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

CITY OF DURBAN

Annual Report

OF THE

CITY MEDICAL OFFICER OF HEALTH

YEAR ENDED 31st DECEMBER 1968

Durban Corporation

With the

Compliments of the

City Medical Officer of Health

CITY HEALTH DEPARTMENT
9 OLD FORT PLACE
P.O. BOX 2443
DURBAN

M.O. 24 DBN COMPN

ANNUAL REPORT : 1968

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City Health Department,
9, Old Fort Place,
DURBAN.

December 1969

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

Mr. Mayor, Ladies and Gentlemen,

I have pleasure in presenting, in accordance with the requirements of the Public Health Act, the 66th Annual Report on the public health and sanitary circumstances of the City of Durban, with which is combined an account of the work carried out by the City Health Department during the calendar year 1968.

Durban continued to expand commercially, industrially and as a holiday resort. The estimated population at the year's end was 696,254, a slight decrease in the proportion of Europeans and Bantu in relation to the total population continuing to be evident.

The main cause of death was unchanged in the European, Coloured and Asiatic groups, i.e. disease of the heart and circulatory system, while for the Bantu pneumonia was predominant, with enteritis and diarrhoea following very closely. Deaths from motor accidents and suicides showed a marked reduction over past years.

There has been little change in the infant mortality rates over the past five years and the Bantu rate of 107.43 as well as the Asiatic rate of 52.82 obviously leave no room for complacency. Acceptance of family planning by the former group could well make an improvement in this rate.

No local cases of formidable epidemic disease occurred during the year although a death suspected to be due to plague was very thoroughly investigated, as were several reports of possible smallpox.

In a harbour city the size of Durban and with the Suez Canal remaining closed and the large international traffic especially from the East the vulnerability to epidemic disease called for a continual close watch on global epidemiology.

The number of cases of diphtheria was 30, 4 of whom died never having been immunised against the disease. That there should be any deaths let alone cases of this disease is indeed tragic as facilities for free immunisation

are readily available and the work of the health education and other sections of the Department can leave very few individuals ignorant of the existence and prevention of this dread illness.

In common with the remainder of the Republic and following a poliomyelitis-free year in 1967, there was a resurgence of this scourge, although only 13 cases were recorded for Durban and of these, 11 were under 2 years of age. The occurrence of the disease in several fully-immunised children was the cause of some concern.

There was a slight rise in the number of notifications of typhoid fever whereas the incidence of viral hepatitis showed a slight reduction (88 cases). In three cases the possibility of homologous serum jaundice could not be excluded.

A decrease in the total number of cases of tetanus from 27 to 17 was welcome in view of the high fatality rate and it is especially remarked that cases of tetanus neonatorum dropped from 14 to 6.

Pulmonary tuberculosis continued to remain the major problem confronting the personal health services of this Department, although a decrease in the number of notifications occurred and the attack rate for all races appeared to indicate an improvement in the situation. There are a number of reasons to account for the drop in notifications but these leave no room to believe that the situation has actually improved. In fact, unless there is a steady decline in the rates over several years, it would be most unwise to draw any conclusions.

Attendances at the child health clinics showed an increase in all races except for the Coloureds. Generally these clinics enjoy much popularity amongst the citizens of Durban and, it is especially pleasing to report, are patronised by persons from all walks of life.

Kwashiorkor was deproclaimed as a notifiable disease in April. None the less the distribution of State subsidized dried skim milk powder at child health clinics continued, over 200,000 lbs being issued.

Family planning activities by both the Association for Maternal and Family Welfare and this Department proceeded apace during the year and in addition, investigations into the reasons for patient 'drop out' at the clinics were made. That far greater emphasis on this field of public health is necessary becomes increasingly apparent if the population is not to outstrip the major services beyond the financial resources of the City.

The City Council's scheme for the early detection of uterine cervical cancer, started in 1963, resulted in 15

proven cases being found in the course of the year. That this scheme is achieving its object in continually keeping before the public the merits of exfoliative uterine cervical cytology is undoubted.

Immunisation against smallpox, diphtheria, whooping cough and tetanus continued at a satisfactorily high level and immunisation against poliomyelitis reached some 156 000 doses.

Health education, for which this Department has an entire section made up of 18 male and 3 female posts, continued to attract eager attention from the non-European communities. Whilst this section spearheads any special campaign of any particular section in the Department, its routine activities contribute materially to the knowledge of the public in regard to health matters and make it doubtful whether this health department could function properly without such a powerful preventive weapon in its armamentarium.

Health inspectional duties and environmental sanitation were maintained at a high standard and particular attention was devoted to food hygiene. The food by-laws were amended during the year to meet current trends and practices. The Indian Market was improved but still falls far short of hygienic standards necessarily demanded of food-handling establishments.

Following extensive investigations and discussions with interested parties the building by-laws were amended in a number of respects, but those affecting public health and particularly mechanical ventilation of cinemas, shops and offices received special attention from this Department and details are set out fairly fully in Chapter IX.

Concern over pest control measures carried out in dwellings reached a climax during the year. In the absence of national legislation and following joint consultations with the Natal and South African Pest Control Associations and certain independent operators, a licensing "agreement" was reached, in which all licences are granted subject to the keeping of proper records: a knowledge of the usage of various pesticides and their toxicity and antidotes is required of all operators and the passing of an oral test set in this Department is mandatory.

