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CITY OF DURBAN

Annual Report

OF

CITY MEDICAL OFFICER OF HEALTH

YEAR ENDING 31st DECEMBER, 1957

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CITY OF DURBAN

ANNUAL REPORT

OF

CITY MEDICAL OFFICER

OF

HEALTH

YEAR ENDING 31st DECEMBER, 1957

* * *

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ANNUAL REPORT: 1957

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City Health Department,

640 Smith Street,

DURBAN.

17th September, 1958.

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

I have the honour to present the fifty-fifth Annual Report on the activities of the City Health Department for the year 1957.

Asian Influenza:

Apart from a sharp and severe outbreak of Asian Influenza which occurred towards the end of the winter, the year under review was characterised by being remarkably free from public health emergencies. An account of the outbreak in question forms the subject matter of Appendix I of this Report.

Cancer:

A further feature of this Report is Appendix II which deals with statistical material relating to deaths from cancer in the City during 1957. This subject has been given special treatment this year not only because of its general interest to the public but also because of its concern to the members of the medical profession and to research workers in this field.

Tuberculosis:

Bantu tuberculosis maintained its invidious position as Durban's greatest public health problem. During the last four years notifications of Bantu cases resident in the City have doubled, the figures being as follows :-

1954 - 1061	1956 - 1963
1955 - 1341	1957 - 2216

For the period 1948 - 1954 the notifications were relatively static. Whilst there are several reasons for this appreciable rise in notifications, such as an increase in the population and improved contact finding, other factors operate which are difficult to control and which are inherent in the situation.

One bright spot in this depressing picture is to be found in the fact that the number of deaths from tuberculosis has markedly decreased during the last few years.

It should be noted that steps were taken during the year to re-organise the Tuberculosis Section and to place it on an improved functional basis.

Typhoid:

Much concern was felt by the Department at the increased prevalence of typhoid fever at Cato Manor during the period covered by this Report. The number of cases notified from this locality was 83 of which 52 were resident in the Settlements described on pages 105 and 106 of this document.

Kwa Mashu:

During the year building operations were commenced at the City's extensive Bantu Housing Scheme known as Kwa Mashu (formerly Duff's Road).

This great project is situated about twelve miles from the centre of the City off the North Coast Road. Good progress is being made with the Scheme and, on its completion, the virtual elimination of all of the Bantu shack settlements in Durban should be assured.

Shortage of Health Inspectors:

Towards the end of 1957 the shortage of Health Inspectors became very acute. The transfer of personnel to more attractive posts in the Central African Federation was responsible for most of the vacancies. Moreover, the staff position in this Section of the Department was further aggravated by the calls made on it to second Health Inspectors to the Municipal Abattoir for meat inspection duties so as to meet emergencies created in that Department by its own staff shortages.

Accommodation:

As recorded in the last Annual Report, working conditions for the staff were improved to some degree during 1956. However, no additional accommodation became available during 1957 and certain Sections of the Department continued to be housed under cramped and unsatisfactory conditions.

Domicile of Bantu Hospital Patients:

This subject was alluded to in the 1956 Annual Report. It is necessary once again to stress that many patients who are admitted to the King Edward VIII Hospital giving their residential addresses as Cato Manor do not, in fact, belong to that locality at all. Because of this factor, there has been a tendency to blame the area for a certain amount of ill-health for which it has been in no way responsible.

On page 81 of this Report, it is recorded that in a survey carried at the above Hospital respecting infants suffering from malnutrition, it was found that out of 161 patients, 105 were imported cases coming as far a field as Eshowe, Mt. Ayliff, Greytown, Harding and Mapamulo. Of the 105, 36 were admitted by their parents with Cato Manor and other Durban addresses.

Earlier in the year another survey was conducted to determine the domicile of infants dying in the above hospital from gastro-enteritis. Out of a total of 135 deaths occurring in the Infants' Ward during the period 1st February to the 20th February, 1957, it was ascertained that 97 had died from the above cause. Twenty of these patients were definitely imported cases and the same number were definitely City cases living in areas other than Cato Manor. Of the 57 cases with Cato Manor addresses, 10 were discovered, on further investigation, to have been admitted from areas outside the City, and the parents of 23 were unknown at the addresses given to the hospital authorities. In another 9 cases it was discovered that the mothers were not permanent residents of the City though the fathers were. In certain instances these infants were sick on arrival and were actually brought into the town for treatment.

There then remained a balance of 15 infants - 2 legitimate and 13 illegitimate - whose parents were permanently resident at Cato Manor. Six of the patients resided in the notorious area known as "Raincoat" where environmental conditions were exceptionally bad.

Financial Responsibility for the Hospitalisation of Patients
Suffering from Infectious Diseases:

First raised in 1955, good progress was made during 1957 towards reaching agreement on this issue. It will be observed from page 69 of the Report that by the end of the year the prospects of an early settlement of this dispute were very favourable.

Registration of Bantu Births:

Both this subject and that of the registration of Bantu deaths were discussed at some length in last year's Annual Report.

The number of Bantu births during any year are ascertainable from two sources, namely, from the Government Native Affairs Department, which collects information for submission to the Department of Interior, and secondly, from the notifications received by this Department in terms of the Regulations made under the Public Health Act.

Under the administration arrangements of the first channel of information, part-time Bantu assistants are appointed to receive particulars of births occurring within locations and housing schemes. However, the figures compiled by this service fall short of what is required by this Department as the number of births recorded by the assistants are far from being complete. For instance, at Lamont Location with a population of 16,400 only 56 births were reported to the assistant on duty there during 1957. The same position obtains elsewhere and it is obvious that with this method an appreciable proportion of Bantu births remain unrecorded.

As regards the second avenue of enquiry, the total number of Bantu notifications received by this Department during 1957 was 5461. Out of this number, 145 were received from midwives carrying out a domiciliary service. The remaining 5316 were received from King Edward VIII Hospital and from the McCord Zulu Hospital and were all applicable to women who gave residential addresses within the City.

Now, it is very obvious that there have been many more than 145 Bantu births taking place in the City outside its hospitals. The number of such unrecorded Bantu births is quite unknown and cannot even be guessed at.

Registration of Bantu Deaths:

Briefly the position is that, while the number of Bantu deaths registered in Durban must be regarded as being just as reliable as those for the other racial groups, in the case of a percentage of the Bantu infants, the cause of death has been diagnosed not by a medical practitioner but by the South African Police. Whilst it is understandable that the Police Authorities have no further interest in the matter as long as a death has been due to natural causes, the position is, of course, quite unsatisfactory from the angle of the health authority as little or no reliance can be placed on a cause of death arrived at in this manner. Furthermore, no particulars are adduced to show whether the deceased was a bona-fide City resident or not.

As the Department continued to experience difficulty in the compilation of its statistics as a result of the above procedure, the matter was represented to the Chief Regional Health Officer/Natal. In December, the local office of the Union Department of Health convened a meeting to discuss this problem. This conference was attended by representatives of the Department of Health, by the Chief Magistrate, the Native Commissioner and by representatives of this Department. After discussion, the matter was left over for further consideration.

Bantu Infantile Mortality Rate:

This rate is usually expressed as the number of deaths of infants under one year per 1,000 live births recorded during the year. From what has been stated in the preceding paragraphs, it is clear that it is difficult to compute this rate accurately for the Bantu community in Durban. The rate is undoubtedly high - much too high - but with the prospects of the elimination of more shack settlements in the near future, an improvement in the situation can be expected.

Mortality Returns:

Among Europeans, as would be expected, the deaths attributable to diseases of the heart and blood-vessels outnumbered all others and this group is followed by that for cancer. In the former category there were 455 deaths and in the latter 240: the percentages against total deaths were therefore 32% and 17% respectively. Pneumonia accounted for 86 deaths (6%) while 64 (4.5%) deaths were certified as due to senility and old age. Diphtheria accounted for 4 deaths and tuberculosis 19.

In the Coloured group, out of a total of 201 deaths, 25 were ascribed to pneumonia, and 18 to cancer.

The total number of Bantu deaths was 4,212. Nearly half of these, namely 2,070, occurred amongst Bantu infants up to the age of one year. The chief causes of deaths amongst these infants were gastro-enteritis (28% of total deaths at all ages) and broncho-pneumonia. But, as has already been indicated, it is quite impossible to say how many of these infants were bona-fide City residents. This could only be computed with accuracy by an investigation into each and every death at the time it is reported: this measure is clearly quite out of the question.

But even so, it must be acknowledged that the number of City infantile deaths amongst the Bantu is very high and it is therefore natural to enquire as to reasons for this state of affairs. Part of the story is, of course, the very unsatisfactory environmental conditions into which many of these infants are born and these are the conditions which the Council is endeavouring to abate as expeditiously as possible by the establishment of the large Bantu housing scheme at Kwa Mashu. There is, however, another part of the story which is revealed in the pages of this Report.

In the higher age-groups of the Bantu, cancer accounts for 65 deaths (1.5%) and cardio-vascular disease for only 137 (3.7%). This pattern is in striking contrast to that shown for Europeans. However, it must be born in mind that the mean age at death amongst the Bantu is much lower than in the European group: therefore the number of deaths occurring over the age of forty in the Bantu is relatively smaller than in the European. There were 266 Bantu deaths from tuberculosis.

In the Indian section, the picture tends to lie midway between that for the European and the Bantu. In this race, broncho-pneumonia and allied conditions were responsible for the highest number of deaths, namely, 320. Of this number, 207 occurred in infants and children under the age of 6 years as follows :- Under 1 year - 94; 1 to 2 years - 64; 2 to 5 years - 49.

The second highest general cause was referable to vascular diseases of the central nervous system (153) and the number in this category approximated closely to the figure for Europeans. The number of deaths from gastro-enteritis was 118.

CORRIGENDA

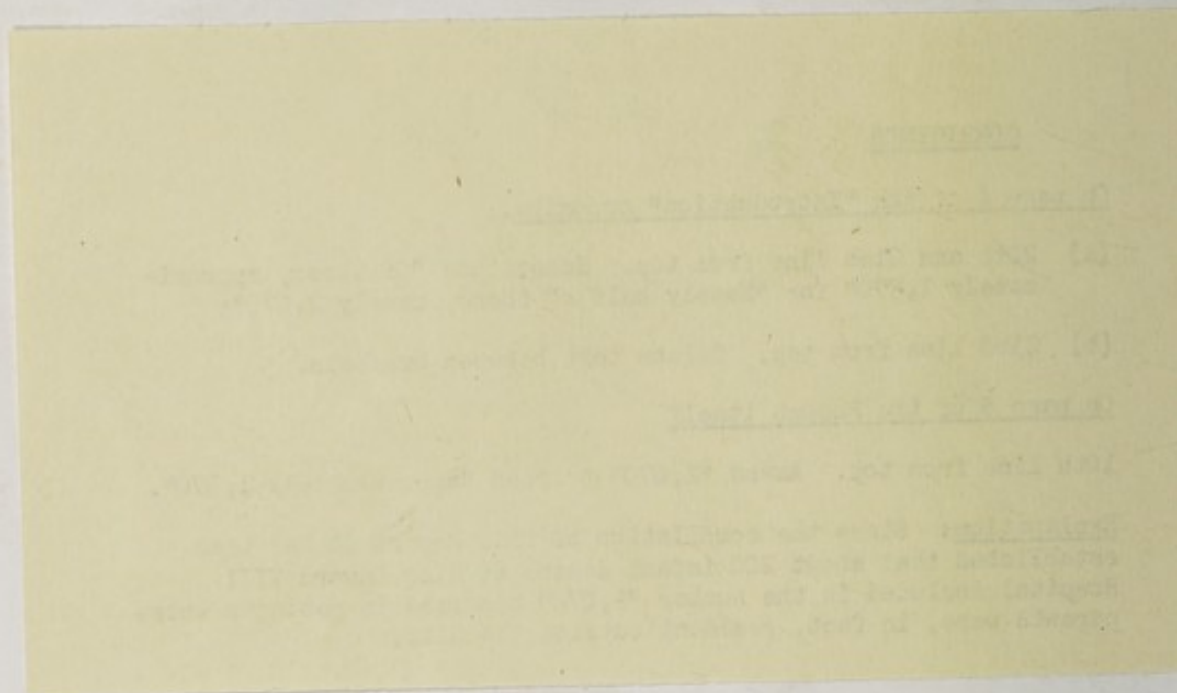
On page 4 of the "Introduction" opposite.

- (a) 20th and 21st line from top. Substitute "Of these, approximately 1,870" for "Nearly half of these, namely 2,070";
- (b) 23rd line from top. Delete text between brackets.

On page 5 of the Report itself

10th line from top. Amend "2,070" to read "approximately 1,870".

Explanation: Since the compilation of this Report it has been established that about 200 infant deaths at King Edward VIII Hospital included in the number "2,070" occurred in patients whose parents were, in fact, resident outside the City.



Occupational Health Council of Natal:

Towards the end of 1956, steps were taken by the Natal Employers' Association to establish an organisation which would primarily concern itself with the question of Health Services in Industry. Generally speaking, it was considered that by means of such a body, the burden of sickness amongst industrial workers could be lightened and their efficiency increased. In June 1957, the Department was invited to send a representative to serve on an ad hoc Committee and, since that date, the Department has been associated with the work of that Committee and with that of the abovenamed Council which was later established as an independent organisation.

Post-graduate Course in Industrial Nursing:

At the invitation of the Principal, representatives of the Department attended two meetings held at the Durban Technical College during the months of August and September. The purpose of these meetings was to give consideration to the question of the inauguration of courses in industrial nursing at Technical Colleges. At present there are not such courses. This matter had been previously referred to the Union Department for Education, Arts and Science by the South African Nursing Council.

Conference of Full-time Medical Officers of Health:

"In order to afford Local Authorities, employing full-time Medical Officers, an opportunity of discussing their problems freely and frankly with officers of this Department, it has been decided to convene a Conference" So wrote the Secretary for Health at the beginning of March, 1957 who, at the same time invited the Council to send a representative to the projected Conference and to submit topics for discussion. The Conference was held at Pretoria during the period 14th to 16th October, 1957, and was attended by the City Medical Officer of Health. The agenda was a weighty one but it embraced many subjects on which difficulties had arisen or concerning which definition of the views and policies of the Union Department of Health was sought.

This was the first Conference of its kind. It was a great success and marked a big step forward towards improved public health administration and relationships in the Union.

National Tuberculosis Conference:

The Conference, convened by the Union Department of Health, was held at Johannesburg during the period 2nd - 4th December 1957. Dr. C.R. Mackenzie, Assistant Medical Officer of Health, attended the Conference as the representative of the Council. On his return Dr. Mackenzie reported that the discussions had proved most instructive and that there had been a most valuable exchange of information.

Organisations operating at Cato Manor:

The following organisations undertake services at Cato Manor which have a direct bearing on the public health of the area. In these circumstances, the Department wishes to express its indebtedness and appreciation to these bodies for their assistance and co-operation in the provision of such items as creches, nursery schools, feeding schemes, entertainment and recreational facilities, and domiciliary services.

Cato Manor Community Welfare Huts
Bantu Child Welfare Society
Round Table
Rotary
Toc. H.
Union of Jewish Women.

Acknowledgements:

Once again to His Worship the Mayor and to the Chairman and members of the Public Health Committee, I wish to express my warm thanks for their kindly and encouraging support during 1957. I would also like to record my grateful appreciation to the Town Clerk and his Staff, the Heads and Staff of other Departments, and to the Municipal Service Commission for the unfailing courtesy, valuable assistance, and co-operation extended to the City Health Department. I am grateful also to the local Press and to the Regional News Office of the S.A.B.C. for their most helpful and ready co-operation at all times and for the publicity given to many aspects of the Department's activities. These services have been much appreciated. Lastly, to all members of the Department itself - Europeans, Indian and Bantu - I tender my very sincere thanks for their loyal support and for their industrious, efficient and valuable services to the cause of public health in Durban.

I have the honour to be,

Ladies and Gentlemen,

Your obedient servant,

G.D. English

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, 1957

* * *

REPORT 'A'I. NATURAL CONDITIONS AND STATISTICS1. Area

Prior to October, 1957, the area of the City was 44,927 acres (70.2 square miles). During that month, in terms of the provisions of Local Government Ordinance No. 24 of 1957, a further 2,996 acres were incorporated at Duff's Road - on the North Coast - for the development of the Kwa Mashu Native Housing project. In consequence of this addition, the Municipal area now comprises 47,923 acres (74.88 square miles).

2. Valuation

	<u>1957</u>	<u>1956</u>
Rateable value of land	£69,554,540	£56,803,850
Rateable value of buildings	<u>£108,229,870</u>	<u>£95,523,330</u>
Total	<u>£177,784,410</u>	<u>£152,327,180</u>

Rates

Land - 7d in £: Buildings - 3½d in £.
Agricultural - 1/- per acre per annum

3. Geographical Data and Climate

Durban is situated on the East coast of the Province of Natal at longitude 31° East and latitude 29° 52 minutes, 30 seconds, South and possesses a large landlocked deep water harbour. It is the principal port of call for shipping to and from the Middle and Far East. The City enjoys a sub-tropical climate, having a temperate summer of high humidity and a mild winter. Approximately 3,000 acres within the City are set aside as parks, playing fields, children's playlots and as small open spaces that are maintained as areas of quiet retreat.

Except for numerous blocks of flats in the Central Areas, the population is generally housed in suburbs situated in the South, West and North.

In keeping with modern town planning, Durban is zoned industrially, commercially and residentially.

METEOROLOGICAL DATA (By Courtesy of the City Engineer)

1957	Temperatures			Temperatures			24 Hour Shade Temperature		* Points	Rainfall	
	Dry Bulb			Wet Bulb			Maximum	Minimum		No. of Days on which Rain fell	Highest Fall
	Maximum	Minimum	Mean	Maximum	Minimum	Mean					
January	85	75	80.5	80	69	74.7	89	69	74.7	14	264
February	85	73	79.9	78	68	75.6	91	67	1,387	12	520
March	82	68	76.1	78	68	72.6	85	64	1,460	16	328
April	78	66	73.1	73	62	69.0	84	59	2,971	14	1,145
May	69	62	65.2	65	58	61.0	80	55	201	5	95
June	68	56	61.5	62	50	56.7	88	49	54	6	22
July	70	56	61.8	66	53	58.4	87	51	54	8	32
August	72	59	64.8	66	55	59.8	83	49	193	4	126
September	75	59	68.0	70	56	64.8	85	58	1,067	17	540
October	82	59	72.1	75	54	67.3	87	54	1,516	16	230
November	86	66	73.2	78	63	69.2	91	63	1,041	22	145
December	80	67	74.6	76	63	71.1	86	61	879	11	365
Maximum for Year	86	75	80.5	80	69	75.6	91	69	2,971	22	1,145
Minimum for Year	68	56	61.5	62	50	56.7	80	51	54	4	22

*1 point = $\frac{1}{10}$ in. m.

3. Population (Estimated)

This is now calculated in accordance with a fresh formula submitted to the Department by the Director of Census and Statistics.

Europeans	151,678
Coloureds	23,838
Bantu	179,157
Asiatics	<u>197,411</u>
All Races	<u>552,084</u>

4. Births

The Department relies for its statistics largely on the births notified under the Regulations re Early Notification of Births framed under the Public Health Act rather than on births registered under the Births, Deaths and Marriages Act. By doing so a large number of Bantu and Asiatic births are recorded which would not otherwise come to notice. The great majority of non-European births take place in institutions, and the institutions concerned carry out the notification on behalf of the parents.

Race	Legitimate	Illegitimate	Still	Total	Rates		
					Birth	Illegitimate	Still Births per 1,000
European	2,917	73	35	3,025	19.95	2.41%	11.40
Coloured	666	176	32	874	36.67	20.13%	36.61
Bantu	1,844	3,484	133	5,461	(See introduction)		
Asiatic	5,112	27	176	5,288			
All Races	10,539	3,760	376	14,648			

Throughout the years the birth rate has not changed materially in respect of the various racial groups.

5. Deaths

As mentioned in the 1956 Annual Report a punch card system for death records is being used and all deaths are classified in accordance with the International Code of the World Health Organisation, Volume 1 (1948). Only the international abbreviated list of 50 causes of mortality are published hereunder.

	Cause of Death	E.	C.	B.	A.	Total
B 1	Tuberculosis and Respiratory System	17	11	196	32	256
2	Tuberculosis, Other Forms	2	2	70	15	89
3	Syphilis and its Sequelae	1	-	14	-	15
4	Typhoid Fever	1	-	6	1	8
5	Cholera	-	-	-	-	-
6	Dysentery, All Forms	2	9	120	13	144
7	Scarlet Fever and Streptococcal Sore Throat	-	-	-	-	-
8	Diphtheria	4	-	11	4	19
9	Whooping Cough	1	-	8	3	12
10	Meningococcal Infections	-	-	2	4	6
11	Plague	-	-	-	-	-
12	Acute Poliomyelitis	5	-	3	1	9
13	Smallpox	-	-	-	-	-

Cause of Death	E.	C.	B.	A.	Total
14 Measles	-	2	38	9	49
15 Typhus and Other Rickettsial Diseases	-	-	-	-	-
16 Malaria	-	-	-	-	-
17 All Other Diseases Classified as Infective and Parasitic	1	1	49	13	64
18 Malignant Neoplasms, Including Neoplasms of Lymphatic and Haematopoietic Tissues	232	18	65	63	378
19 Benign and Unspecified Neoplasms	8	-	2	-	10
20 Diabetes Mellitus	10	3	4	22	39
21 Anaemias	4	-	3	5	12
22 Vascular Lesions Affecting Central Nervous system	163	10	67	153	393
23 Nonmeningococcal Meningitis	3	-	13	14	30
24 Rheumatic Fever	-	-	-	3	3
25 Chronic Rheumatic Heart Disease	8	1	16	17	42
26 Arteriosclerotic and Degenerative Heart Disease	321	19	42	129	511
27 Other Diseases of Heart	91	5	49	84	229
28 Hypertension with Heart Disease	29	7	22	65	123
29 Hypertension without Mention of Heart	6	1	8	21	36
30 Influenza	1	-	11	17	29
31 Pneumonia	86	25	800	320	1,231
32 Bronchitis	5	3	14	38	60
33 Ulcer of Stomach and Duodenum	1	-	-	-	1
34 Appendicitis	2	-	-	-	2
35 Intestinal Obstruction and Hernia	8	1	1	2	12
36 Gastritis Duodenitis, Enteritis and Colitis, Except Diarrhoea of Newborn	11	13	1,182	118	1,324
37 Cirrhosis of Liver	19	1	21	10	51
38 Nephritis and Nephrosis	31	7	27	37	102
39 Hyperplasia of Prostate	2	-	-	-	2
40 Complications of Pregnancy, Child-birth and the Puerperium	-	2	8	15	25
41 Congenital Malformations	7	1	11	7	26
42 Birth Injuries, Post-natal Asphyxia and Atelectasis	21	8	244	32	305
43 Infections of the newborn	14	4	173	53	244
44 Other Diseases Peculiar to Early Infancy and Immaturity Unqualified	40	15	235	95	385
45 Senility Without Mention of Psychosis, Ill-defined and Unknown Causes	64	6	207	50	327
46 All Other Diseases	111	15	247	175	548
BE 47 Motor Vehicle Accidents	12	4	55	33	104
48 All Other Accidents	44	4	66	39	153
49 Suicide and Self-inflicted Injury	20	1	10	15	46
50 Homicide	2	2	92	5	101
Total	1,410	201	4,212	1,732	7,555

Death Rates

European	-	9.29
Coloured	-	8.43
Bantu	-	23.52
Asiatic	-	8.77
All Races	-	13.68

Infantile Deaths

Included in the foregoing death table are the infantile deaths which comprised Europeans 98, Coloureds 60, Asiatics 418, and Bantu 2,070.

MATERNAL DEATHS

CAUSE OF DEATH	E.	C.	B.	A.	TOTAL
Pyelitis and Pyelonephritis of Pregnancy	-	-	-	1	1
Other Infections of Urinary Tract During Pregnancy	-	-	-	1	1
Eclampsia and Toxaemia of Pregnancy	-	-	1	3	4
Other Haemorrhage of Pregnancy	-	-	2	-	2
Ectopic Pregnancy	-	-	2	-	2
Ruptured Uterus	-	2	1	2	5
Pregnancy Associated with Other Conditions	-	-	1	-	1
Abortion without mention of Sepsis or Toxaemia	-	-	-	3	3
Abortion with Sepsis	-	-	1	1	2
Delivery complicated by Retained Placenta	-	-	-	1	1
Delivery complicated by other Postpartum Haemorrhage	-	-	-	1	1
Puerperal Sepsis	-	-	-	2	2
	-	2 (1)	8 (7)	15 (12)	25 (20)*

MATERNAL MORTALITY

Race	No. of 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		
E.	-	2990	35	3025	-	-
C.	2	842	32	874	2.37 (1.2)	2.28 (1.2)
B.	8	5328	133	5461	1.50 (1.4)	1.46 (1.3)
A.	15	5139	176	5315	2.91 (2.1)	2.82 (2.05)*

*1956 rates shown in parenthesis.

* * *

II INFECTIOUS DISEASES

General

No cases of formidable epidemic disease occurred during the year. In common with many countries of the world, South Africa was swept by a pandemic of Asian influenza and Durban felt its full impact during the month of August.

The Union-wide epidemic of poliomyelitis, which commenced during the last quarter of 1956, progressed into 1957. The outbreak as it affected Durban subsided during the month of April.

Typhoid fever notifications were high in the City during the year, the incidence beginning to rise in March, reaching a peak in May, and falling off during the months of July, August and September. A further rise was noted during the last quarter of the year. A majority of the cases contracted the infection in the Cato Manor shack areas. These comprise a collection of Bantu settlements carrying a population equal to, or more than, the entire population of many of the Union's towns: here conditions of insanitation of varying degrees are met with on all sides.

Scarlet fever maintained a high incidence which was comparable with that observed during 1956 when the incidence was higher than that recorded for several years previously.

There was a welcome reduction in the incidence of diphtheria but, even so, the number of notifications still points to the need for continued vigilance in this regard.

Typhoid Fever

Set out below is a table indicating the number of notifications for 1957 and 1956 according to their racial distribution:

	<u>City Cases</u>	
	<u>1957</u>	<u>1956</u>
European	6	5
Coloured	1	1
Asiatic	5	9
Bantu	<u>110</u>	<u>52</u>
Totals	<u>122</u>	<u>67</u>

In 1953/54 and in 1955 the totals were 92 and 100 respectively. Of the 110 Bantu notifications received during 1957, 83 were from the Cato Manor shack areas and comprised only persons who were considered to have contracted the infection in that part of the City. Fifty-two of those cases came from the specially unhygienic and insanitary areas of Raincoat, Mgangeni, Manasa, Jeepcoat, Nsimbini and Tusini.

Following the notification of only 2 cases in January and 1 in February from Cato Manor, the incidence of typhoid fever rose sharply to 18 in May and then declined during the winter months, reaching its lowest level in September. With the onset of warmer weather the incidence increased progressively during the last three months of the year. The prevalence of the disease in the rest of the City followed much the same pattern, with the maximum incidence in May, although the decline in notifications continued until December, when a total of 11 cases occurred.

One epidemiological feature of the Cato Manor notifications was the fact that in all cases, except 15, the premises were served by pit latrines: another was related to the water supply. Although a safe piped water supply was available in these shack areas it was, of course, highly probable that the grossly polluted rivers and streams flowing through the area were used by the populace. Despite repeated warnings, it is

certainly not uncommon to see children bathing and women carrying out washing in the river. Illegal food vendors are also numerous and they, too, often wash their fresh produce in the same watercourse. Of all the cases only 8 were males over 20 years, the remainder being adult females and children. Only in four instances could one case be linked with another.

Intensive investigations into possible sources of the infection ranged from re-investigation of cases by Bantu Health Assistants, vi-testing of illegal milk vendors, sampling of milk supplies and searching for possible carriers amongst hawkers, agents, travellers and other persons whose activities cover a wide field, to investigations into blocked sewers and the associated areas of contamination by spillage.

Control measures included immunisation (over 13,000 T.A.B. inoculations were given) and health education on a large scale. In addition, where possible, milk handlers were carefully investigated, as well as persons known to be keeping cows. Refuse removal services were introduced into one notoriously insanitary and unhygienic area which lacked such a service and fly spraying was carried out regularly and frequently where necessary. However, the response to the free immunisation service was disappointing. In the worst affected areas, the inhabitants displayed a very apathetic attitude to the situation and this was coupled with much indifference in the observance of the practice of basic hygiene. It is certainly a matter of much surprise and even astonishment, that the prevalence of the disease did not assume alarming proportions.

Of the European typhoid cases, one was assumed to have contracted ~~the~~ illness from eating oysters, as these were illegally gathered within 200 yards of a sewer outfall. However, random sampling of oysters from this area did not reveal *B.typhosus* on bacteriological examination. Another member of the family whose the oysters in a raw state also suffered from gastro-enteritis, although typhoid fever was not proven. No other likely source was discovered. The time interval between the consumption of the oysters and the onset of the illness was within the usual incubation period.

One European child, aged 2½ years, was admitted to an institution with diarrhoea. Subsequently this patient was diagnosed as suffering from typhoid fever. The routine isolation of new children to the Home who, on admission, are not well, was no doubt a valuable aid in preventing the spread of the disease as no other inmates of the institution contracted the illness. The original source of the infection was not discovered.

Another patient was a laboratory technician and, as he had handled infected specimens, it was assumed that he had contracted the infection during the course of his work.

In the remainder of the cases the disease certainly originated within the City but despite intensive investigations the sources of their infections were not traced.

Deaths from typhoid fever amongst City cases numbered eight as follows: European 1, Asiatic 1 and Bantu 6.

Imported cases totalled 72, these comprised Europeans 5, Asiatic 1 and Bantu 66.

Diphtheria

City notifications numbered 111 with a racial distribution as follows: Europeans 38, Coloureds 5, Asiatics 31 and Bantu 37. This figure represented a decline of 84 cases as against the total recorded for 1956 and was considerably less than the totals recorded for 1955 and 1953/54 when 280 and 260 notifications respectively were received. The decline was most evident amongst the European, Coloured and Bantu sections of the community.

However the more favourable position observed in 1957 leaves little room for complacency as diphtheria is a disease which should only occur occasionally, if at all, especially amongst the European community. One family alone was responsible for four of the European cases. One of these four patients actually died and it was disconcerting to discover that none of the family had previously been immunised, allegedly on the grounds that it was against the religious principles of one of the parents. In another investigation it was ascertained that only 12 of 21 close contacts under 5 years of age had been immunised despite the fact that 2 members of the families concerned had suffered from diphtheria previously.

It is of interest to note that in 1957 the disease was mainly prevalent in Durban during the autumn and early winter months.

Deaths from diphtheria during the year amongst City cases numbered 18 made up of 4 Europeans, 11 Bantu and 3 Asiatics.

Notifications of imported cases of the disease numbered 85 as follows: Europeans 24, Coloureds 4, Asiatics 7 and Bantu 50.

Poliomyelitis

The epidemic which began in the last quarter of 1956 continued into the New Year and only abated in April. In all 163 cases were notified.

The table below sets out the racial distribution of the cases notified during the years 1956 and 1957.

	<u>1956</u>	<u>1957</u>
European	82	113
Coloured	18	7
Asiatic	26	16
Bantu	32	27
Total	<u>158</u>	<u>163</u>

On comparing the above figures it will be observed that the European community was even more sorely afflicted during the year under review than in 1956.

The monthly incidence, in racial groups, is reflected below, and for comparative purposes, the previous year's figures are given in parenthesis:

City Poliomyelitis Cases: 1957

Month	E.	C.	B.	A.	Total
January	35 (3)	3 (-)	5 (1)	3 (-)	46 (4)
February	27 (6)	2 (-)	11 (1)	7 (-)	47 (7)
March	21 (2)	- (-)	5 (-)	2 (-)	28 (2)
April	14 (2)	- (-)	4 (-)	- (-)	18 (2)
May	8 (6)	- (-)	- (1)	1 (3)	9 (10)
June	- (2)	1 (-)	1 (-)	1 (-)	3 (2)
July	1 (4)	- (1)	1 (2)	1 (-)	3 (7)
August	- (4)	- (-)	- (1)	1 (-)	1 (5)
September	- (4)	1 (2)	- (3)	- (2)	1 (11)
October	3 (5)	- (1)	- (3)	- (1)	3 (10)
November	3 (12)	- (3)	- (2)	- (5)	3 (22)
December	1 (32)	- (11)	- (18)	- (15)	1 (76)
Total	113 (82)	7 (18)	27 (32)	16 (26)	163 (158)

The above table illustrates how the epidemic, which commenced in September, 1956, continued its course throughout the summer months and then burnt itself out in April, 1957.

