAN METEOROLOGICAL DATA

Month	No. of Mornings Inversion existed	Highest Inversion Rate for Month °C per 100 ft.
1958		
June	23	2.750
July	29	2.000
August	22	1.280
October 1958 to February 1959	Only 5 mild inversions were noted.	
March 1959	5	0.800
April	13	0.900

The diagram indicates the phenomenon of the inversion conditions which shows itself by the temperature increasing with height instead of falling off as is normally the case. This results in a layer of warm air above the colder air at ground level which, being heavier, is not dispersed by vertical air currents until the sun strikes through with sufficient force to warm the ground and increase the ground level temperature above that of the top of the inversion. Lateral winds will, of course, disperse and eventually destroy inversion conditions.

General.

Investigations emphasise the need for strengthening control of all unwarranted smoke emission at all times, and particularly during the Winter Season when inversion conditions exist to a very large extent.

Due to the co-operation which has been received from all branches of the community, it can definitely be recorded that the smoke emission in Durban is on the decrease, and the publicity which has been associated with the City Council's Cleaner Air Campaign has resulted in very enlightened public support being obtained.

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XI. MILK SUPPLIES

Milk Shed

Durban's geographical position, with the Indian ocean on the eastboard, a continuous series of seaside resorts on the south coast and with sugar cane farming predominating on the north coast, restricts the City's milk shed of necessity to the Natal midlands and to the East Griqualand area.

The milk shed proper is approached through a narrow corridor running parallel with the national road for a distance of approximately 25 miles. From this point the area runs in both a northerly and a southerly direction and then fans out to the foot-hills of the Drakensburg.

Situated throughout the milk shed are 9 registered milk depots or balancing stations and 766 registered milk producers. Only milk from registered suppliers is acceptable at the country balancing stations for the Durban fresh milk market. After cooling and bulking, the supply from all balancing stations is transported to the City by means of insulated milk-tankers. It has been found, that on an average, there is a 2-4°F. temperature "build-up" from the time of filling at the country balancing stations, to the point of destination. A limited can gallonage is also supplied direct to the City, and the mode of conveyance in these cases is either by road motor transport or by rail.

Seasonal and climatic changes influence milk production, and occasions have arisen when most dairymen have found it exceptionally difficult to maintain their normal milk supplies. When this happens the Department has been compelled at times, in order to avoid a local shortage, to grant permission for supplementary supplies to be obtained from unregistered sources.

Daily Consumption

The daily consumption of milk is approximately 34,267 gallons of which approximately 33,900 gallons are pasteurised representing 99% of the total. Raw milk is produced by six local and one country "A" class dairymen.

Distribution

Milk is distributed in the City from four pasteurising depots, and from seven raw milk producer-distributors.

Control

The control of milk supplies at the various stages from producer to consumer is organised as follows:

(a) Producers

1. Regular inspections with particular attention to structural layout and design of premises, equipment, refrigeration, water supply, sanitation and Native quarters;
2. Clinical veterinary examination of producing herds;
3. Laboratory tests of milk samples;
4. Blood tests of milk handlers;
5. Health education and propaganda by means of lectures and film shows.

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(b) Up-Country Balancing Stations
1. Attention to premises, equipment and labour;
2. Laboratory checking of milk samples.

(c) Pasteurising Depots
1. Regular inspection of personnel, equipment and processing;
2. Regular laboratory examinations including chemical, bacteriological, biological and physical tests.

(d) Distribution
1. Regular sampling of milk during the course of distribution to customers for the above tests.

Statistics - Health Inspectional Programme

Total dairy inspections	2,891
Total City dairy inspections	1,455
Total ex-City dairy inspections	1,436
Initial farm dairy inspections	183
Country depot inspections/sampling	201
Personnel vi-tested and inoculated	1,292
Personal notices to producer distributors	46
Written notices to producer distributors	809
No. of samples taken for chemical analysis under the Food, Drugs and Disinfectants Act:	
Milk	215
Cream	8
Ice cream	25

Prosecutions

Food, Drugs and Disinfectants Act	2
Milk (and Milk Products) By-laws	Nil.

Structural Condition of Premises

The following table indicates the structural improvements to dairy premises during the year:

		1957	1958
No. of premises	91% - 100% completed structurally	46	94
" " "	81% - 90% " "	109	203
" " "	71% - 80% " "	197	201
	61% - 70% " "	168	99
	51% - 60% " "	127	84
	below 50% " "	147	85
	Grand Total	794	766

Country Balancing Stations

Two of these milk-bulking centres have been entirely rebuilt. The fact that Durban is the largest milk marketing area in Natal has encouraged producers in the Himeville, Elandskop and Underberg areas to apply for registration with this Department. Extensive clover pastures in these new areas indicate a large new fresh milk potential which augurs well for the future.

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Local Raw Milk Supplies

At the beginning of the year the City Council accepted, in principle, the pasteurisation of all Durban milk supplies as recommended by the Durban Enquiry Commission in 1944. (See Chapter XV - Legislation).

Dairy Personnel

Only personnel who have given a negative reaction to the vi-test, and who have been immunised against enteric fever are permitted to engage in the distributive milk and milk products trade.

Royal Agricultural Show: Pietermaritzburg - June, 1958

The City Council again accepted an offer for the showing of health educational films and the dissemination of information relative to Council's milk control service at the exhibition sponsored by the Natal and East Griqualand Fresh Milk Producers' Union and the Durban Milk Suppliers' and Distributors' Association at the above Show.

The film shows and the information service were extensively patronised by dairy farmers. There is no doubt that they proved a most useful method of imparting information regarding Municipal requirements to prospective applicants for registration as "B" class dairymen.

Soft Dairy Mix

This product is now sold in the City. Although bacterial standards are available under the Milk (and Milk Products) By-laws, no legislation governing the chemical standards of this product has yet been promulgated.

Laboratory Programme

The City's milk supplies and other dairy produce are subjected to routine control in a well equipped laboratory staffed by two laboratory technicians under the control of a veterinarian. Extra tests are also conducted on sub-standard farm supplies and dairy plant wherever indicated by the initial results. The following tests were conducted over the period under review:

Bacterial Counts (Breed Clump Count):	8,060	(7,884)
Presumptive B.coli Tests:	1,935	(1,873)
Eijkmann Tests (for faecal B.coli):	213	(189)
Phosphatase Tests:	1,343	(1,560)
Methylene Blue Tests:	531	(572)
Plate Counts (roll tube method):	215	(395)
Titratable Acidity Tests:	666	(560)
Mastitis Tests (direct microscopic):	13,024	(11,755)
Brucellosis Tests (stained antigen):	1,244	(1,266)
Sediment Tests:	5,513	(4,970)
Tuberculosis (Biological):	126	(200)

(Figures in parenthesis for the previous year).

The following is a summary of detailed results obtained throughout the year on various dairy products. (For guidance the following standards are required: Breed clump count - shall not exceed 200,000 organisms per ml.; B. coli (presumptive) - shall be absent in 0.01 ml.; B. coli (faecal) - shall be absent; Methylene Blue test - shall not turn in less than 4 hours; Plate count - shall not exceed 200,000 organisms per ml.; Acidity - shall not exceed 0.18% titratable acidity).

(a) Pasteurised Milk

Tests Conducted	No. of Samples (Bottles)	% Passed	No. of Samples (Cans)	% Passed
B. coli	271	72%	124	75%
Plates	199	90%		
Acidity	197	100%		
Methylene Blue	197	94%		
Breed counts	271	72%	124	75%
Phosphatase	416	100%		

(b) Raw Retailed Milk

Tests Conducted	No. of Samples (Bottles)	% Passed
B. coli	437	55%
Plates	258	87%
Acidity	312	100%
Methylene Blue	312	85%
Breeds	437	92%

(c) Raw Producer (Farm) Milk

Breed Clump Counts on Arrival in Durban

No. of samples examined: 5,513
% of Counts under 200,000 per ml.: 66%

Visible Dirt Sediment Tests

No. of samples examined: 5,513
% of samples passed 82%

(d) Ice Cream

Type of Test	1957 221 samples examined % of samples passed	1958 213 samples examined % of samples passed
Breed Clump Count	94%	98%
B. coli tests	44%	62%
Pasteurising efficiency	100%	100%

(e) Cream

Test	No. of samples	% Passed
Breed Clump Count	148	80%
B. coli	148	78%
Phosphatase	148	100%

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(f) Soft Dairy Mix

Test	No. of Samples	% Passed
Breed Clump Count	45	84%
B. coli	45	54%
Phosphatase	45	100%

Control of Hygienic Milk Production

Figures have indicated that during the last five years the average farm milk production has been doubled. This increased production can be largely attributed to the efforts of the Department. Patient instruction, constant reminders, and encouragement have earned their reward, and the Department's dairy personnel now command the respect and confidence of the farmer. Elimination of "summer" or part-time producers, the encouragement of genuine full-time dairymen, veterinary control of animal diseases in dairy herds, and the education of farmers in the field of hygiene, have all been responsible for the continuous and steady flow of milk into the City, which has adequately met the ever increasing demand.

The quality of milk entering the City continues to show steady improvement.

In 1957, of 5,009 samples tested, 65% passed bacterially; and of 4,970 samples, 66% were free of visible dirt. In 1958, of 5,513 samples tested 66% passed bacterially; and 83% were free of visible dirt. Here again this improvement must largely be attributed to the efforts of this Department. This has been achieved by the intensive farm inspectional programme which has led to improved facilities being made available on farms for the production of clean milk. With the emergence of improved facilities, the control programme has gradually altered and emphasis has been shifted from the structural to the hygienic aspects of dairying. This shift on emphasis has been supported by an extensive educational programme conducted for producers, and, in this connection the showing of educational health films has been of considerable help.

The laboratory control of supplies has been maintained and also extended in order to emphasise hygienic production. In addition to the routine testing of farm suppliers, all sub-standard supplies at country balancing stations have been tested on the spot, and unsatisfactory supplies rejected. Producers not conforming to standards have been visited with a view to solving their problems and so improving these supplies.

The programme has been closely followed by commercial dairy concerns, who have accepted the slogan that "clean and safe milk is good business" and, as a result, there has been parallel development of privately controlled laboratories. The closest co-operation already exists between these concerns and the Department.

Animal Diseases Affecting the Milk Supplies

Most of the following information has been made available by the kind permission of the Sub-Director for Veterinary Services, Natal.

Lumpy Skin Disease: Isolated outbreaks of this disease were responsible for a temporary drop in the City's milk supplies. The incidence of this disease was, however, greatly reduced compared with that of previous years and only 593 cases were reported in Natal to the State veterinary authorities.

Infectious Bovine Infertility: Vibriosis and Trichomoniosis was responsible for large scale bovine infertility in many districts of Natal and East Griqualand. In certain areas 50% and more of the breeding stock are affected. This naturally has a direct effect on milk supplies. More and more dairy farmers are, however, practicing artificial insemination and making use of the facilities provided by a central artificial insemination station at Howick with sub-stations and inseminators distributed throughout Natal.

Tuberculosis: Tuberculin tests conducted in the Durban and coastal areas revealed a very high incidence of the disease amongst dairy cattle. This can be ascribed to favourable climatic conditions and also the intensive anti-tuberculosis campaign in 1942, during which time many reactors were sold to farmers. Of six herds, involving 684 animals, tested in the coastal area in 1958, 277 animals were positive reactors. For the rest of Natal the position is far brighter. Of 72 herds, involving 6,726 animals, only 71 reacted positively. Interesting work is at the moment being done near Durban by the C.S.I.R. and State veterinary authorities in treating known infected bovines with I.N.H. Although these officers have not as yet concluded their work, it is hoped that a practical application may be the protection of young dairy stock against the disease in a known infected environment.

Mastitis: Eighteen per cent of the routine raw milk samples from dairymen showed mastitis infection. This disease is probably responsible for a considerable loss in milk yield throughout the milk shed. Farmers are encouraged to make use of the free laboratory diagnostic service of this Department and wherever possible clinical examinations are carried out and the necessary advice given.

Brucellosis: Routine raw milk supplies are regularly submitted to the stained antigen ring test for brucellosis. As a result of intensive propaganda most dairymen today inoculate their stock against the disease with the Strain 19 vaccine and outbreaks of bovine abortion, due to this organism are a rare occurrence.

Other Diseases: Endemic outbreaks of tow tickborne diseases - piroplasmosis and anaplasmosis - were responsible for heavy mortality amongst the cattle population of Natal. In this Province alone 8,965 bovines died of the abovementioned diseases. Seasonal outbreaks of plant poisoning as well as arsenical poisoning caused stock losses. A decrease in the incidence of botulism is noted, this being due to a regular vaccination programme and the now free availability of bonemeal and Calcium-Phosphate licks.

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XII. MEAT SUPPLIES

I am indebted to Dr. F.E.Cavanagh, B.V.Sc., Director of the Municipal Abattoir for the following report:

"1. Slaughterhouses: Two establishments are situated in Durban, viz. (a) the Municipal Abattoir, and (b) the Federated S.A.Meat Industries Ltd., Maydon Wharf; the latter has not functioned during the year under review.

2. System of Slaughtering: Bovines are stunned with captive bolt pistols, and pigs by the Electroloethaler method. Act No. 26 of 1934 (Humane Slaughter of Animals Act) prescribes the methods of slaughter. Sheep and goats are slaughtered by the throat cutting method, in deference to the religious beliefs of the Mohammedan community. Special casting pens are provided for the slaughter of cattle for Jewish and Mohammedan requirements.

3. Movements of Livestock: The numbers of animals arriving at abattoirs in the controlled areas is limited by the Livestock & Meat Industries Control Board in accordance with local requirements. There has been no shortage of any species during this year.

4. Disposal of Waste Material and Condemned Carcases, etc.: Condemned carcases and offals are treated in a by-product plant in accordance with the Public Health Act. From these are derived certain by-products (carcase meal and tallow); all blood from slaughtering operations is also collected and processed into blood meal. These by-products are sold and the revenue derived therefrom used to maintain the abattoir fees at a low level.

5. Butchers' Shops: These are supervised by officials of the City Health Department.

6. Cleanliness of vehicles, etc.: Daily inspections are carried out at the Abattoir of vehicles used for transporting meat, and of the wearing apparel of non-European loaders.

7. Canteen: A canteen and change room for non-Europeans has been erected by the Council, and will provide improved facilities for these employees who are required to commence duties as early as 4 a.m.

8. Condemnations: A detailed list of condemnations is set out below:

	Bovines	Calves	Swine	Sheep	Goats
Whole carcases condemned	1,036	129	1,459	1,997	228
Portions of carcases condemned in lbs.	264,703	343	62,735	883,075	22,845
Total number of animals slaughtered	84,482	6,586	116,366	377,556	36,869

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XIII. CHEMICAL ANALYSIS OF FOODSTUFFS

The following foodstuffs were submitted to the Government Chemical Laboratory, Johannesburg, and the City Analysts under the provisions of the Food, Drugs and Disinfectants Act and Regulations framed thereunder:

Sample	No.	Samples not in conformity with prescribed standards, action taken and result thereof.
Boerewors	17	2 prosecuted - Guilty
Bread, White	59	
Chutney	1	
Coffee Mixture	7	
Cordial, Fruit	3	
Cream	8	
Currants	1	
Curry Powder	11	
Dates	2	
Dripping	4	
Fat, Cooking	2	
Fat, Vegetable	5	
Fish Cakes	4	
Honey	3	
Ice Cream	22	
Lime Juice	1	
Margarine	1	
Mayonnaise	1	
Mealie Meal	7	
Milk	211	4 Prosecuted - Guilty
Minced Meat	72	7 Prosecuted - Guilty
Oil, Cooking	10	
Oil, Mustard	1	
Peppers	2	
Polony	4	
Popcorn	1	
Salt, Cooking	5	
Sauces	6	
Sausages	41	3 Prosecuted - Guilty
Snow Creme	1	
Syrup, Fruit	5	
Tea	3	
Vinegar	1	
Totals	522	Total Fines - £86.10. 0.

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XIV. WATER SUPPLIES (By courtesy of the City Engineer)

"(a) Source of Supply

Durban's water supply is derived from the Umlaas and the Umgeni Rivers.

(b) Treatment of Water

Water from both rivers is stored in open reservoirs and then gravitated by means of pipe lines to the various purification works. Here the water is clarified by means of slow sand and rapid gravity filters, chlorinated by chlorine gas and stored in covered balancing reservoirs, before being passed through steel aqueducts to the distribution system in the City.

(c) Distribution

The water is distributed to consumers by means of a system of totally enclosed reinforced concrete service reservoirs, and a network of steel, cast iron, spun iron and asbestos cement, pressure piping. From the time of filtration the water is not exposed to the elements again until it is drawn from the system by consumers.

(d) Consumption

Durban's average daily consumption during the year was 42,395,235 gallons, and the highest recorded consumption on any day was 51,789,100 gallons.

(e) Chemical and Bacteriological Standard

Both chemical and bacteriological standards of the drinking water supply have been maintained at a high level throughout the year. The fluorine content of the water is between 0.1 and 0.2 ppm."

Note by City Medical Officer of Health

During the year the City Analyst drew attention to the fact that samples of water from Northdene were showing an increase of albuminoid ammonia, in not inconsiderable amounts, and that the same results had been found in samples from other sources about that time. The increase of total organic matter present in the sample suggested that the matter should be watched from the bacteriological point of view. For many years the amount of albuminoid ammonia had not exceeded 0.005 but lately had risen to 0.008. He indicated that there was no cause for alarm provided the amount did not exceed 0.009.

Accordingly, the matter was taken up with the City Engineer, who remarked that he had observed a slow deterioration in the quality of river waters due largely to soil erosion, deforestation, and to an increase in the Bantu population. He indicated further that the position was being watched and that alterations were in progress at the water filtration works in an attempt to maintain the chemical quality of the water. In addition, he stated that it was his intention to carry out surveys of the rivers so as to locate, if possible, any sources of poor water, with a view to reducing pollution.

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XV. LEGISLATION

1. Children's Act, No. 31 of 1937

During 1955, representatives of the Union Department of Social Welfare, the Natal Education Department, and the City Health Department gave consideration to measures to improve the control in Durban of the various types of day institutions for children such as creches, nursery schools, kindergarten and play centres. As a result of the deliberations a Code of Practice was prepared and its provisions have been strictly adhered to since then so as to ensure that conditions in such institutions are maintained at a satisfactory level.

Up to 1958, it had been the practice for this Department to submit a health and sanitary report to the local Principal Social Welfare Officer on all premises it was proposed to utilise for the above purposes (except kindergartens) before they were registered in terms of the Act. However, during 1958 the Department of Social Welfare intimated that it no longer required the registration of play centres where children were accommodated for the mornings only. This decision has meant the loss of the only direct method of control over such play centres, the indirect means being, of course, the application of the various relevant By-laws.

In consequence of this notification, the Department took the matter up with the Secretary for Social Welfare who replied that there was a difference of opinion as to the legal position. However, he advised that the revision of the Act was receiving his Department's attention and that this question would be taken into consideration when Section 39 (bis) (3) of the Act was being reviewed.

2. Factories, Machinery and Building Works Act, No. 22 of 1941

It was announced during the year that it was the intention of the Minister of Labour to introduce a new Factories Act during 1959 and that local authorities would be invited to submit proposals for the amendment of the existing Act. In the Department's view the health and welfare sections of the Regulations could, with advantage, be administered by local authorities. The Department of Labour, which administers the Act, was not equipped to carry out routine inspections of factory premises frequently so as to ensure the maintenance of a proper standard of hygiene and staff working conditions: per contra, local authorities were playing an increasing role in the control of these premises through licensing procedure, approval of building plans, routine health inspections, and so on, but, unfortunately, were handicapped by having no legal status in the administration of the prescribed standards.