Continued progress in the implementation of the City Council's 15 year programme of providing water-borne sewerage to the whole city was noted. It is anticipated that in the forthcoming year the three sewage disposal works, together with the two submarine pipelines will be fully commissioned. However, it would appear that progress is not being maintained at the anticipated rate and that the provision of a reticulated water-borne sewerage system for all areas will continue to remain the most urgent environmental health problem confronting the City for many years.

The demand for European housing in the middle and lower income groups remained an ever-growing problem, whilst the position in regard to housing for the Coloured community generally showed a demand far outstripping the supply. Due to financial stringency a substantial backlog of Indian housing developed, a disappointing factor, as this local authority's planned contribution had been most commendable. The allocation of funds in the mid-year period was an encouraging prospect and thought was given to the development of two Indian townships to the North of Durban. Bantu housing proceeded at a steady rate, the main contribution being the continued development of the vast Umlazi Bantu Township, South of Durban and without its boundaries, but developed by the City Council on behalf of the South African Bantu Trust.

Slum clearance proceeded, albeit slowly, due to the general shortage of accommodation. Properties receiving attention involved 2,989 persons.

Recruitment of an Assistant Medical Officer of Health during the year eased a shortfall that had prevailed for some 9 months. Medical personnel, both full-and part-time, remained in short supply but otherwise departmental needs could be met.

To His Worship the Mayor and City Councillors I wish to express my thanks for their interest in matters of Public Health. Particular thanks are due to the Chairman and members of the Public Health Committee for their encouragement and active support.

My sincere appreciation is also due to other Heads of Departments and their staff for their help and consideration. The assistance of the Chairman and members of the Municipal Service Commission to this Department is acknowledged with thanks.

To members of the Press and the South African Broadcasting Corporation including Radio Bantu I am deeply grateful. Their interest and ready co-operation in bringing to the notice of citizens of Durban matters of importance and concern in public health in a most responsible manner is appreciated and served as an ever ready link between my Department and the public of this City.

In conclusion, a special tribute is paid to each and every member of the City Health Department for their loyalty, team spirit and high standard of work throughout the year.

Yours faithfully,

C.R. Mackenzie
M.B.; B.Ch.; D.P.H.; D.T.M.& H.(Rand); F.R.S.H.;
Honorary Senior Lecturer in Public Health Administration, University of Natal.
CITY MEDICAL OFFICER OF HEALTH.

REPORT 'A'

I. HISTORICAL AND GEOGRAPHICAL

(a) Historical Background

Since the proclamation of Durban as a borough in 1854, when the population of 1,200 persons covered an area of 12 square miles, the City has increased in size through the incorporation of additional areas. The health board areas of South Coast Junction, Umhlatuzana, Mayville, Sydenham, and Greenwood Park were incorporated in 1932, increasing the size of Durban to 70 square miles with a population of some 215,000 persons. In 1935 the status of Durban was raised to that of a City.

The subsequent addition of kwaMashu Bantu Township in 1957 and Chatsworth Indian Township in 1961 increased the municipal area to 86 square miles.

In 1962 and 1966 respectively, the Bay Lands and Welbedagt were added, thereby further increasing the area of the city to 97 square miles.

During 1968 it was found expedient to have the boundary between Westville and Durban altered. As a result, certain small areas of Westville were incorporated into the City, and the European group area at the extreme western end of Reservoir Hills was excised from the City and incorporated into Westville. The nett increase to Durban was an area of approximately 335 acres, which increased the total area of the City to a little under 98 square miles, with an estimated population of 696,254 persons.

(b) Geography

Situated on the south eastern seaboard of the African continent at longitude 31° east and 29° 52 minutes 30 seconds south, the City enjoys a subtropical climate throughout the year and this has contributed materially towards making Durban the premier tourist resort of South Africa.

Being one of the major seaports in the southern hemisphere the Durban harbour handles tonnages in excess of 14,000,000 tons per annum, and over 50% of the total cargo passing through South African ports.

Details of temperatures and other meteorological data are set out in the accompanying table.

(c) General Layout

Excellent facilities for surf bathing are provided by the City's beaches, with separate areas set aside

for the various racial groups. In addition there are numerous fresh water swimming baths, and extensive playing areas.

The principal commercial centre is situated about a mile from the foreshore, while most of the major industries are located to the south of the City, with the principal residential areas located in the suburbs and on the Berea which commands both sea and inland views.

(d) Municipal Data

Area: 98 square miles (62,588 acres).

Valuation: (1967 figures in parenthesis)

	Land	Buildings
Old Borough and Added Areas (excluding Welbedagt, kwaMashu)	R238,378,350 (R234,383,990)	R481,715,470 (R453,050,140)
Welbedagt	R382,760	R102,800

Rates: (Including Water Rate) (Cents per Rand)

	Land	Buildings
(a) Code 1 (Residential property, dwellings, maisonettes, etc.)	2.57 cents	2.57 cents
(b) Code 2 (Residential property, flats, boarding houses and private hotels)	2.51 cents	2.51 cents
(c) Code 3 (Other than residential property, but excluding agricultural land)	7.02 cents	1.17 cents
(d) Code 4 (Agricultural land)	4.41 cents	0.735 cents

It is recorded that rates on land and buildings in Welbedagt, which was incorporated in 1966, are assessed at 60% of the General Rate applicable to the rest of the City, plus the Water Rate.

No rates are levied for the kwaMashu Bantu Housing Area as in terms of Ordinance 5 of 1958.