The age and race distribution of the City cases is set out below, (for purposes of comparison the previous year's figures are set out in parenthesis).

Age and race distribution

European						
Sex	Under 1 year	1 - 4 years	5 - 14 years	15 - 24 years	Over 25 years	Total
Male	1 (3)	11 (14)	30 (20)	16 (4)	5 (5)	63 (47)
Female	1 (2)	8 (15)	17 (8)	14 (5)	10 (6)	50 (35)
Total	2 (5)	19 (29)	47 (28)	30 (9)	15 (11)	113 (82)

Coloured						
Male	1 (1)	- (5)	2 (1)	- (-)	- (-)	3 (2)
Female	1 (6)	2 (5)	1 (-)	- (-)	- (-)	4 (11)
Total	2 (7)	2 (10)	3 (1)	- (-)	- (-)	7 (18)

Bantu						
Male	3 (3)	13 (10)	- (5)	1 (-)	- (-)	17 (18)
Female	1 (2)	6 (9)	2 (1)	1 (2)	- (-)	10 (14)
Total	4 (5)	19 (19)	2 (6)	2 (2)	- (-)	27 (32)

Asiatic						
Male	3 (5)	4 (10)	1 (4)	2 (-)	1 (-)	11 (19)
Female	- (-)	2 (7)	2 (-)	1 (-)	- (-)	5 (7)
Total	3 (5)	6 (17)	3 (4)	3 (-)	1 (-)	16 (26)

Summary						
Male	8 (12)	28 (40)	33 (30)	19 (4)	6 (5)	94 (91)
Female	3 (10)	18 (35)	22 (9)	16 (7)	10 (6)	69 (67)
Total	11 (22)	46 (75)	55 (39)	35 (11)	16 (11)	163 (158)

Judging by the course of events in 1956, it will be observed that in 1957 there was a decided shift in incidence to the older age groups, which was most noticeable in the 15 - 24 age group. The decline in the incidence in the under 1 year and 1 - 4 year age groups is also marked.

On further analysis it will be seen that the shifts are most evident in the European group and to a much less extent amongst the Coloured and Asiatic groups. It was also apparent that as the epidemic itself progressed the older age groups were increasingly affected.

Contacts

Considerable time and effort was expended in endeavouring to collect stool and blood specimens for virology, but as many results are outstanding, no clear picture has yet emerged. These tests were carried out only in relation to the cases previously immunised against the disease, of which there were 18. The reduced capacity of the Union Health Department Laboratory greatly limited virological studies. The virus section of this Laboratory was eventually closed down altogether.

Attack Rate

The attack rate, (i.e. notifications per 1,000 population) for City cases is given below. It will be seen that the Asiatics were least affected and the Europeans most affected.

<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	<u>OVERALL</u>
0.74	0.29	0.15	.08	0.29

Deaths

Nine deaths from poliomyelitis were recorded and these comprised 5 Europeans, 3 Bantu and 1 Asiatic giving death rates of 0.03, 0.017 and 0.005 respectively, with an overall death rate of 0.016.

Incidence of Poliomyelitis in Persons Previously Inoculated

During the year 18 previously immunised persons developed poliomyelitis. Sixteen of these had had only one inoculation and of these 4 had residual effects on discharge from isolation. One case had been inoculated on two occasions, the last time some four months before the onset of the disease. There were no residual paralyses on discharge. Only one case had been inoculated on 3 occasions, the last time 9 months before the onset of the disease. This case developed paralysis and at the time of discharge from isolation still had a residual paralysis. However, it is pleasing to record that shortly after discharge from hospital the patient learnt to swim and at the time of writing no evidence of paralysis can be found.

Encephalitis

City notifications numbered 26, as follows: 8 Europeans, 1 Coloured, 13 Bantu and 4 Asiatics, resulting in an overall attack rate of 0.047. Deaths from this disease totalled 6 comprising 4 Bantu and 2 Asiatic.

In 14 cases the aetiology remained undetermined, whilst as regards the remainder, 8 followed measles, 3 mumps and 1 herpes. Measles accounted for 2 of the European cases and 6 of the Bantu.

Five deaths from encephalitis occurred, made up of 2 of unknown aetiology, 2 from measles and 1 from mumps encephalitis.

Scarlet Fever

City notifications totalled 175, 3 more than in the previous year. All cases were reported from amongst the European section of the community.

A small outbreak occurred in a private school, commencing with 3 cases on one day, followed by 1 two days later. Fourteen contacts including 2 children, one with a chronic rhinitis and one with a chronic sore throat, were excluded from school. Three more cases occurred, when the school was closed for a long week-end. Of the children excluded 3 were found to have haemolytic streptococci in their throats.

A month later another case occurred and this time, apart from a close contact with haemolytic streptococcal throat, one of the cooks was found positive on throat swabbing. In view of the fact that the establishment catered for boarders as well as day scholars a fairly extensive outbreak was feared, but fortunately no further cases eventuated.

Cerebrospinal Meningitis

In contrast to 1956 when 32 cases were notified, there was a decline in the incidence of this disease, only 18 cases being reported comprised as follows: Europeans 5, Coloured 1, Bantu 6 and Asiatics 6. Two Bantu deaths were recorded. These figures are surprising, as a far greater dissemination of the disease could be expected when account is taken of the conditions under which the Bantu live at Cato Manor.

Leprosy

One Asiatic and 11 Bantu cases were notified as compared with 2 Asiatics and 10 Bantu cases in 1956.

Malaria

Eighteen imported cases were notified, comprising 9 Europeans and 9 Bantu. No local cases occurred.

Asian Influenza

The advent and course of this disease in Durban is described in Appendix I of this report.

* * *

III. OTHER INFECTIOUS OR COMMUNICABLE DISEASES

Amoebiasis

The Amoebiasis Research Unit is sponsored by the following organisations and Durban is indeed fortunate in having this outstanding project operating in its midst:

The South African Council for Scientific and Industrial Research;
The Natal Provincial Administration;
The University of Natal;
The United States Public Health Services.

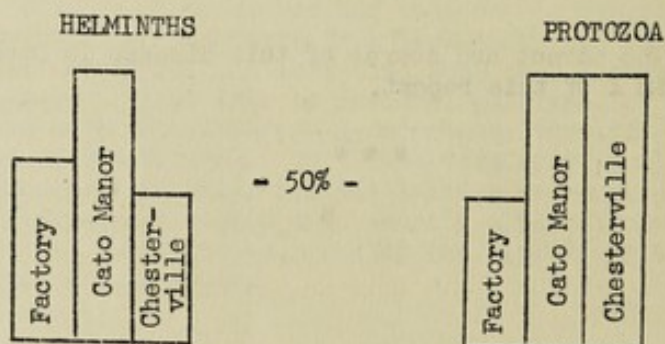
Natal, and especially the Durban Region, offers the Unit an exceptionally interesting, instructional and useful field for research and the many excellent contributions which the Unit has made over the last few years in regard to not only amoebiasis but also other aspects of parasitology have gained it world-wide recognition.

During 1957 the Durban City Council, as a token of its appreciation of the Unit's valuable services to the public health, made the Unit a grant of £5,000 towards the provision of new buildings which it is estimated will cost in all about £35,000. At the present time the establishment is housed under cramped conditions in laboratories lent to it by the Department of Medicine of the Natal University. By agreement between the Provincial Administration, the City Council, the University, and the South African Council for Scientific and Industrial Research, the new buildings will be erected on a site in Umbilo Road adjoining the Medical School.

The Director of the Unit, Dr. R. Elsdon-Dew, has kindly allowed the Department to quote the following extracts from his Annual Report for 1957.

"Survey

Analysis of a survey (in Durban) of African factory workers yielded some interesting results.



The chart compares the incidences of helminths and protozoa in the factory with those in Cato Manor, a slum, and in a housing scheme - Chesterville. It will be noted that the factory shows a higher incidence of helminths than does the housing scheme, which is much lower than the slum. The incidence of protozoa is much lower in the factory than in either slum or housing scheme. The factory workers were given one meal containing over 100 grams of protein a day."

"Laboratory investigation"

Describing improved techniques for the isolation and identification of amoebae from liver abscesses which led to the discovery of a new species, Entamoeba hartmanni, the Director continues:

"This is an observation of the greatest importance, for there is no doubt that, in the past, Entamoeba hartmanni has been labelled as Entamoeba histolytica. Many a patient must have been treated for a pathogen he never had. This observation may explain, in part, the differing manifestation of the parasite in different parts of the world, but this Entamoeba histolytica (sensu stricto) can live in the human bowel as a harmless commensal."

"The existence of this amoeba was always in doubt, but our establishment of its existence has brought to light at least one of the reasons why so many people in Durban were being treated for Amoebiasis. It was undoubtedly mistaken diagnosis, a mistake which I personally must have been responsible for in the past. It is impossible to distinguish by ordinary laboratory means between Entamoeba hartmanni and some of the small forms of Entamoeba histolytica which one may find in the ordinary examination of stools. So in the past many a patient must have been treated for an amoebiasis which they never had. This is, in part, an explanation for Durban's position, and if we can persuade the appropriate people to take appropriate action there is no doubt that there will be a considerable decrease in the amount of amoebiasis in the European population of Durban. You will note that I have stated European population, for our experience here indicates that the amoebiasis which we see in the local African is due to Entamoeba histolytica (sensu stricto)."

Not only are the citizens of Durban and others in South Africa deriving much benefit from the activities of the Unit, but also members of many other communities throughout the world. There is no doubt that the existence of the Amoebiasis Unit in Durban is a distinct asset to the City.

Bilharzia

The Bilharzia Ad Hoc Committee established by the Chief Regional Health Officer/Natal towards the end of 1955 continued its work during the year. It held its first meeting in January, when it was decided to meet quarterly instead of monthly in the future.

A small research project was undertaken in conjunction with Dr. Elsdon-Dew, Director of the Amoebiasis Research Unit, Council for Scientific and Industrial Research, Durban. The results were reflected in a paper published in the South African Medical Journal on 22nd March, 1958 which is quoted below.

"A single specimen of urine from each child in a Bantu co-educational school in Durban was examined for *Schistosoma haematobium*. The results are given in the following table:

Age	Male			Female			Total		
	No.	+	%	No.	+	%	No.	+	%
0-9	126	28	22.2	19	5	26.3	145	33	22.8
10-14	264	149	56.4	248	49	19.8	512	198	38.7
15+	127	65	51.2	89	18	20.2	216	83	38.4
Total	517	242	46.8	356	72	20.2	873	314	36.0

This table shows not only that ova are found more frequently in males, but that the difference between the sexes varies with the age-groups. Younger females have an incidence similar to that of males in their own age-group, but with increasing age the females show no obvious increase in incidence whereas the males show more than double the number of infections.

The uncleanly habits of the subjects were evidenced by the finding of such parasites as *Ascaris*, *Taenia*, *Trichocephalus* and *Enterobius* in the specimens.

The examination of a single random urine specimen cannot give the true incidence of *S.haematobium*, which is probably at least 50% higher. Nevertheless, the figures indicate the prevalence of the condition in the Bantu even under urbanized conditions"

In prevention, the efforts of this Department have been concentrated mainly on propaganda and education (see Chapter on Health Education).

At the request of this Department, the Union Health Department carried out a snail survey of the Duff's Road (Kwa Mashu) area. The survey revealed that vector snails were present in fair numbers, although none of the specimens examined were infected with human bilharzia parasites. Nevertheless conditions are potentially very favourable for the spread of the disease in this area.

The importance of canalising streams and other water courses at Kwa Mashu has been emphasised.

Food Poisoning

During the year the Department investigated three outbreaks of food poisoning.

- (i) Early in the year an Indian adult and three minor children fell ill after eating steak and vegetables brought home by one member of the family. This person had been given a meal by a European at a casual place of employment on the Berea. There he consumed a portion of the meal, but conserved the greater portion to take home.

Those who subsequently ate the food fell ill and had to have medical assistance. All concerned recovered within one or two days. Stool tests failed to disclose any responsible organism.

- (ii) The second outbreak took place during April at a private hotel. Investigations disclosed that 186 persons partook of dinner on a Saturday evening. Within a very short while, 17 persons sickened. With the exception of 2 persons, all those who had become ill were interviewed and it was noted that the common food factor comprised roast lamb and mint sauce. A significant feature was that the mint sauce had been supplied to the affected persons in metal gravy boats. Persons who partook of lamb and mint sauce served in glass or china receptacles remained unaffected.

Another important feature concerning this outbreak was the rapid onset of symptoms, which in most cases occurred from a quarter to half an hour after the meal in question.

In the case of two patients the onset was delayed up to one and a half hours. The rapid onset suggested a chemical or metal origin.

The symptoms complained of were a burning sensation in the mouth and in this respect the descriptions varied from a chilli to a hot pepper flavour, followed by abdominal pains, diarrhoea, vomiting and in some cases slight dizziness.

It was ascertained that seven old and worn metal gravy boats, which had been out of commission for a long period, had been used as a means of serving some of the mint sauce. These metal gravy boats, a jar of vinegar and a tin of metal polish used for cleaning the gravy boats were submitted to the City Analyst for examination. The Analyst's findings were:

- (a) that the action of the vinegar on the worn surfaces of the metal gravy boats dissolved small quantities of copper which was contained in the exposed metal base of the boats; and
- (b) that the amount of copper dissolved was sufficient to cause copper poisoning in human beings.

All cases made a complete recovery and the old and worn gravy boats were discarded

- (iii) The third outbreak took place during June when 19 Native males were admitted to King Edward VIII Hospital suffering from food poisoning.

The cases were interviewed, and it was ascertained that they were all employed as labourers by a building contractor. One of the Native employees had for many months been in the habit of making "amahewu" (sour porridge) after work daily. His method was to boil about 5 gallons of water in a small oil drum. A liquid mixture of mealie meal was poured into the drum of boiling water, and after being further cooked, the mixture was then decanted into paraffin tins and left on the building site overnight. The following day the "amahewu" was sold to his fellow labourers by the manufacturer at the rate of one penny per jam tin.

One day, within two to three hours after partaking of the usual "amahewu", all became ill and were admitted to hospital. Most of the cases complained of vomiting only, although a few suffered from 'gripping' abdominal pains and nausea. Only three of the patients had diarrhoea with blood streaked stools; several others complained of strangury. Slight collapse was seen on all cases, and several had blood pressures as low as 90/60. All patients recovered rapidly and were discharged on the day following admission to hospital.

Unfortunately, on investigation it was found that all the "amahewu" had been consumed. However, four tins and two sticks which were used for stirring the "amahewu" were confiscated and scrapings from these articles were submitted for bacteriological examination. Although the symptoms suggested that a staphylococcal organism was responsible for the outbreak, the laboratory findings did not disclose any specific organism.

Medical Examination of Natives seeking Registration

The Medical Officer, Municipal Native Administration Department has the following interesting observation to make in regard to the above service carried out by his Department.

"Medical examinations carried out during 1957 at the Main Office in Ordnance Road totalled 123,080. These comprised 101,429 adult and 21,651 juvenile Natives. The corresponding figures for 1956 were 92,262 and 21,127 respectively. The juvenile figures for the two years are therefore practically the same but it is evident there was an increase of over 9,000 adult examinations in 1957 over the previous year. One reason which might account for the juvenile position is that fewer presented themselves for additional examinations during the year as it is becoming increasingly difficult to obtain this type of labour and consequently the services of juveniles are retained longer by employers nowadays.

A considerable amount of malnutrition in its various manifestations was encountered in the juvenile age groups arriving in the City for the first time. The children principally affected were between the ages of 13 and 15 years. Younger children showed fewer signs of riboflavin deficiency and on the whole were plumper and fatter. Protein deficiency in the guise of oedema, loss of body tissue and swelling of the breasts was quite often seen in the 15 to 17 year age group. Scurvy was not particularly noticeable but some cases of pellagra were severe enough to warrant being sent to hospital.

One of the features of these medical examinations which impressed me greatly was the marked improvement in general health of "piccanins" who came back for a further medical examination after a spell of domestic employment in Durban. Because of this we seldom reject a "piccanin" nowadays on the score of being under age, more particularly if he is showing signs of malnutrition. They appear to derive the maximum benefits from the change from 'kraal' food to the richer and better balanced conventional foods of the average City household. In former years the Native Commissioner, probably from humanitarian grounds used to send numbers of quite young children to Ordnance Road in the hopes that they would be certified as being too young to work but he no longer does so.

A total of 4,124 Natives were rejected as being unfit for employment and were referred to the relevant centres for further investigation and treatment. Of the rejects 2,199 were due to venereal diseases, 1,270 due to bilharzia and 73 to T.B.lungs. For the past two years the Union Health authorities have been conducting a survey of bilharzia cases entering the Durban area and some of the statistics required have been compiled by officials of this Department. Bilharzia suspects are not sent to hospital for further investigation if they do not want to go. All investigations are on a purely voluntary basis and any Native who may object to treatment has his wishes respected without prejudice.

Scabies is still the main contagious skin disease and about 240 patients were sent to hospital for treatment during the year. The results are uniformly good and, as far as I can ascertain the percentage of relapse cases is very low indeed. We are seeing fewer persons infested with body lice these past few years and one can ascribe this to a general improvement in the standard of Native hygiene. The cases that we come across we deal with ourselves and our police boys have been taught how to treat infected clothing and decontaminate suspected clothing cubicles.

Vaccinations totalling 112,389 were performed during the year which means that every Native who was medically examined at Ordnance Road was vaccinated at least twice if not oftener. As far as I can ascertain only one severe reaction took place during that period, a generalised vaccinia with moderate constitutional symptoms which necessitated a few days rest in bed."

* * *

IV. TUBERCULOSIS

1. Vital Statistics

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

European	1,113
Coloured	796
Asiatic	2,784
Bantu	8,704
Total	<u>13,397</u>

As far as possible the figures have been corrected for deaths and, where the fact is known, for inward and outward transfers as the case may be. However, the figures, especially in the case of the Bantu, must be accepted with considerable reserve as this section of the community is always on the move and deaths from tuberculosis occurring outside the City are not notified to the Department. Again, the Bantu change their local addresses with a frequency that makes it impossible to follow them up continually and to establish the state of their disease.

During the course of the year the Departmental records were carefully checked and, in the light of information received, a number of deaths were noted; for this reason the figures for 1957 cannot be compared directly with those for last year.

Once again it is pleasing to record that, in so far as adult male Bantu cases are concerned, considerable and valuable assistance was rendered by the Municipal Native Administration Department. The names of notified Bantu cases are regularly sent to that Department together with an indication of the patient's fitness for work and the type of work for which he is suitable. On request, the Native Administration Department advises this office of the current work addresses of patients, who cannot otherwise be located. "Lost" cases are always notified to the Native Administration Department which, in its turn, informs this Department whenever the patients present themselves for employment registration. As regards Bantu women and children no similar liaison can be maintained as they are not required by law to register. Consequently control of the Bantu female tuberculous is much more difficult. In the absence of influx control measures the public health supervision of this group of patients remains an enormous task.

Notifications

Statistics of City Cases

(a) Pulmonary Tuberculosis

Year	E.	C.	A.	B.	Total
1957	146	125	419	2,216	2,906
1956	144	119	497	1,963	2,723

(b) Non-Pulmonary Tuberculosis

Year	E.	C.	A.	B.	Total
1957	2	11	62	124	199
1956	8	10	77	137	232

Comments

(a) Pulmonary Tuberculosis

Once again the number of notifications of pulmonary tuberculosis showed an increase - 183 more than in the previous year - and again the increase has occurred almost wholly amongst the Bantu. The percentage increase or decrease for the various races is as under:

European:	Increase -	1.39
Coloured:	" -	5.04
Asiatic:	Decrease -	15.69
Bantu:	Increase -	12.88

As no allowance has been made for population increase or decrease, the actual trend will be correctly reflected in the attack rate.

(b) Non-Pulmonary Tuberculosis

There appears to have been a decrease in cases of non-pulmonary tuberculosis notifications but whether this is really the position or due to non-notification it is difficult to say.

(c) General

Once again it has been observed that practically all the notifications received have been forwarded either by the Durban Chest Clinic or by the various hospitals; very few are sent by private practitioners. This may be explained to some extent by the fact that many practitioners refer a fair percentage of their cases to the Durban Chest Clinic for investigation and treatment.

An improvement in obtaining the correct addresses of Bantu cases has been attained by stationing a Bantu Health Assistant at the Durban Chest Clinic and at the Cato Manor Clinic. This member of the staff interviews all notified cases when the diagnosis is made and at once conducts a preliminary health investigation. Armed with the precise information so obtained, the field Health Assistants are able to carry out their enquiries and contact tracing far more successfully and satisfactorily.

Attack Rate

This rate represents the number of notifications per 1,000 head of population and thus changes in 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 three consecutive years are given.

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

It will be seen that there is little change in the attack rate amongst Europeans whilst the Coloured rate shows a decrease. In the Asiatic group too, there is a decline. The Bantu rate shows an increase but not as great as that recorded last year. The rate is however very high and surely cannot be accounted for only on the grounds of improved diagnostic facilities and methods.

In Cato Manor for example, contacts, on being X-rayed for the first time, yielded 3.1% active cases, whilst non-contacts on being X-rayed for the first time, gave a 5.5% yield of active cases. These rates are lower than those recorded in 1956 but nevertheless, are still sufficiently high as to leave no room for complacency.

It will be remembered that in March of 1957 the Hon. the Minister of Health stated that tuberculosis in the Union had reached an incidence of up to 1 - 2% amongst the non-Europeans. As the attack rate in Durban amongst the Bantu is over 1% it follows that the incidence of the disease must be considerably higher.

Deaths: City Cases

(a) Pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1956	28	14	273	30	345
1957	17	11	196	32	256

(b) Non-Pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1956	3	3	107	15	128
1957	2	2	70	15	89

Death Rate: City Cases

Pulmonary Tuberculosis

Year	E.	C.	B.	A.	Total
1956	0.18	0.72	1.55	0.17	0.66
1957	0.11	0.46	1.09	0.16	0.46

Comments

Except in the case of the Asiatics, there has been a decrease in the number of deaths and the death rate has fallen. Amongst the Asiatics there has been little significant change from the position disclosed in 1956.

Whilst it is gratifying to be able to record a fall in the overall death rate for pulmonary tuberculosis this figure should be viewed with a degree of caution. It is obvious that many cases, by means of modern treatment methods, are being kept alive, but a fair proportion of these ambulant patients, especially amongst the Bantu, attend only when their condition deteriorates and in the meantime they act as potent reservoirs of infection.

Amongst the Bantu, the steady increase in the number of fresh infections and the reduced loss of lives amongst the acutely ill must inevitably lead to an accumulation of chronic cases; it is also clear that this reservoir of infection will grow increasingly larger unless special steps are taken to deal with it.

2. Hospital Facilities

Set out below is a list of the hospitals and settlements admitting cases from Durban, showing the beds available for cases of pulmonary tuberculosis in respect of the different races:

Hospital/Settlement	Controlling Authority	Bed Capacity				
		E.	C.	B.	A.	Total
McCord Zulu Hospital	McCord Zulu Hospital Board: Durban	Nil	-	60	-	60
Umlazi Mission Hospital	Anglican Church, Natal	Nil	-	60	-	60
FOSA Settlement	FOSA Durban	Nil	-	-	115	115
Toc H Settlement	Toc H T.B. Settlement Committee, Durban	Nil	Nil	116	Nil	116
Ekuphilisweni Home of Healing Kearsney	Healing Homes of Africa Association	Nil	Nil	84	Nil	84
Benedictine Mission Hospital, Nongoma	R.C.Church	Nil	Nil	150	Nil	150
Catherine Booth Salvation Army Hospital, Amatikulu	Salvation Army, S.A. Headquarters, Johannesburg	Nil	Nil	14	Nil	14
St. Francis Hospital, Mahlabitini	R.C.Church	2	-	50	Nil	52
St. Mary's Hospital Mariannhill	R.C.Church	Nil	-	27	Nil	27
St. Mary's Hospital Magwaza Mission Melmoth	Anglican Church, Zululand	Nil	-	27	Nil	27
Umpumulo Mission Hospital Mapumulo	Norwegian Mission Society & Local Hospital Board	Nil	Nil	11	Nil	11
Appelbosch Hospital Kingscliffe	Church of Sweden	Nil	Nil	50	If necessary	50

Hospital/Settlement	Controlling Authority	Bed Capacity				
		E.	C.	B.	A.	Total
Montebello Mission Hospital, Montebello	R.C.Church	Nil	If necessary	43	If necessary	43
St.Appolinaris Mission Hospital Centacow	R.C.Church	2	If necessary	40	If necessary	42
S.A.N.T.A., Dunstans, Hibberdene	S.A.National T.B.Association, Johannesburg	Nil	Nil	180	Nil	180
Point Non-European Hospital	Natal Provincial Administration	Nil	Nil	200	Nil	200
King George V Hospital	Union Government	140	80	737	66 Children 183 Mixed Surgical 87	1,293
Lilleshall, Rosetta	Natal Anti T.B. Association	26	Nil	Nil	Nil	26
Total						2,586

In addition 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 and Harbours Hospitals, although no definite allocation of beds is made for this disease. Naturally the General Hospitals endeavour to transfer established cases to the institutions listed above.

3. Settlements

It is becoming increasingly evident that there is a need for the establishment of more settlements especially amongst the Bantu. By the provision of more settlements the turnover of patients in hospitals would be increased, and their length of stay in these costly institutions materially curtailed. Acute cases in hospital could be transferred as soon as they had reached a certain stage of recovery and chronic cases at liberty amongst the general population could be moved and placed under good conditions admitting of relatively good isolation.

4. Fitness for Work

Sputum positive cases are still discharged from hospitals and the reasons for this are not hard to find and fall into two main groups, namely:

- (a) Physically the patient is sufficiently fit as not to warrant further costly hospitalisation;
- (b) The patient will no longer remain in hospital.

Amongst the first group are a number of chronic patients who will always 'block' valuable beds wherever they are hospitalised, and the rest of the group embraces those patients who cannot be readily transferred to settlements because of a shortage of beds.

The second group represents a major problem amongst the Bantu. Patients who abscond or who leave hospital against advice can be grouped with those who are discharged for serious misbehaviour and with those who actually refuse to be admitted to hospital. Whilst members of this group can certainly be prevented from taking up employment when infectious, this measure only helps to a limited extent. What happens in practice is that these patients wander throughout the City spreading the infection amongst their friends and acquaintances and also, no doubt, amongst the members of the general public. Often they cannot even be prevailed upon to attend a clinic as out-patients. Bantu female cases frequently change their addresses and seek employment when and where they will. Amongst these are many who have come to Durban to seek employment and, perhaps, treatment, and very little control can be exercised over them.

The solution for this group of patients would seem to be in the establishment of transit settlements. These patients could be legally committed, detained, and repatriated to their domicile. As facilities for treatment are now available in the reserves, these patients could still continue treatment if they so desired; at the same time the population density in the reserves being less, they would tend to disseminate the disease to a far lesser extent.

5. Case Follow Up

A considerable improvement has occurred in the follow up of cases discharged from hospital as discharge reports are now being furnished within a reasonable period.

6. Imported Cases

The Hospitals and the Durban Chest Clinic continue to serve as magnets, drawing a stream of Bantu patients from the whole of Natal and further afield from even other Provinces. Needless to say, many after discharge from hospital remain in the City, whilst those attending as outpatients naturally do the same. The members of this group move from one abode to another and are, from a public health point of view, most elusive and difficult to control. Such a state of affairs offsets the benefits of good treatment and hospitalisation obtainable in the City.

7. King George V Hospital

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

"The policy of admissions treatment and dispersal of tuberculosis patients has not changed in principle since my previous report. More intensive use is made of the Hibberdene Santa Settlement, to which patients are referred for convalescence or if they are chronic cases in reasonably good condition. As a rule no difficulty is experienced in transferring these patients to Hibberdene, provided their homes are not too distant from the Settlement. There is, however, need for the establishment of Santa Settlements nearer Durban and in Northern Natal and Zululand for these types of patients.

During 1957 occupational therapy in wards and rehabilitation work for early ambulant patients has been greatly intensified by close co-operation between the hospital's occupational therapist and

the personnel of the Red Cross Rehabilitation Centre, attached to this hospital. Great improvement in the mental health of patients and in their discipline was noted. The new block, capable of accommodating an additional 312 non-European patients, will be ready for occupation by the end of 1958 and the creation of a further additional 100 non-European beds is still being seriously considered.

Statistics

1. Bed State

European beds	140
Coloured beds	80
Asiatic beds	66
Bantu beds	737
Mixed non-European surgical beds	87
Mixed non-European children's beds	183
Total non-European beds	<u>1,153</u>
Total number of beds available	<u>1,293</u>

2. Number of Admissions

European	295
Coloured	143
Asiatic	218
Bantu	<u>1,803</u>
Total	<u>2,459</u>

3. Number of discharges

European	308
Coloured	144
Asiatic	230
Bantu	<u>1,781</u>
Total	<u>2,463</u>

4. Average Stay of Patients (approximate figures)

	<u>Europeans</u>	<u>Coloured and Indian</u>	<u>Bantu</u>
1954	6.2 months	7.0 months	12.0 months
1955	8.0 "	7.9 "	10.1 "
1956	5.5 "	8.0 "	8.7 "
1957	5.4 "	8.3 "	8.2 "

PULMONARY TUBERCULOSIS PATIENTS DISCHARGED DURING 1957 FROM KING GEORGE V HOSPITAL

	Total No. of Pulmonary T.B. Patients dis- charged alive	No. of Irregular Discharges	% of Irregular Discharges
European adult male	172	15	8.7%
European adult female	53	1	1.9%
Coloured adult male	69	26	37.7%
Coloured adult female	35	2	5.7%
Asiatic adult male	77	18	23.3%
Asiatic adult female	49	5	10.0%
Bantu adult male	650	103	15.8%
Bantu adult female	421	74	17.6%
Children all races	315	6	1.9%
Grand Total	1,841	250	13.8%

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

Irregular Discharges include: Against medical advice;
For disciplinary reasons;
Absconders.

PULMONARY TUBERCULOSIS PATIENTS DISCHARGED DURING 1957
FROM KING GEORGE V HOSPITAL

	Total Regular Discharges	Transfers	% of Transfers
Europeans all ages	216	33	15.3%
Coloured all ages	81	15	18.5%
Asiatics all ages	120	35	29.2%
Bantu children	280	150	53.6%
Bantu adults	894	189	21.1%
Bantu all ages	1,174	339	28.9%
Grand Total	1,591	422	26.5%

N.B. Transfers mean: To Mission Hospitals and Settlements

	Total Pulmonary T.B. Discharges	Number of Deaths	%age of Deaths
Europeans all ages	250	25	10.0%
Coloureds all ages	122	11	9.0%
Asiatics all ages	165	23	13.9%
Bantu all ages	1,561	202	12.9%
Children all races	373	56	15.0%
Adult males all races	1,077	99	9.2%
Adult females all races	656	96	14.6%
Grand Total	2,106	261	12.3%

NUMBER AND CLASSIFICATION OF CHEST OPERATIONS
PERFORMED AT KING GEORGE V HOSPITAL DURING
1957

Surgical resections	171
Thoracoplasties	48
Plombage	13
Decortications	8
Thoracotomies	6
Diagnostic Chest procedures	359
Other Major and Minor Chest procedures	40
General Major and Minor operative procedures	175
	<u>820</u> "

Comments

- (1) Once again, this time from another source, the need for further settlements is stressed and it is hoped that the forthcoming year will show progress in this matter;
- (2) As this hospital caters for patients on a regional basis the numbers of admissions and discharges are, of course, for patients from the whole region and not only the Municipal area of Durban. Patients admitted to and discharged from this institution who were the liability of the Durban Corporation were as under:

	E.	C.	B.	A.	Total
Admissions	118	73	594	123	908
Discharges	132	78	565	203	878

- Thus of a total of 2,459 admissions, 908 were City of Durban cases;
- (3) It is of particular interest to note that the average stay of patients in hospital ranges from 5.4 months in the case of Europeans to 8.2 months in the case of the Bantu;
- (4) It is gratifying to note that the percentage of irregular discharges is very low in the case of children. The percentage of irregular discharges in adults of all races remains disappointingly high.

8. Cases Hospitalised

The table below indicates the City cases of pulmonary tuberculosis admitted to and discharged from all institutions during the year:

Race	Admissions	Discharges	Left against Advice
European	186	150	8
Coloured	113	77	23
Bantu	1,852	1,365	125
Asiatic	282	341	18
All Races	2,433	1,933	174

Compared with 1956 there has been an increase of 668 City tuberculosics admitted to hospital; the Bantu account for the major portion, although an increase except for Asiatics is apparent in all races. The number of persons leaving against advice is high and these subjects are a continual source of additional work and of expenditure to the Department.