This Department's attitude was influenced by the fact that in 1950 the Department of Labour (Factories) expressed disappointment regarding the deterioration in the structural and hygienic standards of local factories which had resulted from certain factors arising from the War. Following representations by that Department, the City Council agreed to conduct a conjoint programme to raise the standards of factory hygiene, sanitation and the like. But the measures introduced at that time were only partially successful due to the restricted opportunities extended to local authorities by the Factories Act.

The Department therefore recommended that the new Act should empower the delegation of responsibility to local authorities insofar as the health and welfare of employees were concerned. At the

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same time, the opportunity was taken to press for the framing of similar regulations under the Shops and Offices Act - so far no regulations have been promulgated - to those proposed under the Factories Act as the Department was of the opinion that there was a corresponding need to improve working conditions in shops and offices.

3. Public Health Act, No. 36 of 1919: Regulations Regarding Exclusion from School on Account of Infectious Diseases

During February, the Secretary for Health submitted certain proposed amendments to the above-quoted Regulations which had been agreed upon at a representative meeting held at Pretoria on the 5th December, 1957. The Council approved the application of the Regulations and their amendments to its area and the Secretary for Health was advised accordingly. However, by the end of the year, further developments regarding this legislation were still awaited.

4. Local Government Ordinance, No. 21 of 1942

(a) Unsound Food: Section 141 (bis) (2) authorised an approved sanitary inspector to order the destruction or disposal of unsound food so as to prevent it being exposed for sale or used for human consumption. Soon after promulgation it was realised that this provision was ultra vires the terms of the Public Health Act No. 36 of 1919, which restricted this power to medical practitioners and veterinary surgeons. The provision of the Ordinance, insofar as it related in this respect to sanitary inspectors, was repealed on 21st August, 1958.

(b) Eradication of Swamps: Towards the southern end of the Bluff (Happy Valley) a swamp exists which involves some 24 properties. From time to time it varies in extent and depth depending upon the amount of the rainfall and the changing character of the area.

European housing developments have been and are still taking place within a fairly close distance of the swamp and, in consequence of this, the Department is now faced with complaints relating to mosquito nuisances. Under public health legislation a local authority's powers are limited, in cases such as this, to the enforcement of palliative measures only and there are no instruments by which a permanent solution of the problem can be attained. All the properties concerned are in private ownership and as the boundaries cannot be accurately defined, the Department has been reluctant to force owners, individually and collectively,to carry out anti-mosquito measures. Furthermore, the Department in carrying out any work in default has been faced with the difficulty of assessing the financial liability of individual owners.

Reclamation and drainage of the land is the only permanent solution but obviously, it is not feasible to require the owners to embark on engineering projects of the magnitude required. It was therefore considered that the position could best be met by the Council itself acquiring and carrying out the necessary works. Difficulties were encountered in acquiring the properties by purchase and, unfortunately, powers of expropriation could not be applied as none existed for circumstances such as these.

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The Council therefore requested the Provincial Administration to amend the Ordinance so as to provide such powers and on the 21st August, 1958, an amendment was gazetted to permit a Council, subject to the prior approval of the Administrator, to expropriate land to enable it to carry out drainage, reclamation or other work which would not be reasonably practical for the several owners of such land to perform.

By-laws

(a) Airport (Virginia)

A new landing strip for light craft has been under construction at Virginia, on Durban's northern boundary to replace the Stamford Hill Aerodrome which is to be converted for use as a sporting centre. By-laws were drafted during the year covering various aspects of the control of aircraft using the new aerodrome, and this Department recommended the incorporation of public health control over small commercial and private aircraft arriving from neighbouring territories. However, the Town Clerk considered that the regulation of aircraft from outside the Union landing at this aerodrome was adequately covered under existing Government legislation.

(b) Building By-laws

Representatives of this Department and the Natal Institute of Architects, are standing members of a Departmental Sub-Committee which was established for giving consideration to various amendments to the By-laws. Amendments gazetted during the year with public health implications include those relating to cross-ventilation; minimum dimensions of rooms, food shops, non-food shops and restricted shops; kiosks; windows; cesspools; artificial lighting and ventilation of public buildings; and offensive trade zoning.

(c) Milk (and Milk Products) By-laws

The City Council endorsed the recommendations of the Public Health Committee regarding the compulsory pasteurisation of milk, referred to in last year's report but, during the period under review, no specific recommendations were submitted to amend the By-laws.

(d) Public Health By-laws

(i) Dry-Cleaners' Establishments

On 16th October, 1958, an amendment was published to Section 1 of the by-laws relating to Dry-Cleaners' and Dyers' Establishments, Laundries and Depots to clarify the definition of Dry-Cleaners' Establishments, it having been contended that the words "benzine or other similar solvent" did not include a chemical solvent such as perchlorethylene.

(ii) Nuisances

The draft amendments referred to in the 1957 Annual Report were promulgated by His Honour the Administrator by Provincial Notice No. 178 dated 8th May, 1958.

(iii) Poultry and Rabbits

As previously reported the recommendation to control the slaughter of poultry was not adopted, but the amendment to the By-laws regarding the slaughter of rabbits for human consumption was gazetted on 24th July, 1958 (Provincial Notice No. 345).

(iv) Refuse

The City Engineer (who is the public cleansing authority in the City) recommended legislating for a standard type of refuse receptacle which would be constructed of durable material and of a capacity which could, when full, be adequately handled by the cleansing staff. The Department took the opportunity of reviewing the refuse by-laws generally and recommended certain amendments to remove anomalies and to introduce new powers whereby the City Medical Officer of Health could require occupiers of premises to adopt special measures for the collection, temporary storage or disposal of any refuse or contaminated or poisoned articles or materials or chemical wastes or to render the same inoffensive or non-injurious to health, and in the event of any occupier refusing or failing to carry out such requirements within the time specified the Medical Officer of Health could arrange for such measures to be carried out at the expense of the person on whom the notice was served.

These amendments were approved by the Council and are awaiting promulgation.

6. Offensive Trade Regulations

The only matter of note during the year was the application by the Standard-Vacuum Refining Company of South Africa (Pty.) Ltd., for permission to carry out major alteration to the Refinery at Wentworth. Permission in terms of the Offensive Trade Regulations was granted on 12th July, 1958, subject to certain public health safeguards.

7. Prosecutions

OFFENCE	No. of Counts	Admission of Guilt	Guilty	Not Guilty	Fines	REMARKS
I. BY-LAWS						
1. Public Health By-Laws						
(a) Relating to Nuisances						
(i) Defective drainage/appurtenances	17	15	2		75. 0. 0	1 case : £2.10. 0 or 5 days 1 " : £10 or 30 days (½ suspended)
(ii) Unclean conditions	11	10	1		58. 0. 0	1 " : £3 or 9 days 1 " : £10 or 30 days (½ suspended)
(iii) Structural defects	33	26	7		242.10. 0	2 cases: each £20 or 40 days (½ suspended for 3 years - brought into effect 28.11.58 fined £10 or 20 days) 1 " : £5 or 10 days 1 " : cautioned and discharged 2 cases: £5 or 15 days 1 case : £2.10. 0 or 5 days
(iv) Refuse dumping	1	1			5. 0. 0	
(v) Flies breeding	6	4	2		32. 0. 0	1 " : £7 or 25 days 1 " : £5 or 10 days
(vi) Failure to provide refuse bin	1	1			2.10. 0	
(vii) Failure to paint	1	1			5. 0. 0	
(b) Relating to Privies and Cesspools						
(i) Failure to provide privy accommodation	1	1			5. 0. 0	
2. Food By-Laws						
(i) Unclean conditions	20	11	9		103. 0. 0	1 " : £2.10. 0 or 8 days 3 cases: £5 or 20 days * + 2 " : £3 or 12 days 1 case : £7 or 25 days
(ii) Food open to contamination	13	6	7		59.10. 0	3 cases: £5 or 20 days * + 2 " : £3 or 12 days

OFFENCE	No. of Counts	Admission of Guilt	Guilty	Not Guilty	Fines	REMARKS
2. Food By-Laws (Continued)						
(iii) Absence of Refuse bin	4	3	1		25. 0. 0	*
(iv) Clothing in food room	7	3	4		23. 0. 0	1 case : £2.10. 0 or 8 days
						2 cases: £3 or 12 days +
(v) Unsound equipment/utensils	11	7	4		52. 0. 0	2 " : £3 or 12 days * +
(vi) Absence of inadequate refrigeration	5	4		1	9.10. 0	
(vii) Absence of dust-proof ceiling	1	1			5. 0. 0	
(viii) Absence of hot water supply	1	1			5. 0. 0	
(ix) Fumes not effectively removed	1	1			5. 0. 0	
(x) Structural defect	2	2			10. 0. 0	
(xi) Unsatisfactory wrapping material	2	2			4. 0. 0	
(xii) Failure to provide soap, etc.	1	1			5. 0. 0	
(xiii) Absence of/Unsatisfactory overalls	1	1			5. 0. 0	
(xiv) Incompatible articles in food room	1		1		2. 0. 0	+
(xv) Failure to paint	1	1			5. 0. 0	
3. By-Laws Relating to Laundries, etc.						
(i) Dirty articles in contact with clean	1	1			5. 0. 0	
(ii) Failure to connect to sewer	1	1			5. 0. 0	
(iii) Unclean conditions	2	2			10. 0. 0	
(iv) Use of unapproved vehicle	2	2			5. 0. 0	
4. Building By-Laws						
(i) Use of unapproved premises	3	3			17.10. 0	
II. REGULATIONS :-						
5. Rodent Regulations						
(i) Failure to remove cover or harbourage	2	2			7.10. 0	

OFFENCE	No. of Counts	Admission of Guilt	Guilty	Not Guilty	Fines	REMARKS
6. Malaria Regulations						
(i) Failure to remove potential breeding conditions	2	2			7.10. 0	
7. Food, Drugs and Disinfectants Regulations						
(i) Sausages with excess preservative	10	9	1		54.10. 0	1 case : cautioned and discharged
(ii) Minced meat containing preservative	5	5			23.10. 0	
(iii) Milk deficient in milk fat	2	1	1		10. 0. 0	
8. Zonal Regulations						
(i) Structural defects	11	4	7		80. 0. 0	2 cases: £25 or 50 days (£20 of 40 days suspended) 5 " : £2 or 8 days
(ii) Failure to paint	10	3	7		72.10. 0	2 " :.£25 or 50 days (£20 or 40 days suspended) 5 " : £2 or 8 days
(iii) Absence of refuse bin	5		5		10. 0. 0	5 " : £2 or 8 days
(iv) Unclean conditions	2		2		50. 0. 0	2 " : £25 or 50 days (£20 or 40 days suspended)
III. PUBLIC HEALTH ACT						
(i) Conveyance of meat to open contamination	1	1			5. 0. 0	
Totals :-	200	138	61	1	1113.10. 0	

* 1 Case : 4 counts treated as one for purpose of sentence : fined £50 or 3 months

\+ 1 Case : 5 counts treated as one for purpose of sentence : fined £10 or 20 days.

XVI. HEALTH EDUCATION (Prepared by the Health Educator)

We are all children of our time: we cannot very well be anything else; the Bantu people are peculiarly such and as the health education unit moves chiefly among them, it is necessary to examine and understand something of this their 'time' of confusion. It is not to a people with minds made up about most of the problems of life that the lecturers go, but to minds confused, scarcely knowing which of the many voices they hear they should follow. To such, lecturers take their message of the why and wherefore of health and sickness, and unless this, to them, comparatively new message is presented with simplicity and assurance, it too might become yet another source of confusion. The causes of their confusion are many. The results are individually, and in many cases collectively, unfortunate.

Time of Confusion

Among the many causes of confusion there are:

(a) modern methods of commercial advertising;
(b) the Bantu's general inability to assess relative and contemporary values;
(c) the lowering, in many instances, of recognised levels of spiritual and moral values.

(a) Commercial Advertising

It is a revealing experience to stand in some shops frequented by non-Europeans and note the unceasing stream of those who demand much advertised potions, pills and powders for themselves and their children. The European has said such and such is good - it must therefore be good. They buy, in faith, when very often what they require is the diagnosis of a doctor or the guidance of a clinic sister. The pathos here is their susceptibility to the ruthless bombardment of seductive modern advertising methods. While they are swallowing the "sure cure" too often serious conditions are tightening their hold on the sufferer; their meagre money has been wasted. For instance, thin, undernourished Temba believes in a certain cough mixture and comes for her third bottle costing over 5/-: we thought a T.B. X-ray might have told a sorry story ... but Temba was sure ... had not what she had heard been so full of assurance. Because of their blind faith in the promise of the efficacy of a specified remedy, they become confused when it fails: the failure tends to throw them back on the 'magical' methods of the inyanga.

Cosmetics: Until recently the healthy brown skin of the Bantu woman was unassaulted by the powders of the parlours: now a number of them disguise their natural complexions by layers of white powder: their lips smudged to a sickly red. This is a triumph of advertising- it promises to the non-European woman the special kind of loveliness she secretly longs for IF she will use certain lotions and creams regularly - she uses them! Incredulous, we went to the shacks and found, even there, that an unremitting barrage of publicity had made them captive to a dream of beauty. We were angry, because in almost every case investigated, the money thus expended should have been used for food. Day and night creams. Eyebrow pencils. Skin tonics. Powders and lipsticks - a full dress array. Astonished we hardly believed our eyes. To ascertain whether cosmetic propaganda was really at grapple with Bantu imagination, a survey was made throughout a cross section of the community. It was found

that however small the income and however irregular, cosmetics were the first planned 'buy': food was bought haphazardly. In the semi-professional classes, much more money was expended regularly on cosmetics as was the case with the shack dwellers - naturally. In addition, extra money was being spent regularly on correcting the deplorably bad taste of nature - that is, in taking the kink out of the hair!

Immediately the extent of this cosmetic infatuation was realised the health education unit started a nutrition campaign on the principle that glowing skins come from within. Talks also went over the air but how can one health talk per week on the air compete with the repetitive claims of commercial interests?

The most disturbing finding of the survey was in the school-girl group and late teenagers. When asked in the shack areas where they obtained money for beauty preparations their replies often covered the following sources: (a) our boy friends give us monies; (b) we sell drinks (strong brews) and get money; (c) "I steal it" - she had done so for over a year; (d) "I cheat my father"; (e) "Our mothers give us money", and these answers were substantially the same everywhere.

(b) Inability to Assess Relative and Contemporary Values

It is futile to remark that these people have freedom of will and thought and are not forced to buy: the Bantu is not yet a thinking race - their women less so than the men. They do not understand commercial propaganda, nor have they any idea of the machinery put into action to make them buy. Discrimination is a quality they have not yet developed: they are but children in these things and as such should have some protection against themselves. In discussions on wise spending men often ask in a bewildered way "but if these things are in the shop surely they are good for us to buy - when then are they there?"

Mistaken Economy

Recently a very distressing case came under the notice of the Department when four Bantu children belonging to one family suffered severely as the result of such buying which went beyond the means of the wage-earner. If a Bantu of limited means contracts to buy through instalments, there should be a low limit beyond which he may not be bound, because he lives with the inexorable fear that if he dafaults the furniture will be recalled and so does everything to avoid that calamity, even to feeding his family only on mealie meal throughout the long months of his financial bondage. This is, of course, a matter for legislation in the interest of Bantu national health. Here again, freedom of choice to buy or not to buy does not really enter into this unequal contest between a Bantu labourer and a persuasive European salesman. This freedom of the Bantu to do as he likes is only an alleged freedom- at this 'time' of his development he knows no other than to capitulate to an offer which he believes is made in all sincerity for his sole benefit. What knows he of competitive markets, of interest charged on his money? He is too near the simple bartering of beasts - the black cow, the red ox - those he could assess. He must not be blamed: he doesn't even know values are relative: his mind is not trained to weigh up the vicissitudes of 'outrageous fortune' with a long-term view and until he can, he should be protected.

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Bantu Lecturers' Training Must Match the Need of the Hour

Into this 'time' of the Bantu's confusion goes the health lecturer. Against much he has to wage bitter warfare: he clarifies issues and endeavours to guide the thoughtless into safe paths: there is a great encouraging response, but unfortunately the volume of teaching is infinitesimal pitted against the other volume of voices, because health labourers are so few. What teaching there is must be as positive and forthright: it is imperative that lecturers are not only aware of the nature of the attacks from other quarters, but are on the beam to guide and protect the uninformed. Lecturers must have more in their stock-in-trade than a course of rigid lectures on approved public health subjects. We are often questioned about methods employed - for instance, do lecturers go out armed with one particular subject say for a day or week?

"Flexibility" is the key-word in these matters. The "pedestrian" lecturer may have for his assignment a day among the shacks on the subject of tuberculosis. But he meets groups of women with babies: immediately he finds out if they are immunised against diphtheria and, if necessary, gives them instruction: or if he suspects malnourishment he analyses diet, but above all, to those mothers, his dominant theme is "take your baby to the clinic for weighing, checkup and to learn methods of hygiene". Health education is a feeder of clinics. Health subjects, all at his finger tips, must match the need of the crowds at the moment. If flexibility is a key work, "timing" is also all important: and it is governed by seasonal changes or other emergencies.

Lecturers on the Daylight Cinema Van have a less flexible assignment. When a new film is produced, the various zones are taken piecemeal until the population of the entire area has received its instruction. But even there, showers of diverse questions surround health problems. This also applies to loudspeaker talks and demonstrations. Demonstrations are chiefly on food-handling and feeding-bottle hygiene.

The training syllabus of non-European personnel selected for health education duties has considerably widened it's scope so as to include an approach to social and moral problems: these cannot be divorced from health teaching programmes. Health and social problems which lecturers must handle frequently have their origin from an almost total absence of spiritual and moral values.

(c) Low Level of Appreciation and Recognition of Spiritual and Moral Values

This facet dominates Bantu modern life. Formerly spiritual values were centred in Umveliquangi Whom they worshipped, often through the medium of ancestors, with a deep reverence wholesomely mixed with fear. Worship had at some points a definite trend of the Hebraic sacrificial rites. Moral values were entrenched in the strict traditional code of the race, violation of which met with uncompromising punishment.

Came Christianity. The majority missed the genius of this faith which promises an inner power to maintain the high standard of its demands: they often accepted instead a pseudo-christianity. Here came a tragic confusion. Early missionaries were representative to them of: (a) Christianity; (b) white skinned people; and (c) civilisation.

When a heathen accepted christianity he was bidden to discard his blanket and don European dress to mark the step over. Too often the convert received the garment without an accompanying inner change. But he had the dedicated precept and example of the missionaries before him and assumed that their behaviour was the pattern of all whites and that Europeans were, more or less, all christians.