METEOROLOGICAL DATA

1968	24 hours Shade Temperature (°C)			Relative Humidity		Barometer Readings (Inches)			Rainfall				Sunlight
Month	Max.	Min.	Mean	Min.	Ave.	Max.	Min.	Mean	m.m.	Inches	No. of days on which rain fell	Highest fall (m.m.)	Average hours of sunshine per day
January	27.7	20.9	24.0	65	83	29.96	29.75	29.85	254.3	10.01	18	64.5	5.49
February	27.4	20.1	23.7	63	81	30.01	29.80	29.90	126.6	4.98	18	81.0	6.89
March	26.1	19.3	22.6	63	81	30.10	29.94	30.02	166.5	6.56	16	106.1	5.06
April	24.9	15.5	20.2	54	75	30.08	29.90	29.99	26.4	1.04	11	11.2	6.66
May	24.3	12.7	18.6	52	77	30.13	29.96	30.04	29.5	1.16	7	19.8	7.08
June	21.5	7.6	14.6	39	66	30.25	30.12	30.14	11.8	0.46	6	8.0	7.59
July	22.4	9.4	16.0	51	76	30.25	30.07	30.15	4.4	0.17	3	3.3	6.76
August	21.9	12.7	17.1	54	76	30.25	29.99	30.11	85.5	3.37	15	28.3	5.38
September	22.5	13.8	18.2	59	78	30.24	29.98	30.11	100.8	3.97	12	70.8	6.09
October	23.1	15.3	19.3	63	81	30.13	29.90	30.00	53.8	2.12	20	15.5	5.23
November	24.5	16.2	20.1	64	82	30.18	29.99	30.07	65.8	2.59	17	12.8	5.93
December	27.3	20.1	23.5	66	84	30.00	29.78	29.89	70.1	2.76	16	22.5	6.64
					Total for the year				995.5	39.19	159		6.23 Daily average for year

II. VITAL STATISTICS

Population (Estimated)

European	187,788	(26.97%)
Coloured	31,520	(4.53%)
Bantu	206,687	(29.68%)
Asiatic	270,259	(38.82%)
	696,254	

The proportion of Europeans and Bantu continued to show a very slight decrease in relation to the total population, with a corresponding increase in the Asiatic and Coloured groups.

Births

Race	Male	Female	Total	1967
Legitimate				
European	1,653	1,554	3,207	3,321
Coloured	596	570	1,166	1,163
Bantu	2,638	2,657	5,295	5,374
Asiatic	4,028	4,156	8,184	8,477
Total	8,915	8,937	17,852	18,335
Illegitimate				
European	98	100	198	148
Coloured	238	231	469	360
Bantu	1,831	1,785	3,616	2,817
Asiatic	114	122	236	162
Total	2,281	2,238	4,519	3,487
Total Births				
European	1,751	1,654	3,405	3,469
Coloured	834	801	1,635	1,523
Bantu	4,469	4,442	8,911	8,191
Asiatic	4,142	4,278	8,420	8,639
Total	11,196	11,175	22,371	21,822

Crude Birth Rates (Number of births per 1000 population; 1967 figures are shown in parenthesis)

European	18.13	(18.78)
Coloured	51.87	(49.64)
Bantu	43.11	(40.18)
Asiatic	31.16	(32.76)
All races	32.13	(31.95)

The European and Asiatic rates both show slight decreases whilst those for the Bantu and Coloured groups have increased. However it is felt that the number of births recorded among the non-European groups is subject to some reservations, particularly on account of the tendency of these groups to use "accommodation" addresses when being hospitalised for their confinements. Furthermore, in regard to the Bantu it has been observed that many children are taken to the kraals outside the urban area at a very early age.

Illegitimate Births (As a percentage of total births; with 1967 figures in parenthesis)

European	5.81	(4.27)
Coloured	28.69	(24.74)
Bantu	40.58	(34.91)
Asiatic	2.80	(1.85)
All races	20.20	(15.98)

The overall rate and those for the different race groups, although showing an increase in comparison with 1967, have not changed materially over the past number of years.

Stillbirths (Rate per 1000 live births; 1967 figures in parenthesis)

	Number		Rate	
European	29	(30)	8.59	(8.72)
Coloured	32	(23)	19.96	(15.33)
Bantu	301	(231)	34.96	(27.26)
Asiatic	109	(119)	13.12	(14.02)
All races	471	(403)	21.51	(18.84)

The overall rate, although reflecting an increase over that for 1967, has remained fairly constant over the past number of years. The Asiatic rate continues to show the drop which was recorded last year.

Deaths

Race	Total deaths				Crude Death Rate per 1000 population	
	Male	Female	Total	(1967)	1968	(1967)
European	908	790	1,698	1,701	9.04	9.21
Coloured	136	128	264	294	8.38	9.58
Bantu	1,349	1,025	2,374	2,364	11.49	11.60
Asiatic	1,169	885	2,054	1,875	7.60	7.11
All races	3,562	2,828	6,390	6,234	9.18	9.13

There has been no significant change in the crude death rates in the different racial groups over the past 8 years.