9. Out-Patient Services

(a) Durban Chest Clinic

This clinic is now approaching its maximum possible output of work. The Bantu section is certainly working to full capacity all the time: here again, as with the City Hospitals many of the patients come from far beyond the City boundaries for treatment.

Very close liaison is maintained between this Government institution and the City Health Department. For example, during the year various changes were made in the Tuberculosis Section of the Department and all of these were so planned as to be integrated with the work of the Durban Chest Clinic. It is pleasing to record that in all instances these innovations were successfully introduced with the wholehearted co-operation of the Chest Clinic staff.

Dr. H. Dubovsky, Medical Officer in Charge of the Durban Chest Clinic, has kindly furnished the following report of the activities of the Clinic during 1957:

"During the year the clinic continued its tuberculosis diagnostic and treatment service. The demand on the services has been constant by individuals, medical practitioners, hospitals and local authorities. The Non-European side now experiences a daily state of congestion which hampers effective clinical work, medical documentation and quality of X-Ray processing. The clinic functions on a regional basis as evidenced by the fact that one third of the attendances for X-Ray purposes of Natives are from outside the borough of Durban. While it is hoped that the increasing provision of tuberculosis services in the rural areas will in time deviate these patients there does appear a need now for the larger local authorities near Durban to commence their own tuberculosis clinics.

As many of the Native patients from outlying areas become squatters in Durban for the purpose of treatment, the defaulter rate is high. Increased attention is being paid to the notification of defaulters to the City Health Department.

The following figures give some reflection of the work done:

DIAGNOSTIC SERVICES

1. Attendances for X-Ray

	E.	C.	A.	B.
Borough of Durban	10,920	2,366	13,421	25,247
Ex-Borough	2,307	288	4,507	12,638
	13,227	2,594	17,928	37,885

Total attendances for X-Ray 71,634

The number of X-Ray films in different sizes:

"12 x 15"	"100 mm"	"70 mm"
23,484	16,387	47,856

Total number of films used: 87,727

The number of notifications of Tuberculosis made by this clinic is as follows:

	E.	C.	A.	B.
Borough of Durban	60	68	246	1,214
Ex-Borough	6	3	26	426

2. Attendances for Mantoux Tests. (Borough and Ex-Borough)

European	2,490
Non-European	3,832

Total attendances for Mantoux Tests: 6,322

TREATMENT SERVICES (Borough and Ex-Borough)

1. Attendances for Streptomycin Injections.

European	5,175
Non-European	37,118

Total attendances for Streptomycin Injections: 42,293

2. Attendances for other Injections viz. Penicillin, Vitamin B, Insulin, Vaccines.

European	566
Non-European	1,087

Total attendances for other Injections: 1,653

3. B.C.G. Inoculations

This was commenced in October of the year.

European	35
Non-European	60

Total attendances for B.C.G.: 95

As an item of historical interest, 4 artificial pneumothorax refills were done on visitors to Durban by Dr. Fine.

CONTACTS

Special clinics were set aside for contacts and are kept separately for the races. On account of the large number of patients handled and the floating nature of the Native patients it has not been found possible to express positive rates for contacts as a section. This has however been done in the Cato Manor section. The following information is available:

European Contacts (Borough and Ex-Borough)	
Attendances for X-Ray:	1,857
Indian Contacts - Borough -	
Attendances for X-Ray:	2,535
Number of cases Notified:	19
Indian Contacts - Ex-Borough -	
Attendances for X-Ray:	112
Number of cases Notified:	2 "

(b) Cato Manor Clinic

Protracted negotiations were continued throughout the year with the Union Health Department in regard to the future of this most useful clinic. The Union Health Department is insistent that the clinic be maintained and run by the City Council, whilst the latter holds the view that the clinic should continue to function as an offshoot of the Durban Chest Clinic, and that its costs be included in those of the major clinic. It is hoped that finality in this matter will be reached in the forthcoming year.

The work of the Clinic is discussed in the subjoined report furnished by courtesy of the Medical Officer in Charge of the Chest Clinic:

"The Cato Manor section, which started as a Mobile Tuberculosis clinic in 1955 has had to move into a disused shop in Booth Road on account of the unserviceability of the vehicle through effects of the weather. This was done through the kind co-operation of the Manager, Native Administration Department, and the City Health Department. The arrangement is temporary and pending the final disposal of this clinic which had incidentally outgrown the confines of its mobile shell.

The establishment of a complete tuberculosis clinic with X-Ray plant within a Native location is a unique undertaking. It has proved its effectiveness as a unit in tuberculosis control in

that by virtue of its accessibility to the Native population larger numbers of contact X-Raying has been done here compared to the Durban Chest Clinic with twelve times its turnover of patients. Another example of more effective functioning is that 417 B.C.G. inoculations were able to be done as compared to 95 over the same period at the Durban Chest Clinic.

General attendance has been more regular at Cato Manor and a further advantage in documentation has been the ability to keep contact files as a separate entity and in families. A closer liaison with Native Health Assistants of the City Health Department has been possible at Cato Manor with a weekly discussion group on contact families.

This unit clearly deserves to survive as a demonstration unit to local authorities of what can be done with a relatively simple set up.

The following figures reflect the work done in the Cato Manor Section.

DIAGNOSTIC SERVICES

1. Attendances for X-Ray

Contacts	1,603
Non-Contacts	5,285
Total attendances for X-Ray:	6,888

Attendances for "first Attendance" X-Rays. The notifications were all made to the Durban City Health Department but were differentiated for cases coming from outside the borough.

Contacts	1,103	Notifications Borough	32
		Ex-Borough	3

Percentage Active tuberculosis: 3.1%

Non-Contacts	3,960	Notifications Borough	185
		Ex-Borough	34

Percentage Active tuberculosis: 5.5%

The higher yield from Non-Contacts due to the fact that these individuals are not a population sample but rather a group who came to be X-Rayed because they felt ill.

2. Attendances for Mantoux Tests

Contacts	838
Non-Contacts	1,667
School Children	259

Total attendances for Mantoux Injections: 2,764

TREATMENT SERVICES

1. Attendances for Streptomycin Injections

Contacts and Non-Contacts

Total attendances for Streptomycin Injections: 12,107

2. Attendances for other injections viz. Penicillin, Vitamin B.

Contacts and Non-Contacts

Total attendances for other Injections: 492

3. B.C.G. Inoculations. Commenced in October

Contacts	111
Non-Contacts	306

Total attendances for B.C.G. Injections: 417

COMMENTS

1. This report does not reflect work done by the Mass X-Ray section in their Industrial work by visits to factories.

2. The attendances for the Durban Chest Clinic are about the same as last year while Cato Manor Section has increased by about 50% (6,888 - 1957, 4,610 - 1956).

From combined figures of the Durban Chest Clinic and its Cato Manor Section a total attendance figure reflecting specific attendances for diagnostic and treatment purposes as 144,669.

3. B.C.G. vaccinations have been initiated this year by Dr. Fine and is offered to contacts as a priority group but is also done where suitable in children and adolescents.

4. From our observation it appears that a full time Social Worker for non-European tuberculosis patients is needed on account of their poverty. This work is done in European patients by Health Visitors but is beyond the sphere of Native Health Assistants. Attention to welfare problems takes up much of the clinic doctors' time. It would be convenient to refer cases to a European Social Worker who could smooth over the intricacies of pass book problems and approach the welfare sections of Government departments on their behalf for grant applications. In this connection we are very grateful to the Natal Anti-Tuberculosis Association who make immediate payments on our recommendation to needy patients. We rely entirely on this Association to ease the hardship in poverty stricken patients, as administrative delay in application for grant in Natives takes from three months and is often lost."

(c) Mobile Mass X-Ray Unit

This Unit is operated by the Union Department of Health and has continued to perform excellent services with the staffs of industrial concerns. During the year, 98 surveys were carried out. Routinely, once a week the van assisted at the Durban Chest Clinic and once a month it visited the Institute of Family and Community Health at Merebank. During 1957, the Unit also X-Rayed the staffs of the King Edward VIII Hospital and the McCord Zulu Hospital and also paid occasional visits to the local gaols.

In all, the Durban Van X-Rayed 45,854 persons, of whom 34,621 were industrial workers. Of 17,397 unskilled labourers comprising male Asiatics and Bantu, 1.987% were found to be suffering from tuberculosis. Amongst skilled male Bantu workers (1,049) the incidence rate was 20.00 per 1,000, whilst amongst unskilled male Bantu workers (16,951) the incidence was 20.30 per 1,000, a remarkably small difference but both incidences appear to be in conformity with the overall incidence in the Union amongst the non-European.

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

During the year a survey and B.C.G. vaccination campaign was carried out at the Magazine Barracks, an institute housing Asiatics employed in the Corporation service. A brief report furnished through the courtesy of the Medical Officer in Charge of the Durban Chest Clinic is subjoined:

"The first stage of this survey has recently been completed.

At the outset it was proposed to X-Ray and Mantoux test all persons resident in the Barracks. A census of persons staying in the Barracks was supplied by the City Health Department and a specially numbered X-Ray card was issued for each person. P.P.D. (10.T.U.) was used for the Mantoux tests and all results read after 72 hours. All persons who were considered negative (area of induration less than 6 mm in diameter) were given B.C.G. vaccine. Unfortunately a break in the survey occurred due to lack of available vaccine and a large proportion of residents had to be re-tested at a later date. Nevertheless the response on the whole was excellent but a certain number of people repeatedly refused to return for Mantoux test readings.

A summary of the main findings is shown below:

Total Number of residents	5,172
Total Number X-Rayed &/or Mantoux tested	5,169
Total Number not completing Mantoux test	101
Total Number with Negative Mantoux	1,913
Total Number given B.C.G.	1,913 (100%)
Total Number with Positive Mantoux	3,133
Total Number cases of T.B. noted on X-Ray	72 - 1.48%
Total Number "New" cases of T.B.	51 - 1.05%
Total Number previously known cases	21 - .4%

N.B. Children under the age of 4 years were only Mantoux tested and not X-Rayed."

(e) Springfield Health Centre

Good work by the King George V Hospital staff continues to be done on an intensive level in the Durban Corporation Indian Housing Estate at Springfield.

The following report, kindly furnished by the Medical Superintendent of the Hospital, gives an account of the work performed. Points of particular interest are (a) the extent of the prevalence of tuberculosis (2.5%), and (b) the fact that new cases have occurred mainly amongst newcomers. The portion of the report dealing with milk consumption is illuminating.

The report reads as follows:

"The third phase of the tuberculin and X-Ray survey of this sub-economic Indian community concluded on 15.11.57. The coverage obtained was as follows:

	1st Survey	2nd Survey	3rd Survey
Dates	30.11.55-30.6.56	1.8.56-30.11.56	1.2.57-15.11.57
Total population	5,512	5,154	5,362
Not X-rayed (apart from small children who were tuberculin negative)	21	31	108
Coverage obtained	99.6%	99.4%	98.0%

There were 125 previously known cases of pulmonary tuberculosis. New cases to the number of 85 were found at the time of the first survey, 14 new cases were found during the second survey and 11 new cases were found during the third survey. Two cases moved in during the 2nd survey and 9 moved in during the 3rd survey.

It is of interest that only one of these 11 cases was moved in as part of a family unit - a previously known inactive case. The other ten cases were individuals, or members of sub-families who moved in.

Prevalence of Tuberculosis

The overall prevalence of active pulmonary tuberculosis is about 2.5% and has not altered much during the two years. This is partly due to the necessarily artificial assessment of activity. A case is regarded as active until the X-Ray plate is normal for about 2 years, or until the disease is not demonstrably active on clinical, radiological or bacteriological grounds for a similar period. Some of the cases known before the first survey and regarded as active may in fact not be active, but earlier X-Ray plates are not available. The new cases diagnosed during the first survey have not yet been under observation for 2 years. A sharp fall in the number of active cases may be expected at the end of the fourth survey.

7 cases have died.

1 was a healed primary where the cause of death is not known.
3 were elderly people, with minimal pulmonary T.B. diagnosed during the first survey.

1 died of bronchopneumonia and

2 died of cardiac conditions, not related to tuberculosis.

In 3 instances, death was attributable to tuberculosis.

Hospitalisation

Hospitalisation has been kept to a minimum. Twenty-one patients were already in a hospital or a settlement or were admitted in 22 admissions with an average stay of 7 months per patient, and a total of 12½ patient years.

Milk Consumption

An indication of the nutritional state of this community is that milk consumption, as determined by a 10% sample survey, is the equivalent of 0.19 pints of fresh milk per person per day (1 lb. of powdered milk was regarded as equivalent to 6 pints fresh milk; 1 tin of condensed milk was regarded as equivalent to 3 pints fresh milk - based on protein content).

In the 10% sample, 0.4% of persons were breast-fed infants. These were excluded when calculating per capita milk consumption. Of the non-breast fed persons 0.6% were children attending nursery schools at which each child receives half a pound of fresh milk per school day, but this was not taken into account when calculating per capita milk consumption.

The proportion of the different forms of milk used was as follows:

Condensed milk	58.5%
Fresh milk	34.8%
Powdered milk	6.7%

All fresh milk used in the area is obtained from recognised dairies. It is interesting that the family with the highest average consumption, viz. 0.86 pints per person per day, was a family of 12 people. However, 56.2% of families have less than 0.2 per person per day."

(f) Institute of Family and Community Health

The subjoined report has been furnished by the Head of the Institute of Family and Community Health:

"Tuberculosis continues to be an important problem in the communities served by this Institute. The services provided in respect of tuberculosis are part of its general medical care and health education.

Case finding, home care or arrangements for hospital care, family and community health education, have together had encouraging results, as indicated by the following figures for Merebank and Lamontville.

Estimated Resident Population: (A resident being defined as one who has lived in the area for at least 1 year, or being a child born of such a resident)

Merebank:	Indian	7,378	
	Coloured	572	
	African	<u>312</u>	8,262
Lamontville:	African		<u>11,600</u>
			<u>19,862</u>

Pulmonary Tuberculosis: Incidence Rate per 1,000 Population
(Incidence of new cases in 1957 with comparable figure for 1956 shown)

		<u>1957</u>	<u>1956</u>
Merebank:	Indian	0.67	2.5
	Coloured	-	3.8
	African	6.4	25.3
Lamontville:	African	5.5	7.5

The lower incidence rate in 1957 compared with 1956 for the Merebank Indian and Lamontville African communities is of interest and represents a trend which has now been noted over several years.

The Institute's programme of care remains much the same as was reported for 1956."

Domiciliary Treatment of Tuberculosis in Rural Areas

The establishment of 46 areas in Natal where domiciliary treatment can be obtained and the principle of referring "imported" patients from hospitals and clinics in Durban to clinics in their area of domicile continue to operate but practical difficulties and the lack of machinery to move the patients in an effective manner to such places has justified the note of caution sounded in last year's report.

It would appear that the only practical solution would be the establishment of transit settlements, where these patients could be treated pending their return to their areas of domicile. Once this step was achieved, it would be necessary to ensure that treatment could be obtained within reasonable distance of their actual homes.

Supplementary Feeding of Indigent Tuberculosis Cases

Whilst it is accepted that the supplementation of the diet of tuberculosis cases is in many cases most essential, it is a debatable point whether this function is the responsibility of the State or of the local authority. Although expenditure on the rations issued is subject to part-refund, the administration and operation of such a scheme is both costly and time consuming and it is doubtful whether, without the assistance of a subsidy, a large local authority can afford the administration costs (including staff salaries) required to embark on a fully-fledged scheme.

10. Staff and Activities

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.

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

(i) European Health Visitors

Each European Health Visitor is allocated a district for domiciliary work amongst Europeans and Coloureds. Where necessary, they assist in the investigation of Bantu and Asiatic cases, although Health Visitors are not normally required to perform duties in Bantu areas.

In addition to investigation and follow-up of cases, the Health Visitors attend sessions at the Durban Chest Clinic and assist in the treatment of their cases. This often necessitates the administration of streptomycin injections in the homes of patients and during the year over 2,000 of these injections were given. Applications and investigations for financial assistance and other aids are dealt with by the Health Visitors who are also members of the local Care Committee of the Natal Anti-Tuberculosis Association.

(ii) Non-European Health Assistants

The non-European Health Assistants perform similar duties amongst the Asiatic and Bantu Communities, although naturally, they are unable to undertake home treatments.

(iii) General

The table below sets out the number of visits made by the field staff during 1957, the previous year's figures being given in parenthesis for comparative purposes:

European	6,503	(6,520)
Coloured	2,418	(1,817)
Bantu	10,642	(8,380)
Asiatic	<u>4,817</u>	<u>(5,477)</u>
	<u>24,380</u>	<u>(22,194)</u>

During the year steps were taken to increase the field staff of the Section and, as the final authority for the increase was only obtained towards the end of the year, the effects of this measure are not apparent.

These staff additions comprised one European Health Inspector, the conversion of one unfilled Asiatic Health Assistant's post to a Bantu post, and the creation of five additional Bantu posts.

In addition, authority was received for the purchase of a light bus type vehicle. With the appointment of the Health Inspector to take charge of the non-European Health Assistants and with the provision of improved transport facilities, it is anticipated that not only will the scope of the field work be considerably increased, but that the quality of the service rendered will also be greatly improved.

With the steady expansion of the work of the Section it will, no doubt, be necessary in the near future to increase the clerical staff despite the recently introduced "streamlining" procedures to utilise the present staff to the best advantage.

11. Health Education

The Health Education Section of the Department carried out much work amongst the non-European sections of the community covering the subject of tuberculosis. Details are given elsewhere in this Report.

12. Domiciliary Assistance

In addition to Government Disability and Maintenance Grants made to patients, financial assistance to the patients of all races, including Indians, is given by the Care Committee of the Natal Anti-Tuberculosis Association and where Indians only are concerned, by the Friends of the Sick Association. The Department's Health Visitors are able, of course, to give material assistance to the Natal Anti-Tuberculosis Association in this connection.

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

"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:

<u>Year</u>	<u>Amount</u>	<u>Families Assisted</u>
1949	£4,352	332
1953	8,370	664
1954	10,362	923
1955	8,913	810
1956	7,274	869
1957	9,571	931

It will be noted there was an increase of over £2,000 expended in this connection compared with the previous year, and the number of persons or families assisted 931, the largest yet. Nevertheless the amount which it has been possible to allow in most instances is comparatively small when the cost of rent and food is taken into consideration.

To obtain real benefit from domiciliary treatment it is necessary that adequate food of the right kind should be available for the patient. The Union Health Department has notified all Local Authorities that it is prepared to consider accepting for part-refund purposes expenditure incurred on approved feeding schemes for indigent out-patients suffering from tuberculosis in a communicable form. This means that seven-eighths of any expenditure under such a scheme would be refunded by the Union Health Department. It has been suggested to the Durban Municipality that some such scheme should be organised, but up to the present this has not been agreed to, and it is understood that the view of the Public Health Committee is that this is not an obligation of the Local Authority. On the other hand, the view of the Union Health Department is that supplementary feeding is one of the many aspects of the care and treatment of a tuberculosis patient, and is no less part of the therapy than the administration of streptomycin and isoniazid. Acceptance of the scheme by the Durban Municipality would save considerable expenditure on the part of the Association.

Employment of Persons Suffering from Tuberculosis

To ensure that one who has been cured of T.B. will reap the benefit of the expensive treatment received and remain an effective unit in the community it is essential that work be obtained otherwise within a short period relapse will occur, and the whole process of cure will have to be gone over again with decreasing prospects of a satisfactory outcome.

A little over three years ago the Association took over from the T.B. Rehabilitation Committee the work of finding employment for T.B. cases certified as fit to work. The prejudice against the employment of persons who have suffered from T.B. is very considerable but it is pleasing to be able to state that this is gradually being broken down. The Federated Chamber of Industries has accepted as part of its labour policy rehabilitation of cured T.B. persons, and largely due to the assistance of members of the Natal Chamber of Industries the work of placing these people has been very successful. During the period which the Association has been doing this work considerably more than 100 persons have been placed in work each year. All races have been assisted in this way, but the great majority are Bantu. There have naturally been a few who through general physical deterioration, not necessarily due to T.B., could not be recommended for employment, and nothing could be done for them."

13. Conclusion

The vast amount of work undertaken in the City of Durban in the control of tuberculosis is evident from the foregoing report, but at the same time indicates the ever increasing need for expansion of the service, more particularly the need for the establishment of additional clinics to serve the population in the denser areas. With the development of Kwa Mashu the establishment of a tuberculosis clinic there is essential and the need for such a service in the southern area of Durban is also becoming increasingly apparent.

Once again it must be recorded that the overall picture of the disease amongst the Europeans is satisfactory, and that amongst the Asiatics it is still fair. The Bantu picture, however, remains more depressing and without the whole-hearted and energetic co-operation of this section of the community a material change in the overall picture will not be easily achieved.

The need for additional settlements remains and it is hoped that the ensuing year will see more progress in this regard.

B.C.G. vaccination is coming more to the foreground but not too great a reliance must be placed on this, as the vaccine is only one weapon in the armatorium in the fight against the disease.

It is perhaps wise when studying the incidence of tuberculosis in the Bantu to look further afield to gain some other perspective and here it is appropriate to mention an analysis of the work of the North Western Metropolitan Regional Hospital Board in England following a mass radiography service. Here the incidence of active tuberculosis amongst men in the United Kingdom was 5.7 per 1,000, 42 per 1,000 for Irish immigrants and 16 per 1,000 for Cypriot immigrants. Comparable figures for women were 2.4, 13 and 7.

* * *

V. VENEREAL DISEASES

As has been pointed out on previous occasions, the statistical information contained in this Department's Annual Report is only a partial reflection of the overall local prevalence of this group of diseases. This is because the sole sources of information available to the Department are the returns emanating from the Municipal and Provincial V.D.Clinics. No figures are forthcoming as regards the cases - probably not an inconsiderable number - who fall either under the care of private practitioners and District Surgeons or who are treated in institutions such as prisons.

New Cases

During the year there has been a fall in the number of new cases attending the Clinics. This decline has been noticeable not only in nearly all the City groups but also in most of the imported groups as well. Amongst the latter, increases in new cases were confined to European and Coloured males and these increases were mainly due to attendances by visiting seamen. All in all, the total number of new cases treated during 1957 fell short of the corresponding figures for last year by 16.24%

European and Coloured

In recent years, it has become more and more difficult to obtain from male patients particulars regarding their contacts. It is of interest to note that from an examination of the records of the Addington Clinic, it has emerged that 16 out of 39 new European female cases and 20 out of 53 new Coloured female cases had been referred for treatment by the Ante-Natal Clinics of the Hospital.

Bantu and Asiatics

The following particulars are of interest:

- (1) The number of new patients reporting for examination totalled 14,287. Of these, 9,555 were found to be suffering from venereal disease in one or more forms comprised as follows: syphilis 1,120 (11.72%); gonorrhoea 7,594 (79.48%); and chancroid 479 (5.01%).
- (2) Of the syphilitic cases, 320 (28.75%) had primary syphilis; 455 (40.63%) had secondary syphilis and in 119 (10.63%) the disease was congenital in origin.
- (3) Included amongst the gonococcal infections were 103 cases of ophthalmia neonatorum - all of which recovered - and 18 cases of vulvo-vaginitis. Of the remaining 7,473 cases, 50 suffered from complications to a degree which necessitated their admission to hospital.
- (4) Lymphogranuloma inguinale appears to be on the increase, 65 cases being diagnosed as against 24 in 1956. These were all characterised as being in the early stages of the disease and no late complications were seen.

Hospitalisation

During the past decade, the advances made in the therapy of venereal diseases have reduced the need for hospitalisation in the vast majority of cases: this is because on commencing treatment, these

patients rapidly become "non-infectious". However, their cure depends upon their undergoing and completing an adequate course of treatment. While it has been found that European and Coloured patients have taken advantage of courses of intensive out-patient treatment, Bantu and Asiatic patients are, on the whole, most unco-operative in this respect, usually defaulting after their first injection. With the control measures exercised over Bantu male patients, it has been possible to trace a large number of these defaulters and to encourage them to return and continue their course of treatment. Bantu females, in particular, have been most irregular in their out-patient attendances and the high incidence of relapses seen amongst this group has been both disturbing and disappointing. It is fair to add, however, that it is possible that some of these relapsed cases may have suffered from re-infections.

During 1957 there were 1,330 admissions to the venereal disease wards of the King Edward VIII Non-European Hospital. All these patients, however, were not suffering from venereal disease as amongst them were included unconfirmed suspect cases, boarders, and non-venereal disease cases admitted to ease the congestion in the general wards of the hospital. The confirmed cases of venereal disease numbered 928 of whom 605 were syphilitic and 256, including 103 babies with their mothers, gonococcal. Of the syphilitic cases 70 were primary (with complications), 424 were secondary and 74 were congenital.

Attendances

The fall in the number of attendances to 86.56% of the 1956 figures was less than the fall in new cases (to 83.76%) and the average number of attendances per new case rose slightly to 3.5 (3.4 in 1956). The proportion of attendances at the Addington Clinic to those at the combined Municipal Clinics was 1 to 15.956. On average, there were 81.22 attendances per session at the Municipal Clinics as against 10.8 at the Addington Clinic (in 1956 the figures were 90.71 and 12.09 respectively).

Clinical Services

All the venereal diseases clinics within the City are closely associated with the polyclinics of the hospitals of the Natal Provincial Administration. Peri-urban local authorities benefit greatly by these clinics where their own cases are investigated and treated at no cost to themselves.

European and Coloured Clinics

These are held at Addington Hospital with sessions totalling 10 hours weekly. This number of hours would appear greatly in excess of the time warranted by the numbers of patients attending. This and other factors have formed the basis of discussions with the Union Health Department on the future of these clinics.

Non-European Clinics

Two Municipal Clinics, catering for non-Europeans only, are established at Congella and at Cato Manor respectively. Together they function for 53 hours weekly.

Congella Clinic

This clinic is situated within the precincts of King Edward VIII Hospital. It is the main clinic, the staff of which also maintain and run the Cato Manor clinic. In addition all pathological

investigations, stores and administration are centralised at the Congella Clinic. During 1957, 73.32% of new cases and 75.32% of attendances from all clinics were recorded here.

Cato Manor Clinic

The sex distribution of new cases in children under the age of 10 years was practically even: in the older age-groups the vast majority of the cases were females. This pattern was in conformity with the experiences of previous years and the high attendance of females was, of course, due to the fact that the clinic sessions were held in the mornings of working days when most of the members of the male population of the area were absent at their places of employment.

Although, during the period under review, there was no major improvement in the socio-economic conditions of the Cato Manor inhabitants and the general pattern of the age and sex relationship of cases attending this clinic has been maintained, a fall was recorded in the number of new cases and in the number of attendances. This was true of all categories.

This fall was most marked during the second semester when new cases and attendances were approximately one-third of the year's total for this clinic. It may be that this improvement has reflected a genuine fall in the incidence of venereal disease resulting from the intensive propaganda and treatment carried out during the past 3 years' activity in this area.

The following tables show the number of new cases examined during the year together with their attendances:

New cases	Males		Females		Totals		Proportions	
	Jan. to June	July to Dec.	Jan. to June	July to Dec.	M	F	M	F
Under 10 yrs.	376	202	437	322	596	759	1	1.27
Over 10 yrs.	95	65	1,117	685	160	1,802	1	11.26
<u>Attendances</u>								
Under 10 yrs.	1,069	640	1,307	908	1,709	2,215	1	1.30
Over 10 yrs.	247	178	4,032	2,551	425	6,583	1	15.49

Ante-Natal Clinics

Routine blood tests to detect the possibility of syphilitic infection are taken at all ante-natal clinics in the City. Thirty-six European and Coloured positive reactors were referred to the Addington Special Clinic for further investigation and treatment. At the Municipal non-European ante-natal clinics, 2,910 cases, the vast majority of whom were Asiatics, were investigated. Amongst these there were only 93 "positive or doubtful" reactors i.e. 3.2%. These reactors were referred to the Congella Clinic for further investigation as were also similar cases from the King Edward VIII Hospital Clinics.

Staff

Medical

The medical establishment comprises 1 part-time European male employed at the Addington Clinic and 3 full-time medical officers (1 European male, 1 European female and 1 Bantu male) employed at the non-European Clinics.

Nursing

The establishment of the Addington Clinic comprised 1 full-time male nurse and 1 part-time staff nurse (both Europeans). The work of the Municipal Clinics was undertaken by 4 Bantu staff nurses and 5 Bantu clinic assistants.

Clerical

The clerical work at the Addington Clinic was performed by the nursing staff. At the Congella Clinic there was a staff of 4 Bantu clerks. During the year a vacancy occurred which, owing to administrative difficulties, was not filled. In consequence of clerical delays the efficiency of this section was reduced, which in turn reacted on the working of the clinical staff.

Propaganda

Co-operation with the Health Education Section has been maintained in presenting the problems of venereal diseases to susceptible audiences by means of lectures, films and loudspeaker talks. A new colour film strip has been prepared on this subject, a detailed description of which will be found in the chapter on Health Education. The staff of the clinics as well as the Health Assistants have joined in the dissemination of accurate information about the venereal diseases and their treatment.

Co-operation

Close co-operation has been maintained with the various departments of the Natal University Medical School and with the Pathological Laboratories of the Natal Provincial Administration. During the year it seemed likely that the Provincial Administration might introduce a charge for pathological services and it was with regret that the Municipal clinics had to cease taking advantage of the excellent services of the serological laboratories at Wentworth. Arrangements were thereupon made for some of this work to be taken over by the Government Laboratory at Currie Road. Here it was not possible for investigations to be carried out to the same extent as previously owing to more limited facilities.

Co-operation with medical practitioners in this country and overseas has continued.

Venereal Diseases - Statistical Summary

	European				Coloured				Bantu				Asiatic				Total				Grand Total
	City		Imported		City		Imported		City		Imported		City		Imported		City		Imported		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
New Cases																					
1957	207	38	263	1	127	55	30	4	6,376	5,010	1,383	807	374	207	54	26	7,084	5,310	1,730	838	14,962
Ward Admissions																					
1957	-	-	3	-	3	1	-	-	414	365	225	236	17	9	1	3	434	375	229	239	1,277
Out-Patient Attendances																					
1957	1,064	273	379	17	801	806	76	28	21,916	18,861	4,788	3,328	986	947	161	83	23,967	20,887	5,404	3,456	53,514

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

	European				Coloured				Bantu				Asiatic				All Races				Total
	City		Imported		City		Imported		City		Imported		City		Imported		City		Imported		
	M	F	Total		M	F	Total		M	F	Total		M	F	Total		M	F	Total		
1957	-	-	1.62		-	-	7.63		-	-	63.55		-	-	2.94		-	-	22.45		

Number of Sessions

1957 Europeans and Coloureds 303 Bantu and Asiatics 643 Total 946

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VI. IMMUNISATION

Except for a short interruption, due to the outbreak of Asian Influenza, the immunisation programme for all races was actively carried on throughout the year.

Parents, on the whole, are anxious to have their children immunised against the various diseases, and it has been found comparatively easy to ensure that school children complete the course of injections. However, greater difficulty was experienced in making the mothers of pre-school children realise the importance of bringing their children for the subsequent injections.

Diphtheria Immunisation Survey

In October Dr. V. Bokkenheuser of the South African Institute for Medical Research approached the Department with a request to carry out a joint survey of the immunisation state of children in Durban.

After discussion it was decided to leave the project until the beginning of 1958.

Diphtheria Control

Immunisation against diphtheria was carried out at the various Child Health Clinics and at Government, Government-aided and private schools which catered for children under 10 years of age. Schools visited by the Department's immunisation units numbered: European - 98, Coloured - 17, Bantu - 84 and Asiatic - 185.

Combined Diphtheria/Whooping Cough and Tetanus

The administration of this prophylactic is a routine procedure and was commenced in October, 1957 at certain child health clinics, replacing the combined diphtheria and whooping cough prophylactic.