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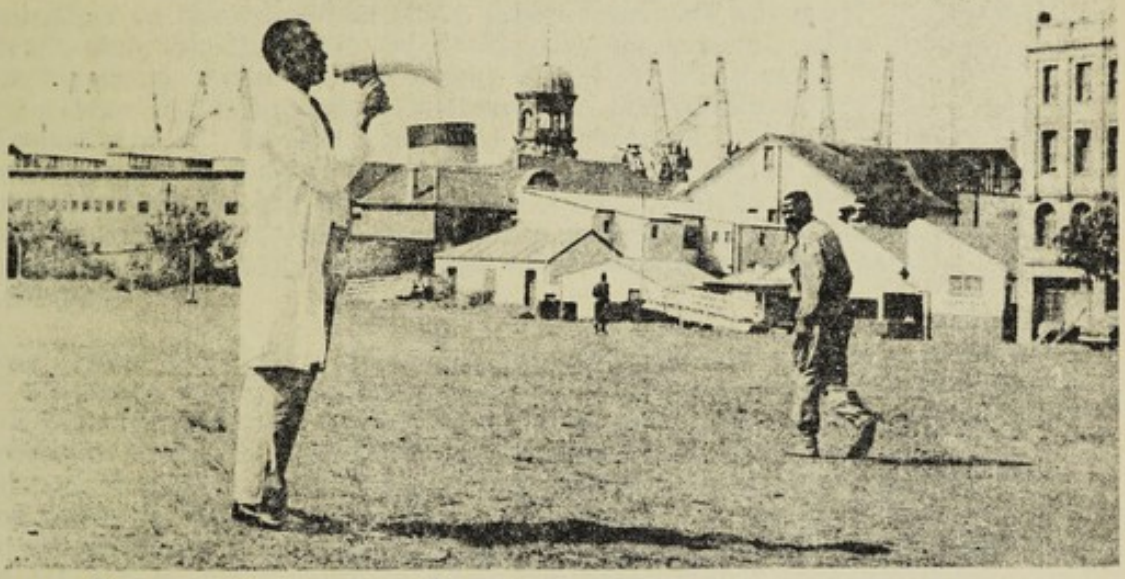
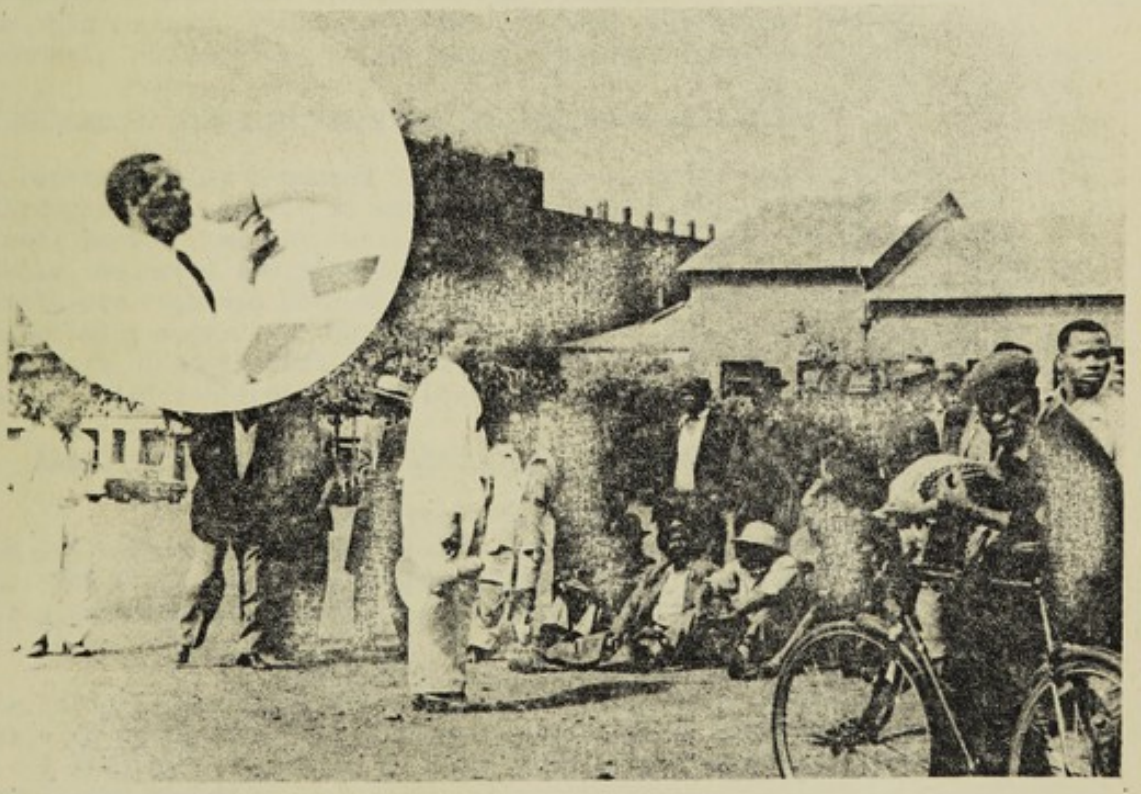
Public Health Education.



Using Loud hailer to gather audience.



Addressing the assembled audience.

Inevitably with such blurred thinking at the beginning, certain sections of the Bantu community now declare that "christianity has failed us": they do not realise that civilisation has never been "Christian" according to the pattern of early missionaries and that christianity therefore must not be held at the bar of judgement because all Europeans do not practice the teaching of the Bible. This then is the 'time' of their great spiritual and moral confusion: adrift from Umveligangi: detribalised: their moral codes broken: the "teeth of the tribe" no longer bite into their moral failures: the genius of Christianity is missed and its pseudo substitute a disappointment. In addition there are hundreds of Bantu churches and sects all claiming to be christian. Every member of those numerous bodies would claim, if questioned, that he was a christian even if his private life outrageously contradicted the tenets of the Bible. From all these things arise desperate public health problems.

Many regard the climate for the Bantu as stark and conjure a picture of the Bantu racing down the slopes to self-destruction. Uncontrolled sex relationships are blatant even among school children: professional women and domestic servants alike are swept into the tidal wave engulfing the race: there is the bruit everywhere of older married men and women falling by the wayside and parents turning the blind eye to the children's looseness. Widespread illegitimacy is prevalent in all age groups from which comes the malnourished baby problem, the continuous lament of every mission hospital, government hospital, of clinics and social workers.

Come also the unmarried, deserted mothers - who are legion: if they go to work the child must be bottle-fed hence the reeking feeding bottles, a main contribution to gastro-enteritis dealt with later in this report. Comes also, through lack of parental example and control, the practice of sex relations among school-children.

Fourteen to eighteen age-group school children: Bantu

A Departmentally produced V.D. film was shown to Bantu schools throughout the City. It was based on the behaviour pattern of the local Bantu: one set dealt with a school girl with an illegitimate child, deserted and penniless. Sexes were taken separately. Bantu lecturers received many shocks during discussions following the film especially regarding the light-hearted attitude of the juveniles to the fact of adolescent unmarrieds bringing children into the world: their chief concern was the inconvenience and nuisance of it.

Diagnosed Gastro Enteritis: Mortality Rate Reduced: Bantu

The mortality rate for infants under 1 year has dropped 39%. It could not be otherwise if health education is any use at all. The fight against the unclean bottle has been waged with unremitting tenacity day and night - literally night.

Last year's report referred to the fact that breast feeding is no longer fashionable amongst Bantu women: instead reeking bottles with weeks of accumulated remnants of stale feed have taken its place. A laboratory analysis is given below of three bottles taken from mothers in the field:

Bottle 1. Culture. Yielded a heavy growth of B. coli, Staphylococcus pyogenes and monilia albicans.

Teat 1.	Culture.	Yielded a growth of B. coli and Staphylococcus pyogenes.
Bottle 2.	"	Yielded a growth of B.coli, Streptococcus pneumoniae and Staphylococcus pyogenes.
Teat 2.	"	Yielded a growth of B. coli and Staphylococcus pyogenes.
Bottle 3.	"	Yielded a growth of B. coli, Streptococcus pneumoniae Staphylococcus pyogenes and monilia albicans.
Teat 3.	"	Yielded a growth of Streptococcus pneumoniae, Staphylococcus pyogenes, B. coli and monilia albicans.

For teaching purposes a film was made. The momentary response was encouraging but the change over to cleanliness too lethargic. Mothers appeared to be habituated to the stench of filthy bottles and their disastrous effects on infants. New shock techniques had to be employed. Additional visual aids were obviously needed.

"Bury the Bottle, Mother, Not the Baby"

Accordingly a shock picture of a dehydrated, malnourished baby, mutely suffering, mounted in a bottle shaped frame was used by the pedestrian lecturers. For the loudspeaker van, a larger visual piece was made: a small coffin, in the lid of which was inserted the picture of a very ill baby. A button switched on a light which brought the picture into sharp relief. When this was exhibited, silence fell on the chattering women. When the lid was removed from the coffin, a feeding bottle was seen in the casket, crystal clean on one side: filthy on the other. Then the above caption was used. To follow up this dramatic moment with something practical, a demonstration of washing bottles was always given from the theatre of the loudspeaker with rapier-like commentation. It was common to harvest numbers of filthy bottles from every audience as a pledge from the mothers that they would begin afresh. The teaching covered: (a) breast-feeding versus bottle feeding; (b) dirty bottles in relation to gastro-enteritis; (c) flies on teats: how they carry disease; (d) the guilt of mothers who habitually delay taking a child to clinic when it commences to pass loose stools.

Fathercraft

Years ago we discovered that Bantu fathers must be the target for all health principles to be woven into the fabric of family life, the mystery of bottle feeding hygiene included. This means night sessions in housing schemes, shack areas and the like. The daylight cinema van is floodlit for the purpose. Fathers are desperately serious about this bottle feeding business: some rare souls declared they would, in future, be personally responsible for these domesticities; then followed tirades on the laziness of some of the Bantu women. Lively discussions were enormously enjoyed by fathers and the lecturers. Said one man: "These women mistake the feeding bottle for a calabash which is never washed unless the kraal is moved or the cow runs dry".

The introduction of the punch card system now enables us, for the first time, to present an accurate statement relating to diagnosed gastro-enteritis cases under 1 year.

Bantu Deaths: under 1 year *

Year	Number	Rate per 1,000 population
1958	470	2.52%
1957	763	4.26%

* Statistics given are for deaths certified by a medical practitioner.

Note: Three Bantu lecturers only could be spared for a portion of the programme's time for gastro-enteritis and only a fraction of the time of the daylight cinema van could be given. If with so little time and staff there is a 39% drop - with more vans and more staff we could really get to grips with this arch-destroyer.

Surveys: Essential

Surveys are becoming an increasingly important factor in health education. Lecturers go to given areas and like radar signals detect conditions which they reflect back to central office: these findings re-shape and re-model programmes.

Kwa Mashu: New Bantu Township

It had been estimated that by the end of 1959 the new Bantu township would house 20,000 people. It was, therefore, essential to have a vision and plan for its instructional programmes. As the people had come from places as varied as Indian back-yards, other locations, neighbourhoods without a boundary and untouched by the Department's units, as well as from shack areas, it was vital to assess their lack, their needs, their trends as well as their hygienic transgressions in order to streamline an adequate programme. This meant house to house surveying which was done when the population numbered 6,000. There were surprises. Approaching the township with its newly built cottages in their grand setting, we felt that surely here the isishimuyane brewing racket would be absent with its accompanying fly-breeding. In the old shack areas there had been the laziness of brewers who would not bury the residual grain of their brewing but persistently threw it away until the earth was soaked, soured, sick and alive with fly larvae: fly spraying never penetrated to the dark moist depths of those evil dumps. But Kwa Mashu - wide open spaces and individual rubbish bins! Behind closed doors during the survey lecturers found many things: secret brewing: residual grain, not in the bin, but waiting the fall of night when it would be stealthily thrown into cane fields or open veld, there to start the old trouble. So back on the programmes for new housing went, among other things, the old, old story of "rubbish disposal".

Bilharzia

With suspect streams in the district, inquiries were made from labourers and school children about "red urine". It was found necessary to inaugurate an immediate film and lecture campaign throughout the township because of the large numbers of alleged sufferers.

Storekeeper Harnessed to Health

The new shop owner had to be indoctrinated: he was carrying white bread with no brown bread: minerals and very little milk. That wouldn't do. To this audience of one the lecturer spoke as if to a packed house. He was important. Reward enough was the stock of brown bread, milk, amasi and dried beans which made their appearance thereafter. And the shopkeeper was proud to be elected an ambassador for the Department by the lecturer.

Survey: Tetanus Neonatorum

The non-European Government hospital together with this Department were disturbed at the increase in the incidence and mortality among Bantu infants from the above disease. As a result of a consultation a survey was conducted by Bantu health education lecturers. The modus operandi was that parents of fatal cases the preceding year were visited and questioned. The hospital also notified this section of each new admission, when lecturers visited the mother, usually a hospital 'boarder' to ascertain details of the confinement. The findings will be

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incorporated in a preventive film for the Bantu to be made by this Department.

Lack of Planning

Of 36 infant deaths investigated (City), 27 were illegitimate. As in all facets of Bantu life there was not evidence of thoughtful planning for the event and for the birth itself any kind of dirty covering was dragged in for the mother to lie on.

Dressings

Most popular were (a) earth mixed with manure, (b) black powder from Bantu medicine man, and (c) baby powder.

Germ Isolated

Lecturers had a difficult task to procure remnants of the concoctions used: a residue of black powder as issued by a Bantu medicine man was coaxed from one mother. This was examined in a hospital laboratory and the organism of tetanus traced.

South African Broadcasting Corporation Bantu Radio Talks

"Neglected Bantu Pregnancies": A memorandum on "neglected Bantu pregnancies" issued by the office of the Chief Native Commissioner, Pietermaritzburg and forwarded by the Durban Native Commissioner to this Department covered a request that "you kindly give this matter publicity through your usual channels". Four talks on this subject went over the air in the series which ran for nearly a year. Owing to pressure of Departmental work the weekly series of talks had to be temporarily suspended but not before many Bantu 'bongas' (thanks) from the northern reaches of Natal, Pondoland, East Griqualand, Zululand, as well as our own City, came through. From the Regional Director, Natal, came a letter of appreciation saying: "The form of the talks has been most suited to the demands of the microphone; the range of the subject has been wide and altogether we are sure that the series you have been responsible for has been a valuable contribution to the work being done towards the enlightenment of the more backward peoples of this Province".

Liaison Requests

(a) King Edward VIII non-European Government Hospital

A senior doctor of the malnutrition wards of the above hospital with the approval of the Medical Superintendent, requested that in order to help combat both kwashiorkor and the disastrous practice of the unclean feeding bottle, the Department's Bantu lecturers give demonstrations, films and talks once weekly to "boarder" and visiting mothers.

Over a period of seven months 53 talks, 31 films, 25 demonstrations were given with a total attendance of 3,324. Unfortunately the daylight cinema van had to be withdrawn for more urgent work.

(b) Toc H.Hut: Shack Area

A similar request was received from a panel of doctors and laymen that the same kind of instruction as that outlined above be given at the hut on the occasion of the voluntary weekly visit of the doctor when numbers were assured. Over a period of months the following instruction was given: Talks - 15, Films - 16, Demonstrations - 36, Total attendance 6,083.

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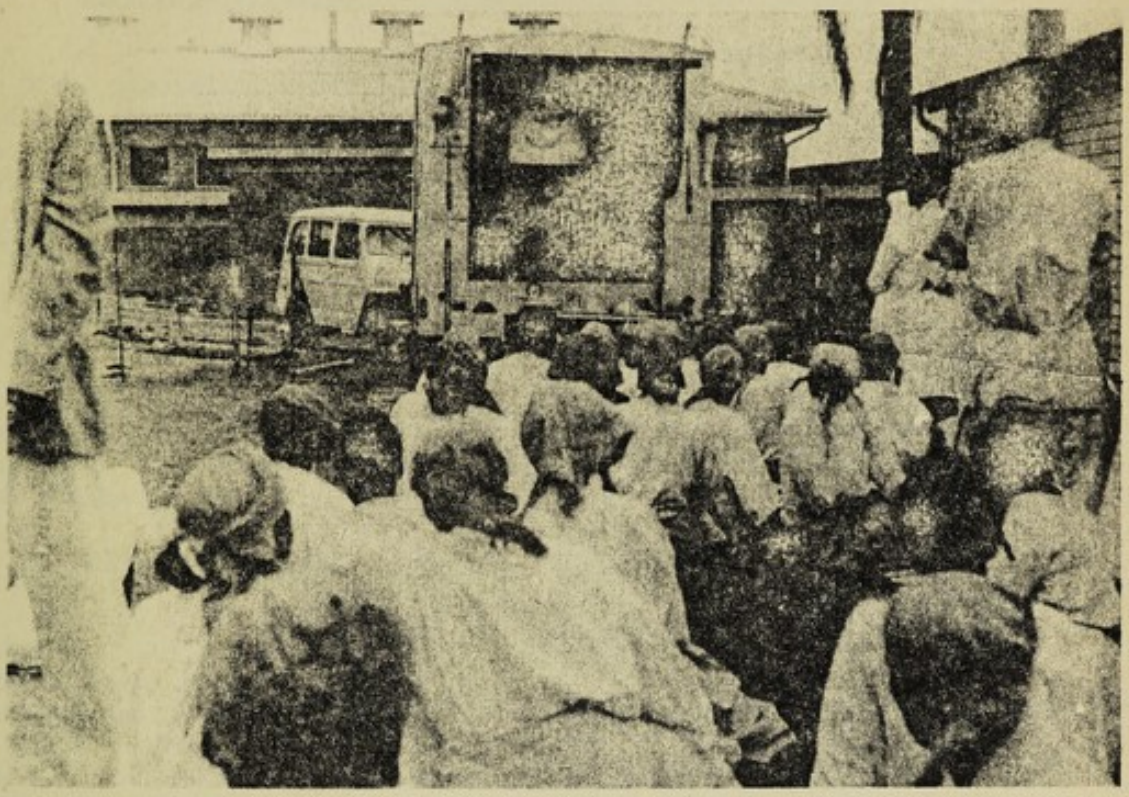

Film on Infant Nutrition to Mothers at Provincial Hospital.

Crowd assembling in Cato Manor Shack Area for film on T.B.

Food-Handler Hygiene: Cricket Test Match, Kingsmead

In addition to routine demonstrations throughout the City, special instructional services are laid on daily during special events in the City. On such occasions, Bantu and Indian food-handlers are largely casuals from all walks of life, usually alas, without any instinct for or knowledge of clean handling methods. During the above match, health education personnel were on vigilant duty among casuals throughout the entire event.

Nutrition

One Bantu lecturer, fully subsidised by the Government, teaches nutrition only. In addition the entire staff have the subject daily on their programmes. The nutrition film for Bantu adults, as well as for children, both made two years ago are always "box office" draws.

Reluctance to Part with Money for Food

There is a reluctance, deep rooted in the Bantu heart, to pay out money for food. He will blithely part with it to possess a bicycle, many suits and radios and, most of all, cows: these things are his possessions of which he is inordinately proud and give him prestige. If you touch his cows you "kill" him, they are his bank - but his bank now also includes other possessions which he also barters. In his happy yesteryears he did not PAY for food: the soil yielded richly, he bartered his beasts and denuded the forests for his fires to cook with: why then now should he have to yield money for something to eat? But we have reason to believe that the Department's repetitive accent on a balanced diet is evoking a new attitude to food and changing his buying habits as well as sending him back to the old-fashioned loved foods of the kraal and weaning him from the refined foods of civilisation.

The Bantu Talk: After Nutrition Film

"Many Wives or Food, Which?"

"We men must choose whether we will fill ourselves with the pride of ownership of many wives, and pay many lobolas, or fill our stomachs with good food and our arms with one wife!"

"We Drink Instead of Eating"

"The moment I saw this picture with good food and well-fed cattle I looked around at us all: we look sick and under-nourished, not because food can't be got but because we prefer to get drunk and also waste our money on tobacco".