The three main causes of death for the different racial groups were as follows (previous year in parenthesis):-

Cause of Death	Number	Percentage of Total Deaths
European		
(a) Heart and circulatory system	652 (632)	38.40 (37.15)
(b) Neoplasms	286 (270)	16.84 (15.87)
(c) Vascular lesions of C.N.S.	203 (182)	11.95 (10.70)
Coloured		
(a) Heart and circulatory system	42 (43)	15.91 (14.58)
(b) Pneumonias	35 (34)	13.26 (11.52)
(c) Vascular lesions of C.N.S.	27 (26)	10.23 (8.82)
Bantu		
(a) Pneumonias	250 (195)	10.54 (8.38)
(b) Enteritis and diarrhoea	215 (201)	9.06 (8.63)
(c) Heart and circulatory system	134 (138)	5.65 (5.94)
Asiatic		
(a) Heart and circulatory system	493 (448)	24.04 (23.91)
(b) Pneumonias	309 (278)	15.07 (14.85)
(c) Vascular lesions of C.N.S.	208 (187)	10.14 (9.99)
All races		
(a) Heart and circulatory system	1,321 (1,261)	20.69 (20.23)
(b) Pneumonias	702 (661)	10.99 (10.59)
(c) Vascular lesions of C.N.S.	502 (443)	7.86 (6.93)

Deaths from Motor Accidents (previous year's figures in parenthesis)

European	11	(27)
Coloured	4	(9)
Bantu	35	(66)
Asiatic	38	(44)
All races	88	(146)

Suicides (previous year's figures in parenthesis)

European	11	(18)
Coloured	3	(1)
Bantu	1	(11)
Asiatic	12	(20)
All races	27	(50)

It is pleasing to note the decrease (by 81) in the total deaths from motor accidents and suicides. Since 1966 the number of deaths recorded from motor accidents has decreased by 50%. Although these figures refer only to persons with Durban addresses it may well be that the use of the new urban freeways over this period has contributed to this decrease.

Infant Mortality (Deaths under the age of 1 year and rate per 1000 live births, with 1967 figures in parenthesis)

	Number of Deaths		Rate	
European	66	(63)	19.55	(18.32)
Coloured	43	(54)	26.82	(36.00)
Bantu	925	(887)	107.43	(111.43)
Asiatic	439	(378)	52.82	(44.52)
All races	1,473	(1,382)	67.26	(64.61)

Following the remarkable improvement in infant mortality rates in the five year period 1959 to 1963, there has been little change over the last five years, apart from some decrease in the European and Coloured rates. There is still much room for improvement amongst the Bantu and Asiatic communities.

Maternal Deaths (Deaths from causes related to childbirth and rate per 1000 live births, with 1967 figures in parenthesis)

	Number of Deaths		Rate	
European	-	(-)	-	(-)
Coloured	-	(-)	-	(-)
Bantu	6	(9)	0.70	(1.13)
Asiatic	9	(6)	1.08	(0.71)
All races	15	(15)	0.68	(0.70)

The low incidence of maternal mortality although reflecting an increase among the Asiatics, continues to show a decline over previous years.

III. COMMUNICABLE DISEASES

INTRODUCTION

There were no local cases of formidable epidemic disease during the year, although a death suspected of being due to plague, was fully investigated. In addition, a tanker from the East arrived at the harbour with a suspect case of variola major on board, and officials from this Department and the State Health Department examined the case on board and fortunately were able to exclude the diagnosis of smallpox. On other occasions during the year several visits were made to exclude diagnoses of smallpox.

Suspected Plague

During February a swab taken at post mortem, of a bronchopneumonic lung of a patient who died the day after admission to the local King Edward VIII Hospital, led to the culture of gram negative bipolar staining organisms. After injection of these organisms into two mice had caused their death within 24 to 48 hours, the laboratory notified this case as being highly suspicious of plague. Field investigations were then carried out by this Department at the patient's place of employment which was a textile factory in Durban, whilst enquiries at the patient's home in the Umlazi Bantu Township were undertaken by the State Health Department. Interrogation of factory personnel proved unfruitful and all tests on rodents and their fleas were negative for P. pestis. In the course of the investigations considerable doubt was raised as to the validity of the diagnosis and it was felt that full biochemical and other tests were essential to establish the diagnosis beyond doubt. This necessitated the exhumation of the body, and further tests were carried out at the State Health Department laboratory, as well as at the South African Institute for Medical Research. All examinations performed were negative for plague.

A. NOTIFIABLE DISEASES

Notifications

The following is a table showing the number and racial distribution of confirmed City cases of notifiable diseases notified to this Department during 1968. The attack rate per 1000 total population is also given.

Disease	E	C	B	A	Total	Rate
Diphtheria	1	6	9	14	30	.0431
Encephalitis	11	-	4	5	20	.0287
Erysipelas	3	-	1	-	4	.0057
Gonococcal Ophthalmia	-	-	3	2	5	.0072
Insecticidal Poisoning	1	-	-	-	1	.0014
Leprosy	-	-	3	1	4	.0057
Meningococcal Meningitis	5	3	15	4	27	.0388
Poliomyelitis	-	3	10	-	13	.0187
Puerperal Sepsis	-	-	14	13	27	.0388
Scarlet Fever	56	1	-	-	57	.0819
Tetanus	-	-	9	8	17	.0244
Trachoma	-	-	1	33	34	.0488
Typhoid Fever	4	-	20	19	43	.0618
Viral Hepatitis	24	12	19	33	88	.1264
Total	105	25	108	132	370	.5314

In comparison with the previous year there was a slight increase in the number of cases of erysipelas, scarlet fever and typhoid fever while there was a decrease in the other conditions, particularly puerperal sepsis and tetanus. It is remarkable that only one case of insecticidal poisoning was notified.