The following tables set out the details of the children immunised at child health clinics and schools:

Diphtheria (By City Health Department)

	Pre-School					School Age				
	E	C	B	A	Total	E	C	B	A	Total
1st Injection	99	32	661	341	1,133	1,562	723	2,493	3,128	7,906
2nd Injection	43	14	386	108	551	1,328	660	2,186	2,993	7,167
Booster	198	5	-	56	259	1,562	276	34	2,709	4,581
Total	340	51	1,047	505	1,943	4,452	1,659	4,713	8,830	19,654

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

	E	C	B	A	Total
1st Injection	-	3	7	82	92
2nd Injection	-	2	5	35	42
Booster	-	5	1	-	6
Total	-	10	3	117	140

Diphtheria/Whooping Cough (By City Health Department)

	E	C	B	A	Total
1st Injection	1,294	313	360	568	2,535
2nd Injection	912	192	186	354	1,644
3rd Injection	616	117	117	199	1,049
Total	2,822	622	663	1,121	5,228

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

	E	C	B	A	Total
1st Injection	-	5	289	106	400
2nd Injection	-	2	138	54	194
3rd Injection	-	1	179	55	235
Booster	-	-	5	-	5
Total	-	8	611	215	834

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

Pre-School	E	C	B	A	Total
1st Injection	25	-	14	23	62
2nd Injection	12	-	4	14	30
3rd Injection	8	-	2	6	16
Total	45	-	20	43	108

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

	E	C	B	A	Total
1st Injection	-	1	257	208	460
2nd Injection	-	-	179	101	280
3rd Injection	-	-	128	49	177
Booster	-	-	12	-	12
Total	-	1	576	352	929

Smallpox Control

Vaccination against smallpox was carried out at a number of child health clinics, and an immunisation unit visited the congested non-European areas of the City at regular intervals. Those who presented themselves for vaccination comprised:

Europeans	-	2,155
Coloureds	-	869
Bantu	-	3,784
Asiatics	-	6,824
Total		<u>13,632</u>

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

Institute of Family and Community Health	166
Port Health Officer	1,136
District Surgeon	2,918
Native Administration Department	<u>113,715</u>
Total	<u>117,935</u>

Typhoid Control

As usual, immunisation against typhoid was carried out at the immunisation centre, Gale Street. In May, 1957, however, there was a marked increase in typhoid notifications from the Cato Manor area and it was decided to institute an immunisation campaign in that area in order to prevent a serious outbreak. The mobile clinic van, a team of 2 European Sisters and 2 Bantu Clinic Assistants were seconded to this area on three days a week to commence an immunisation campaign. The propaganda and necessary arrangements were left to the Health Education Section. The response to the various broadcasts and talks was satisfactory as regards the first injections but, unfortunately, only a proportion of the subjects inoculated returned for their second injection. The following injections were given from May to December in the Cato Manor area:

	Bantu	Pre-School	School-Age	Adult	Total
1st Injection	1,733	2,326	6,991	11,050	
2nd Injection	709	872	3,374	4,955	
Total	2,442	3,198	10,365	16,005	

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

Institute of Family and Community Health					
	E	C	B	A	Total
1st Injection	-	-	46	63	109
2nd Injection	-	-	19	16	35
Booster	-	-	4	18	22
Total	-	-	69	97	166

Port Health Officer - Total 88

Food Handlers

Clinic sessions were held twice a week throughout the year, when selected groups of food handlers were vi-tested and immunised against typhoid. Those vi-tested comprised: Europeans - 14, Coloureds - 1, Bantu - 1,353 and Asiatics - 47.

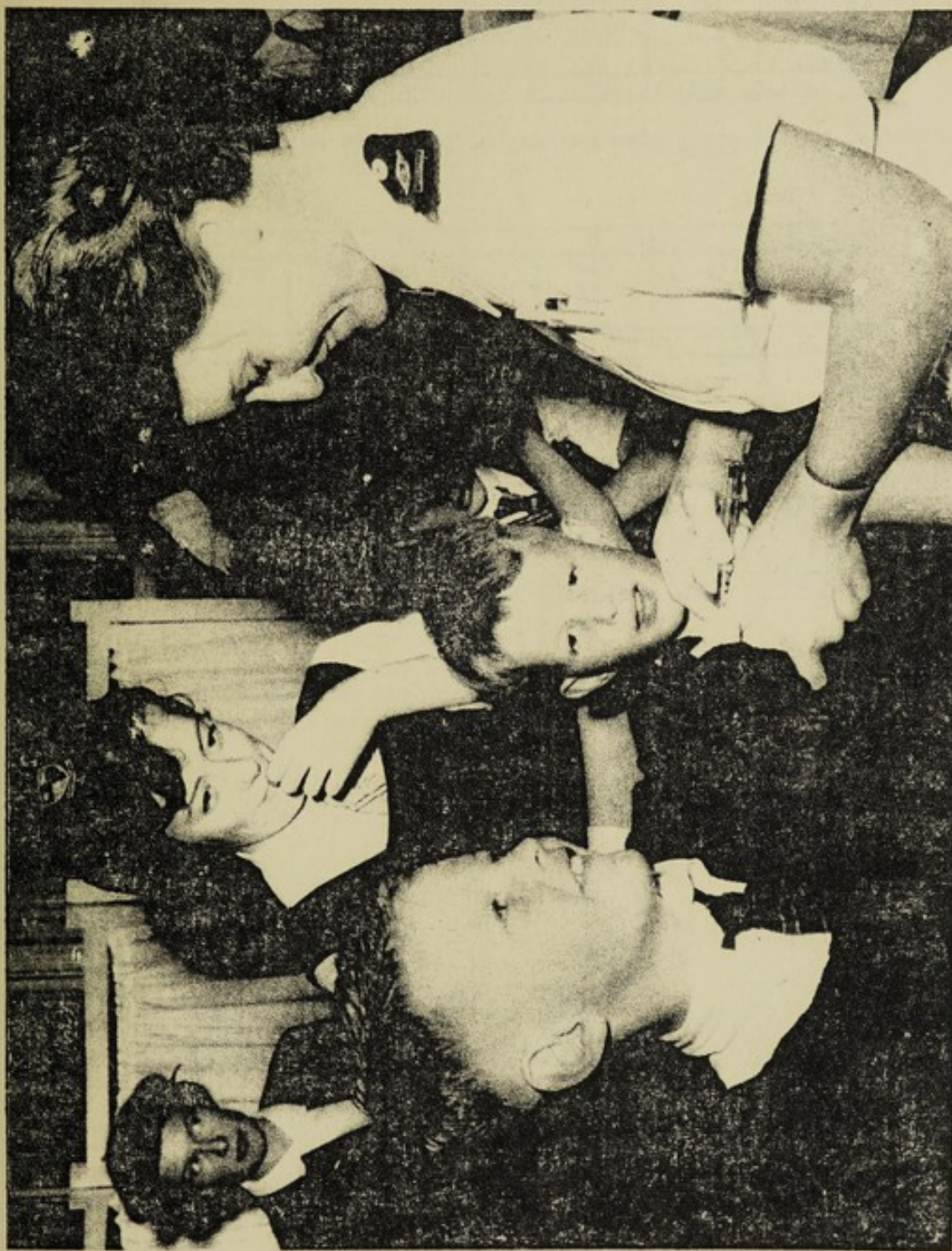
The following injections were given to those attending the clinic

	E	C	B	A	Total
1st Injection	30	4	1,393	65	1,492
2nd Injection	9	1	1,201	25	1,236
Boosters	4	-	166	3	173
Total	43	5	2,760	93	2,901

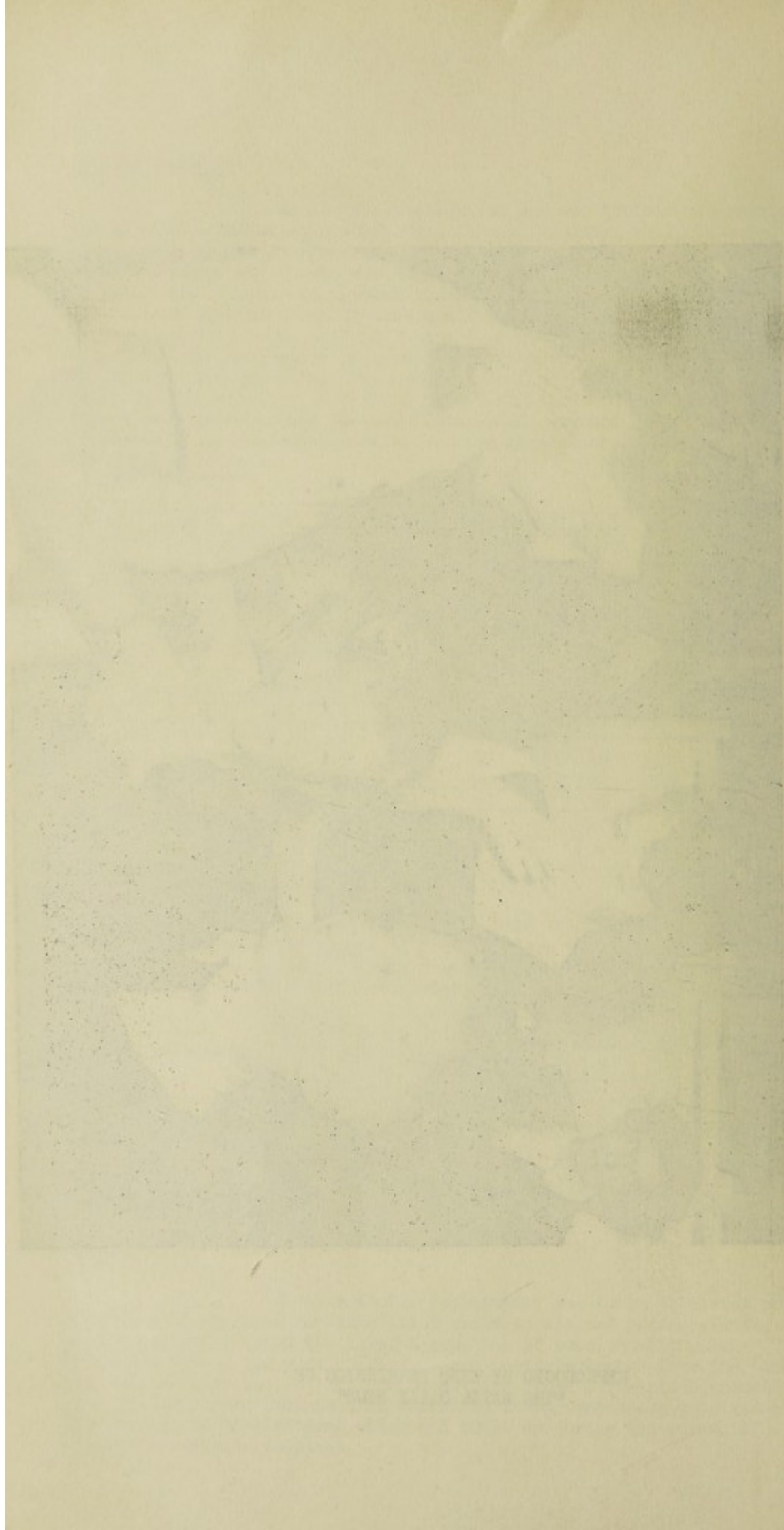
Poliomyelitis

Every suitable opportunity was taken to direct public attention to the need for immunising children against poliomyelitis, always bearing in mind the limited supplies of vaccine which were available during the year. There was a steady response from the public for this service and, before the Department could contemplate intensified poliomyelitis immunisation education it was necessary to eliminate the backlog of applications which had built up during the period of restricted vaccine supplies.

CHILDREN _____ POLIOMYELITIS IMMUNISATION _____
RECEIVING INJECTIONS AT DEPARTMENTAL CLINIC.



REPRODUCED BY KIND PERMISSION OF
"THE NATAL DAILY NEWS"



The following injections were given during the year:

	E	C	B	A	Total
1st Injection	5,617	171	231	734	6,753
2nd Injection	6,973	277	453	844	8,547
3rd Injection	882	8	1	6	897
Total	13,472	456	685	1,584	16,197

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

	E	C	B	A	Total
1st Injection	28	10	421	417	876
2nd Injection	20	2	350	208	580
3rd Injection	55	-	141	90	286
Total	103	12	912	715	1,742

Although immunisation sessions were held throughout the year, poliomyelitis vaccine was in short supply from February to April and regular sessions had, of necessity, to be curtailed. However, during April, 2,000 doses of vaccine were received from the Poliomyelitis Research Foundation and, in May, a further 2,700 doses of Salk vaccine were received from the same source.

There was a further shortage of vaccine during September and October but the normal programme was resumed on the 24th October following the receipt of a batch of 2,400 doses of vaccine.

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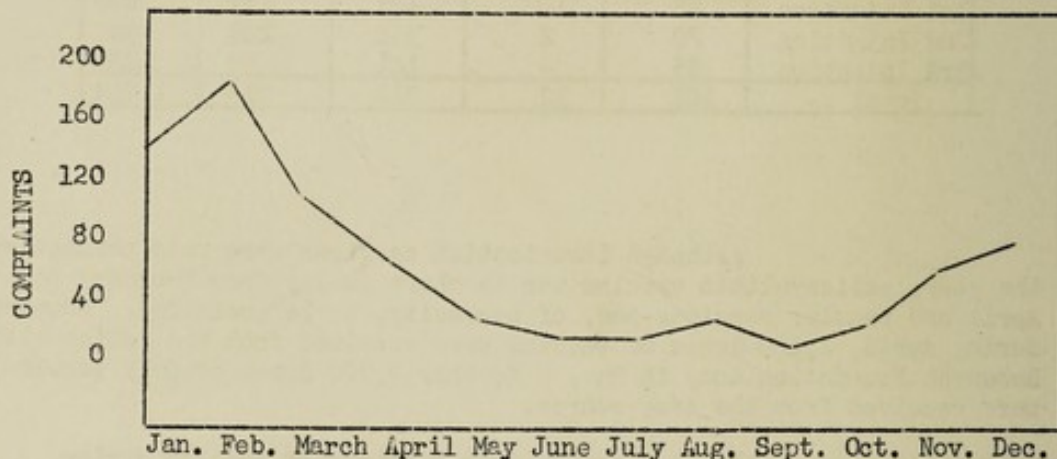
VII. HEALTH INSPECTION AND SANITATION

1. Nuisances

The health inspectional staff investigated 3,476 complaints during the year covering a very wide sphere of health nuisances.

(a) Overgrown Vacant Land

The clearing of overgrown vacant land in the suburban areas was one of the chief sources of complaint. The accompanying graph will give some idea of the work involved in this connection.



In all, 808 complaints were received and, as will be noted, they occurred mainly in the summer months. Such complaints impose an ever increasing burden on the limited Field Hygiene labour force.

(b) Mosquitoes

Mosquitoes were again a great source of nuisance. Bearing in mind, however, the conditions at the Bluff swamps, the number of complaints, namely 627, did not represent an unduly high figure. The position was alleviated in some measure by regular house-to-house inspections, and by the "mosquito-mindedness" of a large section of the public in ensuring that no stagnant water was allowed to stand on their premises.

(c) Drainage

The lack of reticulated sewerage and absence of storm-water drainage was a constant source of nuisance during the year, and there is little likelihood of any improvement forthcoming until basic drainage has been provided in all areas. These unsatisfactory conditions have arisen principally in the low-lying areas of Clairwood and Wentworth.

Although some progress was made with extensions to the sewers numerous complaints in respect of surcharging manholes were received during the year. Many conditions investigated constituted major public health risks and the attention of the Council was drawn to the subject. Steps were taken to improve the position, but the danger of further occurrences of this nature will continue until such time as the Council has implemented its major sewerage and drainage schemes. In order to expedite these capital works, the Council has made substantial financial provision on the Estimates but a shortage of qualified engineers continues to retard the progress aimed at.

(d) Southern Sewer Outfall.

Certain conditions associated with this sewer outfall gave cause for complaint. Regular inspections were maintained over the year to ascertain the degree of nuisance. Representations were made to the City Engineer to remedy matters. However, it is evident that elimination of the offensive conditions will be finally attained only by completion of the City Council's extensive programme of modernising Durban's sewage disposal works, which is now in progress.

(e) Poultry Keeping

The keeping and slaughter of poultry in residential areas continued to give rise to nuisance. During the year additional legislation was sought in an endeavour to control the slaughter of poultry on premises which were not considered suitable. These proposals were, however, not approved by the City Council. The Department was therefore obliged to rely upon the more or less unsatisfactory regulations/by-laws at present in force.

2. Air Pollution

The appointment of an Air Pollution Control Engineer and Air Pollution Inspectors under the City Engineer, has greatly relieved the Health Inspectional Section from attending to complaints of this nature. It needs to be recorded that much progress has been made by the above members of the City Engineer's staff in combating atmospheric pollution. The advice given this Department by the Air Pollution Control Engineer in dealing with Offensive Trades has been greatly appreciated.

Emission of offensive smells from the digestors at the Municipal Abattoir still gave rise to complaints. However, investigations disclosed that on a number of occasions although the Abattoir was blamed, the source of nuisance could be ascribed to another source situated in close proximity to the Abattoir. The City Council is giving consideration to the augmentation of plant and it is hoped that when this is installed there will be no further cause for complaint as regards the Abattoir.

I am indebted to the Air Pollution Control Engineer, City Engineer's Department for the following report:

"A careful check is now being kept on the smoke emission from the majority of steam raising plants throughout the City. The results of these observations are being sent weekly to every firm concerned, and they also receive an "Order of Merit" list showing how their smoke emission compares with other industries. This has created a competitive spirit throughout industry and the majority of firms are anxious to obtain a more favourable position on the list by better stoking or the installation of mechanical firing equipment. Courses at the Natal and M.L.Sultan Technical Colleges were well attended and advice and stoker demonstrations are continuously given as required. Since the commencement of this monitoring system the number of firms with no observable smoke emission has increased from 17 to 37 and the number of firms consistently recording very little smoke emission has similarly increased. A continuation of this policy should show a continuing improvement in these figures and a number of firms have been persuaded to instal mechanical firing equipment to forestall smoke emission and increase boiler efficiency.

Over one hundred complaints of smoke nuisance have been investigated and reported to the Cleaner Air Consultative Committee since its inauguration in November last year and the bulk of

them have originated from smoke of domestic origin. The control of this smoke from flats and hotels presents special problems which are being thoroughly investigated in an endeavour to clear up not only the source of specific complaint, but local smog conditions in heavily built-up areas. A method of ensuring smokeless operation of certain hot water stoves has now been finalised and is finding ready acceptance amongst domestic consumers causing smoke nuisance.

Close contact has been maintained with the South African Railways who have appointed their own Smoke Inspector and a close liaison has been established with the Engineers at the Municipal Testing Grounds who are checking cases of excessive exhaust smoke from diesel-engined vehicles. Since January of this year about one hundred vehicles have been taken off the road to have the trouble rectified and all of them are now back in commission after satisfying the examiners as to their smoke free operation.

Odour control problems at the Whaling Station and Refinery are being continuously advised on and here again close co-operation has been established, leading to a gradual resolution of the problems as they are encountered. The only constructive policy that can be followed here is to ascertain the cause of complaint and, with the co-operation of the firms concerned, formulate measures to preclude a repetition of that nuisance."

3. Food Hygiene

Routine sampling of food in terms of the Food, Drugs and Disinfectants Act and in accordance with the authority delegated by the Minister of Health was maintained throughout the year. With the exception of minced meat and sausages, all samples were satisfactory.

With regard to minced meat and sausages, instances of the illegal addition of preservative occurred.

All butchers were circularised by their local association and all offenders were prosecuted.

4. City Market

A daily routine examination of dressed poultry and other foodstuff offered for sale at the City Market was carried out. All unsound and diseased articles were condemned and destruction was arranged.

It is worthy of mention that the establishment of Market Agents within the market premises has resulted in considerably larger quantities of produce being handled, all of which requires examination before sale. A good example of the work involved relates to a period of five days during the latter part of July, when detailed records were maintained of one particular commodity only, i.e. tomatoes.

Following on a number of complaints regarding the diseased and decayed condition of tomatoes bought at the auction sales, arrangements were made to detain all trays and to examine the contents in detail. In a large number of instances it was found that to all outward signs the trays contained good quality tomatoes but a detailed examination gave another picture. In spite of an attractive form of paper packing, approximately 90% to 100% of the tomatoes were found to be diseased and/or decayed. The number of trays examined during this period totalled 33,245.

5. Utensil Sanitation

A survey was made of nine catering establishments on the beach front during the winter season, with the object of checking kitchen, scullery and washing-up arrangements. Spot checks were made at the premises, and in each case a swab was taken from a cup and a fork together with a sample of water from the wash-up sink.

In addition a record was made of the temperature of the sink water, the type of cleansing/sterilising agent in use, whether the sinks were rinsed after use, the time between water changes, and the general organisation of the kitchen.

The swabs and wash-up waters were submitted to the Municipal Pathologist for examination, and the results, insofar as the clean cups and forks were concerned, were satisfactory. In several cases however *B. coli* was found in the washing water from the kitchen sinks.

It was also established that drying-cloths constituted the chief source of bacterial contamination.

The proprietors of these establishments were duly advised regarding appropriate measures. Arrangements were made for further tests to be carried out during the summer months.

6. Cato Manor

The year under review has seen some progress in this area. Authority was eventually received from the Minister for Native Affairs for improvements to the 'Manasa' Area (District 4) to be carried out and work on the ablution blocks, sewers and roads was commenced. By the end of this year these works were well in hand and should be completed early in 1958.

In the 'Raincoat' Area, an improvement was effected by the introduction of a refuse removal service under the control of the City Engineer. Despite all efforts, however, conditions remained appallingly unhealthy. The same conditions prevailed at parts of the Haviland Road Area. Typhoid fever has been a constant threat. Much of the squalor can be attributed to the absence of water and proper sanitation; equally much to the apathy and lack of co-operation of the residents.

The universal dumping of waste grain (discarded after brewing beer) is one of the main sources of fly-breeding. The motley collection of illegally kept animals - cattle, pigs, goats and poultry - accounts for another; and the casual attitude of many of the inhabitants towards dirt and excrement completes an unholy triad.

Fly spraying is constantly carried out by this Department over the whole of Cato Manor, but fly-breeding can never be eliminated until satisfactory control and education of the residents is attained.

Kwa Mashu (Duff's Road)

Work on this vast new Native Township is now well under way and it is expected that the first residents will take occupation early in 1958.

Malaria is one of the potential dangers in this area. Both *a.gambia* and *a.funestus* have been found in the vicinity.

Regular spraying of stagnant water and treatment of individual houses for the destruction of adult mosquitoes has been carried out.

Recognising the importance of this area, with a potential ultimate population of 120,000, the Department drew up a scheme for enlarging its staff to cope with the situation. The approval of the City Council, the Minister of Native Affairs and the Secretary for Health was obtained. Extra field labourers with a European General Assistant in charge started work in December 1957. The post for Senior Health Inspector has not been so easy to fill, but inspection of the area is being carried out by the existing staff.

7. Licences/Trading Premises

By the opposing of licences and enforcement of the by-laws a general improvement in standards has been noted, not only in shops and factories, but also to certain lodging houses. The past year has seen the demolition of numerous very inferior trading premises which have been replaced by modern up-to-date blocks of offices and shops.

The accompanying photographs of Asiatic owned premises before and after reconstruction speak for themselves.

8. Trading Rights in Native Location Areas

The trading rights in all Municipal institutions are reserved, in terms of Act 25 of 1945, for the Bantu, and the practice is, as far as possible, to ensure that trading facilities are adequate to cope with the requirements of the inmates of the various institutions.

The allocation of trading sites is controlled by the Native Administration Department and the tenancy of such sites is subject to the occupant complying with the trading and health regulations.

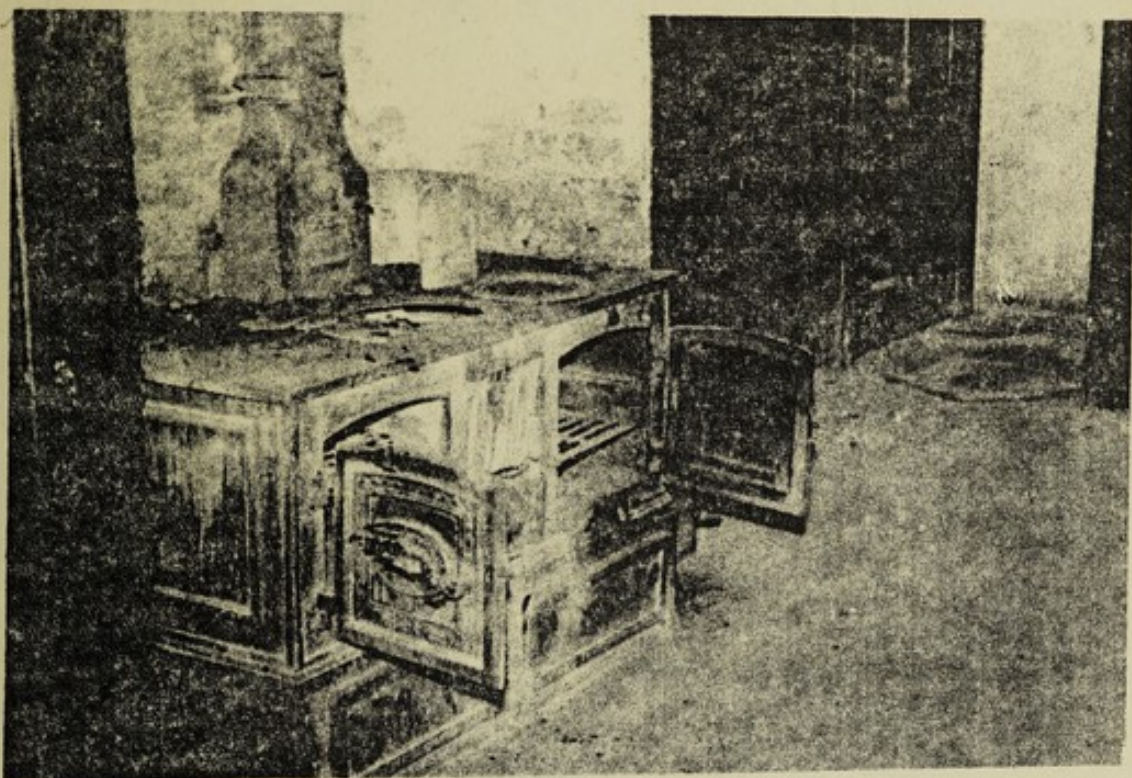
In the Cato Manor Emergency Camp, 19 Indian premises have been acquired by the Council for conversion to Bantu trading sites.

In view of the pending move of Cato Manor residents to the Kwa Mashu Native Township all expenditure of a capital nature has been stopped; therefore no new trading premises are to be provided in that area, except those in the process of being acquired.

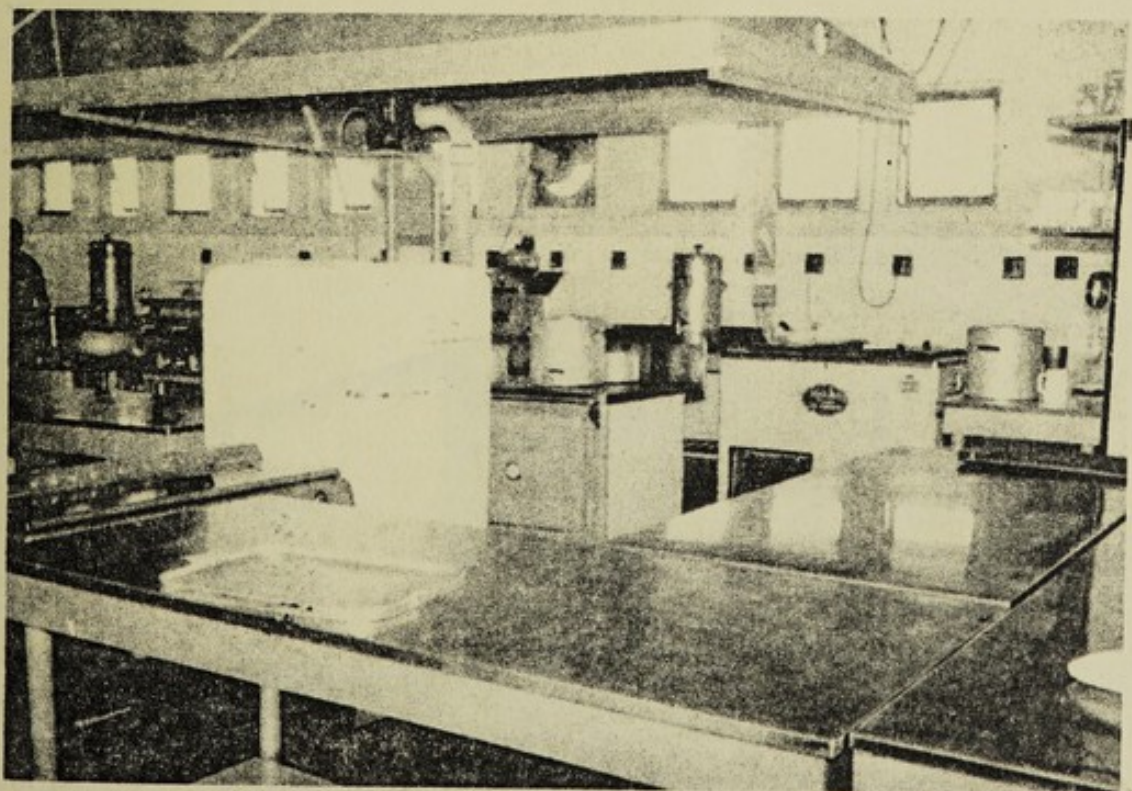
It may be of interest to note that the Native Administration Department has provided the following types of businesses in the various locations and hostels to cater for the residents, but it should be borne in mind that owing to the proximity of the institutions to the City, competition is particularly keen and the danger of overtrading is, therefore, an important factor.

<u>Type of Business</u>	<u>No.</u>
General Dealers	46
Fresh Produce Dealers	40
Butchers	20
Shoe Makers	8
Caterers	57
Wood and Coal Dealers	23

Total population served by above: 85,000.



KITCHEN CLOSED BY HEALTH DEPT.



NEW KITCHEN BUILT TO
DEPARTMENTAL STANDARDS.

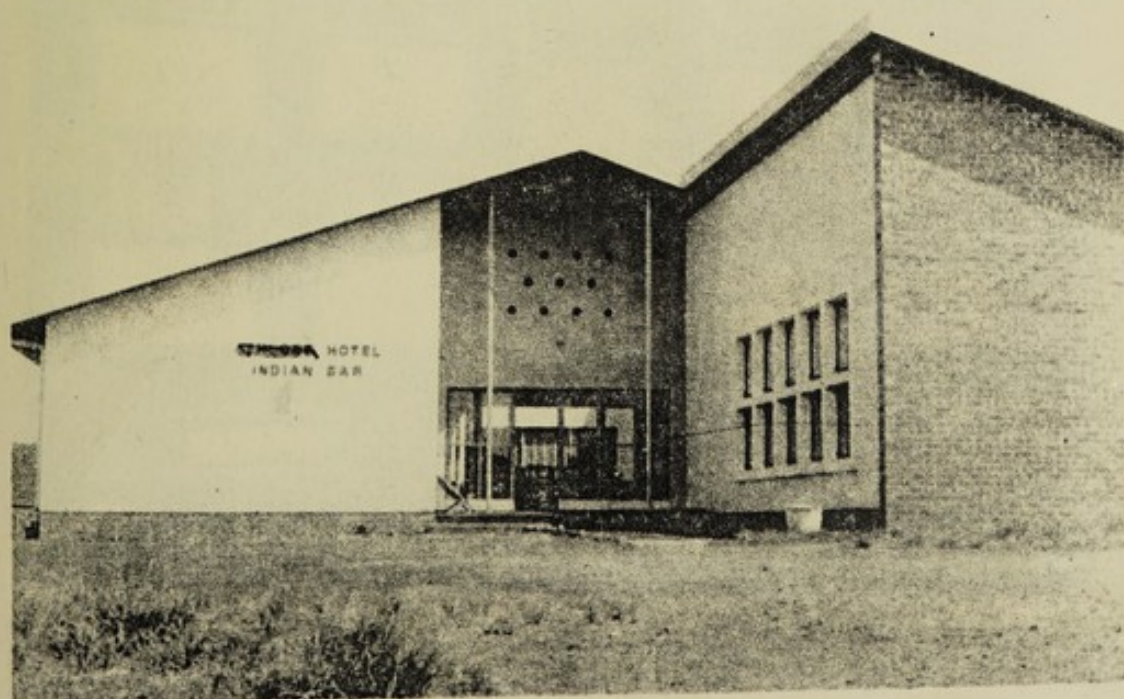


KITCHEN CLOSED BY HEALTH DEPT.