Tuberculosis

This theme is one of the priorities. Lecturers scan every crowd and group for the tell-tale signs of this disease: suspected sufferers are singled out, their potential danger explained and urged to report to the clinic for an X-Ray examination. Many a recovered sufferer has presented himself to the lecturers just to express his gratitude for that special piece of guidance. The Department's tuberculosis narrative story was presented to Asiatic and Bantu audiences 122 times during the year: instructional talks included both loudspeaker and pedestrian groups numbered 330.

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Diphtheria - Typhoid - Poliomyelitis Immunisation

The vital contribution of health education to the Department's immunisation programme cannot be over-assessed. For months during this year, cinema van screening was cancelled in order that the vehicle could be used for pre-immunisation build-ups and announcements. This branch of the work is never allowed to degenerate into a mere advertising campaign announcing times and venues of the Immunisation Unit and the types of protection offered. Lecturers skilfully outline salient factors of the disease, its implications, and in the case of poliomyelitis, the physical handicaps in relation to wage earning: when a certain amount of apprehension has been engendered it is countered by strong assurances as to the preventive measures available: traditional Zulu customs for preventing disease are borrowed as illustrative matter.

Domestic Servants: Bantu

This section is catered for by film and loudspeaker talks. To cite one night show as an example, when 350 servants in a residential area received film instruction and engaged in an intelligent discussion which lasted for an hour although it was nearing 10 p.m.

A School of Divination (Izamgoma = diviners)

Lecturers in the shacks came upon a school for training izamgoma. Trainees were men and women from all parts of Southern Africa. The principal, a woman of intelligence and great personality was interviewed. She also laid on a demonstration for the health education unit on which occasion the earth shook and its foundations trembled as she bade the students to strike the earth with more power and to pray harder! They, in turn, were enthralled with the tuberculosis film.

"Salute to Pioneers": 16 mm colour

This film was commenced in 1958. It is on diphtheria and in Afrikaans with an authentic historical Voortrekker theme weaving through the narrative. Production was suspended owing to the absence overseas on long leave of the Health Educator and Technician (Health Education). Considerable further research has now been done and the film is nearing completion.

There has been considerable delay in the making of the film due to the great difficulty of finding props such as period houses for background: also in substantiating facts concerning the physical appearance of certain historical characters represented in the sets so that obvious discrepancies would be avoided. In Durban there are no authentic wagons: sets including them have been shot miles away, involving transport of cast. Minute attention has been focused on period details: no item has gone historically unchecked. When completed with Afrikaans sound track the running time will be about 45 minutes.

"Inasmuch": 16 mm colour with sound track

This short colour film was hastily produced at the request of the Council to quicken interest in the housing programme for the Indian community. It portrayed bad conditions in shack areas and suggested the need for urgent bold planning to combat serious public health risks to the entire City.

Venereal Diseases Colour Stills with Narrative: Bantu

This sequence of transparencies departs from the usual V.D. approach in that it endeavours strongly to bring out the deterioration of family life and the consequent breakdown in morality. The Bantu woman and her predicament dominate the story.

And to the Far Corners

Referring to the Department's set on Bilharzia for the Bantu, an official from the South African Institute for Medical Research in a letter states "your slides were shown in the United States, Canada, Britain, on the Continent and in the Middle East and all thought they were excellent for purposes of illustration and education". A medical officer in Rhodesia has purchased, through his Council, a set of the following departmentally produced films for Bantu: "Save the Children": "Nge Pansi Ngo Muti" (Adult nutrition): V.D. and Tuberculosis. Incidentally, it should be recorded that the Council in November, approved the hire of its Departmentally produced health education films to two overseas health organisations at a nominal charge for a period of three months.

Overseas Leave: Research. Cigarette Smoking and Lung Cancer: London

When in London, the Health Educator and Technician called upon the Medical Director of the Central Council for Health Education, Tavistock Square. Regarding lung cancer in relation to smoking he made some positive statements and gave much valuable data on the psychological reasons for smoking among adolescents.

He was frankly amazed that the Durban Health Department produced its own sound films at comparatively small sums of money. He said that in the United Kingdom there was a grievous lack of health films owing to lack of money. He seemed to find it unique that a Department could make a film in its entirety without calling in outside aid. He hoped, in the event of making a lung cancer film, that the Department would make a second copy for his use.

A famous cancer specialist graciously spared time at his Harley Street rooms to discuss lung cancer in relation to cigarette smoking because he felt the message of warning must be sounded, fortissimo, the world over.

Central Office of Information

Here was found a great scarcity of health films: few new films had been produced since our visit in 1955. Of those previewed four were ordered: one of these dealt with the subject of "Clean Food" and the remainder were special films for use in the Dairies Section of the Department.

To Discuss Health Education

During January a special meeting was held at the offices of the Department to discuss the general principles of health education and to study the techniques employed in Durban. This meeting was attended by representatives of the Union Department of Health and the Medical Officers of Health Group of the Medical Association. During the course of the discussions a food-handler demonstration was given by the senior Bantu lecturer and a film was previewed. In addition, Bantu and Asiatic staff were interrogated on many facets of their work.

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A suggestion was put forward that a National Conference on health education be held in Durban because no other local authority had the same facilities for demonstrating the practical application of the methods and the media necessary for the health education of the non-Europeans.

Royal Agricultural Show: Pietermaritzburg

From 23rd to 28th June a display of films was shown at the above Show in conjunction with the Natal and East Griqualand Fresh Milk Producers' Union and the Durban and District Milk Distributors' Association.

Attendances at the stall were the highest yet achieved and for each of the ten daily film shows, even standing room was fully taken up. Special shows were given to groups of farmers at their request, whilst two shows were given for University students.

Asiatics

Population for the City: 205,543.
Health Education Lecturers: 2

"AND WHAT ARE THESE AMONG SO MANY?"

Although the work among Asiatics is less dramatic than among the Bantu, lecturers working doggedly and quietly on among their people have done wonders in:

(a) teaching mothers the need for pre-school immunisation against diphtheria; this theme is on the daily programme;
(b) making mothers clinic-conscious. The clinic is the saga of both Asiatic and Bantu instruction.

Asiatics do not get their fair share of either the daylight cinema van or the loudspeaker but lecturers take their rationing with a praiseworthy grace.

Because it is impossible to cover the entire communities is has been deemed wise to concentrate on shacks, schools and factories.

Shacks: Received the fullest attention because of the ever present disease potential in such areas. In order to instruct fathers, film shows are given in shack areas at night. The Indian community have a pretty way of expressing their gratitude by a gracious speech from one of the crowd.

Schools: Throughout the entire City were covered with two films, namely Tuberculosis and Bilharzia. Principals hail the visits with delight, especially toward examination times, as they declare the pupils write such excellent hygiene papers after the Department's instructional programmes.

Factories: Were specially marked for loudspeaker talks in lunch hours on V.D. and tuberculosis.

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New Technique

Because the daylight cinema van was occupied in Bantu areas, Indian lecturers were provided with a viewer and selected clinical pictures of venereal disease. This private individual viewing resulted in many V.D.suspects asking the way to the clinic: the technique was especially successful at Indian clothing factories.

Asiatic Women Emerge

The senior Indian lecturer compares the difference between former days when it was a matter of personal and prolonged persuasion to coax Indian women to the theatre of the cinema van: during loudspeaker talks they peeped shyly from behind curtains but would not come out for discussion. Now they bring their problems to the lecturers.

With their emergence there are disturbing trends. Mothers are going out to work: young women are in factories. There begin to appear in their midst the filthy feeding bottle, V.D. and illegitimacy.

Nutrition

When ten years ago, Health education programmes commenced amongst the Indian community, it was found that they had an excellent custom of eating indigenous wild herbs equivalent to our greens. Other dietary habits were inclined to over-accent carbohydrates and although the trumpets were blown round the walls of tradition for more than seven times, nothing much happened. However, with the difficulty of obtaining white rice and other commodities came a breach in the walls of custom through which lecturers stepped to encourage the use of unrefined foods and the substitution of more dried beans for rice. Fortunately Indians were addicted to the use of fish and certain meats.

Ex-Hospital Patients

Asiatic and Bantu lecturers frequently find discharged or out-patients who, though still under hospital care are:

(a) not observing dietary rules - in cases where diet is a prevailing factor;
(b) without the vaguest idea of dosage of medicine, the need for taking it regularly, or what date to return for check-up.

Much fine hospital care is undone in this way. Lecturers feel strongly there is urgent need for the establishment of a health educator in larger hospitals to explain the implication of ex-hospital treatment and rehearse the patient in instructions.

Threat of Time

We took with us over the threshold of 1959 the threat which is ever present in time, especially in time of confusion.

The Light of Health Education Brings Healing

We have seen, we have witnessed through the patient toiling years that the revealing light of health education has healing in its beams: that it can penetrate the mists of confusion and dispel the darkness of uncertainty: it reveals the plain paths of prevention and safety or the dangerous ways of neglected 'means': we have seen the grave moment of indecision transmuted into the moment of decision and action:

the shadow of death has been challenged and overcome in many a 'persuaded' tuberculotic: in the brightness of its shining we have seen the rewards of right thinking and the doom of those who, seeing, heeded not.

Time is urgent. Seven non-European lecturers amongst an estimated population of 416,381 non-Europeans cannot thrust out the enemy of indifference, ignorance, superstition and wrong thinking. More lecturers, more commentators, more group workers, more demonstrators are needed to match the unresting onslaught of the times. Compounds, schools, factories, domestic servants, housing schemes, food establishments, shacks need the message recapitulated daily.

* * *

XVII. MATERNAL AND CHILD HEALTH

Child Health Clinics

During the year there was a marked increase in both European and non-European attendances at the various child health clinics. Whilst there was no special reason for the increase amongst the Europeans, the improved non-European attendances were attributable to the increased out-patients fees prescribed by the Provincial Administration during 1958. This new tariff led to a drop in both the Indian and Bantu attendances not only at the Provincial Clinic but also at first at the Municipal Clinic at Cato Manor. In consequence of this, the Bantu Health Visitors toured the various localities and explained the difference between the two clinics, as regards their organisation, functions and controlling authority. They emphasised the fact that the services of the Municipal Clinic were still free. The result was that when mothers from the shack areas considered that they could not afford to pay the new rate, they often came to the Municipal Clinics in the hope that they would receive attention there.

The following clinics were established during the year:

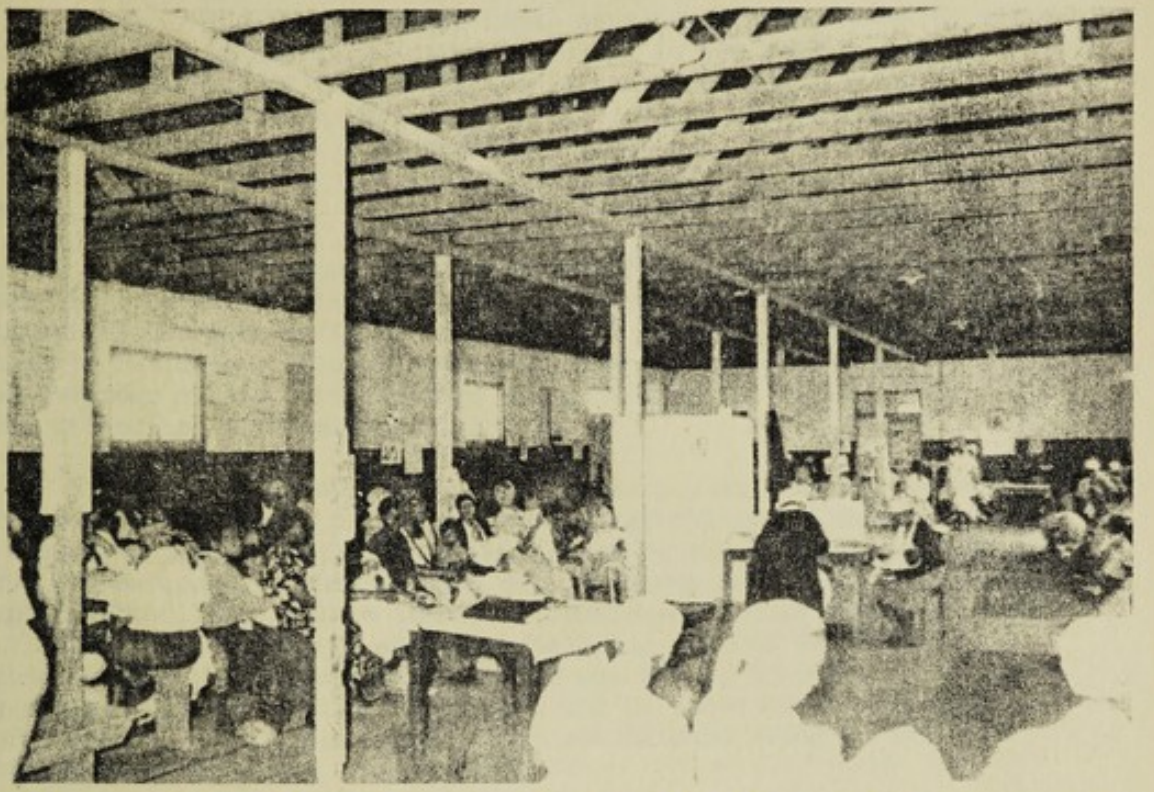
Woodlands (European)

This residential area has developed extensively during the past few years. In 1954 the clinic operated there by the Institute of Family and Community Health was closed down. As no suitable accommodation in the district could be found by the Department for the establishment of a Municipal Clinic, mothers and children had perforce to report to the nearest clinic at Montclair which was quite a distance away. However, during 1958 suitable premises for a clinic at Woodlands became available at the Presbyterian Church Hall and a weekly mother and baby clinic was commenced there on the 7th August 1958. The attendances have been most satisfactory.

Sherwood (European)

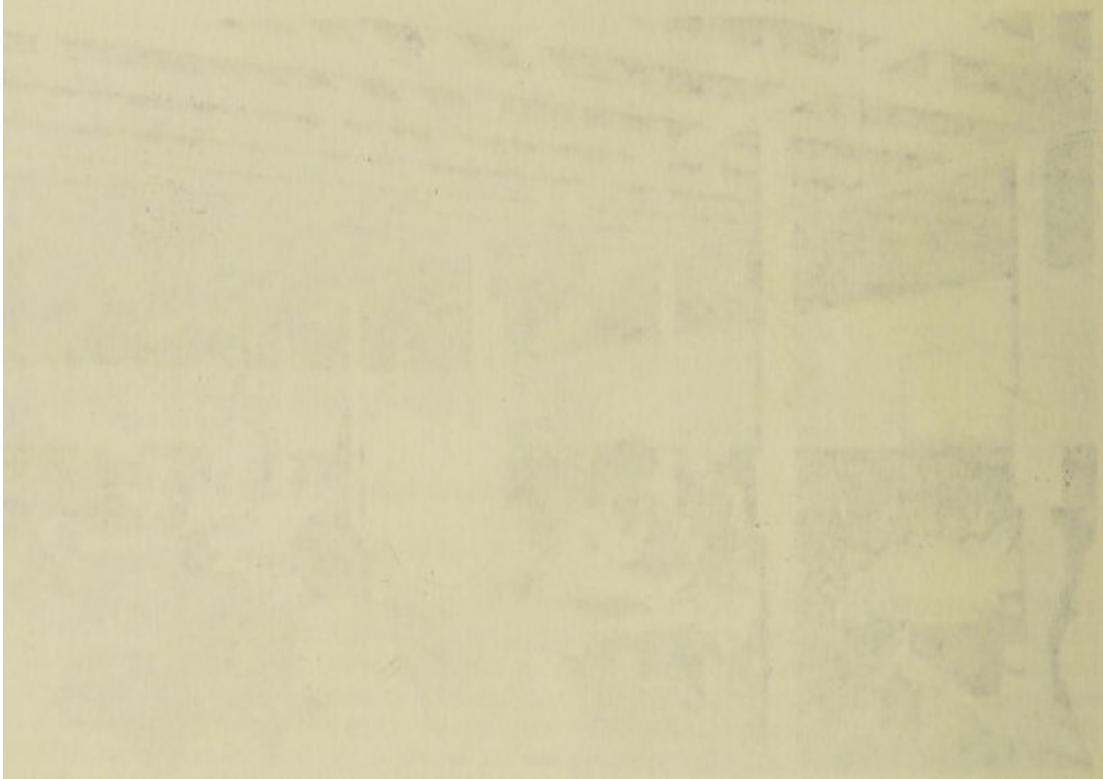
The development of this suburb has been similar to that of Woodlands. In this case, the Committee of the Sherwood Association spontaneously offered the use of the Sherwood Hall premises for clinic purposes. The offer was accepted, and a weekly clinic session has been held there since 7th August, 1958. The mothers have expressed their gratitude for this service.

Child Hygiene Section.



Bantu 'Mother & Baby' Clinic Session in progress at Cato Manor.

Child Hygiene Clinic serving completed section of new Bantu Township at Kwa Mashu.



Umlazi Glebe (Bantu)

In May, 1958, final arrangements were made to start a mother and baby clinic in a cottage situated in the undeveloped belt of the Umlazi Glebe. At first this clinic was conducted only on a weekly basis, but within a very short period, owing to the attendances, it became necessary to run a bi-weekly service.

Kwa Mashu (Bantu)

On the 26th March, the first weekly health clinic was held in a cottage in the Kwa Mashu township. In September new accommodation was made available in a vacated building formerly used as a manager's residence. The attendances gradually increased, and by the end of November clinic sessions were being held thrice weekly. The average attendance per session was 150.

Reference was made in last year's Annual Report to a portion of the premises of the former Springfield Health Centre having been placed at the disposal of the Department by the Union Department of Health. Unfortunately, the building did not prove suitable and the attempt to establish a clinic there was abandoned. In an endeavour to find alternate accommodation at Springfield and also at Mayville and Sydenham several inspections were carried out during the year in the newly established and developing Asiatic and Coloured areas, but by the end of the year, no new clinics had been established owing to the lack of suitable accommodation.

Happy Valley (Non-European)

During 1958, the students of the Durban Medical School furthered their project to establish a clinic to provide free social and medical services in the Wentworth-Jacobs-Merebank area. The work of this Clinic embraces mainly the preventive type of service and includes immunisation schemes, child guidance, ante-natal care and the conducting of health surveys. The Secretary of the Clinic applied to the Council to assist by furnishing basic equipment or funds to purchase the same. It was not possible for the Council to provide equipment but it approved a non-recurring grant-in-aid of £150 for the purchase of such equipment.

Total Clinic Sessions and Attendances: 1954 - 1958

Sessions

	1954	1955	1956	1957	1958
European	902	922	873	843	928
Coloured	163	166	167	154	166
Bantu	867	908	872	838	967
Asiatic	474	472	485	475	456
Total	2,346	2,407	2,397	2,310	2,517

Attendances

European	34,460	32,368	36,559	38,408	48,525
Coloured	9,360	8,469	9,142	9,598	11,195
Bantu	80,798	88,213	92,927	89,597	89,037
Asiatic	42,385	37,169	39,312	46,213	48,267
Total	167,003	166,219	177,940	183,816	197,024

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Home Visiting

The primary function of a Health Visitor is to visit the homes of the community and there to teach hygiene and the means of attaining a healthy way of life.

This aspect was emphasised amongst the Bantu families during the year, so that whenever a Health Visitor visited a home where an infant was being artificially fed, she demonstrated to the mother how she should make the feed and clean the bottle and teat immediately after use, and the need to store them in a covered container. Other talks on such subjects as infant feeding, flies and their dangers, and disposal of refuse were also given. Slight improvement was noticed in some of the homes, but others showed no interest.