Diphtheria

The following table sets out the notifications, deaths and appropriate rates for Durban since 1940. The number of cases notified for 1968, namely 30, is virtually the same as the 29 cases notified during 1967. Of the 30 cases notified one was a European, 6 were Coloured, 9 were Bantu and 14 were Asiatics. Four of these cases died and comprised 1 Bantu and 3 Asiatics, none of whom had been immunised against the disease.

Of the 30 notifications 23 were clinical cases and 7 were carriers. The immunisation state of these cases is depicted hereunder :-

Details	23 Clinical Cases	7 Carriers
3 doses of vaccine	2	4
2 doses of vaccine	2	-
1 dose of vaccine	1	-
No previous immunisation	14	3
Immunisation state not known	4	-

Thirteen of the cases were under 5 years of age, 10 were in the age group 5 - 9 years, 6 were in the age group 10 - 14 years and the remaining case was a Bantu youth aged 20 years.

DIPHTHERIA : NOTIFICATIONS AND DEATHS : 1940 to 1968

(Notification Rate per 1,000 Population : Mortality Rate per cent. of Total Notifications)

Year	EUROPEAN				COLOURED				BANTU				ASIATIC				ALL RACES			
	Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1940	194	2.10	3	1.55	21	2.60	–	0.00	16	1.23	2	12.50	23	0.26	1	4.35	254	0.98	6	2.36
1	228	2.44	5	2.19	18	2.18	–	0.00	42	0.59	7	16.67	8	0.09	1	12.50	296	1.13	13	4.39
2	262	2.48	2	0.76	26	3.07	1	3.85	63	0.85	4	6.35	14	0.15	–	0.00	365	1.30	7	1.92
3	295	2.76	9	3.05	24	2.80	2	8.33	44	0.60	2	4.55	15	0.16	3	20.00	378	1.34	16	4.23
4	416	3.84	7	1.68	74	8.43	–	0.00	73	1.01	16	21.92	36	0.37	2	5.56	599	2.09	25	4.17
5	255	2.33	6	2.35	36	4.01	1	2.78	116	1.61	9	7.76	37	0.37	–	0.00	444	1.53	16	3.60
6	154	1.23	7	4.55	17	1.66	1	5.88	64	0.59	7	10.94	38	0.33	10	26.32	273	0.76	25	9.15
7	156	1.23	4	2.56	24	2.26	2	8.33	110	1.01	9	8.18	46	0.39	7	15.22	336	0.92	22	6.55
8	73	0.57	1	1.37	8	0.73	–	0.00	93	0.85	12	12.90	18	0.15	5	27.78	192	0.52	18	9.37
9	95	0.73	–	0.00	21	1.85	2	9.52	66	0.60	12	18.18	39	0.32	6	15.38	221	0.59	20	9.05
1950	145	1.10	1	0.69	34	2.65	2	5.88	124	0.97	18	14.52	58	0.45	7	12.07	361	0.90	28	7.75
1	58	0.45	2	3.45	14	0.94	2	14.29	150	1.12	24	16.00	47	0.32	11	28.40	269	0.63	39	14.50
2	50	0.38	4	8.00	7	0.45	–	0.00	103	0.73	19	18.45	51	0.34	11	21.57	211	0.48	34	16.11
3	39	0.28	2	5.13	26	1.51	5	19.23	76	0.51	19	25.00	49	0.32	11	22.45	190	0.41	37	19.47
4	25	0.17	1	4.00	8	0.44	–	0.00	48	0.30	6	12.50	19	0.12	–	0.00	100	0.21	7	7.00
5	75	0.50	1	1.33	34	1.82	2	5.88	102	0.61	16	15.69	69	0.42	15	21.74	280	0.56	34	12.14
6	70	0.46	5	7.14	13	0.67	1	7.69	43	0.24	17	39.53	69	0.42	12	17.39	195	0.37	35	17.95
7	38	0.25	4	10.53	5	0.21	–	0.00	37	0.21	11	29.73	31	0.16	3	9.68	111	0.20	18	16.21
8	38	0.25	3	7.89	6	0.24	–	0.00	57	0.31	13	22.81	70	0.34	15	21.43	171	0.30	31	18.13
9	24	0.15	–	0.00	12	0.46	1	8.33	55	0.29	4	7.27	24	0.11	5	20.83	115	0.19	10	8.69
1960	9	0.06	1	11.11	7	0.28	–	–	56	0.31	6	10.71	22	0.10	4	18.17	94	0.16	11	11.70
1	8	0.05	–	0.00	4	0.16	–	0.00	63	0.34	11	17.46	28	0.12	3	10.71	103	0.17	14	13.59
2	10	0.06	1	10.00	5	0.19	–	0.00	46	0.24	7	15.22	9	0.04	2	22.22	70	0.11	10	14.29
3	3	0.02	–	–	6	0.22	1	16.67	17	0.09	1	5.88	12	0.05	3	25.00	38	0.06	5	13.16
4	5	0.03	–	–	2	0.07	–	–	15	0.08	2	13.33	11	0.05	5	45.45	33	0.05	7	21.21
65	1	0.006	–	–	2	0.07	–	–	13	0.07	2	15.38	3	0.01	–	–	19	0.03	2	10.53
66	2	0.01	–	–	1	0.03	1	100.00	16	0.08	3	18.75	21	0.08	6	28.57	40	0.06	10	25.00
67	1	.005	–	–	2	0.07	–	–	18	0.09	5	27.78	8	0.03	2	25.00	29	0.04	7	24.14
68	1	.005	–	–	6	0.19	–	–	9	0.04	1	11.11	14	0.05	3	21.43	30	0.04	4	13.33

That there should be any cases let alone deaths from diphtheria is indeed tragic as facilities for free immunisation are readily available and the work of the Health Education team and other members of the Department must surely bring this subject to the attention of everyone in the course of a year.