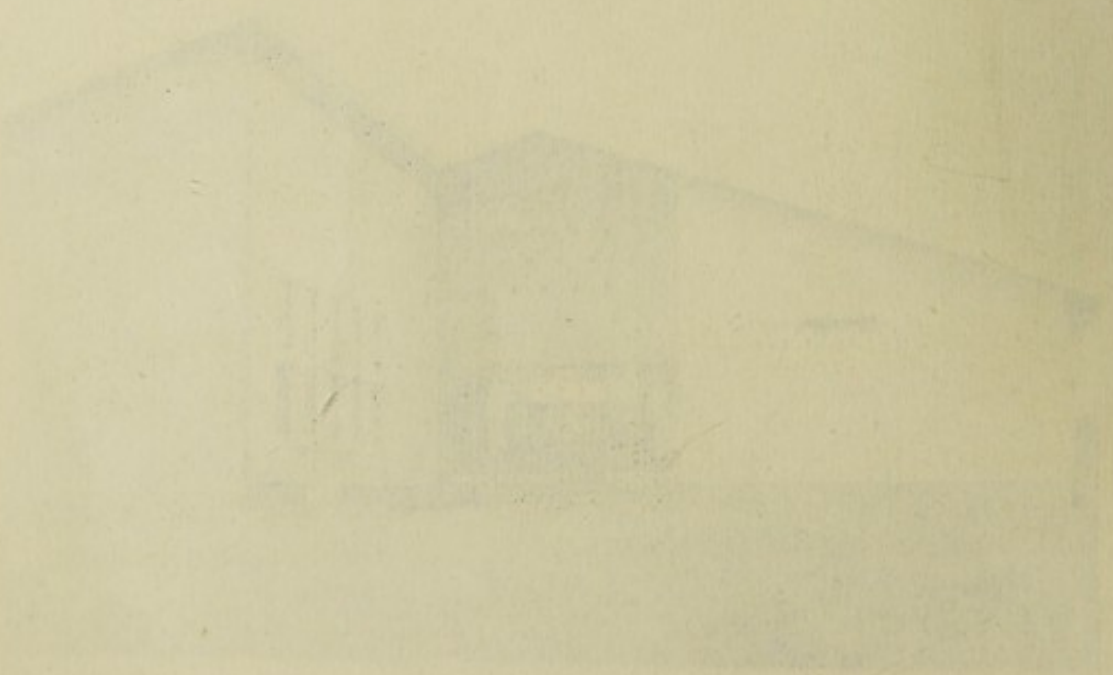
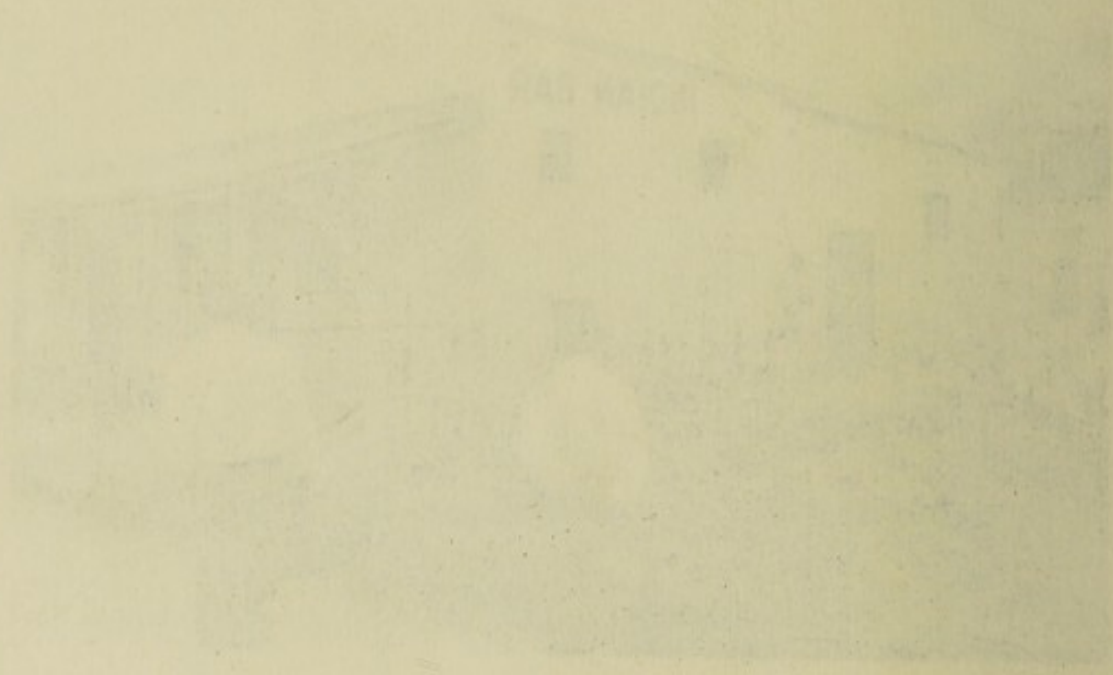


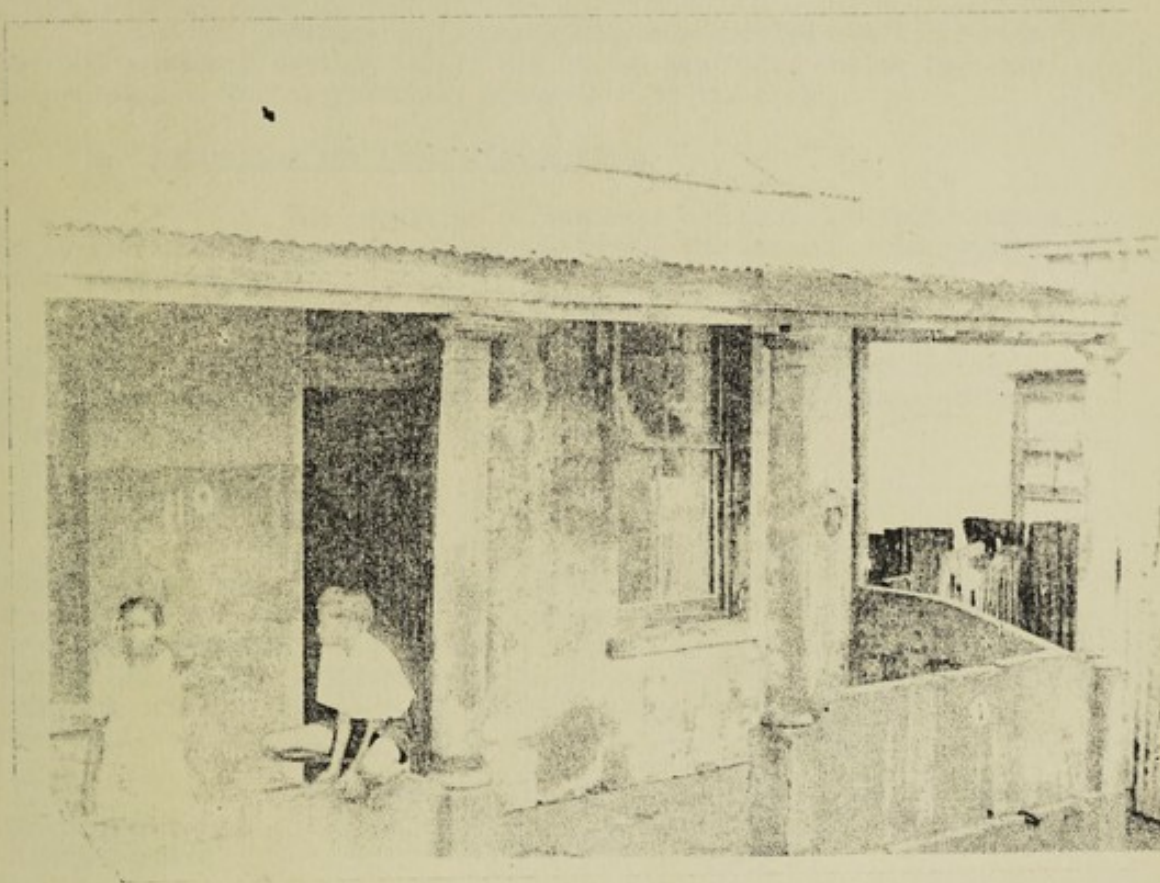
NEW KITCHEN BUILT TO
DEPARTMENTAL STANDARDS

INDIAN CURRY KITCHEN
BEFORE AND AFTER RECONSTRUCTION.



INDIAN COUNTRY KITCHEN
BEFORE AND AFTER RECONSTRUCTION





INDIAN-OWNED SLUM DWELLING



SAME PREMISES AFTER REBUILDING

INDIAN-OWNED SLUM DWELLING



SAME PREMISES AFTER REBUILDING

Extensive planning has been carried out to provide for the necessary trading facilities at the Kwa Mashu Native Township to precede, as far as possible, occupation of the area.

9. Industries and Industrial Hygiene

The provision of canteens and assisted food schemes in larger industrial concerns has now become the general rule rather than the exception.

The checking of plans prior to the erection of new factories has assured the provision of adequate light, ventilation, changeroom accommodation and further inspections during construction have ensured buildings are rendered rodent-proof.

10. Routine Inspections

Catering establishments on beaches, race-courses, sports ground and other places of public gathering, were kept under strict observation and supervision. No case of food poisoning was reported from these sources during the year. When it is considered that on "Durban July" day alone, some 50,000 people attended the race meeting and that the catering was on a proportionate scale, the freedom from outbreaks of food poisoning from the above sources is noteworthy.

All commercial food-handling establishments throughout the City received at least one routine inspection: those which did not attain certain standards were visited more frequently.

11. Pollution of Durban Bay

The Department continues to be represented on the Council's Special Sub-Committee re Pollution of the Bay. The City Engineer's Department maintains its policy of curbing the entry of trade waste into the waters of the Bay, and, to this end, has inspected a large number of the industrial and commercial concerns in the areas adjoining the Bay.

12. Swimming Baths

The Department has collaborated with the Chief Chemist, City Engineer's Department, in investigating the relationship between eye irritation and the pH state and free chlorine content of the water. The study was instigated as a result of a number of complaints regarding eye and nose irritation following use of the baths.

13. Staff Shortage

Durban is a training centre for Health Inspectors, but although in the past two years all the candidates for the second part of the Royal Society for the Promotion of Health examination have been successful, very few have entered the Corporation Service. With an eye to the future, particularly the future of the Kwa Mashu scheme, attempts have been made to interest the authorities concerned in inaugurating a training school for Bantu Health Inspectors. Negotiations are proceeding.

* * *

VIII. NIGHTSOIL AND REFUSE DISPOSAL

The City Engineer has kindly furnished the following particulars:

"Water-borne Sewerage

The whole of the Old Borough is served by water-borne sewerage and sewage is conveyed to the Point Outfall Works whence it is discharged on the ebb tide from a point on the North Pier. Sewage from portions of the Springfield area and the Parkhill Valley is also conveyed to the Point Works.

The Southern Sewerage System, with a sea outfall opposite Island View, serves the Bluff area, the industrial areas of Jacobs, Clairwood, Amanzimnyama and Mobeni, the Native Locations of Lamont, Cato Manor and Chesterville, and the residential areas of Woodlands and Montclair, together with a narrow band of properties on either side of the main sewer extending up the Umbilo and Bellair Road valleys to Sparks Road.

The following lengths of new sewers were laid during the financial year ended 31st July, 1957:

Old Borough	-	10,212	lin. feet
Northern Sewerage	-	9,855	" "
Southern Sewerage	-	42,772	" "
Total		<u>62,839</u>	" "

New extensions have been limited, as it is necessary to concentrate on the reconstruction of old sewers, upwards of fifty years old, on new trunk sewers, and on the design of proposed new sewage disposal works to serve the central and southern areas. The new 54" diameter trunk sewer in Point Road was completed, and the new 36" trunk sewer in Brickhill Road was extended and will be completed very shortly.

A separate sewerage system and a sewage disposal works are under construction at Duff's Road to serve the Kwa Mashu Native Housing Scheme. It is expected that the first units will be brought into service in March, 1958.

Conservancy

The number of pails in use as at 31st December, 1957 was as follows:

Sydenham	4,349
Greenwood Park	2,451
South Coast	2,280
Bluff	1,972
Umhlatuzana	2,043
Mayville	3,394

Septic Tanks

Areas at present relying on septic tank disposal are as follows: Durban North and Virginia; parts of Red Hill and Greenwood Park; parts of Bellair and Hillary; parts of West Ridge and Sherwood and part of the Bluff.

Refuse Removal

The quantity of refuse collected for disposal from 1st January, 1957 to 31st December, 1957 was 363,152 cubic yards.

Composting

This Department has developed a valuable means of disposing of Durban's garbage and other habitation wastes. An organic fertilizer rich in humus - which is a deficiency in local soils - is composted from ordinary refuse. The presence of nitrogen and other plant nutrients makes this well balanced compost ideal for all gardening purposes. For the convenience of citizens, compost is now available for purchase at the following places: Botanical Gardens, Springfield Compost Station, Bellair Conservancy Station and Jacobs Dilution Station. From the 1st January, 1954 to 31st December, 1957 12,708 cubic yards of compost have been sold for an amount of £14,376. 8. 2."

Refuse Tips

Although refuse removal and disposal services are conducted by the Cleansing Section of the City Engineer's Department, the Health Department maintains a constant interest in these activities. Unless meticulously constructed, refuse tips in particular, tend to become fruitful sources of fly-breeding, rodent prevalence, smells and other nuisances. The various tips in the City have been visited repeatedly and the Cleansing Section has been advised, when necessary, of the measures to be taken. The Tara Road tip is helping materially in the eventual solution of the Bluff mosquito problem as it represents a useful instrument for the reclamation of many acres of swampy ground. The City Engineer has collaborated with this Department by diverting the refuse from a large part of the City to this site.

However, it is of interest to note that, while helping to solve the main problem, the maintenance of this tip has created its own special difficulties. The waters on and adjacent to this tip are so charged with organic matter, and so warmed by the tip's fermentation, that mosquito development has proceeded apace. Control of these waters received a great deal of attention throughout the year.

* * *

IX. MILK SUPPLIES

Durban's daily intake of milk is approximately 33,720 gallons of which 33,000 gallons are pasteurised in the four local milk Depots.

About 500 gallons of the pasteurised milk is diverted daily for manufacture of milk products such as ice cream, etc.

Durban milk is derived mainly from Natal, but about 2,000 gallons are received from East Griqualand. This figure is stepped up during the short-fall period, usually between the months of February and May, and the present milk potential of East Griqualand is estimated to be about 5,000 gallons per day.

Outstanding advances have been made in the standards of premises in Natal amongst the dairy-farmers registered with this Department.

The initial opposition to any form of control, which was experienced six years ago at the inauguration of the farm dairy control scheme, has gradually been replaced by a spirit of co-operation from most of our farm producers. Patient instruction, constant reminding and encouragement have earned their reward, and the Department's dairy personnel now command the respect and confidence of the farmer.

Registration to supply milk to the City is today recognised as a privilege and an asset by the majority of farmers. This asset is jealously guarded by the average farmer and, in contrast to past experience, it is now the registered producer himself who resents the intrusion of a dairyman with sub-standard facilities. This has been clearly demonstrated over the past year.

During the year under review, new districts were explored and the farmers in these parts were offered registration, on condition that the basic requirements were fulfilled without delay. As a result farmers in the new areas of Underberg and Kromdraai are making rapid progress towards fulfilling this Department's structural requirements. As new premises are being completed registration is being granted. In addition factory premises at Rocky Ridge near Kokstad and at Cedarville (Kromdraai) have been completely rebuilt and modernised to handle the farm supplies from these areas, prior to bulking for despatch to Durban.

A regular insulated milk-tanker service is now operating from East Griqualand and this service will undoubtedly be augmented as the City's demands for more milk increase in the future. A concentrated effort has also been made to improve the quality and quantity of milk being produced. This has been aided by an extensive educational programme conducted for producers, and here the showing of educational health films has been of considerable help. This programme was carried to the Royal Agricultural Show at Pietermaritzburg where dairy films were shown daily to the public, and where, in addition, a Dairies Inspector was on duty daily to supply information to individual farmers. Attendances were most gratifying.

Throughout the year supplies were regularly sampled and all consistently poor producers were warned that sub-standard supplies would be rejected, and pamphlets on the methods of clean milk production were issued to them.

In certain areas 'on the spot' testing has commenced. Tests have been conducted daily at the depot and sub-standard supplies returned to producers who have been visited and their production methods

discussed. In a few instances farmers have had their milk rejected repeatedly, a measure which has had the desired effect of improved production methods being introduced.

Unfortunately this work had to be curtailed to some extent by reason of a serious and widespread outbreak of "lumpy-skin" disease throughout the Province. In many instances individual production dropped by as much as 80% and the City's supplies were endangered. The Veterinary Division of the Department of Agriculture, is however, developing a new vaccine against this disease, and if the field-trials which are at present being conducted are successful, the disease should soon be brought under control.

Of the 33,000 gallons of milk entering the City by road and rail by far the largest quantities are transported in insulated milk tankers, which operate from the ten balancing-stations, situated in Natal and East Griqualand. Farm milk supplies are weighed, cooled and bulked at these country stations or depots prior to despatch. On arrival in the City these milk supplies are all pasteurised at four pasteurising depots. After pasteurisation a small quantity is diverted for the manufacture of by-products, such as cream and ice-cream, while the rest is sold as consumer milk to the public.

In addition, approximately 750 gallons of raw milk which is produced by eight "A" class dairymen, is distributed in the City.

During 1957 a new Stork Amsterdam Sterilising plant was installed at Pinetown and began to operate. Supplies to this plant are drawn by road and rail and sterilised, homogenised milk is now on sale in the City.

Laboratory Programme

All milk for the City is subject to routine laboratory control both on collection from the farmer and also after processing and prior to distribution to the consumer. In addition to this routine control, extra tests are regularly conducted on sub-standard farm supplies and also on plant and machinery in pasteurising factories and in ice-cream plants, in order to trace any faults which may occur. This laboratory work may be summarised as follows:

Bacterial Counts	7,884	Plate Counts	395
Presumptive B.coli Tests	1,873	Acidity Tests	560
Eijkmann Tests (faecal B.coli)	189	Mastitis Tests	11,755
Phosphatase Tests	1,560	Contagious abortion	
Methylene blue Tests	572	(ring tests)	1,266
		Sediment Tests	4,970

The following comparisons of the detailed results obtained during the year at various stages of the milk process are of interest (for guidance the following standards are required: Breed clump counts: shall not exceed 200,000 organisms per c.c.; B.coli (presumptive): shall be absent in 0.01; B.coli (Eijkmann): faecal B.coli shall be absent; Methylene blue test: shall not be less than 4 hours; Plate count: shall not exceed 200,000 organisms/c.c.; Acidity: not to exceed 0.18% titratable acidity).

(a) Retail Milk

Tests Conducted	Raw Milk (Bottled)		Pasteurised Milk			
	Samples Examined	% of Samples Passed	Samples Examined	% of Samples Passed	Samples Examined	% of Samples Passed
Breed Clump Counts	788	90	379	80	162	64
Plate Counts	273	84	166	93	-	-
Acidity	330	100	172	100	-	-
Keeping Quality	347	84	208	84	-	-
B. coli Tests	391	55	230	90	162	64
Phosphatase Tests	-	-	416	100	-	-

(b) Producer (Farm) Milk

Breed Clump Counts on Arrival in Durban

Samples examined 5,009
Samples showing less than 200,000 organisms per c.c. 65%

Visible Dirt Sediment Tests

Samples examined 4,970
Percentage passed 66%

(c) Ice-cream

Type of Test	1956	1957
	140 samples examined % of samples passed	221 samples examined % of samples passed
Breed Clump Count	84%	94%
B. coli Tests	42%	44%
Pasteurising Efficiency	100%	100%

(d) Cream

Breed Clump counts

Samples examined 205
Samples showing less than 200,000 organisms per c.c. 60%

B. coli Tests

Samples examined 205
Samples satisfactory 46%

Phosphatase Tests

Samples tested 410
Samples satisfactory 100%

The dairy herds have been subjected to routine control by the Veterinary Medical Officer who has this to say about some of the more important zoonoses.

(1) Tuberculosis

Regular clinical examination of all cows in "A" class herds was carried out with the object of detecting tuberculosis in the early stages. In addition samples of bulk milk from these herds were submitted at approximately monthly intervals for biological testing. No positive samples occurred. Two of the largest "A" class herds have now applied to be accredited under the Government tuberculin testing scheme.

Testing of farm-producer herds is encouraged by this Department and this testing is done as part of the Government Interim Scheme on request.

(2) Mastitis

The eight producer/distributor herds are subject to routine examination and during the year 1,143 tests were conducted on these herds. Farm producers' supplies are also tested regularly and 5,009 tests were conducted, which showed that 12% of herds were positive. As a result of health education and propaganda promoted by means of films, pamphlets and lectures, farmers are made aware of the disease and taught how to combat it. As a result 2,456 request tests were conducted on behalf of farmers in their efforts to trace and eliminate infection.

(3) Brucellosis

The producer/distributor herds are tested regularly. New introductions of animals are allowed only if accompanied by a veterinary certificate stating that they have been immunised with strain 19 vaccine or that they are free of the disease on agglutination tests. Of 320 tests conducted on these herds by this laboratory all were negative.

Farm producers have also been well instructed on the prevention of this disease, and the success of this work is clearly demonstrated by the following figures.

Year	No. of tests conducted	No. of positive herds found
1955	1,529	3%
1956	1,988	0.3%
1957	946	-

Dairies Inspection

The Department, through its Health Inspectors, has followed a policy of insisting on certain minimum requirements before registration is granted and of bringing registered premises up to a high standard by gradual improvement of their basic structures. Durban's by-laws require a very high standard, but in the attainment of that standard reasonable time is granted to the dairyman who is willing to co-operate. It is to be hoped that if uniformity of by-laws comes about, other local authorities will raise their standards to the Durban level, rather than the reverse should occur.

The following table indicates the extent of the progress made as regards farm dairy premises:

No. of premises	91% - 100%	completed structurally	46
" " "	81% - 90%	" "	109
" " "	71% - 80%	" "	197
" " "	61% - 70%	" "	168
" " "	51% - 60%	" "	127
" " "	below 50%	" "	147
			<u>794</u>

The above figures include producers in East Griqualand who have been receiving regular dairy inspection for the last two years only.

As regards milk depots, which are also registered with the City Health Department on attaining certain standards, the improvements over the past six years may be summarised as follows:

Milk Depots which have been entirely rebuilt

Ladysmith, Natal
Rocky Ridge, Kokstad, East Griqualand
Wanstead, New Amalfi, East Griqualand
Kromdraai, Cedarville East Griqualand

Milk Depots which have been altered or improved to comply with Departmental Requirements

Greytown, Natal
Mooi River, Natal
Umlaas Road, Natal
Ixopo, Natal

Attendance by Department's Officials at Farmers' Meetings

The policy of addressing farmers' meetings on request has been continued throughout the year. Reference has already been made to the Underberg district and during the year under review, a farmers' meeting there was attended by representatives of the Department: as the group concerned were not registered milk producers, films were also shown illustrating dairy premises, equipment and hygienic handling of milk supplies.

As a result of these discussions, thirty applications to become registered fresh milk producers were received from the Underberg area, formerly regarded as an industrial milk area, but now about to become an important part of the Durban milk-shed.

Meetings were also addressed at the following farming centres when various matters relating to clean milk production were discussed: Ixopo, Kokstad, Cedarville, Donnybrook, Umlaas Road, Pietermaritzburg, Greytown and Mooi River.

These meetings have become a recognised forum where the dairy farmer and the health official discuss their mutual and individual problems.

Statistical

- (a) Chemical Analysis (Food, Drugs and Disinfectants Act)
182 samples tested: 3 failed to conform
- (b) Bacterial Count (Faecal B. coli)
189 samples tested: 3 positive Eijkmann
- (c) Biological Tuberculosis Test
96 samples tested: No positive found
- (d) Inspectional Programme
Total dairy inspections carried out: 3,010
Dairy inspections, City: 1,626
Dairy inspections, Country: 1,384
Initial farm dairy inspections: 141
Country depot inspections: 183
Personnel vi-tested and inoculated: 1,300
Doubtful vi-tests: 19
Positive vi-tests: 3

* * *

X. MEAT SUPPLIES

I am indebted to Dr. C.C.Wessels B.V.Sc., Director Municipal Abattoir and Chief Veterinary Medical Officer, for the following report:

- "1. SLAUGHTERHOUSES: Two establishments are situated in Durban, viz. (a) the Municipal Abattoir, and (b) the Federated South African Meat Industries Ltd., Maydon Wharf, which has not functioned during the year.
2. SYSTEM OF SLAUGHTERING: Act No. 26 of 1934 (Humane Slaughter of Animals Act) controls the methods used. Bovines are stunned with captive bolt stunners, pigs are electrocuted. Sheep and goats are slaughtered by the throat cutting method, in deference to the religious beliefs of the Mohammedan community.
3. MOVEMENTS OF LIVESTOCK: The Livestock and Meat Industries Control Board controls the numbers of animals which may be slaughtered at the controlled centres throughout the Union. During the year under review, there has been a steady flow of livestock, and no shortages have occurred as has been the case in previous years at certain seasons.
4. FOOT AND MOUTH DISEASE: Outbreaks in the Transvaal and Bechuanaland have resulted in many thousands of pigs being diverted to the Durban Abattoir for slaughter. This has imposed a considerable strain on the available equipment and staff, but the Meat Control Board has expressed great satisfaction at the efficient manner in which the abnormal influx has been handled.
5. DISPOSAL OF WASTE PRODUCTS: In accordance with the Public Health Act, all condemned carcasses and offals are treated in a by-products plant. The resultant products, plus meal manufactured from the collected blood, and certain other by-products, are disposed of with considerable benefit to departmental revenue. The income from this source enables the charges which the farmer is called upon to pay for putting his livestock through the Abattoir to be kept to a minimum. During the year the Council entered into a contract with a firm which intends to process paunch contents into fertilising material.
6. SLAUGHTER OF RABBITS: Amendments to the By-laws were promulgated to cover the slaughter of rabbits at the Abattoir, but so far the Association which made the original approach has not commenced operations.
7. BUTCHERS' SHOPS: Supervision over premises throughout the City is carried out by the City Health Department.
8. CONDEMNATIONS: A detailed schedule of condemnations is set out below:

	Bovines	Calves	Swine	Goats	Sheep
Slaughtered	78,325	6,498	51,150	39,084	352,917
Whole carcasses condemned	1,215	209	1,100	425	1,379
Portions of carcasses condemned in lbs.	433,862	293	35,269	18,857	814,217

XI. CHEMICAL ANALYSIS OF FOODSTUFFS

The following foodstuffs were submitted to the Government Chemical Laboratory, Johannesburg and the City Analysts under the provisions of the Foods, Drugs and Disinfectants :

Sample	No.	In conflict with Regulations	Action taken and Result
Berley Water	1	3	Prosecutions - All Guilty
Biltong, Beef	1		
Boerewors	13		
Bread, White	76		
Chutney, Fruit	5		
Coffee and Chicory	1		
Coffee Mixture	8		
Cordial, Fruit	3		
Cream	4		
Curry Powder	9		
Dripping	1		
Fat, Vegetable	6		
Flour, Bread	5		
Flour, Cake	2		
Honey	6		
Ice Cream	10		
Jam, Pineapple	1	4 10	Prosecutions - All Guilty Prosecutions - All Guilty
Lime Juice	1		
Margarine	1		
Marmalade, Orange	1		
Mealie Meal	14		
Milk	180		
Minced Meat	59		
Oil, Cooking	13		
Oil, Mustard	3		
Orange Juice	1		
Pepper, Black	5		
Pepper, White	5		
Pickles	3		
Polony	5		
Rice	3		
Salt, Cooking	5	4	Prosecutions - All Guilty
Salt, Table	6		
Sauce, Worcestershire	5		
Sausages	41		
Sausages, Garlic	1		
Showcream	1		
Squash, Fruit	3		
Syrup, Fruit	9		
Tea	2		
TOTALS :-	519	21	Total Fines - £140. 0. 0

XII. WATER SUPPLY (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 ending 31st December, 1957 was 38,779,421 gallons, during which period the highest recorded consumption on any day was 47,846,275 gallons.

(e) Purity

Every precaution is taken to ensure that Durban's water supply is maintained at the highest possible state of purity. A staff of chemists and bacteriologists is continuously employed on the chemical and bacteriological examination during all phases of the water's treatment and distribution. An average of 1,200 samples, taken from various points of the City, are examined bacteriologically each year and the results reveal a high state of purity throughout the entire distribution system. Independent and regular examinations are made by the Government Pathologist. The bacteriological and chemical standard of the drinking water supply had been maintained at a high level throughout the year. A point of health interest is to be found in the low fluorine content of the water.

(f) Umgeni Scheme Augmentation

On the 16th August, 1957, His Worship the Mayor of Durban, Councillor Percy Osborn, unveiled a plaque at the Durban Heights Purification Works to commemorate the augmentation of the Umgeni Water Scheme. On that day the second pipe line between the Nagle Dam and the Purification Works was formally commissioned. The completion of this work made it possible to deliver 50 million gallons a day to the Purification Works from the Nagle Dam. The second aqueduct from the Purification Works to the City was almost completed by the end of the calendar year 1957 and was being tested during December.

The capacity of the Purification Works at Durban Heights has been recently increased to 35 m.g.d. and plans are being prepared for its

enlargement to 50 m.g.d. When this work is completed Durban's Waterworks Undertaking will have been increased in potential from 33 to 63 m.g.d. capacity during wet years. Increased conservation capacity will be necessary to ensure this supply during dry years. The existing conservation works are considered to be adequate to ensure a total supply of 58 m.g.d. during dry years.

* * *

XIII. FIELD HYGIENE

(a) Plague: Rodent Control

The activities of this Section may be summarised as follows:

- (i) Continuous surveys, aimed at detecting any undue increase or decrease in the rodent population ("indexing"), or any sign of suspicious morbidity or mortality, have been carried out. To this end trapping and gassing measures were undertaken, particularly in the commercial and industrial areas of the City.
- (ii) Extermination: Corporation owned barracks and hostels and other premises are regularly de-verminised. The chief methods used are cyanogas dusting and poison baiting. Both zinc phosphide and anti-coagulant (warfarin) are also used.
- (iii) Supervision of new buildings and existing warehouses and trading premises to ensure compliance with rodent-proofing regulations. A close liaison is maintained with the Port Health authorities who carry out an extensive anti-rodent campaign in the port area. The South African Railways and Harbours Administration is continuing with its programme of the gradual replacement of wooden wharfs with concrete.

The following figures give some indication of the work of the Section during 1957

Premises trapped for plague index	1,713
Traps set	18,483
Traps set contiguous to harbour	7,370
Cyanogas used	584½ lbs.
Rodents destroyed	4,301
Rodents destroyed contiguous to harbour	799
Poisoned baits (phosphorus) laid	263,254
Anticoagulant (warfarin) used	116½ lbs
Rodent carcasses submitted to the Government Laboratory for examination	364

(b) Cockroach Control

The practice of regularly spraying sewer manholes, storm-water drains, gutterbridges and other likely places of harbourage has been followed throughout the year. The results have been effective. The insecticides used are D.D.T. and B.H.C. In addition, complaints of cockroach infestations on private premises are investigated and advice given to property owners.

Details of work carried out

Sewer manholes sprayed	7,650
Stormwater manholes sprayed	10,059
Gutter bridges sprayed	7,326
Corporation properties sprayed	16
Government properties sprayed	1
Private premises, complaints investigated	98

(c) Cimex

The Section restricts its activities to Corporation properties where the Department concerned has not the means to carry out effective measures. Rooms treated during the year numbered 356.

(d) Flies

Complaints of fly nuisances are investigated by the Health Inspectorate; 227 such complaints were received during the year, a slight increase over the previous year's figure of 197.

In the Cato Manor area, where fly-breeding is particularly bad, the Department carries out continuous anti-larval and anti-adult measures. It has been found that Municipal refuse tips have given rise on occasion to large-scale fly breeding. The necessary advice has been given to the Department concerned.

(e) Mosquitoes

Aedes Control: Particular attention is paid to the areas surrounding the Louis Botha Airport. A regular programme of check inspections is carried out by Bantu Health Assistants on all premises in these areas. During 1957 the following visits were made:

Lamont Location	8,545
Merebank	2,845
Umlazi Glebe Lands	3,691

Other Control: As in previous years the advent of the summer months has brought a large number of complaints regarding mosquitoes. In all 627 complaints were made, mostly from Bluff residents. While some could be traced to breeding places on private properties, the great majority emanated from a chain of swamps between the inner and outer ridges of the Bluff, the swamp area embracing in all some 160 acres.

Larval control has been difficult because of the dense vegetation which exists in the swamps and the position has been aggravated (a) by the heavy rainfall throughout the year, and (b) by the fact that the stormwater drainage from the surrounding residential areas is directed into the swamps.