Bearing in mind the fact that the Bantu male is the head of the family and directs it and all its activities, it became evident that he should be taught the elementary knowledge of child care. When health talks and demonstrations were given to the senior girls at the Bantu schools, the male teachers were encouraged to attend the course. The teachers were extremely interested and asked many questions. They agreed that the young male adults should be given the opportunity of attending a series of such lectures and demonstrations.

Cato Manor Infant Feeding Scheme

The following notes on this scheme have been kindly furnished by Dr. N.M.Mann of the Durban Medical School:

"The striking feature of Paediatric practice at King Edward VIII Hospital is that so much illness is preventable. Malnutrition is an overwhelming problem and so is gastro-enteritis.

The mean age, in the largest and severest group of malnutrition (Kwashiorkor) was 22 months. Other statistics are given below:

	1955	1956
All grades of Malnutrition	1,014	1,054
Deaths	581	519
Percentage Death Rate	57.29%	49.24%
Total Admission to Childrens' Wards	4,944	5,284
Percentage of these children with malnutrition	20.5%	19.1%

Although malnourished children are admitted to hospital from a wide area of Natal, the incidence in Durban and outlying districts seems to be high. Since 1950, the City Council of Durban has made no provision of food for indigent persons. Accordingly, a feeding scheme was launched in Cato Manor for 300 children up to the age of 3 years financed by Round Table.

The main distribution centre for 220 children was at the Municipal Clinic at Cato Manor. Two other centres for 80 children are looked after by the Social Workers of the Durban Bantu Child Welfare Society.

Initially, the essential qualification for entry into the scheme was permanency of residence in Cato Manor. Two other important rules were regular attendance every week for weighing and disqualification for non-attendance when two consecutive weeks had been missed. Full cream milk powder was sold at 1/-d. per lb. for babies and skimmed milk powder at 6d. per lb. from the 9th month of age. Dr. Sophie Kaplan attended weekly to help problem cases.

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The Scheme started in March, 1958. At the Cato Manor Municipal Clinic over a 12-month period 709 babies were admitted to the scheme and 438 were discharged for non-attendance. Only 20% remained in the scheme for 6 months. As one of the objectives of the scheme was to observe the effect on the child of 1 lb. skimmed milk powder per week up to a 3 year period, these results are a disappointing failure. Permanency of residence in Cato Manor seems to be a rare phenomenon.

Until there is stability of home life there will always be malnutrition. Closely related to this is the poverty of the average African. This was emphasised by the incapability of the mother to pay for the milk powder. At 1/-d. per lb. this is usually paid but irregularly and seemed to be the maximum that could be afforded. Thus, a subsidy of 1/6d. per lb. was required.

The pain and distress of the mortality of malnutrition is almost excelled by the absurdity of its economics. The cost of hospital treatment for a child with Kwashiorkor averages £45. The surviving 402 children in 1956 cost £18,000. With the same amount of money, over 1,100 children could probably be kept free from the disease over a 3-year period."

District Maternity Service

The District Midwifery Service conducted by this Department was discontinued in 1937, when the Provincial Administration extended its activities. District midwifery services are provided by the following institutions:

European:	Addington Hospital; Mothers' Hospital.
Coloured:	Addington Hospital; McCord Zulu Hospital.
Asiatic:	McCord Zulu Hospital; King Edward VIII Hospital.
Bantu:	McCord Zulu Hospital.

Ante-natal Clinics

Ante-natal clinics are held for European, Coloured and Asiatic mothers who do not intend to call a medical practitioner in attendance at the time of confinement.

A Health Visitor supervises the work of the midwives in private practice and investigates any cases of still-births, puerperal sepsis, and ophthalmia neonatorum which might occur in their practices.

As there was no midwifery service in the newly-developed area of Kwa Mashu the Department was obliged to permit uncertificated Bantu women, who had undergone a limited training by the Department, to practice, but only under strict supervision. These women bring all their cases to the Municipal ante-natal clinic before they can be accepted. There are at present 8 Bantu women on the register.

Report by Medical Specialist in Charge of Clinics (Dr. L.Raftery, M.R.C.O.G., M.R.C.S., L.R.C.P.)

"In the last year, the number of expectant women attending the Clinics has remained high. Mothers are definitely now attending our Clinics and earlier in their pregnancies, so that we are no longer regarded merely as an agency for booking a "bag nurse" or midwife. The true aspect of preventive medicine is beginning to be understood by all sections of the public we serve.

The crowded hospital clinics and the charge of 4/- for each attendance at King Edward Hospital have contributed to sending more of the Indian community to our clinics. In this connection, I feel it is important to stress the preventive aspect of our work and not to fall into the error of attempting to prescribe for the ailments which may be presented to us by the women attending the clinics.

We have the facilities for doing routine W.R. blood tests on all patients, but we are very much in need of facilities whereby we could have haemoglobin blood tests done when necessary. The anaemia of some of the Indian women attending the clinics is very severe and it is not always possible to assess the exact degree or to decide whether urgent hospital treatment, even for transfusion is imperative for health. Chronic anaemia is of course, one of the greatest hazards to life at the time of delivery.

Training of bag-nurses for maternity services at Kwa Mashu has begun and the first batch has been presented to me for examination of fitness to undertake these duties.

I must again give the highest credit to those who assist me at these clinics. The health visitors work is consistently excellent, and their interest and unflagging sympathy and understanding of the public is most praiseworthy.

At the Brook Street Clinics the Indian auxiliary workers, who are inspired by the lead set to them by the health visitors, give of their consistent best as well and play a large part in attracting the great numbers of women who are now attending for advice and guidance."

Health Visitors Work

		E.	C.	B.	A.	Total
Infants						
First Visits - Feeding	Breast	1,107	390	1,178	5,248	7,923
	Mixed	171	28	290	601	1,090
	Artificial	476	9	44	275	804
	Total	1,754	427	1,512	6,124	9,817
	Breast	564	74	57	2,952	3,647
	Mixed	816	116	119	1,597	2,648
	Artificial	2,190	134	66	1,012	3,402
	Total	3,570	324	242	5,561	9,697
Older Children						
First Visits		738	128	1,123	6,486	8,475
Re-visits		4,332	1,165	54	6,771	12,322
	Total	5,070	1,293	1,177	13,257	20,797
No. of above visits made to Protected Infants		279	67	-	-	346
Other Visits						
Infant Deaths		14	-	33	6	53
Infectious Diseases or contacts		-	-	-	-	-
Reports on Insanitary Conditions		11	3	-	-	14
No. of visits to Nursery Schools and Homes for Protected Infants		-	-	30	-	30
	Total	25	3	63	6	97

Grand Total: Visits: 40,408

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Attendances at Gale Street, Brook Street and Mobile Clinics: January to December, 1958

	European			Non-European				Grand Total	
				Brook/Gale Street/Mobile Clinics					
	Gale Street	Mobile Clinics	Total	C.	B.	A.	Total	1958	1957
Total number of sessions	227	701	928	166	967	456	1,589	2,517	2,310
Total sessions for children	215	701	916	154	967	360	1,481	2,397	2,186
Total ante-natal sessions	12	-	12	12	-	96	108	120	124
Total attendance at clinics	10,270	38,255	48,525	11,195	89,037	48,267	148,499	197,024	177,816
New cases out of above numbers	983	2,848	3,831	1,110	16,595	8,792	26,497	30,328	29,558
Total attendance of infants	5,778	18,232	24,010	3,611	36,773	15,699	56,083	80,093	69,622
Total attendance of toddlers and pre-school children	1,805	12,332	14,137	4,781	21,776	15,413	41,970	56,107	49,513
Total attendance of nursing mothers	2,613	7,691	10,304	2,761	30,488	12,963	46,212	56,516	54,475
Total attendance of expectant mothers	74	-	74	42	-	4,192	4,234	4,308	4,206
No. of test feeds given	66	98	164	9	32	1	42	206	251
No. of mothers instructed in treatment of minor ailments	470	1,811	2,281	1,441	32,962	7,615	42,018	44,299	39,270
No. of health talks and demonstrations given	915	2,089	3,004	901	12,327	3,728	16,956	19,960	17,838
No. of cases seen by doctor	2,982	3,105	6,087	1,471	482	2,669	4,622	10,709	4,005

Supervision of Midwives

No. of Registered and Unregistered Midwives on List
(Private Practising in Durban)

	E.	C.	B.	A.	Total
Registered	10	4	1	1	16
Unregistered	1	4	-	125	130
No. of trained midwives who have ceased to practise	6	1	-	1	8
No. of untrained midwives who have ceased to practise	-	1	-	7	8
No. of trained midwives deceased	-	-	-	-	-
No. of untrained midwives deceased	-	-	-	4	4
No. of women practising midwifery who have been warned not to do so unless they apply to have their names put on the list	-	-	-	18	18
No. of midwives prosecuted	-	-	-	-	-
No. of difficult cases attended to and delivered	-	-	-	-	-
No. of midwives put on the list during the year	2	1	-	11	14
No. of midwives reinstated during the year	-	-	-	-	-
No. of midwives appliances examined	39	35	-	1,042	1,116
No. of midwives dressings sterilised	-	63	-	2,693	2,756
No. of midwives dressings sterilised after septic cases	-	-	-	-	-
No. of visits to midwives at their homes or at patients' houses	-	9	-	279	288
No. of midwives who were warned for failing to comply with regulations	-	-	-	4	4

Certificated and uncertificated European and Coloured midwives appliances and registers are examined every three months.

Uncertificated practising Indian midwives appliances are examined every month.

No. of Confinements Attended by Midwives

Attended by	Registered	Unregistered	Total
European	254	13	267
Coloured	202	11	213
Bantu	278	11	289
Asiatic	-	2,672	2,672
Total	734	2,707	3,441

	E.	C.	B.	A.	Total
Ante-natal Clinics	12	12	-	96	120

Ante-natal Work

	E.	C.	B.	A.	Total
Total attendance of expectant mothers	74	42	-	4,192	4,308
No. of ante-natal sessions	12	12	-	96	120
No. of ante-natal visits	61	9	81	1,065	1,216
No. of post-natal visits	8	7	-	1,123	1,138

Accommodation Available for Maternity Cases

		E.	C.	B. & A.	Total
Beds at:	Hospitals	50	30	*303	383
	Nursing Homes	99	-	-	99

* Unable to obtain separate figures for Bantu and Asiatics from the various hospitals.

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XVII. STAFF

Except in the case of Health Inspectors, the complement of staff was maintained at establishment level without undue difficulty.

At the end of the year seven vacancies existed for Health Inspectors as compared with six at the close of the preceding year.

Much has been written by various interested persons and bodies respecting the underlying cause for the prevalent shortage in recent years of an adequate inflow of new personnel into the ranks of the qualified Health Inspectors and it is not intended to repeat the very sound reasons which have been advanced therefor. But the warning can be reiterated. Unless satisfactory steps are devised at a fairly early date to stimulate a steady stream of qualified Health Inspectors, it may happen that the public health at some time in the future will be endangered, due to the inability of the Authorities concerned to sustain health inspection programmes at minimum safety levels. It is not suggested that that stage has been reached, or is likely to be reached in Durban in the immediate future but it is, nevertheless, a possibility which should not be lost sight of.

During the year few changes took place in the personnel of the staff: it needs to be recorded, however, that Dr. K.Smyth, Part-time Clinical Medical Officer in the Family Health Service Section, resigned with effect from 1st September, 1958, to take up a full-time appointment elsewhere.

(a) Proposed Additional Staff

A proposal to augment the European staff employed on rodent control by the addition of 3 positions of General Assistant (1st Grade) is still under consideration by the Municipal Service Commission. The delay has been occasioned by the need to await the outcome of a proposed scheme for the revision of certain salary grades.

(b) Staff Establishment

At the close of the year this was:

Section and Position	No.	Incumbent/Remarks
City Medical Officer of Health	1	Dr. G.D.English, M.B., Ch.B., D.P.H., D.T.M. & H.
Deputy City Medical Officer of Health	1	Dr. A.Stephen, M.B.E., B.Sc., M.B., Ch.B., D.P.H.
Assistant Medical Officer of Health	1	Dr. C.R.Mackenzie, M.B., B.Ch., D.P.H., D.T.M.& H.
Administration		
(a) European		
Principal Assistant (Admin.)	1	Thomson, A.H. (M.R.S.H.)
Senior Assistant (Financial)	1	Donkin, F.D.
Senior Assistant (Technical)	1	Poplett, D.J. (M.R.S.H.)
Chief Clerk	1	Kibble, G.A. (Cert. R.S.H.)
Senior Clerk (Grade II)	1	
Senior Clerk (Grade III)	2	
Clerk (Grade I)	3	

Section and Position	No.	Incumbent/Remarks
Clerk (Grade II)	1	
Clerk (Grade III)	5	
Clerk (Grade IV)	2	
Principal Lady Assistant	2	
Senior Lady Assistant	2	
Lady Assistant	8	2 posted to Immunisation Service
Senior Typist	2	
Typist	5	
(b) Non-European		
Office Assistant (Indian)	1	
" " (Junior) "	1	
Messenger/Cleaner Indian/Bantu	6	
Epidemiology (embracing tuberculosis, infectious diseases and venereal diseases control)		
(a) European		
General Assistant (2nd Grade)	1	
Note: The following staff is posted from the Health Visiting and Health Inspection Sections for full-time duty in this Section:		
T.B.Control:		
5 Health Visitors		
I.D. and V.D.Control:		
1 Senior Health Inspector		
1 Health Visitor		
(b) Non-European		
Health Assistant Indian	5	
" " Bantu	15	
Health Inspection		
European		
Chief Health Inspector	1	Groom, G.F. Public Health Inspector's and Meat and Other Foods Certificates of the Royal Society of Health.
Deputy Chief Health Inspector	1	Johnston, M.M. Public Health Inspector's Certificate of the Royal Society of Health.
Senior Health Inspector	10	Ashdown, N.D. Public Health Inspector's and Meat and Other Foods Certificates of the Royal Society of Health.
Note: Positions allocated to District and Food Hygiene (6) Epidemiology (1) Dairies (1) Field Hygiene (1) Plans and Housing (1)		Bannon, J.D.) Public Clayton, A.) Health In- Clemenson, J.L.) spector's Crickmore, C.R.A.) Certificate Hornby, A.V.) of the Royal Ingram, W.A.) Society of Smith, A.M.) Health

Section and Position	No.	Incumbent/Remarks
		Thomas, L.E.H., Public Health Inspector's, Meat and Other Foods and Tropical Hygiene Certificates of the Royal Society of Health Young, B.J. Public Health Inspector's Certificate of the Royal Society of Health.
Health Inspector	37	Aitkenhead, G.J.V. Alder, C.H. Atkinson, C.E., Benians, P.E. Butler, M.W., Clark, A.G. de Villiers, P.D. de Beer, H.H. Green, C.E.O., Harris, J.K., *Hazle,A.D., Hogan, J.P. Horton, D.H., Hull, V.H. Johnson, J.W.A., Knowles, D.H. Khaled, R.A.C., Marsh, H.N. *McLean, J.L., McIver, E.I. Phillips, L.G.F., *Roberts, K.W.C., Roberts,A.J.L. Schou, M.S., *Spencer, D.W. Sutherland, F.J., Vorster, J.H. Weldon, F.J., Woolley, G.W.R., Worthington, C. All hold the basic Public Health Inspector's Certificate of the Royal Society for the Promotion of Health. Certain of the above personnel also hold the Meat and Other Foods and the Tropical Hygiene Certificates. *Also appointed to a panel of Health Inspectors for emergency duties at the Municipal Abattoir, as and when required. No. of vacancies: 7
Health Assistant	6	Learner Health Inspectors.
General Assistant (1st Grade)	5	Engaged full-time on rodent control.
Veterinary Hygiene		
European		
Veterinary Medical Officer	1	Dr. F.E.Cavanagh, B.V.Sc.
Laboratory Assistant	2	
Field Hygiene		
(a) European		
Supervisor	1	Nourse, A.D.
General Assistant (1st Grade)	1	
General Assistant (2nd Grade)	7	
(b) Non-European		
Clerk: Bantu	1	
Field Assistant Indian	5	
Health Assistant Bantu	2	
Spotter (Mosquito) Bantu	9	
Labourer: Indian and Bantu	93	Includes 5 supernumery positions.

Section and Position	No.	Incumbent/Remarks
Health Visiting		
(a) European		
Chief Health Visitor	1	Eckhoff, Miss E.J. Medical and Surgical, Midwifery, Mothercraft and R.S.H. Health Visitor's and School Nurse's certificates.
Senior Health Visitor	1	Robinson, Miss S.E.H. Medical and Surgical, Midwifery, Mothercraft and R.S.H. Health Visitor's and School Nurse's certificates.
Health Visitor Note: Sectional allocation of posts: Family Health Service: 17 Epidemiology T.B.Control 5 I.D. and V.D. 1 6 Immunisation 3 26	26	Anderson, Miss E.M., Barker, Mrs. M.I., Brown, Miss M., Burdon, Miss C.W., Dolkens, Mrs. S. Edmeades, Miss M., Essery, Miss M. Hamlyn, Miss E.F.,Harding, Miss E. Hook, Mrs. E.M., Longmore,Mrs.F.B. Maloney, Miss K., Meyerstein, Mrs. S., Mitchell, Miss B.I., Muller, Miss M., Norman, Miss F.M. Poulton, Mrs. M.P., Rankin, Miss E., Schwarz, Mrs. C., Stead, Mrs. R.J., Taylor, Mrs.J.S. Webb, Mrs. M.E.,Whiting, Miss A. Wilde, Miss M., Wilson, Mrs. D. All suitably qualified and registered medical and surgical nurses. No. of vacancies: 1
Clinic Sister Note: Sectional allocation of posts: Family Health Service 3 Immunisation 2 5	5	Gregg, Miss W.M., Hunter, Miss J.W., Pettigrew, Mrs. E. (temporary), Thomas, Mrs. D., Watts, Mrs. D.J. (temporary). All suitably qualified and registered medical and surgical nurses.
Clinic Assistant	9	
(b) Non-European		
Health Visitor: Coloured	1	Post vacant
" " : Bantu	10	Vacancies: 2
Clinic Nurse: Bantu	1	Incumbents suitably qualified and registered medical and surgical nurses.
Female Nursing Assistant: Bantu	4	1 vacancy
Female Nurse Aid: Indian	7	
Clinic Orderly: Bantu	1	
Interpreter/Cleaner: (Female): Bantu	1	
Messenger/Cleaner: Indian/Bantu	7	1 vacancy
Watchman: Bantu	2	
Immunisation		
Note: European staff comprising 3 Health Visitors, 2 Clinic Sisters and 2 Lady Assistants is posted from the Health Visiting and Administration Sections on a full-time basis.		
Non-European		
Immunisation Assistant: Indian	1	
Health Assistant: "	2	
Health Assistant: Bantu	3	

Section and Position	No.	Incumbent/Remarks
Family Health (Child Hygiene) Service		
European		
Clinical Medical Officer	1	Dr. H.A.B.Pletts, M.B., B.Ch.
Part-time Clinical Medical Officer	1	Post vacant
Part-time Medical Specialist	1	Dr. L.Raftery, M.R.C.O.G., M.R.C.S., L.R.C.P.
Health Education		
(a) European		
Health Educator	1	Goddard, Miss.E.
Technician	1	Godfrey, D.M.
General Assistant (2nd Grade)	1	
(b) Non-European		
Lecturers (1 Indian and 2 Bantu)	3	1 Bantu post vacant
Lecturer (Junior): Bantu	2	1 post vacant
" " "	1	Employed full-time on nutrition education of the Bantu. Full refund of expenditure on this post granted by Union Department of Nutrition.
Assistant Lecturer: Indian	1	
Health Assistant: Bantu	1	
Non-European Health and Medical Services: V.D.Clinic Staff		
(a) European		
Senior Clinical Medical Officer (City Venereologist)	1	Dr. R.S.Dewar, M.B., Ch.B.
Clinical Medical Officer (Female)	1	Dr. M.McAuliffe, L.A.H., L.R.C.P.S.I.
(b) Non-European		
Bantu Medical Officer	1	Dr. C.N.Dhlamini, L.R.C.P., L.R.C.S., L.R.F.P.S.
Nurse: Bantu	4	All suitably qualified and registered medical and surgical nurses.
Clinic Orderly (Senior): Bantu	1	
Sideroom Worker (Unqualified) Bantu	4	
Clerk "	4	
Labourer "	1	Vacant
Medical Bureau		
European		
Senior Clinical Medical Officer	1	Dr. M.Casson, M.D., M.R.C.S. L.R.C.P.