Encephalitis

The number of notifications during the year were the same as those recorded during 1967, viz 20.

The following table sets out the aetiology of these cases and indicates the racial incidence. The deaths are recorded in parenthesis.

Aetiology	E	C	B	A	Total
Virus Encephalitis	6 (-)	- (-)	2 (-)	4 (3)	12 (3)
Measles Encephalitis	1 (-)	- (-)	- (-)	1 (1)	2 (1)
Mumps Encephalitis	3 (-)	- (-)	- (-)	- (-)	3 (-)
Chicken Pox Encephalitis	1 (-)	- (-)	- (-)	- (-)	1 (-)
Whooping Cough Encephalitis	- (-)	- (-)	2 (2)	- (-)	2 (2)
Total	11 (-)	- (-)	4 (2)	5 (4)	20 (6)

Erysipelas

Four cases were notified this year which is three more than during 1967. Three of the cases were Europeans and one was a Bantu. The lesions were not very severe and the arms and face were the sites involved. Two of the Europeans were females over the age of 80 years.

Gonococcal Ophthalmia

Of the five cases notified, three Bantu and two Asiatics, all were under the age of three weeks and were notified by the local Special Clinic at King Edward VIII Hospital.

Insecticidal Poisoning

One case was notified by a general practitioner on clinical grounds as chronic insecticidal poisoning with a serum cholesterase of 25 units. The only contact the patient had had with insecticide was spraying for cockroaches in his own home. His prime symptoms were malaise and aching legs.

Leprosy

Four cases were notified, representing a decrease of three compared with last year. The cases varied in age from nine years to thirty years. One of the cases, a Bantu woman aged 23 years, had two uncles who had been in-patients

at the Amatikulu Leper Institution. While the Bantu in each instance spent periods at their kraal districts, the Asiatic case aged 9 years, had spent his lifetime in Durban.

Malaria

Eight cases of malaria were investigated in Durban during the year, all of whom had been infected without the Republic. No deaths were recorded. The disease was caused by plasmodium falciparum in four instances, plasmodium vivax in two and plasmodium malariae in the remaining two instances.

Meningococcal Meningitis

The 27 notifications for 1968 are 7 less than the number notified during the previous year. None the less the 7 deaths recorded represented a 26% mortality rate for this disease, which is high and second only to the death rate for tetanus.

The following table sets out the notifications since 1955 with deaths in parenthesis.

Year	E	C	B	A	Total
1955	7 (-)	- (-)	4 (-)	3 (-)	14 (-)
1956	5 (-)	3 (-)	22 (-)	3 (-)	33 (-)
1957	5 (-)	1 (-)	6 (-)	6 (-)	18 (-)
1958	6 (-)	2 (-)	11 (-)	4 (-)	23 (-)
1959	4 (-)	2 (-)	- (-)	2 (-)	8 (-)
1960	2 (-)	2 (-)	2 (-)	- (-)	6 (-)
1961	1 (-)	- (-)	4 (-)	1 (1)	6 (1)
1962	2 (-)	- (-)	3 (-)	- (-)	5 (-)
1963	2 (-)	- (-)	1 (1)	1 (-)	4 (1)
1964	5 (-)	1 (-)	3 (1)	2 (2)	11 (3)
1965	7 (1)	2 (1)	16 (2)	5 (-)	30 (4)
1966	8 (-)	3 (1)	11 (1)	5 (2)	27 (4)
1967	6 (2)	4 (1)	20 (3)	4 (-)	34 (6)
1968	5 (1)	3 (2)	15 (3)	4 (1)	27 (7)

Poliomyelitis

After a poliomyelitis-free year in 1967, 13 cases were reported during 1968, comprising 3 Coloured and 10 Bantu. This increase was in keeping with the general increase in the incidence of this disease throughout the Republic in 1968, and which showed no signs of abating by the end of the year.

The ages of the local cases ranged from 3 months to 4 years, 11 being under 2 years of age. The state of immunisation against poliomyelitis in these cases was 8 fully immunised and 5 not immunised at all. This Department corresponded with the Poliomyelitis Research Foundation concerning the incidence of poliomyelitis in the fully immunised children

as it was an obvious cause for concern. Virus studies were usually performed on the stools of all cases and of the four cases where results were known, poliomyelitis virus Type I was isolated in three instances.

The following table sets out notifications in racial groups for the City since 1955 :-

Year	E	C	B	A	Total
1955	66	5	7	3	81
1956	82	18	32	26	158
1957	113	7	27	16	163
1958	13	1	7	6	27
1959	23	-	21	7	51
1960	9	1	29	8	47
1961	3	3	21	2	29
1962	-	-	4	-	4
1963	1	-	20	5	26
1964	-	-	7	1	8
1965	-	-	9	-	9
1966	1	-	12	6	19
1967	-	-	-	-	-
1968	-	3	10	-	13

Puerperal Sepsis

The 27 notifications for 1968 are much lower than the 46 cases in 1967 and affected 14 Bantu and 13 Asiatics. One death was recorded, an Asiatic. Sixteen of the cases gave birth to their babies in local hospitals.