All possible methods of control were considered and where possible were put into practice or given a trial. Among the more important measures were:

(i) Drainage

The City Council has accepted the principle that complete drainage, coupled with reclamation is the only permanent solution to the problem. Accordingly, a survey was carried out during the year to establish the best means of accomplishing this. Subsequently tenders were invited for the construction of a tunnel through the outer ridge of the Bluff to drain the swamps into the sea in the vicinity of Anstey's Beach. A contract was entered into the the work will commence early in 1958.

(ii) Aerial Spraying

This was carried out on five occasions during the year. The first spray gave excellent results but subsequent sprays were not so effective. This was attributed to the rapid progress of the Tara Road refuse tip which serves the purpose of reclamation of an area to the south of the main Van Riebeeck Swamp. Water from the tip was found to be highly polluted with decaying vegetable matter which impaired the efficacy of the insecticides used. By means of a connecting canal, this tip water has now infiltrated into and mixed with vast quantities of the water of the Van Riebeeck Swamp.

Various larvicides were used, including dieldrin, D.D.T., B.H.C., toxaphene and malarial oil. Nevertheless aerial spraying achieved a measure of success which no other method could have provided at the time.

(iii) High Pressure Pump

To counteract the difficulties of access to the swamps a high pressure portable pump, capable of throwing a 60 ft. jet, was purchased. The pump is fitted with an injector whereby the insecticide is introduced into the stream of water used for spraying. The swamp water itself is used as a vehicle for pumping. This method has given good results, but has still not solved the problem of the inaccessible areas towards the centre of the Swamps.

(iv) Shallow-draught Boat

By the end of the year it was considered that a shallow-draught boat or punt would help to overcome the problem of access and authority had been sought for the purchase of such a boat.

(v) Anti-adult Measures

The Department's T.I.F.A. fogging machine was used in an attempt to control adults in the bush surrounding the Swamps. The area is too vast however for the method to be of practical value.

General

Notice boards were erected at points round the perimeter of the Swamp, warning the public against using the water for domestic purposes.

It is of interest to note that the temperature of the water varies considerably in various parts of the Swamp. Generally speaking the worst mosquito development takes place in the warmer water which is found towards the edges of the Swamp. Detailed observations are now being recorded.

In other areas of Durban, mainly in the Durban North and Beachwood areas anti-mosquito measures have been carried out as in previous years. Besides routine larvicidal spraying, ditching to improve drainage was an important measure. The length of ditching carried out was 276,340 yards.

The Happy Valley Swamp presents certain difficulties in that it consists of a large number of plots under private ownership. Notices were served on the owners and in certain instances, authority was given to the Department to carry out the necessary measures at the owners' cost. Negotiations for the acquisition of the land by the Council were put in hand but many of the owners were not prepared to sell their properties. Unfortunately, no powers for expropriation in such circumstances can be applied under existing legislation.

* * *

XIV LEGISLATION

1. Housing Act, 1957

The Housing Act, 1920, the Housing (Emergency Powers) Act, 1945, and various other amendment acts were repealed and replaced by the Housing Act, No. 10 of 1957 the object of which was to consolidate the legislation dealing with housing matters, and to disestablish the Natal Housing Board. Persons wishing to demolish residential accommodation must now obtain the approval of the Minister of Health, and not the Administrator of Natal as heretofore.

2. Regulations under Public Health Act, 1919

(a) Regulations Regarding Exclusion from School on Account of Infectious Disease

The Secretary for Health published proposed amended regulations which were not entirely acceptable to the City Council, and the City Medical Officer of Health was directed to furnish his comments and criticisms thereon. On 5th December, 1957, the Assistant Medical Officer of Health, on instructions of the Council, attended a meeting in Pretoria convened by the Union Health Department. Other scheduled local authorities in the Union were represented, and discussions ensued on various aspects of the draft amendments. Agreement was reached and promulgation of fresh regulations is now awaited.

(b) Hydrogen Cyanide Fumigation Regulations

Government Notice No. 341/1957 had the effect of amending the Regulations to require the provision of resuscitation outfits capable of supplying oxygen, in place of the carbon dioxide apparatus previously used by fumigators.

3. Food, Drugs and Disinfectants Regulations

(a) Proposed Amendments

During the year the Minister of Health announced his intention to amend the Regulations in respect of salt, sausages, and castor sugar. The City Council offered no criticisms of the Draft Regulations

(b) Amendments Gazetted

The Regulations were amended in respect of castor sugar, and preservatives in fish roe and spawn.

(c) Sterilisation of Milk

The Minister had previously announced his intention to frame Regulations in this regard. The City Council offered certain criticisms and suggestions, but in March the Secretary for Health indicated that, pending the introduction of suitable amendments to the Dairy Industry Act, 1918, his Department was unable to proceed with the promulgation of these regulations until finality concerning the above Act had been reached.

4. Slums Act Regulations

The City Medical Officer of Health recommended that the Regulations for the Control and Inspection of Premises in Defined Zones (Provincial Notice No. 546 of 1939) for the City of Durban, framed under Section 32 of the Slums Act, 1934, should be amended in two respects, viz.

- (a) To relieve owners of premises in defined zones of the necessity for obtaining, annually, certificates of registration issued by the Medical Officer of Health, as experience over the years had proved that little benefit accrued from registration and that the main advantage had been derived from the enforcement of regulation standards;
- (b) Certain standards should be amended to be uniform with the Building By-laws.

These proposals were adopted, and were promulgated under Provincial Notice No. 359, 1957.

5. Amendment of Public Health By-laws

(a) Nuisances

The City Council resolved to amend Sections 1 (bis) and 10 of the Public Health By-laws. The salient features of the new By-laws were (i) to relieve the City Medical Officer of Health of the legal necessity of having to serve written notices upon owners requiring, inter alia, the correction of drainage or structural disrepair, and (ii) the authority to require external re-painting of premises. The draft amendments were forwarded to the Administrator for promulgation in due course but had not been given legislative effect by the end of the year.

(b) Poultry and Rabbits

The City Health Department recommended to the Council that Section 18 of the Public Health By-laws should be amended so as:

- (i) to control the slaughter of rabbits the flesh of which was intended for sale as food - the Council accepted the proposal which now awaits promulgation;
- (ii) to control the slaughter of poultry intended for sale for human consumption - this proposal was not favoured by the City Council and has not been proceeded with.

A further amendment to this Section now awaiting promulgation, is the conferment of the right of appeal to the Council by any person who is aggrieved by any decision of the Medical Officer of Health. The Council may uphold or reject such appeal in its absolute discretion.

6. Appeals against City Medical Officer of Health's Decisions

(a) Offensive Trade Regulations

During the year an application was lodged for permission to conduct candle works in a zone in which offensive trades were not permitted. The application was refused and an appeal was lodged against this decision. The appeal was not upheld by the City Council but it was decided, at the request of this Department, to amend the zoning provisions so that future applications could be decided, individually, on their merits.

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

An application was lodged by a dairyman for a certificate of registration to carry on the business of "A" class dairyman to sell raw milk. The dairy was situate outside the Durban Municipal boundaries, and after due consideration the application was refused by the City Medical Officer of Health on grounds, inter alia, that the sale of raw milk constituted a danger to public health. The Public Health Committee of the Council endorsed the City Medical Officer of Health's decision in this case and furthermore decided (i) that, as a principle, no future

certificate of registration should be granted for the sale of raw milk, and (ii) that the By-laws should be amended accordingly. These matters are presently receiving consideration.

7. Departmental Sub-Committees

During the course of the year representatives of the Department served on the following committees:

(a) Industrial Estates

The City Council instructed that the procedure associated with the sale of land in Council-owned estates should be reviewed. The Sub-Committee was of opinion, and its recommendations were adopted, that:

- (i) town planning, licensing and public health aspects should be fully considered before the sale of land was finalised;
- (ii) the application pro forma should be amended to require applicants to submit full details of raw materials to be used, details of industrial processes, etc. so that the Council in considering a sale would take into consideration departmental reports submitted on the application.

(b) Co-ordination of Licensing, Town Planning and Public Health Procedures

A committee was established to review the present system of objections to the renewal of trading licences in view of the fact that, on occasion, public health requirements did not conform to the town planning scheme in course of preparation. It was agreed that, for the future, the Medical Officer of Health would advise the City Engineer (Town Planning Officer) of his intention to object to the renewal of a licence, and if there was a lack of unanimity, details of the case would be considered by the committee.

(c) Indian Market

A committee was established to review leases in relation to trading licences in respect of the various stall holders in the Indian Market. The committee explored the various aspects of this question including its public health aspects.

(d) Building By-laws - Revision

The City Engineer has established an inter-departmental committee which has undertaken the extensive task of revising the above by-laws. Meetings are held monthly and are attended by representatives of the City Engineer's Department, City Health Department, Estates Department together with the Legal Adviser and representatives from the Natal Institute of Architects.

8. Methyl Bromide Fumigation

Last year it was reported that this Department had requested the Secretary for Health to introduce legislation to control the use of methyl bromide as a fumigant. To date, there appears to be no prospect of an early promulgation of suitable regulations. Methyl bromide fumigation is being undertaken in the City by a company using the "shrouding" system for dwellings. The company keeps the Department informed of fumigations and is to all intents and purposes, conforming to the standards laid down in the Hydrogen Cyanide Fumigation Regulations.

9. Financial Responsibility for Hospitalisation

In 1955 it was reported that the Council had decided to review the position regarding its legal obligations to accept financial liability for the hospitalisation of infectious diseases cases and to revise its present policies where these were contrary to the provisions of the Public Health Act. This arose from the Government's insistence that the Durban City Council should accept financial liability for all cases first found to be suffering from the disease within its area even if it was known that infection had occurred outside the City boundaries. A large number of cases, particularly Bantu, come to Durban, or are sent into the City from the large neighbouring Bantu reserves for admission to hospital.

In the circumstances, the Council resolved to accept liability for the aforesaid cases but, in view of the fact that the Public Health Act (Section 158) excluded from the jurisdiction of a local authority Provincial Administration premises, it resolved that it would not accept liability for cases first found to be suffering from infectious diseases in Provincial hospitals or Provincial out-patient departments. This decision caused the Natal Provincial Administration some concern, and negotiations have been carried on since 1955 with a view to that Administration being financially assisted in respect of the cases referred to.

The City Council could not legally be compelled to accept liability for these cases but, following discussions with the Union Health Department and the Natal Provincial Administration, the Council agreed, without prejudice, to accept liability for genuine Durban residents first diagnosed in Provincial hospital premises provided that their infections were contracted in this area. In other words, notwithstanding the provisions of the Public Health Act, the City Council would accept financial liability on the basis of "incubation". Furthermore, the Council would also accept liability for "ex-City" cases provided they have been resident in Durban for a period longer than the incubation period of the respective disease.

The Council's decision on this matter was subject to the Natal Provincial Administration undertaking not to exercise its legal rights to recover the costs in respect of "ex-City" cases first found to be suffering from the disease within the City of Durban.

The Secretary for Health undertook to accept financial liability in respect of Bantu cases coming to Durban for isolation and treatment from areas under the health jurisdiction of magistrates.

Ratification of the aforesaid proposals by the two parties is awaited.

10. Prosecutions

Offence	No. of Cases	Admission of Guilt	Guilty	Not Guilty	Fines	Remarks
<u>PUBLIC HEALTH BY-LAWS</u>						
(a) <u>Relating to Nuisances</u>						
Structural defects	29	26	3		179. 0. 0.	(1 case: £5 or 10 days (" " : £3 or 6 days suspended for 2 years
Flies/Mosquitoes : breeding	10	8	2*		58. 0. 0.	1 case: £3 or 6 days suspended for 2 years.
Unclean conditions	17	13	4*		96. 0. 0.	(1 case: £5 or 10 days (" " : £3 or 6 days suspended for 2 years
Defective drainage or appurtenances	11	11			55. 0. 0.	
Absence of/Unsatisfactory Refuse Receptacle	1	1			5. 0. 0.	
Pollution of Yard Area by Foul Liquids	1	1			4. 0. 0.	
Poultry Keeping	3	3			10. 0. 0.	
Bug Infestation	2	2			10. 0. 0.	
(b) <u>Relating to Privies and Cesspools</u>						
Use of Privy where Sewer Available	3	3			16. 0. 0.	
Absence of/Unsatisfactory Sanitary Accommodation	4	3	1		30. 0. 0.	1 case: £5 or 10 days
(c) <u>Relating to Keeping of Animals</u>						
Animals Kept Without Permit	1	1			15. 0. 0.	
(d) <u>Dry Cleaners and Dyers Establishments</u>						
Structural Defects	1	1			2.10. 0.	
<u>Milk (and Milk Products) By-laws</u>						
Sale of Unpasteurised Milk	2	2			10. 0. 0.	
Failure to Register	3	2	1		9.10. 0.	1 case: £2 or 6 days
<u>Food By-laws</u>						
Unclean Conditions	50	45	5+0		277.10. 0.	(1 case: £7.10. 0. or 15 days (" " : £10 or 30 days +0 (" " : £5 or 20 days

Offence	No. of Cases	Admission of Guilt	Guilty	Not Guilty	Fines	Remarks
<u>Food By-laws (Cont'd)</u>						
Unsound/Clean Crockery and Utensils Exposed to Contamination	8	6	2+ ϕ		40. 0. 0.	
Absence of/Unsanitary Refuse Receptacles	22	20	2+		106.10. 0.	
Absence of/Unsound Protective Clothing	7	6	1		24. 0. 0.	1 case: £2 or 6 days
Unsanitary/Defective Refrigeration	7	5	2 ϕ		19. 0. 0.	1 case: £2 or 6 days
Incompatible Articles in Food Room	6	5	1		24.10. 0.	" " : £2 or 6 days
Absence of Soap, Towels, Nailbrush	10	9	1		44.10. 0.	" " : £2 or 6 days
Structural Defects	6	6			15. 0. 0.	
Unsanitary Fittings/Fixtures	1	1			2.10. 0.	
Livestock Kept on Premises	5	5			22.10. 0.	
Unsound Food Sold/Offered for Sale	1	1			5. 0. 0.	
Improper Washing of Crockery, Utensils, etc.	2	2			10. 0. 0.	
	1			1 ϕ	20. 0. 0.	£20 or 1 month suspended for 1 year ϕ
<u>Building By-laws</u>						
Illegal Housing	2	2			10. 0. 0.	
<u>General By-laws</u>						
Dumping of Rubbish	1	1			5. 0. 0.	
<u>Regulations</u>						
(a) Zonal						
Failure to Register	11	10	1*		57. 0. 0.	£15 or 15 days*
Unclean Conditions	3	3			25. 0. 0.	(1 case: £10 or 15 days suspended for 3 months
Failure to Paint	10	8	2		60. 0. 0.	(" " : £10 or 30 days
Structural Defects	17	14	3*		92.10. 0.	(" " : £10 or 15 days suspended for 3 months
Absence of/Unsanitary Refuse Receptacle	1	1			5. 0. 0.	(" " : £10 or 30 days

Offence	No. of Cases	Admission of Guilt	Guilty	Not Guilty	Fines	Remarks
<u>Regulations (Cont'd)</u>						
(b) <u>Food, Drugs and Disinfectants</u>						
Minced Meat Containing Preservative	12	11	2	1	70. 0. 0.	(1 case: £5 or 20 days
Sausages Containing Excess Preservative	7	5			47.10. 0.	(" " : £5 or 10 days
Milk Deficient in Milk Fat	5	3	1	1	22.10. 0.	(" " : £5 or 10 days
Absence of Label on Food	1	1			3. 0. 0.	
(c) <u>Rodent Regulations</u>						
Failure to Render Premises Rodent Proof	2	1	1		8. 0. 0.	" : £3 or 6 days
Failure to Remove Harborage	2	1	1		12.10. 0.	(" " : £5 or 10 days
						(" " : £3 or 6 days suspended for 2 years
(d) <u>Failure to Exterminate Rodents</u>						
<u>Malaria Regulations</u>	1	1			5. 0. 0.	
Water Open to Infestation/Not Screened	2	2			15. 0. 0.	
Failure to Eliminate Breeding Conditions	1	1			2.10. 0.	
(e) <u>Hydrogen Cyanide Fumigation</u>						
Failure to Notify Persons in Risk Area of Intention of Fumigate	1	1			5. 0. 0.	
Totals	293	254	37	2	1,556.10. 0.	

* One case - 4 counts treated as 1 for purpose of sentence - fined £15 of 15 days

+ One case - 3 counts treated as 1 for purpose of sentence - fined £10 or 30 days

Ø One case - 4 counts treated as 1 for purpose of sentence - fined £20 or 1 month (suspended for 1 year)

XV. HEALTH EDUCATION

Note: This report was drafted by the Health Educator and remains practically in the same form as it was written. (C.M.O.H.)

Every year it is the same: looking back, the year's work assumes the picture of a mountain scene with peaks, plains and valleys. Peaks - places that shone with encouragement: valleys - where battles were waged against indifference rather than ignorance: the comfortable plains - where a steady march brought the steady results and the "times of binding up". For, if "to everything there is a season ... a time to break down and a time to build up: a time to keep and a time to cast away", it is particularly so in health education.

Bantu Radio Talks: South African Broadcasting Corporation

These were commenced by request, were given once weekly by the Senior Bantu Health Lecturer, and became one of the 'peaks'. The local Press introduced the series thus: "Today for the first time, Albert Dhlamini's voice was heard over the air. It was only for a few minutes, but in its humble way, it was quite a historic occasion. Not just because of Albert, you understand. But because today Durban's City Health Department began its new campaign to give health education to thousands of Natives who can be reached only by radio.

Gumede, for instance, who sweeps as he listens each morning.

And Rose, who persuades madame to turn over to the Zulu programme for a few moments each day. These and thousands of others, will be able to hear, each Wednesday, a short talk on some health subject: nutrition, V.D., hygiene."

Shortly after the series commenced, one large factory altered the time of the Bantu tea-break in order that Bantu employees might reap the full benefit of the health talks.

A few talks are outlined below:

Bantu Women are the Key to the Bantu Race

"The Woman Decides" was a sequence in which a certain class of Bantu women were arraigned before a tribunal and found guilty: guilty of repeatedly bringing illegitimate children into the world: of passing from one illicit union to another: of neglecting infants of such unions who can be found in hundreds in urban and rural areas in a state of malnutrition. They were challenged with the fact that as women they held the key to the morality of the race; that their behaviour set the design for the preservation or downfall of the Bantu race.

As a result there was a buzzing of tongues throughout the Bantu communities, in shacks, on buses, in compounds: lecturers had to run the gauntlet of women's questions. "You health man" called one "did you hear Someone on the radio talking about us as if he had been told everything about us?" "Yes, I heard: was it true what he said?" "But of course it is true we women are guilty... Hau! I myself have six illegitimates!"

"Save Your Child" (Three talks)

From observation in the field it had been proved that there was a strong, direct link between hire purchase buying and malnutrition. The following two authentic incidents were given:

- (1) "Recently I had an urgent note from a mother who said she was in great trouble. I visited the home: she wanted to borrow £40 so that her furniture would not be taken away as she had not kept up the instalments regularly. I looked at the costly table made of beautiful wood and the fat padded seats of the chairs: I looked at the evening meal - puthu only (mealie meal) - three times a day it was puthu only: I nearly wept as I saw the thin, drooping bodies of three sick children on those fat padded chairs looking at puthu before them which they didn't want because the disease of T.B., which was consuming them all, had also robbed them of their appetites: because of course, when the deluded and ambitious mother had taken the money to buy the fat padded chairs, so that her furniture would be as good as her neighbour's, whose husband was in a much better position than her's, she had taken money which should have been spent on nourishing food for the precious bodies of her young. It was late for that mother to cry now; unless those children were quickly taken for treatment to a T.B. Clinic there would be three fat chairs - all empty, and three graves - filled. In any case it might be too late to cure the children, the disease had a long time to get a tight hold. She lost her furniture anyway because the shop took it away."
- (2) "A Bantu mother arrived at a hospital in Durban with her small girl. The child was beautifully clothed in expensive nylon dress and petticoats: a big nylon bonnet was on her head and she wore costly shoes and socks. The mother told the matron she wanted to leave the child at hospital because it was sick. But the child was so gaily dressed that no one, giving her a casual look, would dream she was ill. Matron told the mother to undress her and it was then found that the child was very seriously ill with protein starvation. Matron asked why the child was starved of the foods it needed. The mother replied that she couldn't buy food because she had bought an expensive suite of furniture on the hire purchase and had to keep up the instalments; she had bought the child's clothing on instalment also and had no money left with which to buy food."

"Save your Child" series brought many expressions of gratitude from Bantu men.

"A Basin of Sunshine"

Distinguished visitors from America - London - Onderstepoort and many other African centres were like a basin of sunshine, to quote the old Zulu woman, not only because of their sincere appreciation of the health technique evolved by the Department, but because of their sensitive appreciation of the very peculiar problems attendant upon pioneer work amongst detribalised Bantu, who in the third and fourth generation have no 'past' from which to draw guidance and meanwhile have lost the way to wholesome living: not only that, but our visitors realised the acute handicap of a meagre staff. One discerning medical guest said, "I am amazed at all the work which is being done with so small a staff."

Professor W.J.Darby, of the Division of Nutrition, Vanderbilt University, Nashville, Tennessee, visited Africa under the auspices of the World Health Organisation to investigate nutrition and health education among Non-Europeans. His itinerary covered northern and southern Africa, Rome and the Philippines. At the suggestion of the Department of Nutrition, Pretoria, the Professor spent one morning at the Department to observe the teaching methods applied to Africans and Asiatics in the instruction of promotive health.

He also saw a demonstration on nutrition which included traditional food practices of the Bantu. The professor was particularly intrigued with the exhibit of wild imifino (greens) which the Department have re-instated in the lives of Africans after they had been neglected for years under the impression that it was infra dig to gather wild greens but very proper to buy 'white' cabbages!

An Asiatic food exhibit included protein cakes unknown to the European, as well as many varieties of greens. The professor took shots of all demonstrations. With the daylight cinema van in the shack settlements he was, in common with all visitors, amazed at the way the empty earth seemed suddenly to open up and produce masses of people when the van called its traditional greeting.

It was pleasant to hear later, that at a meeting of nutrition experts in Johannesburg prior to his departure, when Professor Darby was asked, "Have you seen any work in this country which has impressed you?" that he replied there were two places and designated Durban's City Health Department as one of them.

From London

Many overseas visitors attended the Medical Congress held in Durban during 1957. Amongst them was the Director of the Wellcome Foundation Museum, Colonel Bosman, who had flown out to demonstrate the Foundation's exhibit on bilharzia. Colonel Bosman had studied this subject in many parts of the world. However, he had not seen a film on bilharzia for the lay non-European and was eager to view the 16 mm and 35 mm colour productions produced by this Department. He expressed his delight at the down-to-earth handling of the theme, especially in regard to river pollution by offensive personal practices. He requested to see the T.B. film and afterwards congratulated the Department on its health film productions.

Onderstepoort

Another honoured visitor was Dr. P.Fourie, Professor of Animal Husbandry at the Pretoria University, who made a request to view the film "From Pastures to Pasteurisation" 16 m.m. colour. He warmly congratulated the Department on this film and was anxious that others of a similar nature should be produced.

Magnetic Sound Stripe Projector. 16 mm

With the coming of the magnetic sound projector, the Department was able to produce pictures of theatre quality having sound and music. The machine proved its worth in the first film on which it was used, namely -

"From Pastures to Pasteurisation" 16 mm colour

On milk control with running time of 45 minutes, this film was made in close collaboration with the Municipal Veterinary Officer: shots were taken in Natal and East Griqualand accenting structural defects which militated against production of clean milk: buildings constructed

on approved public health lines were compared with condemned premises.

Emphasis was placed on hygienic handling of cows by Native milkers: on ablution blocks for workers: on the necessity of keeping milk very cool en route to balancing stations and to pasteurising factories in the City.

One set covered factory processing from giant tankers through to weighing machines to pasteurisation and homogenisation plants and thence to bottling and refrigeration.

As soon as it was finished this film went on tour. At milk producing communities all over Natal as well as in the capital this Province's own film was viewed. Rewarding comments were heard, "I had no idea that so much went to the making of one clean bottle of milk: that film should be shown to schools and the public everywhere."

Royal Show - Pietermaritzburg

Dairy farmers were catered for by film sessions given in the small cinema of the Milk Pavilion erected jointly by the Natal and East Griqualand Fresh Milk Producers' Union and the Milk Distributors' Association. European attendances numbered approximately 1,400. Following the showing of a milk film a Quiz was conducted daily by the Health Education Technician on the milk theme.

Visual aid was supplied in the form of an 'organ' complete with key-board and music made in the Department's workshop by the Technician. It was a great draw: its caption declared that "Clean Milk is good for every Organ of the Body". Hundreds of fascinated adults and children played their favourite ditties.

Proposed Afrikaans Film on Diphtheria. Colour 16 mm

Early in the year certain members of the Afrikaans-speaking community, including the Secretary to the local Skakelkomitee, met the City Medical Officer of Health for an exploratory discussion on the historical, medical, and scenic aspects of the above proposed film. These ladies and gentlemen offered their whole-hearted co-operation in this project. Mention was made that, "In moving his policy motion to the Senate on the 21st of last month the Hon. the Minister of Health gave a general survey of the health of the Union and amongst other things, drew attention to the high prevalence of diphtheria."

"Salute to Pioneers" became the title of the film with a dual implication in the word 'pioneers' namely:

- (a) Those medical and other pioneers who through years of patient toil led the way and finally perfected the modern agents administered in the treatment of and for protection against diphtheria; and
- (b) Those who, strong in faith and endurance, survived the Great Trek and came to sojourn in Natal.

Thus are linked in one shining theme the story of pioneers in scientific research and of those Voortrekker pioneers who played such an important role in Natal's early history.

DIPHTHERIA IMMUNISATION
HEALTH EDUCATION FILM —
"SALUTE TO PIONEERS"

(BEING PRODUCED BY CITY HEALTH DEPT.)



SCENE FROM THE FILM DEPICTING
SOUTH AFRICAN PIONEERS.

THE HEALTH EDUCATION FILM
"SALUTE TO PIONEERS"
(BEING PRODUCED BY CITY HEALTH DEPT.)



SCENE FROM THE FILM "SALUTE TO PIONEERS"
SOUTH AFRICAN PIONEERS

To date shots have been taken at Pietermaritzburg, Pretoria, Greytown, at the South African Institute of Medical Research, Johannesburg, and at the 1957 meeting of Dingaansfeeskomitee, Olivier's Hoek. The film is still in the process of production

And Now to the Valleys with their Long Shadows

Gastro-Enteritis

Gastro-enteritis in the shack and housing areas called for a 'smelling-out' into causal factors other than flies: lecturers were commissioned literally to smell feeding bottles and examine teats, since bottle-feeding had become the fashion of the local Bantu mothers. They returned from their daily investigations with mounting proof that there was a definite link between 'stinking' bottles as they called them and sick infants. They said, "Find a bad bottle and you will surely find a baby suffering from diarrhoea and vomiting, and a mother who will declare that she knew the bottle reeked but thought that it didn't matter". "Does the child like its bottle" she would be asked? "Oh no, no, it never wants to take its food" "Would you like to eat from anything smelling like this?" "Oh no" ... "Then what sort of mothers are you?" "You are a disgrace to the old Zulu nation!" After such a round, the mothers invariably stood silent and condemned.

At this point statistics are interesting:

At the Cato Manor Sub-areas:

Out of 17 bottle-fed babies at Msimbini, 13 were sick, all bottles filthy.	
" " 30 " " " " Cabazini, 26 " " " " "	
" " 15 " " " " Matatiele, 13 " " " " "	
" " 16 " " " " Benoni, 16 " " " " "	

At a Municipal housing scheme it was not much better:

Out of 28 bottle fed, 27 were sick - all bottles filthy.	
" " 31 " " , 19 " " - " " "	
" " 58 " " 32 " " - " " "	

Observation and questioning showed that mothers were deplorably casual about the cleansing of bottles: some sent young children to the tap to let the water run through a bottle for a moment or two; some poured hot water through; some cleaned it with sand - shack sand most probably highly infected with bacteria because of their insanitary habits. Dirty bottles were everywhere lying on the ground, often cheek by jowl with a rubbish heap, flies on the teats and stale feeds sweating in the bottle in the sun. New feeds were often added to the stale feed and administered through heavily contaminated teats. Several mothers did not want to steal time from their lucrative 'calling' of brewing to feed the infants themselves so left them to the care of a young child, an inadequate grannie, or if old enough, let them walk about with the bottle, which they constantly dropped in the sand and picked up again for a further 'suck' !

All this called for the marshalling of education artillery to rout this foe of the children. Henceforth for weeks the daylight cinema van could be seen in shack areas, its interior used as demonstration platform; a European Health Visitor on it and a table with utensils of the simplest for cleansing purposes and a lecturer for commentation. Before the Sister began her demonstration the Bantu lecturer exhorted the crowd

"You mothers ... if you don't want your children to follow those other little coffins to the cemetery, watch and learn every detail of the Sister's bottle cleaning ... ask questions, discuss, argue if you like, but stop being rock rabbits (an allusion to the allegory that the rock rabbit has no tail because he was too lazy to fetch his when tails were being given out!) ... the time had passed for gentle speech. During this survey lecturers came upon such incidents as these:

- (a) A mother, enjoying her isishimuyana (strong home-made liquor) was annoyed that the baby on her back cried continuously: she gave it a long drink of the mixture to stupefy it;
- (b) A sick child was crying: it was suffering from bowel trouble: the Municipal free clinic was nearby but she elected to administer an enema of isishimuyana on the advice of her neighbours as it was alleged that it was a cure for green diarrhoea.

The survey also yielded these unsuspected facts:

- (1) Breast-fed babies were deplorably in the minority:
Out of 115 babies in a zone, 2 were breast-fed.
" " 180 " " " " , 3 " " "
" " 145 " " " " , 1 was " "
" " 139 " " " " 4 were " "

This ratio was representative of the entire area.

- (2) A very small proportion of the women attended the free Municipal clinic in their midst:
Out of 57 mothers in a zone 4 only attended.
" " 115 " " " " 3 " "
" " 117 " " " " 12 " "
" " 180 " " " " 50 " " and similarly so on.

Brought into the spotlight were some shattering revelations on the character of some Bantu females - but what has character got to do with the facts that there were not better clinic attendances or that the majority of babies were being bottle and not breast-fed?

Just this, that the reasons for this state of things lay, not in the circumstances but in the indifference and laziness of many of the women.

Bantu lecturers, who have worked with these people daily for years, can read their evasions, their subterfuges, their lies and their truth like a book: what is more, they are on such friendly terms with them that they unmask any dishonesties and press for the truth till at last it is yielded - often with a smile, as if to say 'you health folk win'. Incidentally it is that measure of friendliness that makes it possible to continue working undaunted in so hard a field.

When therefore, they were questioned as to why they didn't attend clinic with baby, these women shrugged their shoulders and ultimately acknowledged (1) "I'm always going to do it tomorrow" ... (2) "I'm too busy with my brew, I can't lose customers" - an acknowledgment that the child didn't count in their scheme of things... (3) "I went once, months ago, but I couldn't go again" ... (4) "I'm angry with the child because the man who gave it to me ran away and now the child spoils my chances of another lover", a frequent grudge that helps to perhalise an infant ... and this with a baby often suffering from acute bowel trouble ... the interpretation was they didn't care enough.

In that revealing moment of truth the women could not look the lecturers in the face and say "the clinic is too far" - it being in their midst. Or, "it costs too much" - it being free: so when pressed with the refusal of the invitation, like the age old story "they all with one consent began to make excuses."

On the question of bottle feeding it was the same. They had been taught that breast-fed infants were not so susceptible to infection as the bottle-fed: that breast feeding was the ideal way of starting a baby on the path of life. Why then were they abandoning the practice? Excuses included frivolous reasons:

1. "I don't want to look like a mother: I want to look like a young girl then I can get another man". (Common reason).
2. "It is too much of a nuisance to me: I can't enjoy my social (with nuance) engagements."
3. "I go to work certain days" ... "But you could give morning and night feeds" "A ngi katali" (I couldn't care).

This irresponsibility on the part of many Bantu women toward the child set us wondering if it was not also one of the contributory causes of malnourished infants.

Kwashiorkor

Wherever crowds gathered at the daylight cinema van, it was observed that mothers carried babies on their backs who bore eloquent and poignant signs of mal-nourishment: - Hunger oedema, protein starvation and general under-nourishment. Iron entered into one's very soul watching them as they stood "oh-ing" and "ah-ing" as the pictures of derelict babies, swollen or thin, were thrown on the screen and they seemed unaware of the infants on their backs in similar case. "Why was this"? we wondered.