TOTAL STAFF ESTABLISHMENT

European	-	164 (including 2 part-time medical posts)
Non-European	-	201 (including 5 supernumery labourers)
Total		365

* * *

REPORT 'B' - HOUSING

1. European Housing

The housing needs of the majority of the City's European population have been met. There is still a demand for sub-economic level housing by a small minority of the population and it is felt that eventually their needs will be fulfilled through the auspices of Municipal and Government housing schemes.

The general standard of European housing in the City is high and the extent of European slum housing is definitely negligible.

The following schedules were provided by the Housing Section of the City Treasurer's Department and reflect the number of dwellings erected, or towards which loans were granted by the Durban City Council.

Summary of European Housing as at 31st December, 1958. (Since inception of housing programmes).

A. Economic

	Houses	Flats
Selling schemes completed	1,672	-
Selling schemes under construction	-	-
Economic Assisted	1,688	-
Economic Letting	-	674

B. Sub-Economic

Letting (aged poor)	50	-
National Housing letting (women of limited means)	-	55
	3,410	729

Housing units completed in 1958:	256
European population (estimated)	154,763
Percentage of total population	27.10

C. Application for Corporation Assisted Housing

As at 31st December, 1958, the number of housing applications on hand was as follows:

Purchase Schemes	1,039
Letting Schemes	2,697

2. Coloured Housing

Not much progress has been made during the year for the provision of housing units for the Coloured race. However, considerable improvement works, such as roads and drainage, have been put in hand in the Sparks Estate at Sydenham where the major portion of the City's Coloured community lives.

The development of sites for a further 70 dwellings is in progress at present and it is anticipated that the dwellings will be complete and ready for occupation within the forthcoming year.

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Twenty-one dwellings have been completed and occupied by Coloured families under the loan-to-individuals scheme during the year under review. Investigations have revealed that there has been a certain amount of infiltration into Indian areas of the poorer class of Coloured persons: those who are in better circumstances have been building or purchasing houses in areas set aside by the City Council in conformity with the policy of Group Areas Board, namely Sydenham, Mayville, Merebank and Wentworth.

Summary of Coloured Housing as at 31st December, 1958. (Since inception of housing programmes).

A. Economic	Houses	Flats
Selling schemes completed	291	-
Economic Assisted	147	-
B. Sub-Economic		
National Housing letting	49	64
	487	64

Housing units completed in 1958	21
Coloured Population (estimated)	25,003
Percentage of total population	4.38

C. Application for Corporation Assisted Housing

As at 31st December, 1958, the number of housing applications on hand was as follows:

Purchase schemes	723
Letting schemes	293

3. Indian Housing

During the past few years little progress has been made with the enormous problem of providing satisfactory housing accommodation for the Indian people in Durban. There have been several factors which have adversely affected the situation, so much so that the whole question has become one of critical importance which requires to be tackled without delay.

Arising from this unsatisfactory situation the City Council gave consideration during the year to a detailed report submitted by various Heads of Departments.

From that report it is obvious that Indian housing in and around Durban represents a most serious problem: its extent can be gauged when it is estimated that during the next 15 years the City Council will be required to provide approximately 36,000 housing units for Indians alone if their present unsatisfactory housing conditions are to be eliminated and pace kept with the annual increase in this section of the population.

All the land required for such a large project is certainly not available within the City itself and consideration must be given to developing townships further afield on similar lines to Kwa Mashu.

Accordingly, the City Council at its meeting held on the 12th December, 1958 adopted a resolution which read, inter alia, as follows:

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"That immediate steps be taken to acquire the necessary land in the Umhlatuzana area (adjoining the Durben City Boundary on the west side) including the absorption of private townships therein to enable the City Council to erect approximately 14,000 houses for Indian occupation and the City Engineer be directed to prepare an overall layout plan for approval under the Housing Act."

A start has thus been made to meet future Indian housing requirements.

Merebank Housing Scheme for Indians

After some considerable delay this scheme has at last been put into operation. Extensive drainage and road works are well in hand and the City Council and National Housing Office authority has been granted for the commencement of the 1st scheme which will be the erection of 160 houses at an estimated cost of £105,810.

Certain sites situated within the precincts of the scheme are still in private ownership and because of this difficulty the full development of the scheme has not been possible. However, it is anticipated that certain disputes concerning acquisition will soon be settled and the scheme completed according to schedule.

Private Enterprise

Private enterprise has accounted for the provision of a large number of first class dwellings in the Sydenham Springfield and Reservoir Hills residential areas.

Shack Housing

Because of the shortage of low rental housing, Indians have resorted to the illegal erection of shack dwellings on private land leased from Indian landlords. Whilst the majority of these structures are of a fair standard they do not conform to the requirements of the Building By-laws. However, the main cause for concern has not been the type of structure erected but has arisen from the fact that the rapid development of "mushroom" shack settlements does not allow for the ready extension of sanitary, refuse and water services. For instance, in most of the settlements under discussion, whilst water is available from communal water points, no provision has been made for other basic services.

Naturally, the increased activity in the erection of illegal shacks by Indians in various parts of the City, particularly in the Bluff Valley, and the difficulties in controlling this situation, received a good deal of attention during the year, and legislative powers were sought by the Council to deal with the problem.

One of the worst localities affected was the Kenville-Briardene area where a survey revealed an increase in illegal shack building, the majority of the shacks being found on sites comprising many acres. It was evident that if building proceeded at the rate disclosed, a heavy concentration of shacks could be expected within a short course of time without a water supply or without a sanitary removal service. The Department made urgent representation on the matter but by the end of the year no satisfactory solution had been reached.

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Summary of Indian Housing as at 31st December, 1958. (Since inception of housing programmes)

	Houses	Flats
A. Economic		
Selling Schemes	539	-
Economic assisted	562	-
B. Sub-Economic		
National Housing	819	-
	1,920	-

Indian Population (Estimated)	205,543
Percentage of Total Population	35.99
Housing units completed in 1958	112

C. Applications for Corporation Assisted Housing

As at 31st December, 1959.

Purchase Schemes	4,089
Letting Schemes	1,431

4. Bantu Housing

In the Lamont Extension Economic Housing programme the selling scheme portion of 744 houses is now complete, while 53 of the 54 larger houses, the majority erected under the loans scheme, have also been built. This brings the total number of houses in Lamont Location to 2,908 as at 31st December, 1958.

Kwa Mashu: During the year 1958 considerable progress was made in the Kwa Mashu Township where 1,047 houses were taken over for occupation. These houses are 4 roomed brick detached and semi-detached dwellings built by the Durban City Engineer's Department. In addition 20 one-roomed buildings were completed as part of the site and service scheme, and a start has been made on the cottage hostels for single men in neighbourhood unit No. 1. There will eventually be approximately 12,000 houses and, in addition, 25,000 beds in hostels.

Shops, schools and recreational facilities are in the course of being provided, while services are fast being extended.

Bantu Housing: Existing Provision Locations (Family Housing): Summary

	No. of Houses	Population
Baumanville	120	800
Lamont	1,911	13,400
Lamont Extension	997	5,000
Chesterville	1,265	7,900
Umlazi Glebe Native Village	724	4,700
Kwa Mashu	1,047	6,700
	6,064	38,500

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Hostels and Dormitories	Beds
Somtseu Road (Male)	7,040
S.J.Smith (Merebank) (Male)	4,272
Dalton Road (Male)	1,662
Jacobs (Male)	788
Bell Street (Male)	1,165
Ordnance Road (Male)	440
Grey Street (Female)	687
Jacobs (Female)	64
Total	16,118

Total persons housed Municipally	54,618
Estimated Bantu Population	185,835

Essential information relative to the various locations and hostels is as follows:

Baumanville Location

Completed 1934:	Houses 120 (position unchanged)
Water Supply:	Piped to individual houses
Sanitation:	Water closets - "
Ablution:	Showers - "
	Washing gullies "

Lamont Location

Houses completed (Economic)	997
" " Letting	1,911
Total	2,908

Water Supply:	2,908 homes have piped supply
Ablution:	2,908 " " showers
	178 communal washing gullies
Sanitation:	2,908 houses have water closets
Clinic Services:	Institute of Family and Community Health, Merebank.

Chesterville Location

Completed 1946:	(unchanged)
Houses	1,265
Water Supply:	Individual piped
Ablution:	Bathroom
Sanitation:	Water closets
Clinic Services:	Mother and baby clinic weekly - City Health Department; ante-natal clinic run by McCord Zulu Hospital

Umlazi Glebe Native Village

Houses:	738
Water Supply:	45 communal stand-pipes
Sanitation:	2 Agna privies and individual pit privies.

N.B. Chesterville and Baumanville Locations are provided throughout with electrical power as are all hostels and dormitories. Electrical power is available in all other location/villages but only a few have taken advantage of the amenity.

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Kwa Mashu

Houses: Proposed	12,000 (approximately)
Houses: Completed to date	1,047
Water Supply:	Individual piped
Sanitation:	Water closets.

Daily Health-Clinical services are conducted.

Slum (Shack) Distribution and Elimination (Bantu)

Accurate figures are difficult to compute because the numbers are changing constantly. This has been brought about by the extensive clearance programme embarked upon early this year by the Department of Bantu Administration. The programme provides for the eventual demolition of all shacks other than those in existence in the Cato Manor Emergency Camp. Dehoused persons, subject to qualification, will be rehoused in controlled housing schemes/locations.

It is estimated that the total number of Bantu-occupied shacks in the City is approximately 7,000: of these 4,417 are situated in the Cato Manor Emergency Camp.

Cato Manor Emergency Camp

To date a total of 4,417 sites has been allocated in this temporary site and service scheme. In this connection it should be noted that the Bantu Administration Department has decided not to release any further land in this Camp, unless absolutely necessary, in view of the rapid development of the Kwa Mashu Bantu Township.

This area can therefore be now regarded as stabilised. During the year additional communal water closet/ablution blocks were provided at various points and the refuse removal service was extended. Nevertheless, these facilities are, as yet, inadequate.

On the whole the standard of cleanliness of the Camp leaves much to be desired. In certain parts a degree of co-operation on the part of occupiers is exhibited and conditions are reasonably satisfactory. On the other hand, in some sections a general apathy is displayed by families to any and all attempts to effect improvements. The solution appears to be tied up with the rapid removal of the residents of the Emergency Camp to Kwa Mashu, or other established Bantu locations/villages.

Bantu Slum Settlements at Cato Manor

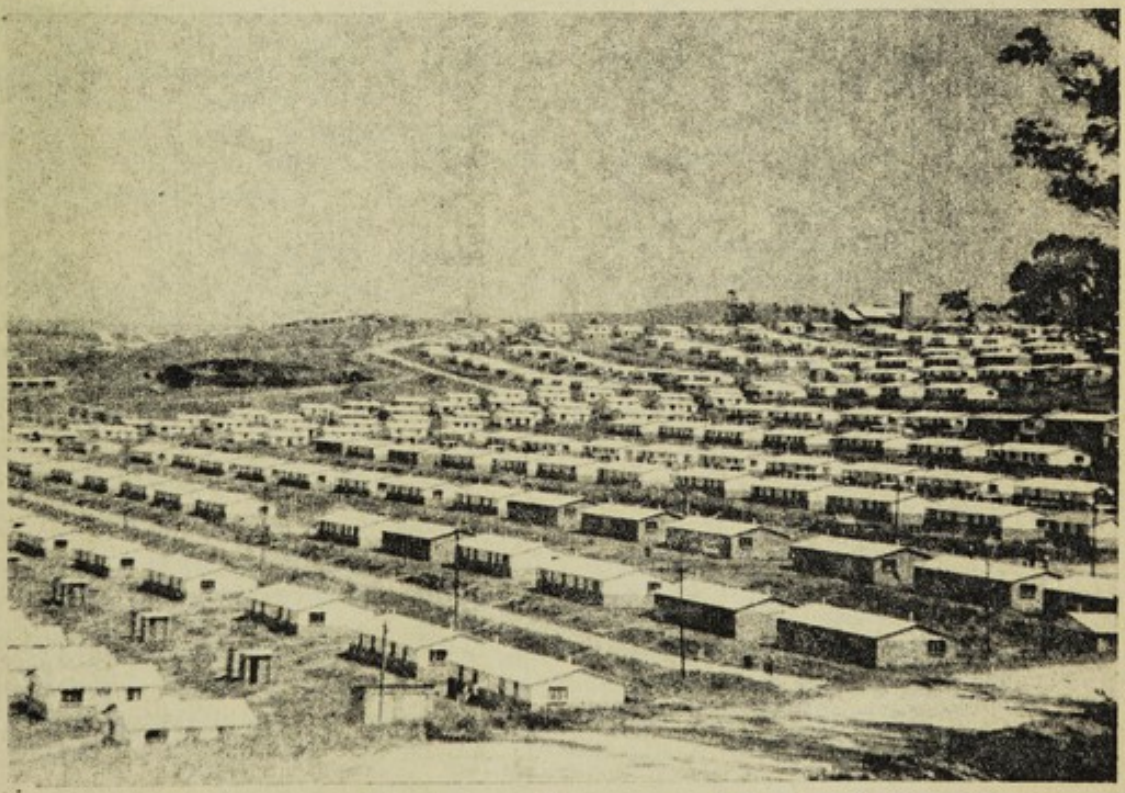
(a) Raincoat

This was a major slum settlement comprising 258 shacks with a total population of 6,000. Conditions generally were primitive and dirty. Fly incidence and development was extremely high due to the use of badly constructed pit privies and refuse accumulations.

A refuse service was inaugurated on the recommendation of this Department but, although it worked satisfactorily, the residents did little or nothing to assist in the cleansing programme. Eventually, drastic action had to be taken owing to the high incidence of typhoid fever in this slum settlement. It was therefore decided that the only worthwhile and permanent remedy was the total elimination

Bantu Housing (Before & After.)

Before: Shack Housing at Cato Manor.



After: Planned Housing at Kwa Mashu.

of the settlement. This, of course, meant the complete demolition of all the shacks and the removal of the inhabitants elsewhere.

The first families were moved out of Raincoat on 27th March, 1958, and demolition of shacks was begun. By the 24th April, 1958, a total of 37 shacks comprising 238 rooms had been demolished. From these structures 221 Bantu were re-housed in the Cato Manor Emergency Camp. A considerable number of other occupiers moved to unknown addresses of their own accord.

During the month of May, 1958, a total of 46 shacks comprising 359 rooms were demolished together with 21 illegal shack-type shops. Again the majority of the inmates were removed to the Cato Manor Emergency Camp. A further 57 shacks comprising 442 rooms were demolished by the 25th June, 1958 and 75 families were transferred to the Cato Manor Transit Camp.

By the 31st August, 1958, only 3 of the 258 shacks remained and most of the shack dwellers had been rehoused in the Cato Manor Emergency Camp. This brought to a close one of the most eventful chapters in the programme of uncontrolled shack elimination. The removal of "Raincoat", a major undertaking had been carried out without disturbance or ill-feeling on the part of the inhabitants. In this connection a tribute must be paid to the staffs of the Bantu Administration and the City Engineer's Departments for their splendid efforts. Their assistance certainly eliminated a major public health hazard. Above all, this Department, and for that matter, the City itself, was greatly indebted to His Worship the Mayor for his constant interest and guidance in this matter.

Haviland Road (Uncontrolled Shack Area)

This shack settlement was one of the largest outside of the Emergency Camp and was situated on the side of a hill with steep inclines. Cleansing operations were not easy and, although a refuse removal service was improvised conditions were never satisfactory. In these circumstances, it is pleasing to report that work was started in September, 1958 by the Bantu Administration Department in clearing shacks from this area. By the 19th November, 1958, a total of 277 individual rooms had been demolished and 86 families had been removed to controlled areas. The remaining families dehoused left of their own accord.

The method of cleaning up this settlement will take longer than did the clearing of "Raincoat" where all the shacks were completely demolished and all the occupiers, irrespective of qualifications, were accommodated in the Emergency Camp. The system operating here removes only "eligible" families to various existing housing schemes.

Control of Premises (Slums) in Zoned Areas

Some years ago when the nature of the majority of these zones was changed from residential to industrial/commercial under the Town Planning scheme, considerable confusion existed. Loans could not be floated and a general dead-lock ensued. No major works could be embarked upon and only minor repairs to premises could be carried out. However, the problem eventually resolved itself and rebuilding programmes were quickly put into effect during the year under review.

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These new buildings which comprise many blocks of flats, shops, warehouses, factories, etc. have replaced many slum dwellings and where rebuilding schemes were not possible, considerable improvement was effected by renovation.

Building Plans

A total of 3,826 plans, covering the following work were received officially for examination and report by this Department during 1958.

Type of Structure	No. of Plans	No. of Units	Estimated Cost
New private dwellings - 1 and 2 rooms		5	
* 3 rooms		2,524	
4 "		134	
5 "		438	
6 " and over		93	
Total of Dwellings	722	3,194	£2,965,654
Flats - 1 room		352	
2 "		332	
3 "		178	
4 " and over		172	
Total	62	1,034	£1,721,224
Other Residential Buildings	8		355,700
Industrial and Commercial Buildings	73		1,518,400
Other New Buildings	26		891,240
New Municipal and Government "	53		537,068
Total	160		£3,302,408
Additions: to Residential Buildings	2,008		557,499
" non-Residential "	790		758,490
" Municipal "	84		139,670
Total	2,882		£1,455,659
GRAND TOTAL	3,826		£9,444,945

* Includes: 3 plans for 223 - 3 room Woodlands dwellings at £404,092
1 " " 744 - " " Lamont " " 193,750
1 " " 1402 - " " Kwa Mashu " " 347,656
1 " " 72 - " " " " " " 17,784

* * *

APPENDIX I.

MOSQUITO CONTROL MEASURES: BLUFF VALLEY

Since 1954 the Department has been faced with a major mosquito problem originating in the swamps of the Bluff Valley. In the following report it is proposed to outline some of the control difficulties which have been encountered in dealing with this problem and also to discuss briefly the measures which were successively adopted to combat the nuisance.

The northern portion of the Bluff Valley known as "Van Riebeeck Park" is owned by the Durban Corporation and extends over an area of about 100 acres. This so called "Park" is nothing more or less than a large land-locked swamp which lies in a natural basin or catchment area being separated from the sea by a ridge about 200 feet high. Possessing no outlet, this swamp, especially during rainy weather, simply functions as a "sump" to its surroundings.

At the conclusion of the Second World War, the demand for housing was such that parts of the slopes on either side of the valley were developed into residential suburbs and with this development essential works such as roads and stormwater drains had to be provided.

In view of the topography of the locality, the obvious course was to drain all the stormwater into the valley; this, together with water seepage from soakage pits and septic tanks turned the low-lying area, which once retained very little water, into the swamp described above. In parts this swamp is now 15 feet deep and is covered for the most part with a closely interwoven mat of reeds and other vegetation.