Rabies

Although the incidence of this disease amongst animals in Natal has decreased considerably over recent years, this Province remains a rabies infected gazetted area. All dogs are required to be immunised between the ages of 3 and 6 months, and booster injections are required at three-yearly intervals, whilst the movement of certain animals and domestic pets is strictly controlled.

Only three positive cases of animal rabies were recorded in Natal during the year, two of which occurred at Glendale and Umhlali which are not very distant from this City's northern boundaries.

A total of 2,516 dogs were immunised in Durban by the State Veterinary Services Department during the year.

Scarlet Fever

There were 57 cases notified during the year, an increase of 8 over the 1967 figure of 49 notifications. The cases comprised 56 Europeans and 1 Coloured.

Where home conditions were satisfactory for isolation and treatment, patients were allowed to remain at home. Seven cases were however admitted to hospital for isolation and treatment.

Tetanus

The following table sets out the ages and racial incidence of the 17 tetanus cases which occurred during the year, 6 of which were tetanus neonatorum. Ten deaths were recorded and these are included in parenthesis in the table. The high mortality (59%) is as expected, very striking.

Details	E	C	B	A	Total
0 - 30 days	-	-	2 (1)	4 (3)	6 (4)
1 month to 5 months	-	-	1 (1)	- (-)	1 (1)
6 months to 11 months	-	-	- (-)	- (-)	- (-)
1 year to 4 years	-	-	1 (-)	- (-)	1 (-)
5 years to 9 years	-	-	- (-)	1 (1)	1 (1)
10 years to 19 years	-	-	2 (-)	1 (1)	3 (1)
20 years to 29 years	-	-	1 (1)	2 (1)	3 (2)
30 years to 39 years	-	-	1 (1)	- (-)	1 (1)
40 years and over	-	-	1 (-)	- (-)	1 (-)
Total	-	-	9 (4)	8 (6)	17 (10)

The following notifications were received since the disease became notifiable in December, 1964, the deaths being recorded in parenthesis.

Year	E	C	B	A	Total
1965	-	4 (2)	15 (5)	9 (1)	28 (8)
1966	-	- (-)	22 (14)	9 (4)	31 (18)
1967	-	- (-)	24 (12)	3 (2)	27 (14)
1968	-	- (-)	9 (4)	8 (6)	17 (10)

Trachoma

Thirty-four cases were notified, of which 33 were Asiatics and one was a Bantu. The Asiatic cases were the result of a trachoma survey carried out in Chatsworth by the South African National Council for the Blind. In all cases, the infection appeared to have been mild.

Typhoid Fever

The adjoining table sets out the notifications, deaths and appropriate rates for Durban since 1940, and it is recorded that since 1966 these statistics refer only to cases where S. typhi was the causative organism. Forty-three cases were notified during the year, including 3 deaths, all of which were Bantu.

TYPHOID : NOTIFICATIONS AND DEATHS 1940 TO 1968

(NOTIFICATION RATE PER 1,000 POPULATION : MORTALITY RATE PER CENT OF TOTAL NOTIFICATIONS)

Year	EUROPEAN				COLOURED				BANTU				ASIATIC				ALL RACES			
	Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No	Rate	No.	Rate	No.	Rate	No.	Rate
1940	52	.56	5	9.62	4	.49	–	–	42	.60	12	28.57	23	.26	7	30.43	121	.47	24	19.83
1941	24	.26	2	8.33	1	.12	–	–	70	.98	23	32.86	15	.17	6	40.00	110	.48	31	28.18
1942	123	1.16	10	8.13	13	1.53	1	7.70	164	2.21	39	23.78	22	.23	10	45.45	322	1.15	60	18.63
1943	68	.64	6	8.82	10	1.17	2	20.00	156	2.13	34	21.79	71	.75	15	21.12	305	1.09	57	18.69
1944	37	.34	6	16.21	3	.34	–	–	108	1.36	37	34.26	46	.47	11	23.91	194	.69	54	27.83
1945	17	.15	2	11.76	5	.58	1	20.00	62	.86	19	30.65	28	.28	6	21.43	112	.39	28	25.00
1946	18	.14	–	–	7	.68	–	–	113	1.04	38	33.63	39	.34	9	23.08	177	.49	47	26.55
1947	14	.11	–	–	21	1.98	2	9.52	108	.99	29	26.85	67	.57	10	14.93	210	.57	41	19.52
1948	7	.05	1	14.29	7	.64	–	–	57	.52	9	15.79	24	.20	4	16.67	95	.26	14	14.73
1949	12	.09	–	–	5	.44	–	–	21	.19	8	38.10	10	.08	3	30.00	48	.13	11	22.92
1950	16	.12	–	–	2	.16	1	50.00	36	.28	15	41.67	40	.31	2	5.00	94	.24	18	19.15
1951	7	.05	–	–	1	.07	–	–	66	.49	24	36.36	24	.17	6	25.00	98	.23	30	30.61
1952	9	.07	–	–	1	.06	–	–	54	.38	10	18.52	37	.25	2	5.41	101	.23	12	11.88
1953	4	.03	–	–	–	–	–	–	53	.36	11	20.75	16	.10	–	–	73	.16	11	15.07
1954	5	.04	–	–	4	.22	–	–	74	.48	9	12.16	9	.06	2	22.22	92	.19	11	11.96
1955	8	.05	–	–	3	.16	–	–	73	.44	4	5.48	16	.10	–	–	100	.20	4	4.00
1956	5	.03	–	–	1	.05	–	–	52	.30	3	5.77	9	.05	–	–	67	.13	3	4.48
1957	6	.04	1	16.66	1	.04	–	–	110	.61	6	5.45	5	.03	1	20.00	122	.22	8	6.56
1958	7	.04	–	–	5	.19	–	–	246	1.32	22	8.13	20	.09	2	5.00	278	.49	24	8.63
1959	6	.04	–	–	1	.04	1	100.00	280	1.45	21	7.50	16	.07	2	12.49	303	.51	24	7.92
1960	8	.05	1	12.50	4	.16	–	–	71	.39	3	4.22	7	.03	–	–	90	.16	4	4.44
1961	2	.01	–	–	2	.08	–	–	39	.21	2	5.13	16	.07	1	6.25	59	.10	3	5.08
1962	5	.03	–	–	–	–	–	–	25	.13	–	–	11	.05	–	–	41	.07	–	–
1963	1	.01	–	–	3	.11	–	–	25	.13	1	4.00	6	.03	–	–	35	.06	1	2.86
1964	2	.01	–	–	1	.04	–	–	30	.15	3	10.00	10	.04	–	–	43	.07	3	6.98
1965	5	.03	–	–	1	.03	–	–	23	.12	–	–	10	.04	–	–	39	.06	–	–
1966	–	–	–	–	3	.10	–	–	37	.18	3	8.11	12	.05	–	–	52	.08	3	5.77
1967	2	.01	–	–	2	.07	–	–	23	.11	1	4.35	10	.04	–	–	37	.05	1	2.70
1968	4	.02	–	–	–	–	–	–	20	.10	3	15.00	19	.07	–	–	43	.06	3	6.98