- (1) Had the teaching misfired? Had it not been understood?
- (2) Were these all new people who had missed the three unrelenting years during which we had hammered home the story of baby feeding by films and demonstrations?
- (3) If they knew the teaching ... then the cause was NOT ignorance. Then what WAS the cause?

It was our business to find that out.

Survey: Causes of Malnutrition in Bantu Children: Cato Manor

The method was simple. Wherever a hut had a baby or small child it was scrutinised for the tell-tale symptoms of malnutrition. The mother or guardian was then questioned regarding diet, social conditions, marital state etc. To arrive at a reliable history when questioning the Bantu, a long and tedious process is involved: it was not possible to complete more than about four cases per morning per lecturer. A total of 126 cases were completed.

1. Not due to Ignorance of Feeding Principles

With the exception of one new-comer, the 126 mothers said they knew very well what foods the child should have: with little encouragement they would recite diets and recall many of the pictures in the malnutrition series they had seen. It was a revelation on the impact of the visual aid on the virgin soil of the untrained mind.

2. Illegitimacy

Here was unmasked the dark foe of nutrition. Out of 126 mothers or guardians, the infants were ALL illegitimate. Most of the mothers had been abandoned by the father and succeeded by another man and yet another; it was common to find three fathers to three children; (it was left to the "innocent" rural areas to produce an even grimmer picture.) The current beau often objected to the children of the former swains and refused to support them. If anyone went short of food it was not the man! In consequence of receiving no, or little support from the fathers of infants out of wedlock, and wedlock here refers to marriage by Native as well as by Christian rite, a high proportion of mothers engaged in brewing the potent concoction known as isishimuyana, famed for its kick and its curse.

3. Place to Dump Babies

Of the mothers interviewed, 63% inquired earnestly if there were any place where children could be 'dumped' permanently so that they could be freed from all restraining ties.

4. Kraals. No Social Amenities

None of the mothers desired to return to her kraal: it was stigmatised as an old-fashioned place without social amenities.

Bantu Lecturers Shocked

The findings of the survey shocked the Bantu lecturers, old campaigners that they are amongst their own people; day after day they returned, deploring what they found, with such words as "I knew my people were going down-hill fast, but I didn't dream they had nearly touched bottom." Said one, "these women - hau! - they are lazy: they are loose." "Yes", interrupted the senior, "I agree with you and the worst of it is that it is no use blaming circumstance and environment because the same trends are to be found elsewhere - in Housing Schemes, Locations and such like; no, it is not from without but from within themselves that the cause of the tragic deterioration of many Bantu women must be sought." Said another, "they are so young; some in their early teens, many in their later teens, and most just young women; and many are without a sense of modesty and responsibility; why, I was offered a number of children for the taking."

A young Zulu trainee said, "I have learnt much during this survey; I am surprised at the number of Zulu women who show such little interest in the welfare of their children, especially when the remainder are noted for the great love and care they bestow on their infants."

This stark story was discussed in the morning counsels and led to the conclusion that while promotive health teaching must be doggedly continued, the real need of these people was a new way of life which they could only reach at a much deeper level than any social or health teaching envisaged.

"We Have Lost the Key"

The story of illegitimacy and its bearing on malnutrition was taken to the monthly meeting of Bantu Ministers. There was a prolonged discussion. One minister declared forcefully "we have lost the key: we have lost parental control in our homes." It was agreed that the solution depended on the re-instatement and practice of parental control and firm disciplinary upbringing of children as practised in their forefathers' time: it was declared that like a nation of old, the Bantu may also one day earn the charge "thou hast destroyed thyself."

In order to complete the picture a further survey was made at the hospital receiving end. The findings of rural and urban cases are given hereunder:

Survey at King Edward VIII Hospital into Bantu Infants Suffering from Malnutrition

This survey followed close on the heels of the survey into the causes of malnutrition in Bantu children, Cato Manor.

The method adopted at King Edward VIII Hospital was as follows:

Doctors referred all cases of child malnutrition to this Department's lecturers in order to ascertain, among other things:

- (1) How many cases were local;
- (2) How many cases were imported;
- (3) How many of the alleged local cases were actually imported;
- (4) How many infants were illegitimate;
- (5) Why imported cases by-passed their own well-established hospitals in order to bring their sick children to Durban;
- (6) Diet of child.

This survey covered a few weeks; 161 cases were interviewed. The following illuminating facts emerged.

Re (1), (2) and (3) above

Of the 161, 105 were imported cases coming from as far afield as Eshowe, Mt. Ayliff, Greytown, Harding and Mapumulo. Of this 105, 36 gave Durban and Cato Manor addresses and had, therefore, been wrongly categorised 'local' by the hospital authorities: by careful questioning on the part of the lecturers it was found that all the 36 had recently arrived - the day or few days previously - for the express purpose of taking the child to hospital and returning home as soon as the child was treated.

Re (4) above

Of the 161, the illegitimate numbered 80, genuine imported illegitimates were 45, and local illegitimates 35.

Re (5) above

The reasons given why imported cases by-passed their own well-established hospitals were always the same:

- (a) Father was working in town and would take mother and infant to his favourite doctor or hospital;
- (b) Mother had to get husband's permission before she dare take child to hospital where it might be made an in-patient - and husband worked in town - permission by correspondence was never dreamed of!;
- (c) Mother had to go to father to obtain money to cover expenses.

Re (6) above: Diet of Child

- (a) Durban cases invariably knew what nourishment should be given to the child: too frequently mothers were abandoned and had not the money;
- (b) Imported cases were markedly ignorant on what food infants of various ages should be given. It was back to the old story of mealie meal and mealie meal!

Breast Feeding Out of Fashion

In addition to the above findings it is found, both from the Cato Manor and King Edward VIII surveys, that breast feeding is rapidly passing out of Bantu tradition. Many women say they don't want to appear old so they stop feeding the child. This refers to women whose casual men have absconded.

Health Education and the Bantu

In spite of the above indictment on many Bantu women made particularly by the Bantu lecturers; in spite of the cold truth of the findings on illegitimacy and malnutrition in which men are equally implicated, let it never be thought that these people have ceased in any degree at all to be interested in the Department's programme. Crowds gather at the daylight cinema van with the same zest: group work has got a bigger hold than ever. It is common for a lecturer walking through Bantu areas to be asked "What have you got to tell us today? We always like to hear." Discussion on the deeper issues of their lives in relation to health are welcomed and have become a powerful factor, both in mass and group work. What then is the answer? It is to be found in not too narrow an interpretation of health education: our own conclusions are lucidly and eloquently expressed in the words of Professor F.A.Crewe, formerly of Edinburgh, which are quoted at the end of this sectional report.

Asiatics

Because there are only two Indian lecturers, one a trainee, the work embraced is less than that of the Bantu, but it is accomplished with the same sincerity and zeal.

The approach to Asiatic problems widely differs from that of the Bantu: nevertheless, as with the Bantu so with the Indians, the pattern of life is changing. For instance, it is noteworthy that V.D. is on the increase.

Kwashiorkor: Asiatics

The poorest Indian shacks in Durban, comparable to the shacks of Cato Manor, was the scene of a survey into infant malnutrition: 350 homes were investigated. There was no visible malnutrition amongst infants: the reasons given by mothers were:

1. All babies are breastfed up to one year: if mother's milk fails it is the custom amongst Indians for neighbours to feed the child: it is alleged there is never any lack of wet nurses.
2. A child is given additional food to the breast feed at the appropriate age according to Indian tradition.
3. Mothers do not go out to work.

It is of interest to note that in this series of cases, the children were, as far as could be ascertained, all legitimate.

There was, consequently, very little evidence of sour feeding bottles.

Bilharzia: Colour Stills

Asiatics are very common sufferers from this complaint. As very small children they play in infested rivers on the banks of which their houses are built. The bilharzia stills with interwoven narrative were shown at European schools in bilharzia-infested neighbourhoods and to every Asiatic and Bantu school in the City. Asiatic mothers invariably attended by invitation and were taught with their children: at one school 200 mothers were present. At every viewing numbers of non-European children confessed to suffering from the symptoms portrayed.

A medical man who was lent a set of the above wrote: "Those who have viewed them have commented on their excellence and of the care and time that must have been expended in their preparation."

Pretoria Preview: Bilharzia Movie. 16 mm.

The movie film on bilharzia was shown to 70 officials in Pretoria by the Department's Technician: representatives from the Government Film Library and from the Union Health Department were present. It was unanimously rated as a better production for the lay public than another previewed at the same time which was produced outside the Union.

T.B.: Asiatics

Over many weeks, at the call of the staff of King George V Hospital, the loudspeaker van manned with Asiatic staff gave instruction throughout Indian Housing Schemes and Barracks on varying facets of T.B. - Mantoux tests, B.C.G. and mass X-Ray - with excellent results. Much of the work was done at night to capture the men. The van was reluctantly withdrawn for other urgent work: it has become such a vital factor in the Department's life that it is constantly being shifted from one important need to meet an emergency elsewhere; the need for two vans was the theme song of 1956 and threnody of 1957.

Asian Flu

The descent of this Philistine on the fold had the loudspeaker van in accelerando from one City boundary to another on errands of mercy, announcing venues of emergency dispensaries for Asiatics and Bantu.

Aerial Spraying

A filmlet was taken of an aeroplane spraying Van Riebeeck Park at the Bluff for mosquitoes. It was the first time an aeroplane had been used in Durban for this purpose. The filmlet demonstrated very well the aeroplane flying at only reed-top height.

Conclusion

In an eloquent address on "The Changing Philosophy of Health" Dr. F.A.E. Crew (then) Professor of Public Health and Social Medicine, University of Edinburgh, said in regard to health education:

"It is my personal view that in the maintenance of health nothing is of greater importance than the individual's concept of the meaning and purpose of life, of the nature of man and of the destiny of mankind. Health is more than biological efficiency and social adequacy. It is the reflection of a mind at peace, active, creative and

serene. Disease is a dis-ease only when the mind is perturbed by pain, anxiety, fear or uncertainty. While devoting much of our energies to the elimination through education of inefficiency and inadequacy, we should not forget that we are intimately concerned with the formulation of answers to the question what are we to live for, as well as to the much more simple question what is the proper way to live."

* * *

XVI. MATERNAL AND CHILD HEALTH

This Department does not run a district midwifery service for any of the races, but ante-natal clinics are held for European, Coloured and Asiatic mothers who do not intend to have a medical man in attendance at the time of confinement. However, district midwifery services are provided by the following institutions:

European:

Natal Provincial Administration: Addington Hospital.
Mothers' Hospital.

Coloured:

Natal Provincial Administration: Addington Hospital.
McCord Zulu Hospital.

Asiatic:

McCord Zulu Hospital.

Bantu:

McCord Zulu Hospital

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

As there are only a limited number of trained Indian midwives in the City, the Department has had to permit uncertificated Indian women, who have undergone a limited training by the Department, to practice, but only under strict supervision. The routine procedure is for these women to bring all their cases to the ante-natal clinics before they accept them. Unfortunately, as the mothers are generally in an advanced state of pregnancy when they book a midwife, only one examination is usually possible. In 1949 there were 160 uncertificated Indian midwives on the Department's list but the figure has now been reduced to 125. The mothers favour having the services of the uncertificated women because their fees are considerably lower than those of a trained midwife. In addition, there is a prejudice amongst the Indian community regarding the employment of young trained midwives when the services of the older women are available. Nevertheless, it is necessary to emphasise that there are insufficient certificated Indian midwives in the City available for district work.

No. of Cases Attended by Midwives (Registered and Unregistered)

European	- 210	Coloured	- 178
Bantu	- 145	Asiatic	- 3,517

Total 4,050

Accommodation for maternity cases is provided by the following Provincial Hospitals and Private Nursing Homes:

European:

Addington, Mothers' and St. Augustine's Hospitals and
Parklands Nursing Home.

Coloured:

Addington, McCord Zulu and St. Aidan's Hospitals.

Bantu:

King Edward VIII and McCord Zulu Hospitals.

Asiatic:

King Edward VIII, McCord Zulu and St. Aidan's Hospitals.

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 Brook Street Indian Clinics appears to me to have increased considerably and there is no doubt of the value of this service to the public it serves. At the Gale Street Clinic, members of the Coloured community have been attending well, although the number of European mothers does not, I think, show any advance. This is understandable, considering the number who use the Provincial services and have their own general practitioners to attend them at home confinements.

Our problems in regard to the Indian women remain much the same as before, i.e. many still attend the clinic only in the late weeks of pregnancy when preventative measures are not so easy; many still fight against being sent to hospital even though they have explained clearly to them the necessity of such a measure when the occasion arises.

On the whole, however, the system of home deliveries with a clinic trained "Bag-nurse" works fairly well. This is largely due to the vigilant and efficient supervision given by the Health Visitors to all branches of their work. The Indian auxiliary workers at the Brook Street Clinics also render an excellent service. I find them tactful, kind and industrious."

Child Health

The staff engaged on child health services comprises seventeen European Health Visitors, three European Clinic Sisters, nine European Clinic Assistants, seven Bantu Health Visitors, three Bantu Female Nursing Assistants and seven Asiatic Nurse Aids.

For working purposes the City is divided into areas and each Health Visitor is given her own area for which she is responsible. The clinic programme provides for the holding of regular sessions in every area, at which the Health Visitor concerned attends. Clinics which are both advisory and educational are held for mothers and babies up to the age of 6 years. The object of the educational aspect is to prevent disease and by so doing to attain a condition of positive health. Demonstrations and group talks are held whenever possible.

The following table reflects details of the clinic programme for all races:

Day	Time	Race	District	Clinic
Monday	9-3.30	B	Cato Manor	Social Farm, 464 Bellair Road.
	9-12	E	Sea View	Assembly Hall, 505 Sarnia Road.
	"	E	Point, Beach and Central	Church Hall, 44 Aliwal Street.
	2-3.30	A	Magazine Barracks	Magazine Barracks
	9-12	E	Lower Berea	Gale Street
	9-12	A	All districts ante-natal	Brook Street
	2-3.30	B	City	Brook Street
Tuesday	9-3.30	B	Cato Manor	464 Bellair Road
	9-12	E	Westridge/Tollgate	200 Jan Smuts Highway.
	"	E	Morningside/Puntan's Hill	St. James' Hall, 115 Venice Rd.
	"	E	Montclair/Clairwood	Pavilion Recreation Grounds
	9-3.30	B	Chesterville Location	Chesterville Location
	2-3.30	A	Magazine Barracks	Magazine Barracks
	9-12	A	City	Brook Street
	9-3.30	C	City	Gale Street
Wednesday	9-3.30	B	Cato Manor	464 Bellair Road.
	9-12	E	Wentworth	Hall, 110 Assembly Road.
	"	E	Stamford Hill/Greyville	St. Mary's Hall, 14 Windermere Road.
	"	A	Clairwood	63 Baccus Road.
	"	A	Magazine Barracks	Magazine Barracks
	"	C	Mayville	200 Jan Smuts Highway
	2 p.m.	B	Baumannville Location	Bantu Day Nursery.
	9-12	A	Inspection of midwives' Bags	Brook Street
	9-12	E	Umbilo/Congella	Gale Street
	2-3.30	E	Toddlers' Referred Cases	Gale Street
Thursday	9-3.30	A/B	Cato Manor	464 Bellair Road
	9-12	E	Red Hill	Masonic Hall, 890 North Coast Road
	"	A	Mayville	200 Jan Smuts Highway
	"	E	Bellair	Wakesleigh Hall, 1091 Sarnia Rd.
	"	E	Hillary	Assembly Hall, 1407 Sarnia Rd.
	2-3.30	A	Magazine Barracks	Magazine Barracks
	9-3.30	B	City	Brook Street
	9-12	E	Glenwood	Gale Street
	1st			
	Thursday	2-3.30	E/C	All Districts
Friday	9-3.30	N	Cato Manor	464 Bellair Road
	"	N	Chesterville	Chesterville Location
	1st, 3rd & 5th	E	Durban North	St. Martin's 8 Chelsea Drive
	2nd & 4th	E	Durban North	Durban North
	"	E	Journey's End, 60 Kensington Drive	
	"	E	Overport/Berea	472 Ridge Road
	"	E	Fynnland	M'Dumbi Hall, 272 Lighthouse Rd.
	"	E	Wentworth	Government Village
	"	E	Wentworth	Austerity Flats
	Alter-nate weeks			
	4th	E	Umbilo	Rhumbelow, 42 Cunningham Road
	"	A	All Districts ante-natal	Brook Street
	2-3.30	A	All Districts	Brook Street
	"	E	Infants Referred Cases	Gale Street

E = European: C = Coloured: B = Bantu: A = Asiatic

No new clinics were established during the year. However, several inspections were made of proposed sites, especially in newly established and developing residential areas. In this connection, negotiations were continued with the Union Department of Health to obtain the use of certain accommodation at the Springfield Health Centre so as to permit of the establishment of an Asiatic child health clinic for the large and growing population of Indians in that vicinity. The Minister of Native Affairs agreed to a cottage, situated in the undeveloped belt of the Umlazi Glebe Lands, which had been scheduled for demolition, being used as a child health clinic until such time as a permanent building for this service is erected. As regards the Kwa Mashu Native Housing Scheme, the construction of which has recently been embarked upon by the Council, this Department has been negotiating with the Manager, Native Administration Department, for the allocation of suitable accommodation in certain existing buildings for the establishment of clinics as they become necessary. There were no further developments concerning the proposed clinic premises at the Sparks Estate Coloured Housing Scheme or near the Umgeni Bridge.

Medal Awards to Student Nurses: Addington Hospital

The City Council, on 15th September, 1952, resolved to award annually one gold and one silver medal to the two most outstanding student nurses at Addington Hospital.

The Selection Committee comprises the City Medical Officer of Health, the Matron and Sister Tutors of Addington Hospital and the Chief Health Visitor, City Health Department. In making its recommendation to the City Council the Committee takes into consideration examination results, standard of practical work attained and the personal qualities and attributes of the various candidates.

The medals for 1957 were awarded as follows:

Gold Medal: Student Nurse Dorothea De Bruyn (now Mrs. van den Dool)
Silver Medal: Student Nurse Isabella Rodgers Jenkins.

Chesterville Clinic:

This clinic, which was commenced in 1939 for the Bantu mothers living in Chesterville Location, was originally conducted in a small semi-detached cottage. With increased attendances working conditions became uncomfortable due to lack of space.

In December, 1957, the Social Club Hall was completed and suitable clinic accommodation was allocated to this Department by the Native Administration Department.

Attendances at Gale Street, Brook Street and Mobile Clinics: January to December, 1957.

	European Clinics			Non-European Clinics				Grand	
	Gale Street	Mobile Clinics	Total	Mobile, Gale/Brook Street				Total	
				C	B	A	Total	1957	1956
Total number of sessions	188	655	843	154	838	475	1,467	2,310	2,395
Total sessions for children	176	655	831	142	838	375	1,355	2,186	2,267
Total ante-natal sessions	12	-	12	12	-	100	112	124	128
Total attendances at clinics	6,716	31,692	38,408	9,598	89,597	40,213	139,408	177,816	177,940

Attendances at Gale Street, Brook Street and Mobile Clinics: January to December, 1957 (Continued)

	European Clinics		Non-European Clinics			Grand Total	
	Gale Street	Mobile Clinics	Total	Mobile, Gale/Brook Street		1957	1956
				C.	B.		
Total attendance at clinics	6,716	31,692	38,408	9,598	89,597	177,816	177,940
New cases out of above number	789	2,436	3,225	906	17,436	29,558	31,751
Total attendance of infants	3,557	15,364	18,921	3,569	34,083	69,622	67,786
Total attendance of toddlers and pre-school children	1,382	9,552	10,934	3,469	23,055	49,513	52,124
Total attendance of nursing mothers	1,684	6,776	8,460	2,508	32,459	54,475	54,246
Total attendance of expectant mothers	93	-	93	25	-	4,206	4,001
Number of test feeds given	72	121	193	20	30	251	265
Number of mothers instructed in treatment of minor ailments	264	1,679	1,943	951	29,169	39,270	33,421
Number of health talks and demonstrations given	775	1,941	2,716	804	11,064	17,838	20,662
Number of cases seen by doctor	1,093	1,108	2,201	604	238	4,005	6,887

Health Visitors Work:

<u>Infants</u>		<u>E</u>	<u>C</u>	<u>B</u>	<u>A</u>	<u>Total</u>
1st Visits: Feeding	(Breast	1,173	374	1,743	5,497	8,787
	(Mixed	199	22	406	450	1,077
	(Artificial	557	21	47	264	889
		<u>1,929</u>	<u>417</u>	<u>2,196</u>	<u>6,211</u>	<u>10,753</u>
Re-visits: Feeding	(Breast	559	121	59	2,020	2,759
	(Mixed	703	154	58	1,181	2,096
	(Artificial	1,718	171	3	894	2,786
		<u>2,980</u>	<u>446</u>	<u>120</u>	<u>4,095</u>	<u>7,641</u>

Older Children

1st Visits	926	81	4,558	5,793	11,358
Re-visits	<u>4,062</u>	<u>1,197</u>	<u>147</u>	<u>5,371</u>	<u>10,777</u>
	<u>4,988</u>	<u>1,278</u>	<u>4,705</u>	<u>11,164</u>	<u>22,135</u>

No. of above visits made to Protected Infants	360	103	-	-	463
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Other Visits

Infant deaths	15	-	44	12	71
Infectious diseases or contacts	-	-	2	-	2
Reports on insanitary conditions	35	-	8	-	43
No. of visits to nursery schools and homes for Protected Infants	-	-	31	-	31
	<u>50</u>	<u>-</u>	<u>85</u>	<u>12</u>	<u>147</u>

No. of children found to be suffering from dental caries	112	8	357	387	864
No. of cases of dental caries which received attention	61	1	8	1	71

Health Visitor Students attending clinics: Europeans - 14

Lectures and demonstrations given to Expectant Mothers: - 16

Supervision of Midwives

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

	<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	
Registered	14	5	1	2	
Unregistered	1	4	-	125	
	<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	<u>Total</u>
No. of trained midwives practising in Durban	45	5	15	2	67
No. of trained midwives who have ceased to practise	1	-	-	-	1
No. of untrained midwives who have ceased to practise	-	1	-	3	4
No. of trained midwives deceased	-	-	-	-	-
No. of untrained midwives deceased	-	-	-	3	3

	<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	<u>Total</u>
No. of women practising midwifery who have been warned not to do so unless they apply to have their names put on the list	-	-	-	7	7
No. of midwives prosecuted	-	-	-	-	-
No. of difficult midwifery cases attended to and delivered	-	-	-	-	-
No. of midwives put on the list during the year	2	-	-	-	2
No. of midwives re-instated during the year	-	-	-	-	-
No. of midwives appliances examined	40	34	-	1,114	1,188
No. of midwives bags replenished	-	51	-	2,834	2,885
No. of midwives dressings sterilised	44	-	2,656	2,700	
No. of midwives dressings sterilised after septic cases	-	-	-	1	1
No. of visits to midwives at their homes or at patients' homes	3	2	1	304	310
No. of midwives who were warned for failing to comply with regulations	-	-	-	-	-

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

Uncertificated practising Indian midwives appliances are examined every month.

<u>Ante-natal Work</u>	<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	<u>Total</u>
Total attendance of expectant mothers	93	25	-	4,088	4,113
No. of ante-natal sessions	12	12	-	100	124
No. of ante-natal visits	133	13	691	1,208	2,045
No. of post-natal visits	8	8	2	1,460	1,478

Accommodation Available for Maternity Cases

Beds at:	<u>E.</u>	<u>C.</u>	<u>B.</u>	<u>A.</u>	<u>Total</u>
Hospitals	50	30	219	55	354
Nursing Homes	97	-	-	-	97

* * *

XVII. STAFF

Little difficulty was experienced during the year in maintaining sectional complements of staff at a satisfactory level, except in the case of Health Inspectors, in which group of employees a pronounced shortage developed in the latter half of the year.

The principal occurrences respecting personnel and staff establishment which merit mention are given hereunder:

(a) Resignations

The more important of these concerned Health Inspectors who, in the main, left the Municipal Service to take up more attractive appointments in the Central African Federation.

(b) Appointments

Dr. C.R.Mackenzie was appointed to the vacant position of Assistant Medical Officer of Health and assumed duty on 3rd January, 1957.

Dr. H.A.B.Pletts joined the Department on 1st August, 1957, as Clinical Medical Officer in the Family Health Service Section.

Dr. K.Smyth started as part-time Clinical Medical Officer in the Family Health Service Section on 1st August, 1957.

(c) Additions to Staff Establishment

The City Council authorised the following additional posts, mainly to provide for (i) health services at the City's new Kwa Mashu Native Housing Scheme on the North Coast, which is now under construction and (ii) improved public health control of tuberculosis amongst the Bantu. Where necessary for statutory part-refund and other purposes, the approval of the Union Departments of Health and Native Affairs was obtained.

Section	Position	No.	Effective Date
Health Inspection	<u>European</u>		
	Senior Health Inspector	1	1.8.1957
	Health Inspector	2	(6.5.1957 (1.2.1958
Family Health Service	Health Visitor	1	1.8.1957
Field Hygiene	General Assistant (2nd Grade)	1	1.8.1957
Field Hygiene	<u>Bantu</u>		
	Spotter	3	1.8.1957
	Labourer	12	1.8.1957
Family Health Service	Health Visitor	1	1.8.1957
	" "	1	1.2.1958
	" "	2	1.8.1958
	Female Nursing Assistant	1	1.8.1957
	Cleaner	1	1.8.1957
Health Education	Lecturer	1	1.8.1957
	Lecturer (Junior)	1	1.8.1957
Epidemiology	Health Assistant	6*	6.5.1957
* 1 post substituted for a vacant position of Indian Health Assistant deleted from establishment			

Section	Position	No.	Effective Date
Health Education	<u>Indian</u> Assistant Lecturer	1**	1.4.1957
	** Substituted for vacant post of Indian Health Assistant deleted from establishment		

(d) 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 under consideration by the Municipal Service Commission.

The staff establishment of the Department at the close of the year was:

Section and Position	No.	Incumbent/Remarks
City Medical Officer of Health		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.
<u>Administration</u>		
(a) <u>European</u>		
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.
Senior Clerk (Grade II)	1	
Senior Clerk (Grade III)	2	
Clerk (Grade I)	3	
Clerk (Grade II)	1	
Clerk (Grade III)	5	
Clerk (Grade IV)	2	
Principal Lady Assistant	1	
Senior Lady Assistant	2	
Lady Assistant	8	2 posted to Immunisation Service
Chief Typist	1	
Senior Typist	2	
Typist	5	
(b) <u>Non-European</u>		
Office Assistant (Indian)	1	
" " (Junior) "	1	
Messenger/Cleaner Indian/Bantu	5	

Section and Position	No.	Incumbent/Remarks
<u>Epidemiology</u> (embracing tuberculosis, infectious diseases and venereal diseases control)		
(a) <u>European</u>		
General Assistant (2nd Grade)	1	
<u>Note:</u> The following staff is posted from the Health Visiting Section and Health Inspection Section for full-time duty in this Section:		
<u>T.B.Control:</u>		
5 Health Visitors		
<u>I.D. and V.D.Control</u>		
1 Senior Health Inspector		
1 Health Visitor		
(b) <u>Non-European</u>		
Health Assistant Indian	5	
" " Bantu	15	
Messenger/Cleaner Indian	1	
<u>Health Inspection</u>		
<u>European</u>		
Chief Health Inspector	1	Groom, G.F. Health Inspector's and Meat and Other Foods Certificates of the Royal Society of Health
Deputy Chief Health Inspector	1	Johnston, M.M. Health Inspector's Certificate of the Royal Society of Health
Senior Health Inspector	10	Ashdown, N.D. Health Inspector's and Meat and Other Foods Certificates of the Royal Society of Health.
<u>Note:</u> Positions allocated to District and Food Hygiene (6)		
Epidemiology (1)		
Dairies (1)		
Field Hygiene (1)		
Plans and Housing (1)		
		Bannon, J.D.) Clayton, A.) Health Inspector's Certificate of the Clemenson, J.L.) Royal Society Crickmore, C.R.A.) of Health Hornby, A.V.) Ingram, W.A.) Smith, A.M.) Young, B.J.) No. of vacancies: 1
Health Inspector	37	Aitkenhead, G.J.V. Atkinson, C.E., Benians, P.E., Butler, M.W., Clark, A.G. Courtney, T.T., 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.

Section and Position	No.	Incumbent/Remarks
		McIver, E.I., Phillips, L.G.F., *Roberts, K.W.C., Roberts, A.J.L., Schou, M.S., *Spencer, D.W. Sutherland, F.J., Thomas, L.E. Wark, D.S., Weldon, F.J., Woolley, G.W.R., Worthington, C.
		All hold the basic 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: 6 (including one authorised with effect from 1.2.1958).
Health Assistant	6	Learner Health Inspectors
General Assistant (1st Grade)	5	Engaged full-time on rodent control.
<u>Veterinary Hygiene</u>		
<u>European</u>		
Veterinary Medical Officer	1	Dr. F.E.Cavanagh, B.V.Sc.
Laboratory Assistant	2	
<u>Field Hygiene</u>		
(a) <u>European</u>		
Supervisor	1	Nourse, A.D.
General Assistant (1st Grade)	1	
General Assistant (2nd Grade)	7	
(b) <u>Non-European</u>		
Clerk: Bantu	1	
Field Assistant: Indian	5	
Health Assistant: Bantu	2	
Spotter (Mosquito): Bantu	9	
Labourer: Indian and Bantu	94	Includes 6 supernumery positions
<u>Health Visiting</u>		
(a) <u>European</u>		
Chief Health Visitor	1	Eckhoff, Miss E.J. Medical and Surgical, Midwifery, Mothercraft and R.S.H. Health Visitor's and School Nurse's Certificate.
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 Certificate.

Section and Position	No.	Incumbent/Remarks
Health Visitor	26	Anderson, Miss E.M., Barker, Mrs. M.I. Brown, Miss M. Burdon, Miss C.W. Collingwood, Miss S. (Unestablished)
<u>Note:</u> Sectional allocation of posts:		
Family Health Service: 17		Dolkens, Mrs. S.
Epidemiology		Essery, Miss M.
T.B. Control 5		Hamlyn, Miss E.F.
I.D. and V.D. 1	6	Harding, Miss E.
Immunisation 3	3	Hook, Mrs. E.M.
	<u>26</u>	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.
		Watson, Mrs. D.
		All suitably qualified and registered medical and surgical nurses.
		No. of vacancies: 1
Clinic Sister	5	Edmeades, Miss M. (Temporary)
<u>Note:</u> Sectional allocation of posts:		Gregg, Miss W.M.
Family Health Service 3		Hunter, Miss J.W.
Immunisation 2		Sawyer, Miss M.C.
	<u>5</u>	Thomas, Mrs. D.
		All suitably qualified and registered medical and surgical nurses.
Clinic Assistant	9	
(b) <u>Non-European</u>		
Health Visitor: Coloured	1	Post vacant
" " : Bantu	10	(Posts vacant: 2 (Posts to be filled in 1958: 3 (Existing incumbents suitably qualified and registered (medical and surgical nurses
Clinic Nurse: Bantu	1	
Female Nursing Assistant: Bantu	4	1 post due to be filled in 1958
Female Nurse Aid: Indian	7	
Clinic Orderly: Bantu	1	
Interpreter/Cleaner: (Female): Bantu	1	
Messenger/Cleaner: Indian/Bantu	7	1 post vacant
Watchman: Bantu	2	

Section and Position	No.	Incumbent/Remarks
<u>Immunisation</u>		
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		
<u>Non-European</u>		
Immunisation Assistant: Indian	1	
Health Assistant: "	2	
Health Assistant: Bantu	3	
<u>Family Health (Child Hygiene) Service</u>		
<u>European</u>		
Clinical Medical Officer	1	Dr. H.A.B. Pletts, M.B., B.Ch. from 1st August, 1957.
Part-time Clinical Medical Officer	1	Dr. K. Smyth, M.B. from 1st August, 1957
Part-time Medical Specialist	1	Dr. L. Raftery, M.R.C.O.G., M.R.C.S., L.R.C.P.
<u>Health Education</u>		
(a) <u>European</u>		
Health Educator	1	Goddard, Miss E.
Technician	1	Godfrey, D.M.
General Assistant (2nd Grade)	1	
(b) <u>Non-European</u>		
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	
<u>Non-European Health and Medical Services: V.D. Clinic Staff</u>		
(a) <u>European</u>		
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.