The predominant types of mosquitoes found in the swamp belong to the culicine family. Whilst therefore there has been no danger of the introduction and transmission of a mosquito-borne disease such as malaria, the prolific development of these insects at times has caused much irritation, annoyance and discomfort, together with loss of sleep, to the numerous residents in its neighbourhood.

In an endeavour to reduce the water area the City Engineer converted a portion of the neighbouring Tara Road swamp into a controlled tipping site for household refuse and, over the course of many months, a fair proportion of that swamp has been reclaimed.

In view of the progressive residential development of the locality it was clear that a radical solution had to be found to the problem and various remedies were considered. Amongst these were suggestions such as the planting of trees (gums), flooding the area so as to form a lake, and the construction of ramps into the swamp so as to facilitate spraying. However, the City Engineer was of the opinion that drainage and reclamation was the only solution and in the course of time a major scheme was adopted by the Council for the construction of a 1,500 ft. drainage tunnel through the Bluff ridge to the sea so as to drain all stagnant and stormwater from the entire valley. This project was put in hand and by the end of 1958 had made substantial progress. It was expected that the tunnel would be completed and in operation sometime in 1959.

So much for the permanent solution which represents an engineering achievement of some magnitude and complexity.

As regards palliative measures, initially anti-mosquito spraying was carried out by labourers with knap-sack pumps using, in the main, D.D.T. emulsion as an insecticide. However, it soon

became apparent that this method of control was ineffective due to two causes both related to the thick cover of vegetation lying both above and below the surface of the swamp. First of all this screen prevented the proper dispersal of the insecticide and, in addition, impeded access to most parts of the area so that spraying operations could only be carried out along its perimeter. Here it may be stated that the floating vegetation is so thick in certain parts that it can bear the weight of a man with ease.

As the knap-sack pumps were not successful, the City Health Department was obliged to devise improved means of mosquito control to give some measure of relief to the Bluff residents, pending the completion of the capital works

The Introduction of the "Pressure" Power Pump

On the recommendation of the Chief Officer of the Fire Department a pressure pump was purchased. This is a centrifugal pump driven by a petrol engine, with a spraying range of 60 ft. After delivery to the Department, the pump was fitted with an injector whereby insecticide could be introduced into the stream of water used for spraying. The swamp water itself was used as a vehicle for conveying the insecticide to the area being sprayed; fortunately the force of water proved most effective in blasting down undergrowth, thereby ensuring that the insecticide made proper contact. This type of pump has proved most effective as a far greater area could be treated daily with a reduction in the number of labourers.

Access Roads

This now gave the staff concerned control for 60 ft. from the swamp edge, but to gain this measure of control the pump, together with insecticides, had to be carried by hand which was a very slow and laborious undertaking. Make-shift roads were therefore constructed with waste ash and these now made it possible to convey the pump, material and labour by lorry to all parts of the swamp perimeter. This road programme in all entailed 350 loads of ash which was sufficient to cover approximately 3 miles of roadway.

Aerial Spraying

Despite the success of the power pump, complete control could not be established and adult surveys conducted in neighbouring homes, disclosed that numerous mosquitoes were apparently still emerging from the swamp and creating a nuisance. There was no doubt that development was now taking place within the swamp but beyond the range of the pump. A reconnaissance by boat into the centre of the swamp confirmed this conjecture as correct.

It was therefore decided to attempt to destroy all development by means of aerial spraying.

The first spray proved most effective and great hopes were held that regular aerial spraying would be sufficient to keep the nuisance under control, but subsequent aerial sprays proved very disappointing and were of little value.

The failure of the aerial spraying was attributed to three causes:

(a) The vegetation being so dense that the insecticide could not gain proper access to the water;

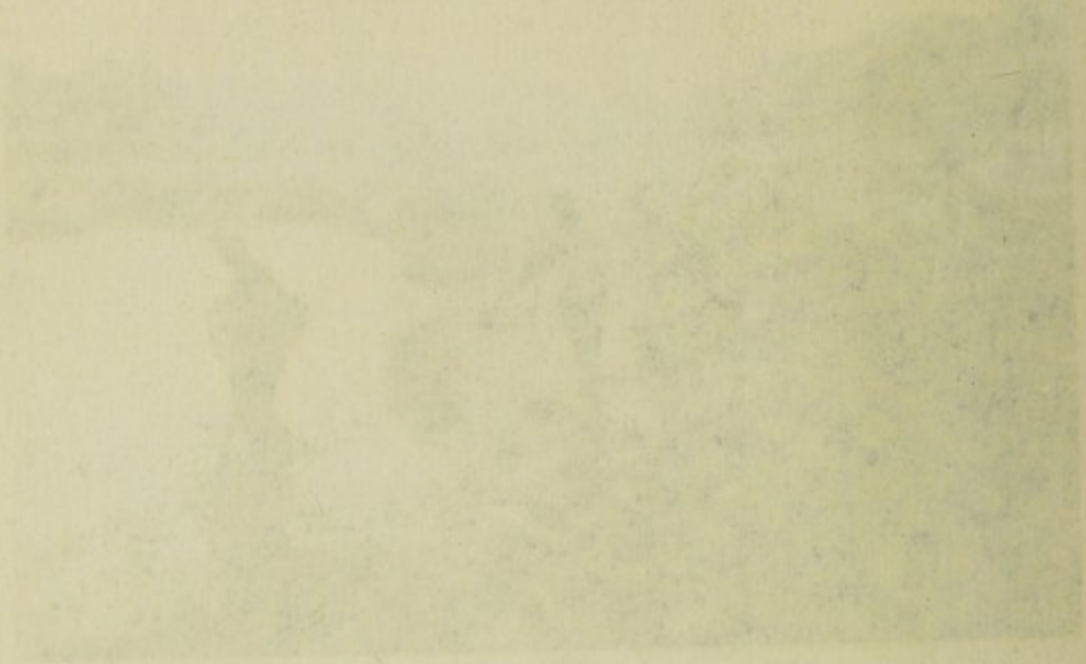
Bluff Swamps.

Van Riebeeck Park: Houses from which storm/waste water discharges into swamp.

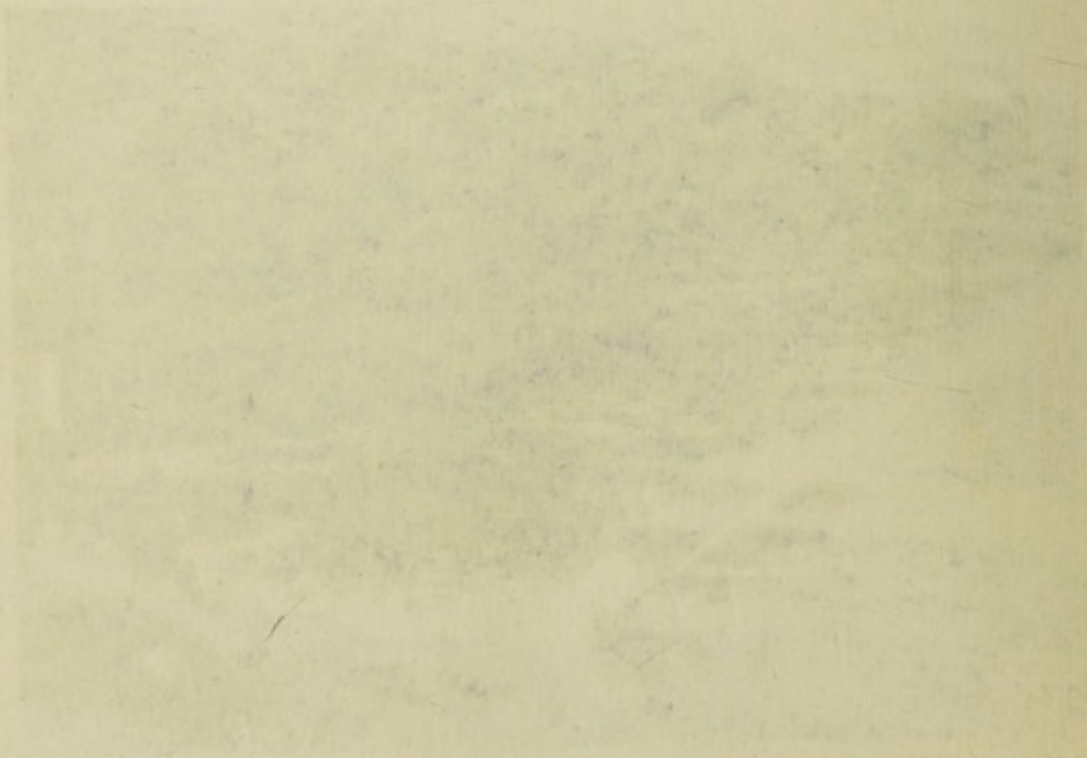
Swampy Conditions: Van Riebeeck Park.

Mosquito Control: (a) Sprayers with Knapsack Pump.

(b) Power Pump in operation.



Mosquito Control (a) Sprayers with Knapsack Pump.



(b) Power Pump in operation.

(b) The volume and area of water being of such a magnitude that dilution became too great and consequently the insecticide was rendered ineffective;
(c) Refuse-polluted water entering the swamp, besides being an ideal medium for mosquito development, was inhibiting the emulsification of the insecticide due, apparently, to some undetermined chemical reaction which rendered it ineffective.

The chemical agents employed in the aerial sprays were dieldrin and benzene hexachloride. These insecticides were also in regular use in the power pump together with a reject diesel oil. However, from investigations it became apparent that a 100% kill with the insecticides was not being obtained. This, it was thought, was due to mosquitoes building up a resistance to the agents and to the factors mentioned in (a) and (b) above. Furthermore, it was apparent that the type of oil employed was a poor "spreader" and did not give a complete coverage of the water surface, thereby leaving open pockets for mosquitoes to complete their cycle of development.

Use of Malaria High Spreading Oil

After conducting numerous tests in the laboratory, it was found that the most effective insecticide in this water was "High Spreading Oil" and a trial of this product in the power-pump gave excellent results. A change was therefore made to this type of oil.

Note: This oil is normal malarial oil but containing in addition a certain proportion of fish oil so as to give a more even coverage.

With the introduction of this oil, an advance had certainly been made. However, so far no means had been found to operate beyond the 60 ft. limit.

Acquisition of Boat

Previous experience with an ordinary boat had already shown up the difficulties in using this type of craft. The only solution now appeared to be the purchase of a boat, light enough (a) to be manhandled over reeds and (b) to be conveyed from point to point by lorry, yet (c) sufficiently robust to carry 3 men, the power pump, and 45 gallons of malarial oil.

After careful consideration a boat to the following specifications was duly acquired:

Of aluminium construction, 15 ft. in length with a 5 ft. beam, a built-in tank capable of carrying 45 gallons of insecticide, a special cradle to hold the power pump and drawing 1" of water per 1/10th ton.

The use of this boat proved most effective. However, before it could be successfully employed, it was necessary to cut tracks through the reeds and grass so as to gain access to the interior of the swamp. Furthermore, in the early stages, the propulsion of the boat proved a problem, but this, fortunately, was soon overcome when it was discovered that the jet from the pump proved an ideal means of propulsion. After some practice, the non-European crew became most expert in navigating the boat through the channels provided.

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To give some idea of the economy of the power-pump/boat technique as against the older methods of spraying, a test was undertaken showing the relative times, material, and labour required to carry out anti-mosquito control over the same area. The following facts are most illuminating and speak for themselves.

Method	Labour Required	Material Used	Time Taken
Hand Pumps	14 Labourers	80 Gals. Oil	4 hours
Power Pump	14 Labourers	50 Gals. Oil	1½ hours
Boat with Power Pump Mounted	4 Labourers	50 Gals. Oil	10 minutes

Unfortunately, it is not possible to use the boat and power-pump exclusively as the hand-pumps must still be brought into operation for control of iwolated pools and small drainage channels.

Works Centre

As will be appreciated, it was most essential that spraying be undertaken within the shortest period of time after development was located; the Department was therefore fortunate in obtaining the use of an old house situated on the banks of the swamp which now functions as a depot for material and equipment.

Here it may be mentioned that an added advantage in the possession of this dwelling was its conversion into a works centre for the benefit of the Bantu staff. At this base, by means of the dispositions made, the Bantu labourers can always obtain a hot midday meal, and here, too, they can change their clothes and have a shower-bath. The provision of these latter facilities was, of course, most essential in view of the toxic nature of the insecticide used. In passing, it may be remarked that the fittings for the shower were installed at no expense to the Department by a Senior Health Inspector, who was also a qualified plumber.

Furthermore, a certain area around the house was placed at the disposal of the Bantu staff for gardenihg purposes and here the labourers have gathered several good crops of vegetables for their families. Well satisfied with all these simple amenities the Bantu employees have performed excellent service in the Bluff valley and are always keen to retain their jobs in this special sphere of the Department's field operations.

Domestic Foci

As a routine during the summer months the entire swamp is sprayed every 14 days; this spraying is checked by spotters and any development found is treated immediately. In this way the nuisance has been kept at a minimum.

Night visits to residences in close proximity to the swamps have confirmed that infestation has been considerably reduced.

Notwithstanding the work being carried out in the valley, a close check has been maintained for domestic breeding in the vicinity of dwellings and, as a result thereof, numerous complaints have been traced to foci such as defective septic tanks, gutters, etc.

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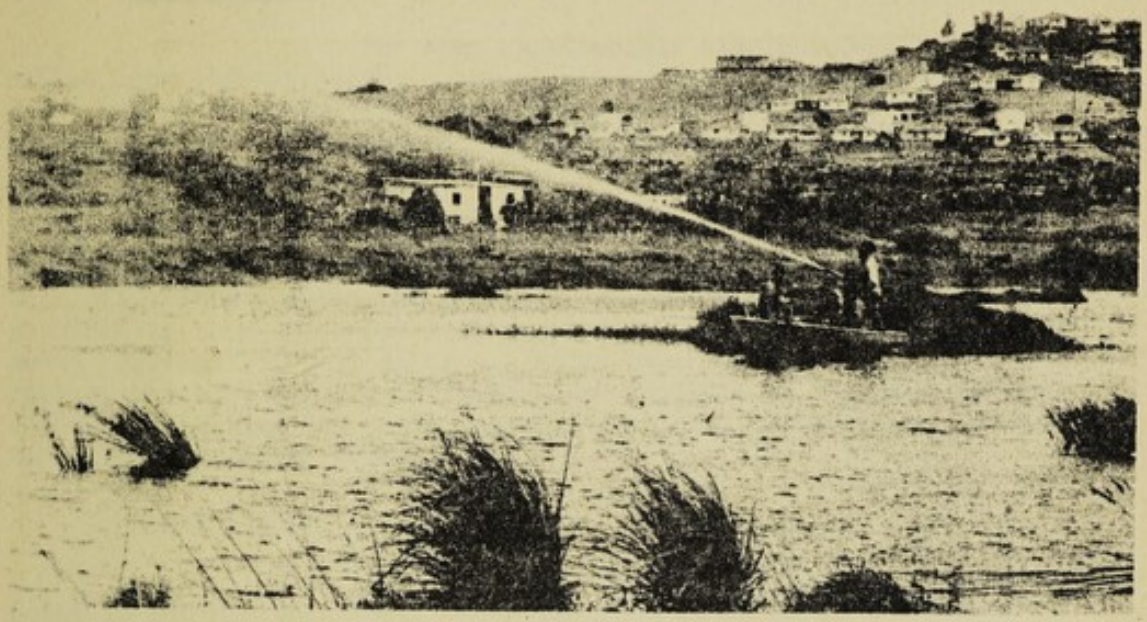
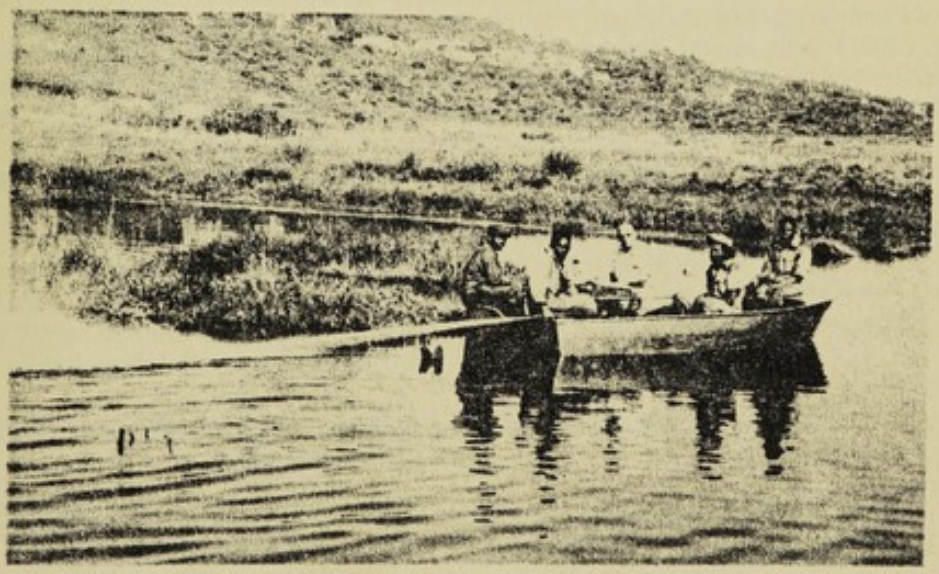


Power Pump operating from Boat.



Boat being propelled by jet
action of the power pump.

At no time has it been taken for granted that the swamp was the only source of nuisance, and therefore it has been essential to maintain the closest co-operation between Health Inspectors investigating complaints and personnel employed in the field.

Insecticides

For some considerable time the Department has relied upon high-spreading malarial oil as the most effective insecticide, having obtained very satisfactory results with it. Nevertheless, trials continued to be carried out with the newer insecticides as they became available.

Towards the end of the year "Malathion", an organic phosphorus insecticide, was being used to a far greater extent than oil. This insecticide proved as effective as, and a lot more economical, than oil. For instance, to spray the entire Van Riebeeck swamp requires 750 gallons of oil at an approximate cost of 5/- per gallon, while 15 gallons of "Malathion" (diluted 50 - 1 with water) at 67/6d. a gallon has proved equally good and, furthermore, gives a much longer residual action.

Happy Valley

In contrast to the conditions which have been noted in Van Riebeeck Park, attention must be directed to another swamp on the Bluff, which lies further south in the area known as Happy Valley. Here, for some inexplicable reason, it has not been found necessary to carry out anti-mosquito measures. Though frequent surveys for larvae have been made and habitations in close proximity have been regularly inspected, no evidence of mosquito development of any magnitude has ever come to light.

It is thought that this favourable state of affairs is promoted by certain natural agencies in this swamp directed against the breeding of mosquitoes. Included amongst these are fish and duck and other predators whose identities have not been determined. Furthermore, here conditions are not being aggravated as in Van Riebeeck Park where refuse-polluted water has provided ideal conditions for mosquito development possibly through its high organic content.

This contention has been confirmed by conditions which are now arising at the Bayhead. There, as the result of uncompleted reclamation works and the discharge of storm water, similar conditions have arisen as at Van Riebeeck Park. Prolific development is taking place and identical problems are arising.

Staff and Material Employed on Mosquito Control Measures on the Bluff

Staff	Equipment
1 Health Inspector (European)	1 Boat
1 General Assistant (European)	2 Power-pumps
3 Spotters (Non-European)	11 Knapsack pumps
15 Labourers (Non-European)	2 Hand adult insecticide sprays.

* * *

APPENDIX II

INSTITUTE OF FAMILY AND COMMUNITY HEALTH

The following notes have been furnished by courtesy of the Head of the Institute, Dr. B.Gampel.

"The Institute of Family and Community Health has been concerned with the provision of a comprehensive health and medical-care service to the communities immediately adjacent to the Institute since 1948. The service is provided by a team of doctors, nurses and health educators. The programme aims at improving the health of the communities served through the better use by the people of resources available, and to the more intelligent use of health agencies. In addition to the programme of education, curative and preventive services are provided. General preventive services include maternal and child care, control of communicable diseases and health examinations. The care of the sick includes both care at the Centre as well as in the homes and includes domiciliary nursing care. A district midwifery service is also provided. The relationship between the team of workers and the communities aims to stimulate and encourage these communities to participate actively in the prevention of their own diseases, the promotion of their own health and also the care of their own sick at home.

The two communities with whom the Institute is predominantly concerned are those residing in Merebank and Lamontville i.e. among Indian, African and Coloured groups. The estimated number of families served by the Institute in 1958 was 4,000, of which 2,640 were in Lamontville and 1,360 in Merebank. A conservative estimate of the population served was 15-20,000 in Lamontville and 10-13,500 in Merebank, giving a total of 25-32,500 people. These include known permanent residents as well as long-and short-staying visitors.

Since 1956 the Institute has been run and controlled by the Hospital Services of the Natal Provincial Administration. Since 1955 the Institute has also been associated with the Department of Social, Preventive and Family Medicine of the Durban Medical School. The Department is concerned with the training of medical students in the final 3 years of their study and the students gain their practical experience at the Institute.

A fee-paying system was introduced in July, 1957, prior to which services were rendered free of charge. Fees are charged either for individual patients seeking care, a family fee which provides the whole family with a comprehensive service, or a Mother and Baby fee which covers home delivery.

Summary of work in 1958 is as follows:-

	African	Indian and Coloured	Total
Individual Care -			
At Home:-			
Nurses and Physicians	3,461	2,574	6,035
Contacts by Health Educators	4,519	2,597	7,116
At Institute:-			
Physicians and Nurses	33,894	16,172	50,066
Dentistry	1,841	1,120	2,961
Other (X-Ray etc.)	276	79	355
Group Care -			
At Institute:-			
Physicians and Nurses	1,257	865	2,122

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	African	Indian and Coloured	Total
In Field:			
By Nurses	3,536	2,903	6,439
By Health Educators	7,065	3,221	10,286
In Hospital:-	7,681	759	8,440
Midwifery:-			
Deliveries and Home Visits	2,090	1,524	3,614
Total	65,620	31,814	97,434

"

Note: Reference to the Institute's activities in regard to tuberculosis will be found on page 35.

* * *

APPENDIX III

INITIAL EXPERIENCES IN A BI-RACIAL SUB-TROPICAL DIABETIC CLINIC

by

Dr. G.D.Campbell,
Junior Visiting Physician,
King Edward VIII Hospital,
Durban

Dr. W.G.McNeill,
Registrar, The Diabetic Clinic,
King Edward VIII Hospital,
Durban.

* * *

The recent Leader in the "British Medical Journal" (1) on Diabetes in the Tropics, and Dr. J.Cosnett's paper on the Natal Indian Diabetics (2), have prompted us to record some of the developments in the treatment of Diabetes that have occurred in the King Edward Hospital, Durban, since Dr. Cosnett wrote his paper 18 months ago. During 1958, expansions in the Hospital allowed of the establishment of a Diabetic Clinic for Zulu and Indian patients. Out of a total of over 650 patients at present attending, we have extracted information on the first 405 (105 Zulus, 300 Indians).

The chief problem with impecunious Diabetics is that of trying to diet them satisfactorily. On account of poverty their diet is very high in carbohydrate. We devoted our most earnest efforts in impressing upon our patients the need for restriction of carbohydrate, as much as is possible. All patients are lectured to in Zulu and English about dieting, urine testing and syringe technique, and they are each given a rough diet sheet in keeping with the customs of both races.

Few Diabetics are admitted for stabilisation. Previously, Diabetes was the single commonest cause for admission to the Indian Medical Wards; now these numbers have dwindled spectacularly, and a load has been lifted off the Indian medical service. Only those Diabetics needing urgent treatment for ketosis or complications are admitted. Unfortunately, limited laboratory facilities have precluded blood sugar stabilisation of our out-patients.

In a Clinic in which no less than five types of Diabetics are seen, we have for obvious reasons avoided the use of the terms "Type 1" and "Type 2". The following table (Table 1) shows the terms that we have used in our Clinic, for the sake of simplicity. The number of patients of each race and sex in the various categories is noted:-

Table 1.

Name in our Clinic	Equivalent	Indians (300)			Zulus (105)		
		M.	F.	Total	M.	F.	Total
"SENILE"	GENERALLY over 60 yr. at onset: often underweight: generally easy to control on oral drug, or small dose of Insulin.	22	24	46	2	9	11
"FAT MIDDLE-AGED"	Middle-aged Insulin-resistant patients. "Type 2":	64	140	204	24	33	57
"J" TYPE	Under 40 yr. at onset, always thin, insulin-resistant (80 or more U. daily); not liable to ketosis if Insulin is withdrawn.	-	5	5	-	-	-

Table 1. (Cont'd)

Name in our Clinic	Equivalent	Indians (300) M.	F.	Total	Zulus (105) M.	F.	Total
"NON-J" JUVENILES	Young labile FAT Insulin-sensitive pts, often fat. In Zuluz, easily ketotic THIN	2) 10) 12	19) 13) 32	44	7) 4) 11	17) 9) 26	37
CHRONIC PANCREATITIS PATIENTS	Diabetes due to Chronic pancreatitis	1	-	1	-	-	-

It is interesting to note that unlike Hugh-Jones in Jamaica (3), we find the "J" type of diabetic only in patients of Indian extraction and not in the African. In Dr. Cosnett's paper (2), he noted that 8% of all his Indian patients were of the "J" type. In the present series, we have found only 2%. The reasons for this is two-fold; firstly, we have a number of thin young Indian diabetics, who have been satisfactorily controlled in the oral anti-diabetic drugs, and in whom we have never established Insulin requirements because of the facility with which they have been controlled on oral therapy. Secondly, because we have applied most stringently our criteria (see Table 1), in the diagnosis of the "J" type - any patient who has shown acetone on even one occasion being excluded from this category.

In Table 2, we have set out the methods of treatment that have been employed in our first 405 cases - the criterion of control being that which would be regarded as "Fair" in clinics in the U.S.A. or the U.K.:-

Table II.

Method of Treatment	M.	F.	Total (300 Indians)	M.	F.	Total (105 Zulus)
Diet only	15	31	46	2	5	7
Diet and 0-40 U. Insulin Daily	17	17	34	13	15	28
Diet and Over 40 U.Insulin Daily	9	19	28	8	14	22
Diet and Oral Anti-Diabetic Drug	58	134	192	15	33	48
Totals	99	201	300	38	67	105
Successfully "Converted" from Insulin to Oral Anti-Diabetic Drug	25	40	65	12	15	27

Dr. Cosnett noted in his paper that 11 out of a total of 207 patients were controlled on Tolbutamide; the above table shows how much this has changed. Because of Primitive Syringe Hygiene, we have tried to wean as many patients as possible off Insulin and in our first 405 patients we have converted 92 from Insulin to Tolbutamide or another anti-Diabetic drug. These preparations have proved admirable in many patients, including many young people, of both races. Table 2 shows that many of our fat middle-aged diabetics are on the oral anti-Diabetic preparations (principally Tolbutamide). We realise fully that this is bad diabetic practice, but as the incomes of so many of our patients prevent their being able to afford other than a diet rich in carbohydrate, our aims have been to try and relieve the troublesome symptoms of Diabetes, and to render the urine as free of sugar as possible. In this respect the oral anti-diabetic drugs (Tolbutamide, Chlorpropamide and Metahexamide) have proved invaluable. In only four instances out of the 92 "conversions" from Insulin to oral therapy, had the patient to be put back on to Insulin again. These conversions included not only fat middle-aged Diabetics

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(who should not really have been put on to Insulin prior to their being referred to the Clinic), but also several patients who had been ketotic; one Zulu woman, who had been admitted in diabetic coma, has now been satisfactorily controlled for over six months following an initial period on Insulin. Hopes that the use of oral preparations would reduce the Insulin requirements of the "J" type Diabetics, have not been realised, though as stated above, certain of the milder thin young Diabetics have been well controlled by these drugs, but we are not really in a position yet, to say whether these are in fact "J" types or not.

As regards the Indian Diabetics, there is little to add to Dr. Cosnett's account (2). Our attention has recently been drawn to the fifth husband and wife pair, who have developed Diabetes simultaneously, on this occasion after fifty years of marriage. This would support the contention that articles of diet may be incriminated in the aetiology of the disease in the Natal Indian. The gradual imposition of our dietary restrictions on the large number of fat middle-aged Indians on oral therapy, has allowed us, in many cases to reduce the dosage, and in some cases to stop oral therapy altogether. It would be true to say, that if we could impose proper dietary restrictions on all our Indian patients, the number requiring drug treatment would be cut to one-third. Most Indian patients have a family history. As it is difficult to diet them, and as Diabetes is almost certainly precipitated and perpetuated by dietary habit, the imagination boggles at the incidence of the disease in the generations to come. Already our patients are marrying one another - the latest betrothal being between a "J" type girl, and a "Non-J" boy; one wonders what kind of diabetics will result from this mating! It is of interest to note that at the present time, the commonest cause for the refusal of Life Insurance for the Natal Indian, is glycosuria (4).

Diabetes is reputedly rare in the African. In a recently published Monograph on Sickness in the African (5), a series of 17 is reported to have been collected in two years; of these 14 were males, and most were between 20 and 40 years of age, treatment was regarded as being very unsatisfactory. In eight months, we have been able to collect 135 Zulu diabetics (annual Hospital turnover - 600,000 out-patients). Their study has proved most interesting and a detailed paper upon them is in the process of preparation. One quarter of the cases developed Diabetes between the ages of 30 and 40, and one half of them between the ages of 40 and 60. Previous impressions of the African Diabetics were that they were always educated and "civilised" people, speaking English as a mark of their "emergence", and holding posts of responsibility. Though this is true of some of our patients, these impressions are by no means invariable correct. Of our first 105 patients only 35 could speak even the slightest English. We have seen increasingly commonly (10% of patients) Diabetes occurring in completely uneducated and "uncivilised" peasants from the Native Reserves, who have not been contaminated by the living and eating habits of the European. All these "peasant" Diabetics fall into the category of Senile Diabetics, and have generally come great distances to the Hospital for the treatment of cataracts, this being the commonest complication in the Zulu Diabetic (Table 3). We have been most interested to see in our fat middle-aged Zulu patients that there is a remarkably constant period of exposure to life in the "Big City" (Durban), before the development of the disease. In over 60% of our patients whose information was regarded as reliable, this period lay between 18 and 22 years! We appear at present, to be reaping a crop of Diabetics sown in Durban by the big influx of native labour into the town, in the immediate pre-war years. Dr. N.McE. Lamont (6), together with Prof. T.Gillman and Dr. M.Hawthorn, has recently been engaged in a liver biopsy survey of over 400 male Zulus; they performed biopsies on 14 male Diabetic patients.

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Whereas in the 400 patients, the overall incidence of severe hepatic siderosis was over 70%, in these 14 Diabetics, only two were found with iron in their livers, and in one of these, this was described as minimal. This is of particular interest if one assumes that siderosis is related to malnutrition (7), indicating that in this small series, the Zulu Diabetic appears well-nourished. Clinically, the liver was described as enlarged in only three of 105 Zulu Diabetics, in one instance due to cardiac failure. No less than six of our first 105 patients were admitted in diabetic coma - the disease being not quite as "mild" in the Tropics as the recent Leader mentioned above (1) might lead one to believe. The mortality in these cases, and in a number of cases admitted before the Clinic was formed being very high indeed, and is mainly due to the delay in getting the patient to Hospital. Apart from lower standards of syringe hygiene, we find that out-patient control of our Zulu patients is no more difficult than in Europeans. There is in fact, a marked similarity between the European and Zulu Diabetics; the Indians differ from both, in that they generally have a much milder form of the disease, are more resistant to Insulin, and it is in them only that the "J" type of Diabetic is found in Natal.

The following Table (3) compares the complications in the two races:-

Table 3.

COMPLICATIONS		INDIAN PATIENTS (Many have longstanding Diabetes)	ZULU PATIENTS (Only one patient of over 10 yr. standing).
VASCULAR	Retinopathy	xxxx	xx
	Cardiac (Incl. High B.P.)	xxx	xx
	Cerebral	xxx	x
	Renal (Kimmelsteil-Wilson)	xxx	x
	Peripheral vascular	xx	x
INFECTIVE	Skin	xxxx	xxx
	Urine	xx	xxx
	Tuberculosis	xx	x
	Gall bladder	x	0
METABOLIC	Senile cataract	xxxx	xxx
	Neuropathy	xxx	x
	"True" diabetic cataract of young people	xx	xx
	Diabetic coma	0-x	xx
	Hypoglycaemic coma	x	x
	Blood cholesterol	mostly over 200	mostly less than 150

(xxxx is very common; xxx is common; xx is frequent; x is rare and 0 is absent)

The monumental complications in the Indian Diabetic have been stressed by Dr. Cosnett (2). The apparent lesser incidence in the Zulu is explained by the fact that only one out of our 105 Zulu Diabetics had had the disease for longer than ten years. In the "long-standing" Zulu Diabetic (5-10yr.) complications are almost invariably present.

In Table 2, we noted that 92 out of our first 400 Diabetics had been converted from Insulin to Oral therapy, with only four "failures". All these conversions were done on an out-patient basis, and

we feared that we might precipitate serious complications. Happily, since this wholesale swing to oral therapy, only 4 out of 405 patients on all forms of treatment have developed complications (3 Indians, and 1 Zulu) and these were all infectious; of these patients, two were on Insulin, and two were on Oral therapy.

It will be interesting to note whether this ratio will obtain in the future.

In regard to surgical Diabetics, each case has been judged on its own merits. Pre-operative Insulin has generally been witheld in the fat middle-aged Diabetic with his own endogenous Insulin. Only where there have been infective or other serious complication, has Insulin been used to tide the patient over the operation. In patients lacking endogenous Insulin (plus "J" types, where they come into this category or not), preference has been given to the use of Soluble Insulin, with an infusion of Glucose. Blood sugar control has been obtained whenever possible. In regard to the diabetic control of pregnant women, we hope to be able to take advantage of the great room for improvement - non-attendance by the patient being the chief bug-bear.

So far, we have counted ourselves successful in two ways; firstly in the regularity with which our patients attend, and secondly in that we have achieved weight losses in our Indian patients, which we would formerly have considered impossible; it is true to say, that rigorous dietary control would reduce the number of patients in our Clinic to one third. We hope that by trying to discipline our Indian patients, we may in time be able to avert the terrible Diabetic complications seen in them, which have been summarised by Dr. Cosnett. On the whole our Zulu patients have been good and co-operative in their control, and they are infinitely more tractable patients than the Indians.

LIST OF REFERENCES

(1) Leader. Brit. Med. J. (1959) 1, 117.
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(3) Hugh-Jones, P. Lancet (1955) 2, 981.
(4) S.Afr. Mutual Life Assurance Coy. (1959). Personal Communication.
(5) Gelfand, M. The Sick African (1957). Juta and Co., 696.
(6) Lamont, N.McE. (1959). Personal communication.
(7) Lamont, N.McE., Gillman, T., and Hawthorn, M. (1959). Brit. Med. J. (in press).

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Footnote: by City Medical Officer of Health, Durban.
At the date of typing this report (23rd September, 1959), the above Diabetic Clinic had registered its 1016th case of diabetes.

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APPENDIX IV

MORTALITY FROM CORONARY THROMBOSIS: DURBAN: 1958

A Flash-Back

As the view is sometimes advanced that motor cars and lack of exercise are contributory causes in the development of coronary thrombosis, the following paragraph from the "Natal Mercury" dated May 18, 1881, may be of some interest. This extract was evidently copied at the time from an overseas journal.

"The alarming increase of late years in the proportion of sudden deaths is beginning to attract the attention of Statisticians. It is largely due, no doubt, to more general mental activity without a proportionate increase in bodily exercise. The busy life of the age demands a constant hurry and excitement, and taxes the physical powers to the utmost to keep the race for money getting. One of the disadvantages of introducing facilities of transportation is the temptation to cut short time and distance by the habitual use of riding in the daily transit from the dwelling to the office. A sedentary occupation begets an almost unconquerable aversion to regular exercise and the result of yielding to the indisposition is that the mental powers, kept at a steady tension for years, will some day suddenly relax and leave their abuser either lifeless or helplessly paralytic. To literary and professional men is vigorous and regular exercise especially needful and the example of its effects in hale old age will suggest themselves to everyone. The exercise needed to keep the mind in tone and the physical force unabated, up to the four-score years and ten, is not a daily spin behind a fast stepping horse, but the long swinging gait which puts the walker over a country road at the rate of four or five miles an hour, and sends the blood pulsing with invigorating life to every portion of the system. Two hours exercise a day, so far from being a waste of time is a positive economy, supplying the nervous force for more and better work in ten hours than the man of tramcars and railway carriages can get out of twelve."

Notes on the Table

The attached table reflects the number of deaths from coronary thrombosis reported in Durban during 1958. It also shows the numbers of deaths recorded in various age-groups for each sex and race. The great majority of deaths were certified as being due to coronary thrombosis but a few were certified for the following causes, and are included in the table:

Cardiac Infarction	Coronary Sclerosis
Coronary Arteriosclerosis	" Stricture
" Atheroma	Angina Pectoris
" Infarction	Infarction of heart,
" Occlusion	myocardium, or ventricle.

The great disparity between the number of European and Bantu deaths from coronary thrombosis is very striking. As regards the Bantu deaths, it should be observed that three out of the nine were confirmed by post-mortem, one being a female aged 35, and the other two males aged 35 and 48 respectively. The remaining six were diagnosed only on clinical grounds but the ages of these must be taken into account in making an assessment of the situation. These ages were 38, 40, 45, 50, 53 and 54.

The total deaths during 1958 for each racial group was as follows:

	Male	Female	Total
European	791	669	1,460
Coloured	110	102	212
Bantu	1,903	1,613	3,516
Asiatic	852	664	1,516

Population figures will be found on Page 3 of the Annual Report for 1958.

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CORONARY THROMBOSIS

DEATHS: 1958

AGE, RACE AND SEX GROUPS

Age Group	European			Coloured			Bantu			Asiatic			Total		Grand Total
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	
Under 20 Years	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 to 30 "	1	-	-	-	-	-	-	-	-	5	1	6	6	1	7
31 to 40 "	3	-	3	1	-	1	3	1	4	4	-	4	11	1	12
41 to 50 "	13	3	16	1	2	3	2	1	3	14	8	22	30	14	44
51 to 60 "	29	11	40	2	1	3	2	-	2	18	8	26	51	20	71
61 to 70 "	48	22	70	-	2	2	-	-	-	20	17	37	68	41	109
71 to 80 "	33	39	72	-	1	1	-	-	-	11	4	15	44	44	88
81 to 89 "	18	16	34	-	-	-	-	-	-	-	3	3	18	19	37
90 Years and Over	1	3	4	-	-	-	-	-	-	-	-	-	1	3	4
Totals	146	94	240	4	6	10	7	2	9	72	41	113	229	143	372