Section and Position		No.	Incumbent/Remarks
(b) <u>Non-European</u>			
	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	
<u>Medical Bureau</u>			
<u>European</u>			
	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 6 supernumery labourers)
Total		<u>365</u>

* * *

REPORT 'B' - HOUSING

European Housing

The housing position improved slightly in respect of the European group but a recent sample survey of the City's residential areas suggests that there is very little land left for European housing needs for the next ten years.

The Bluff and Durban North areas have almost reached saturation point. Building operations are spreading to land in Greenwood Park, Hillary, Sea View and Bellair which hitherto, because of steep inclines, had been considered too expensive to develop for the average family.

However, building operations are steadily falling off. There is no longer the acute demand for living accommodation by Europeans. Although rents are considerably higher, all types of accommodation are readily available. The demand still exists however for more economical housing as will be seen from the number of applications for Corporation housing.

The following statistics were obtained from 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, 1957

A. Economic

	<u>Houses</u>	<u>Flats</u>
Selling schemes completed	1,532	-
Selling schemes under construction	-	-
Economic Assisted	1,595	-
Economic Letting	-	674

B. Sub-Economic

Letting (aged poor)	50	-
National Housing letting (Women, limited means)	-	55
	<u>3,177</u>	<u>729</u>

European Population of Durban (Estimated)	157,856
Percentage of total population	29.3
Housing units completed in 1957	322

C. Applications for Corporation Assisted Housing

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

Purchase Schemes	1,264
Letting Schemes	2,790

Coloured Housing

The Sparks Estate Coloured Housing Scheme is almost complete. Although this forms the major portion of Coloured housing in the City, loans have been issued for the construction of dwellings in parts approved by the Group Areas Board.

Under this scheme 37 dwellings have been erected.

Summary of Coloured Housing as at 31st December, 1957

A. <u>Economic</u>	<u>Houses</u>	<u>Flats</u>
Economic selling completed	291	-
Economic assisted	126	-
B. <u>Sub-Economic</u>		
National Housing letting	49	64
	<u>466</u>	<u>64</u>
Coloured Population (Estimated)	19,836	
Percentage of total population	3.69	
Housing units completed in 1957	47	
C. <u>Applications for Corporation Assisted Housing Schemes</u>		
Purchase Schemes	3,827	
Letting Schemes	1,286	

Indian Housing

The housing needs of this section of the population of this City are far from being met. Confusion over Group Area planning with consequent reluctance of Building Societies to advance loans, coupled with the low average socio-economic level of these people, precludes them from normal housing tenancy or ownership.

The Durban City Council has gone to a great deal of trouble and expense in order to provide a measure of relief in the establishment of the Merebank Housing Scheme which was launched some years ago. Disagreements with certain owners, however, brought the scheme to a standstill but there are now signs that a settlement will be reached which will enable work to be commenced on the projected 4,000 dwellings in this scheme.

The middle and upper income groups have erected a considerable number of good standard brick dwellings, mainly in the Sydenham area.

Summary of Indian Housing as at 31st December, 1957

A. <u>Economic</u>	<u>Houses</u>	<u>Flats</u>
Economic selling	519	-
Economic assisted	433	-
B. <u>Sub-Economic</u>		
National housing	819	-
	<u>1,771</u>	<u>-</u>
Indian Population (Estimated)	176,336	
Percentage of total population	32.73	
Housing units completed in 1957	207	
C. <u>Applications for Corporation Assisted Housing</u>		
Purchases Schemes	3,026	
Letting Schemes	1,286	

Additional to normal housing provision, two very large licensed hotels, one completed and the other in course of construction, will provide a much needed amenity for the Indian community.

Bantu Housing

Construction in 1957

The following family units were constructed during the year.

Lamont Location	571
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Cato Manor Emergency Camp

This "site and service" scheme, started a few years ago to control the spate of illegal shack building operations in this area, has been almost wholly "settled" with Bantu families. Only a very small portion of the camp is still without water-borne sanitation and ablution facilities but the provision of these essential services is well in hand and they should be completed within a short time.

Although these structures are of the shack type most of them, from the aesthetic point of view, are not unsightly as might be expected in schemes of this nature. Some householders have gone to a considerable amount of expense and trouble in the building of their dwellings and this has resulted in a structure that could be accepted in a permanent housing scheme.

Kwa Mashu Native Housing Scheme

Considerable progress has been made at Kwa Mashu, the bulk of the land comprising the scheme having already been acquired by the Council. Approval for the erection of houses in Neighbourhood Unit No. 5, the first of 8 units designed to provide a total of some 12,000 houses, has been received and in order to ensure continuity, approval of the development of 3 further Neighbourhood Units (Nos. 6 and 7 for family housing and No. 1 for the provision of some 25,000 beds in cottage hostels for single male Natives), is concurrently being sought. The eventual total population of the township was estimated at 123,000; later this figure was reduced to 100/105,000.

At the end of the year the erection of the first houses in Neighbourhood Unit No. 5 was under way and during March, 1958, it is anticipated that the first families will be moved into the Scheme from unsuitable accommodation elsewhere in the City. In order to provide the necessary ancillary facilities for these newcomers, the erection of the first shop and school were started while a temporary clinic, football field and changerooms are to be provided.

Each Neighbourhood Unit will have its own small community and shopping centre and its own schools, playgrounds and recreation facilities while a centrally situated township centre containing the major administrative and public buildings, the shopping area and the main recreational facilities has been planned

to serve the scheme as a whole. The principal means of transport, it is hoped, will be by electrified railway and provision has been made for a branch line solely to serve the scheme when development so warrants it.

Possible Future Developments

For various reasons the original capacity of the Kwa Mashu Scheme has been substantially reduced with the result that the Scheme can no longer provide for all Durban's estimated shortfall in Native housing. It is obvious that an additional scheme of some size will be needed and it would appear logical for its development to take place on land to the South of Durban.

Existing Housing Provisions - Bantu

Location (Family Housing)

	<u>No. of Houses</u>	<u>Population</u>
Baumanville Location	120	800
Lamont Location	1,911	13,400
Lamont Extension (Economic)	571	3,644
Chesterville Location	1,265	7,900
Umlazi Glebe Lands	738	4,700
	<u>4,605</u>	<u>30,444</u>

Hostels and Dormitories

	<u>Beds</u>
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)	447
Grey Street (Female)	687
Jacobs (Female)	64
	<u>16,125</u>

Total persons housed Municipally	46,579
Estimated Bantu population	184,670

Essential information concerning 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 - individual houses
Ablution	Showers - individual houses;
	Washing gullies - individual houses.

Lamont Location

Houses completed	Economic Scheme 2,482
Houses under construction	220
Water supply	1,678 houses have piped supply
Ablution	1,678 houses have showers
	178 communal washing gullies
Sanitation	1,678 houses have water closets
	35 have pit latrines.

Clinic Services - Institute of Family and Community Health, Merebank.

Chesterville Location

Completed 1946	(unchanged)
Houses	1,265
Water supply	Individual piped
Ablution	Individual bathrooms
Sanitation	Individual water closets.

Clinic Services Mother and Baby Clinic weekly - City Health Department; ante-Natal Clinic run by McCord Zulu Hospital.

Umlazi Glebe Lands

Houses (to date)	738
Water Supply	45 Communal stand-pipes
Sanitation	Individual pit privies.

N.B. A considerable number of dwellings at Lamont Location and the Umlazi Glebe Lands have been wired for electricity and connected to the Municipal mains whilst at Chesterville Location and at Baumanville Location electrical power has been provided throughout.

Slum (Shack) Distribution and Elimination

The figures set out hereunder have not changed appreciably during the year and their magnitude naturally hinges on the availability of alternate suitable housing. As dwellings and hostels are completed in the Kwa Mashu Housing Scheme so will families and individuals be moved to occupy them. Uncontrolled shacks will then be demolished.

The approximate distribution of shacks in the Municipal areas is as follows:

South Coast Junction	160
Umhlatusana	134
Sydenham	60
Mayville	7,025
Greenwood Park	100
	7,479

Recreation Facilities

During the year under review the following additional recreation facilities have been provided:

- (i) A Community Hall has been built at Umlazi Glebe Lands. This building now serves as a community centre and caters for a wide circle of group activities and fills a greatly needed requirement. Arrangements are in hand for additions to this building;
- (ii) A football ground has been completed at Lamont Location and tiered seats for spectators erected. Plans are in hand for the provision of additional ground at this location;
- (iii) A very fine recreation hall has been completed at Chesterville Location. This hall contains anterooms, a stage, and features for cinema shows. It will cater for the entertainment requirements and cultural interests of the Location for many years to come.

Work is due to commence now on the provision of the first recreation ground and the first creche at the Kwa Mashu Native Township.

Control of Premises (Slums) in Zoned areas

The housing available in these areas is occupied mainly by Indian and Coloured families.

Since the application of the Regulations for the Control of Slum Zones to certain areas in the City, considerable changes have been made in the prospective development of those zones. Areas hitherto reserved for residential purposes have now been converted for commercial and industrial development and the reverse process also holds true.

Those areas which have remained residential have improved considerably and only a few buildings remain which do not conform to the standard required. It is just a matter of time before they will comply.

The difficulties of the Coloureds and the Asiatics in securing Building Society loans due to their poor financial state and their inability to provide security, forces many of these people to occupy continuously slum dwellings and shacks. In consequence, undesirable conditions are set up especially in relation to overcrowding. Circumstances are thus brought about which seriously handicap, and in many cases actually render nugatory, the very regulations which were introduced to remedy these evils.

Building Plans

A total of 3,859 plans, covering the following work, were received officially for examination and report by this Department during 1957.

Type of Structure	No	Estimated Cost
New private dwellings - 2 rooms	13	
" " " - 3 "	38	
" " " - 4 "	327	
" " " - 5 "	444	
" " " - 6 " and over	83	
Total	905	£2,496,435
Flats - 1 room	766	
" - 2 "	410	
" - 3 "	286	
" - 4 " and over	83	
Total	1,545	£2,692,513
Additions to Flats and Dwellings	1,772	457,431
Stores, Shops, Offices	77	2,689,176
Additions to Stores, Shops, Offices, etc.	606	654,341
Clubs, Schools, Hotels, Churches	25	478,487
Additions to Schools, Hotels, Churches, etc.	185	244,159
Total	2,665	4,522,594
Grand Total	3,859	£9,070,140

The above figures do not include Government and Municipal building projects costing £3,168,571.

Bantu Slum Settlements at Cato Manor

Whilst several of these settlements have been incorporated into the Cato Manor Emergency Camp and have been much improved as a result of this move, two unimproved slum areas remained in the above Camp. These were a source of worry to the Department throughout the year.

Due to the absence of "all-weather" access roads into these highly congested sub-areas, it was impossible to introduce a refuse removal service into either of them, and only pit latrine could be provided for the use of the inhabitants. It needs little imagination to picture the unhealthy conditions under which the residents have lived.

However, it is pleasing to record that at the end of the year, good progress had been made towards the introduction of basic sanitation into both locations and the provision of roads and the installation of water-borne sewerage was expected to commence early in 1958.

The following shack areas are still privately-owned and are situated between the boundaries of the Emergency Camp.

(a) "Raincoat"

This is a major settlement with a population of approximately 6,000. Here conditions are still very primitive and fly infestation was heavy throughout the year. Apart from other prolific sources of fly breeding, the lack of refuse removal and sanitation services were contributory factors in the situation. For this reason representation was made to the Cleansing Section of the City Engineer's Department for its assistance.

Following upon further discussion with the City Engineer's Department, access roads were repaired and drained and a bi-weekly refuse removal service was inaugurated. But anything in the way of a stercus removal service was quite out of the question.

In view of the dangerous public health situation which existed at "Raincoat", the Native Administration Department was requested to give its highest priority possible to the removal of the inhabitants to the Emergency Camp. In addition, the five Indian landowners of the lots comprising the area, were interviewed at the Department and instructed to carry out certain remedial measures.

(b) "Tusini" and "Tusini Enduleni" (Haviland Road)

Although this settlement enjoys a refuse removal service, this is by no means carried out as well as it should be owing to the failure of many of the inhabitants to deposit their refuse in the receptacles provided. Otherwise conditions are on a par with those found in other uncontrolled settlements in the districts.

(c) "Mgangeni" - Sunderland Road

This settlement comprises about 140 shacks. It is third largest uncontrolled settlement.

(d) "Tibelele" and "Mpompeni" - North Bank Road.

These two settlements are adjacent and comprise in all 85 shacks.

- (e) "Mnyasana"; "Mhlangeni"; "Pelwana", portion of "Ndhlovo"
(outside Emergency Camp); portion of Cabazini
(outside Emergency Camp) - Patan Road.

These are five adjacent settlements situated in the vicinity of the Emergency Camp.

- (f) "Madhlebe" - Bellair Road

This is a small settlement comprising 33 shacks. Although restricted in size, conditions are on a par with other uncontrolled areas: what it loses in size it makes up in its "isishimuyana" activities - in consequence fly breeding is at a premium.

- (g) "Newtown"

Across the Umbilo River.

- (h) "Tin Town" and "Izindoweni" - Dunbar Road

The following descriptions apply to all the settlements listed from (c) to (h) above.

Absence of refuse removal service.

Sanitation and means of pit privies.

Water supply by communal stand pipe.

Constant vigilance by the Department is necessary to maintain any degree of cleanliness and to inhibit fly development. Conditions remained unchanged in these areas throughout the year.

The only solution worthwhile at all settlements (a) to (h) is total demolition of the shacks and removal of the occupants to controlled areas.

* * *

NOTES ON THE ASIAN INFLUENZA EPIDEMIC

Introduction

When it became known from a Press report that a widespread but clinically mild outbreak of influenza had broken out at Hong Kong on the 3rd May, 1957, and when, next day, this intelligence was followed by a similar report concerning Singapore, the City Health Department was at once alive to the significance of these developments and their possible implications.

Later reports disclosed that the situation in the Far East was worsening day by day. By the 18th May, eighty thousand cases had been notified in Malaya; and a few days later it was stated that the infection had invaded Java and Sumatra; soon afterwards it struck the Phillipines. The arrival at an Indian port on the 17th May of a ship from Singapore with 44 patients on board before the epidemic on that sub-Continent occurred, again underlined the fact that the disease had assumed pandemic proportions in the Far East and that possibly it would not be long before it had attained a world-wide distribution.

Durban, as a seaport with close shipping connections with the East, was of course particularly liable to an early invasion of the disease and prompt and vigorous action was therefore demanded to meet the potentialities of the situation. As early as the 27th May, a staff meeting of the Department was held to assess the position and to consider what steps should be taken to meet the public health threat to the City. Immediately afterwards an organisation was set up to prepare a scheme in skeleton form to meet the emergency should it arise.

The arrival in Durban on the 21st May of the S.S. "Boissevain" from Hong Kong, Singapore and Malaya, with a report that 15 cases of influenza had occurred on board during the voyage, intensified the anxiety of the Department, especially when over 25 of the ship's passengers actually disembarked at this centre.

On the 6th June, the Chief Regional Health Officer/Natal convened a meeting of representatives of various medical and health bodies in order (a) to discuss and explore what general measures should be adopted in the Natal Region both before and after the commencement of any epidemic and (b) to take steps to ensure that all action was, as far as possible, co-ordinated and integrated. Further meetings of this Ad Hoc Committee were held at weekly intervals under the chairmanship of the Chief Regional Health Officer. At these, the current position of affairs was considered, information and views were exchanged, and progress in any direction reported. The standard of work of this Committee was high and its deliberations proved of inestimable value to this Department. It needs to be recorded for future reference that amongst those who served on this Committee were the Director of Provincial Medical and Health Services, Chief Medical Inspector of Schools, the President and Public Relations Officer of the local Branch of the Medical Association, Medical Superintendents of local Provincial Hospitals, the Port Health Officer and the Medical Officers of Health of Pietermaritzburg, Durban and the Local Health Commission.

On the 16th June a troopship, the "Empire Fowey", arrived in Durban from the Far East en route to the United Kingdom. Cases on board this ship were the means of providing the Department with a series of typical temperature charts and case histories which

were to prove of great value and copies of these documents were made immediately available to the Union Department of Health, to the Medical Association and to other interested organisations such as hospitals.

Following on a conference of health experts held in Pretoria, the Minister of Health on the 30th June issued a Press statement in which he observed, inter alia, : "It must therefore be emphasised that each local authority must make the necessary provision for its own population, either by itself or in collaboration with an adjoining authority"

On the 3rd July this Department completed a Durban-wide survey of all halls, schools and other premises suitable for conversion into auxiliary hospitals. Voluntary aid organisations had already been approached and their manpower and equipment resources assessed. Arrangements for prompt notification of the disease were concluded with public hospitals, selected industrial concerns, the school authorities, and with general practitioners. Plans for the establishment of emergency dispensaries and soup kitchens were already in the course of preparation.

On the 4th July the Secretary for Health issued a circular dealing with various aspects of the problem including preventive measures, the maintenance of essential services, and the care and treatment of patients. In reporting on the terms of this circular to the Council, this Department recommended, amongst other things, that an Epidemic Committee be established.

While the Durban health authorities watched expectantly for the introduction of the infection through the Port and for the commencement of an outbreak in and around the City as a prelude to a Union-wide epidemic, certain events were taking place in the Transvaal which had a very material bearing on the whole subject. At the beginning of July, a couple of the mining companies noticed that there was an increase in the sickness absenteeism of their Bantu employees due to the contraction of an influenza-like illness. The number of such cases increased fairly rapidly and by the middle of the month it was quite clear that Asian influenza had already gained an entry into the Union.

On the 24th July, the local Asian Influenza Working Committee held a meeting under the chairmanship of Councillor Dr. F.W.P. Cluver, a member of the Public Health Committee. This body had already been created on the initiative of the Department and representatives from the following organisations kindly attended its deliberations:

Durban Chamber of Commerce.
Natal Employers' Association.
South African Red Cross Society.
National War Memorial Health Foundation.
Union of Jewish Women.
Sparks Estate Coloured Association.
Government Native Affairs Department.
Institute of Family and Community Health.

Natal Chamber of Industries.
St. John Ambulance Brigade.
Suid Afrikaanse Noodhulp Liga.
Natal Christelike Vroue Vereeniging.
Cato Manor Community Huts.
Ward 10 Coloured Ratepayers' Association.
Natal Indian Organisation.
Municipal Native Administration Department.
Department of Bantu Education.
City Health Department.

By the above date, "Miners' Influenza" had already made its appearance in Natal; at the same time it was announced that the infection had also been discovered in Mombasa. Naturally, these fresh developments gave an added impetus to the preparation being made in Durban to be forearmed.

By the 26th July, the Municipal Native Administration Department with the assistance of the City Health Department had prepared a scheme to combat the disease in Bantu barracks and hostels and in Bantu residential areas such as Cato Manor. Voluntary organisations were by now fully alerted and well aware of the important roles they had to play. Meanwhile ships with cases of Asian Influenza continued to arrive at Durban.

The Disease Strikes Durban

On the 24th July two Coloured men were seen at Addington Hospital, having arrived in Durban after travelling from Orangeville to Johannesburg and thence to the City, via Newcastle. Both were recovering from an illness which began on the 21st July and which appeared to resemble Asian influenza. The patients were isolated at home for three days. On the 22nd July 16 cases of influenza occurred at the South African Railways and Harbours Barracks at the Point.

On the 28th July a case occurred at the Native Women's Hostel and was immediately isolated. At the same time 25 cases were reported in the Mansfield Road School and another 14 at a Coloured school hostel at Sydenham.

By the 2nd August, 22 European cases, 16 Coloured cases, 112 Indian, and 211 Bantu cases, totalling 361, were known to have occurred. Of these 36 had occurred in Municipal Compounds and Locations.

By the 5th over 1,000 cases were known to have occurred in the City and on the next day the number rose to over 8,000. The establishment of a dispensary at Cato Manor became a necessity on the 6th, and by the 7th, 5 dispensaries had been established. On that day some 6,425 attendances were recorded. Supervision of the clinics was undertaken by the Deputy City Medical Officer of Health and by the Medical Officers in the Department. Surveys were carried out in the southern areas of Durban, particularly at Umlazi Glebe Lands and Lamont Location. In 185 houses at Umlazi Glebe Lands, 100 cases were found and in 680 houses at Lamont Location 257 cases were found.

The Institute of Family and Community Health had by this time only treated 16 patients, due to the fact that an outpatient fee was payable in the case of those who could afford this charge.

At this stage, owing to the heavy demands on the services of the Department, members of the Health Inspectorate staff, including Health Assistants, were brought in to assist in surveys and dispensaries. The next day (8th) 12 emergency dispensaries were functioning and attendances totalled 10,583, with many ill children being seen at Lamont Location, Riverside and Sparks Road.

Absenteeism from schools was reported very haphazardly and the complete absence of any information from the Bantu schools left a severe gap in the Department's knowledge of the position in this regard.

By the next day, the 9th, the disease was seen to be flaring widely and some 27 emergency dispensaries dealt with no less than 13,915 attendances, of which 8,284 were Bantu. Voluntary helpers, the Red Cross, the St. John Brigade and Noodhulpliga performed excellent work, whilst the Health Inspectorate staff, now assisting in full strength, carried out very good work, especially in the remoter areas and at settlements such as "Raincoat" and "Tusini".

At this stage several cases of pneumonia were diagnosed.

The King Edward VIII non-European Hospital soon became increasingly embarrassed because of the high and rapid increase in the number of patients attending the institution's out-patient department and also because of its increased admission rate. But the Hospital's difficulties were rendered much more acute when members of the staff themselves sickened. In consequence of these factors the work of the Hospital was badly disorganised and the Medical Superintendent appealed to the City Health Department for some measure of relief. Towards this end a dispensary was opened in the neighbouring Woolmart buildings on the 11th August and here 2,311 attendances were recorded in 5 days. On the 12th the first indications of European school children being seriously affected came from reports of school absenteeism in some 13 schools, whilst a certain number of relapse cases were reported in factory employees. Attendances at the dispensaries remained high, being 12,072 on the 12th August, with Asiatic attendances accounting for about two-thirds of the total.

Collation of statistics had by this time become impossible and any degree of accuracy could not be maintained due to the following factors:

- (i) School children were reported as absent who, at the same time, were included in the dispensary figures;
- (ii) More than two attendances per person were occurring at the dispensaries;
- (iii) Relapse cases were frequent;
- (iv) Many persons attended for colds, coughs, sore throats, headaches and minor ailments and differentiation from Asian influenza in the early stages was impossible.

By the 14th August the general indication was a decreased incidence amongst the Bantu and Asiatics with an increased prevalence in the European population. On this date dispensary attendances fell to 9,835 again with Asiatics predominating. Henceforth attendances at dispensaries, now established on a fluid basis and moving from area to area, fell steadily and by the 20th August had dropped to 3,398 of which 2,717 were Asiatics. Two days later, the 22nd, only 625 attendances were recorded at these units. Absenteeism at European schools had however risen steadily and it appeared that the disease had taken a firm hold on the European population.

At the Magazine Barracks, which are occupied by the Municipal Indian employees and their families, the inmates were severely affected not only by the high attack rate but also by the severity of the disease in individual patients.

Fortunately, by the 24th, the outbreak had diminished to such an extent that it was not necessary to open even one dispensary and it was now evident that the pattern of events in Durban would turn out to be the same as had been described in other parts of the world, namely, that after a course of three weeks a definite waning could be anticipated.

But the Magazine Barracks were an exception. Cases in fair numbers continued to occur at that station and it became necessary to re-open the Barracks' dispensary for a few days to cope with the situation.

According to reports received from general practitioners, from schools, and from industrial concerns, a decline in the European incidence was also observed at this stage although this section of the community was still being severely affected.

GENERAL

(a) Clinical

The disease appeared to run fairly true to the picture reported previously, the main features being severe frontal headache, muscular pains, and pyrexia with a relatively low pulse rate. Infection of the throat, ranging from a red to a purple colour with a velvety appearance, together with some infection of the eyes were characteristic signs, and small ulcers in the mouth were also commonly noted. In an average case, convalescence took place between the 4th and 7th day but relapses were frequent and occurred within one to three days after apparent recovery.

As was expected, the infection manifested itself in varying degrees of intensity and a full range of cases were seen from the mild apyrexial type with only slight headache to the ones who were severely stricken and showing obvious signs of early pulmonary involvement. Twenty-five deaths were recorded from the 5th August to the 10th September where influenza was certified as a contributory factor. Only one death was attributed solely to Asian Influenza.

(b) Treatment

This was purely symptomatic and varied from the prescribing of a few aspirins to admission to hospital. The general dispensary treatment consisted of aspirins and an expectorant or antipyretic mixture coupled with advice in regard to bed rest, fluid intake and diet.

(c) Institutions

In the Corporation barracks and hostels, rigid isolation of cases was practised with good results. Each morning all inmates were examined before leaving for work and all rooms and dormitories were searched for sick patients. Any ill persons were at once isolated in sick-bays until recovery was complete. Examples of the effects of isolation are set out below:

<u>Institution</u>	<u>Population</u>	<u>No. of Cases</u>	<u>% Affected</u>
Bell Street Barracks	1,000	49	4.9
Dalton Road Barracks	2,200	165	7.5
Jacobs Location	850	102	12.0
S.J.Smith Hostel	4,200	19	0.45
Somtseu Road Location	7,000	758	10.8
Native Women's Hostel	920	67	7.0
	<u>16,170</u>	<u>1,160</u>	<u>7.17</u>

Bearing in mind the fact that all these inmates are Bantu, in many cases housed in casual halls and dormitories, and taking into consideration the general incidence in the rest of Durban, it would seem that the isolation of cases proved well worthwhile.

(d) Emergency Measures

Provision was made for the establishment of soup kitchens and, with the approval of the Union Department of Health, the establishment of a fairly large auxiliary hospital at the Point. But in the event, it was found unnecessary to organise these facilities.

(e) Staff

The staff personnel of the City Health Department and of the Municipal Native Administration Department performed magnificent service. However, the waning of the epidemic came just in time to relieve the strain imposed upon the personnel as their willingness to work at any and all times must surely have led very soon to the onset of a state of severe exhaustion amongst them.

(f) Voluntary Organisations

The services rendered not only by the well known organisations but even private individuals, enabled the Department to cope with the situation and the measure of this assistance was directly related to the relief of suffering achieved in the City.

(g) Supplies and Costs

The medicaments issued at the dispensaries for the symptomatic relief of the disease comprised 1,448 gallons of a sedative expectorant, 67 gallons of an antipyretic mixture, some 680,000 aspirins as well as 17,000 A.P.C. tablets.

Thermometers, torches, bottles, towels, paper packets and cleansing materials were ordered as required.

The total cost of the service, including medicines, supplies, staff overtime and transport amounted to £1,655.

* * *

APPENDIX II

MORTALITY FROM CANCER : SITE AND RACIAL DISTRIBUTION : 1957.

Site of Disease	European	Coloured	Bantu	Asiatic	Grand Totals
Tongue	3	-	1	1	5
Mouth	4	-	-	1	5
Nasopharynx	-	-	1	1	2
Pharynx	3	-	1	-	4
Oesophagus	6	-	4	1	11
Stomach	27	2	4	15	48
Small Intestine, including Duodenum	2	-	-	1	3
Large Intestine, except Rectum	25	-	4	4	33
Rectum	17	-	1	2	20
Biliary and Liver	5	2	-	2	9
Liver	3	-	13	-	16
Pancreas	8	-	3	1	12
Peritoneum	2	1	-	-	3
Unspecified Digestive Organs	4	1	-	2	7
Nose, Nasal Cavities, Middle Ear and Accessory Sinuses	2	-	-	1	3
Larynx	2	1	2	-	5
Trachea	1	-	-	-	1
Lung and Bronchus	37	4	8	7	56
Breast	14	1	4	1	20
Cervix Uteri	9	1	10	4	24
Corpus Uteri	10	1	2	4	17
Other Parts of Uterus, including Chorionepithelioma	-	-	1	-	1
Ovary, Fallopian Tube and Broad Ligament	4	-	-	1	5
Other Female Genital Organs - including Unspecified	1	1	-	-	2
Prostate	11	1	1	-	13
Other Male Genital Organs - including Unspecified	-	-	1	-	1
Kidney	2	-	-	-	2
Bladder and Other Urinary Organs	8	-	2	2	12
Skin	1	-	-	-	1
Eye	1	-	-	1	2
Brain and Other Parts Nervous System	5	-	1	1	7
Thyroid Gland	1	-	-	-	1
Bone (including Jaw Bone)	2	-	-	2	4
Other and Unspecified Sites	10	-	2	1	13
Lymphosarcoma and Reticulosarcoma	1	-	-	2	3
Hodgkins Disease	5	2	-	1	8
Multiple Myeloma (Plasmocytoma)	1	-	-	-	1
Leukaemia and Aleukaemia	3	-	1	4	8
TOTALS :	240	18	67	63	388
No. of Deaths from all Causes	1410	201	4212	1732	7555
% of Cancer Deaths to Total Deaths	17.0	8.9	1.6	3.6	5.1
Death Rate per 100,000 Population	158	75	32	32	70

COMMENT:

The statistics reflect several features of interest :

1. Cancer of the alimentary tract caused the highest number of European deaths from cancer (87), with the incidence fairly evenly divided among males and females.
2. Cancer of the lung caused 37 European deaths, of which 30 were in males.
3. In common with other parts of the world Durban reflects an increasing proportion of deaths from cancer. The actual cancer death rate per 100,000 population is of interest in that the rate has been rising steadily. The European group, which can be regarded as the most accurately recorded, shows an increase in the cancer death rate from 93/100,000 population in 1947 to 158/100,000 population in 1957.

MORTALITY FROM CANCER : QUINQUENNIAL RETURNS : 1937 to 1952.

Site of Disease	1 9 3 7					1 9 4 2					1 9 4 7					1 9 5 2				
	E.	C.	B.	A.	Total	E.	C.	B.	A.	Total	E.	C.	B.	A.	Total	E.	C.	B.	A.	Total
Buccal Cavity - Pharynx	5	-	2	-	7	2	-	-	-	2	-	-	-	-	-	9	-	1	3	13
Esophagus	)	No Record - possibly shown in "Other Digestive Organs" or "Unspecified Organs"	4	-	4	3	-	-	-	3	3	-	-	-	6	2	-	4	5	11
Stomach	)		21	-	21	12	-	-	-	39	12	-	-	-	64	50	2	2	19	73
Rectum	)		5	-	5	2	-	-	-	7	9	-	-	-	15	9	1	2	1	13
Liver	)		5	-	5	1	-	-	-	10	5	-	-	-	16	6	-	9	2	17
Pancreas	)		1	-	1	-	-	-	-	1	-	-	-	-	5	5	1	-	-	6
Other Digestive Organs	34	1	1	7	43	10	-	1	2	13	-	-	-	-	4	1	-	-	-	1
Larynx	-	-	-	-	-	2	-	-	-	2	-	-	-	-	4	3	-	-	-	4
Lung	8	-	-	1	9	5	-	1	3	10	2	-	-	-	23	26	1	2	2	34
Uterus	6	2	1	2	11	1	3	1	1	6	1	-	-	-	1	4	1	2	3	10
Other Female Genital Organs	4	-	-	2	6	2	1	-	-	3	5	-	-	-	12	13	4	4	3	24
Breast	7	1	-	1	9	17	2	-	1	20	3	-	-	-	25	14	-	-	-	20
Prostate	-	-	-	-	-	2	-	-	-	2	17	1	-	-	6	8	-	-	-	10
Other Male Genital Organs	3	-	-	-	3	-	-	-	-	-	3	-	-	-	2	1	-	-	-	4
Urinary Organs	1	-	-	-	1	3	-	1	-	4	2	-	-	-	4	10	-	-	-	11
Skin	1	-	-	-	3	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1
Brain and Nervous System	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	1	-	-	-	2
Bones	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2	-	-	-	2
Unspecified Organs	18	2	-	5	25	32	4	1	12	49	6	-	-	-	14	15	-	4	-	21
No. of Deaths from all Causes	87	6	4	20	117	112	14	12	34	172	118	6	26	50	200	179	10	37	51	277
% of Cancer Deaths to Total Deaths	781	151	1245	1265	3442	988	194	1961	1694	4837	1078	178	2676	1769	5701	1218	198	3221	1546	6183
Cancer Death Rate per 100,000 Population	10.9	13.9	0.3	1.6	3.4	11.3	7.2	0.6	2.0	3.5	10.9	3.4	0.9	2.8	3.5	14.6	5.0	1.1	3.3	4.5
	98	80	6	24	48	106	165	16	37	61	93	56	24	42	55	134	64	26	34	63