* Since 1966 the above table only includes cases where Salmonella Typhi was the causative organism.

The incidence of the disease was highest in December and 64% of cases occurred in the 15 years to 44 years age group. Routine investigations carried out with each notification did not lead to the discovery of any "carriers".

One of the Asiatic cases was employed as a medical technologist in a local hospital and in the course of his duties handled blood, stool and urine specimens. It was considered that this was the source of infection in his case. His sister was taken ill with the disease 10 days later and there can be little doubt but that he passed the infection on to her.

A further four cases occurred in a single family, the disease being passed on to three of them by a sister who spent a holiday in Northern Natal where the infection was contracted.

Ten cases of typhoid fever were notified from the kwaMashu Township, 6 from Chatsworth and 2 from Lamontville.

Paratyphoid Infections

There was only one case of paratyphoid fever notified during the year, an Asiatic female aged 6 years. She was discovered during investigations following the notification of her father as a case of typhoid fever. She was suffering from pyrexia and stool culture yielded S. paratyphi A organisms.

Viral Hepatitis

Eighty-eight cases were notified during the year of which 24 were Europeans, 12 were Coloureds, 19 were Bantu and 33 were Asiatics. Ten deaths were recorded, made up of 2 Europeans, 1 Coloured, 1 Bantu and 6 Asiatics. Three of the cases had had blood transfusions from 6 weeks to 5 months prior to their developing the disease, suggesting a possibility of homologous serum jaundice. Two of these cases died. Naturally this Department has collaborated with the Natal Blood Transfusion Service in investigating the cases and a paper on the subject will be published in course of 1969.

The following table sets out the annual incidence of viral hepatitis since the disease became notifiable in Durban on the 7th October, 1966. The deaths are recorded in parenthesis and it will be noticed that the number during the year is substantial, being 11% of notifications.

Year	E	C	B	A	Total
1966	29 (1)	3 (-)	3 (1)	9 (1)	44 (3)
1967	47 (2)	6 (-)	12 (1)	26 (2)	91 (5)
1968	24 (2)	12 (1)	19 (1)	33 (6)	88 (10)

B. OTHER INFECTIOUS DISEASES

The only statistics available to indicate the prevalence of these diseases are obtained from two sources:-

(i) admissions of cases to hospital for isolation and treatment; and

(ii) monthly returns by school principals.

In recent years every effort has been made by this Department to encourage school principals to submit returns of certain infectious diseases, as required by regulations in terms of the Public Health Act. The co-operation of the Chief Schools Medical Officer, Provincial Education Department, helped to obtain an improvement in the situation.

Table I : Admissions of Cases to Hospitals

Disease	E	C	B	A	Total
Chickenpox	1	3	26	3	33
Measles	86	12	358	29	485
Mumps	1	1	11	4	17
Whooping Cough	4	-	22	6	32

Table II : School Notifications (European, Coloured and Asiatic only)

Month	Chicken-pox	Measles	Mumps	Rubella	Whooping Cough
January	2	15	17	3	7
February	7	79	50	11	9
March	6	89	77	3	20
April	10	75	59	5	12
May	9	101	106	-	31
June	14	69	78	4	21
July	5	125	59	7	11
August	48	210	149	10	40
September	78	335	142	35	29
October	81	338	240	26	24
November	76	330	282	13	20
December	3	19	34	1	3
Total	339	1,785	1,293	118	227

C. MEDICAL EXAMINATION OF BANTU WORK-SEEKERS

Male Bantu seeking employment in the City are medically examined before registration at the Municipal Bantu Administration Department and during 1968 the following examinations were performed :-

Adults	60,182
Juveniles	8,600
Total	68,782

This figure represents a decrease of 20,113 compared with the previous year and a total decrease of 47,900 since 1966. The large decrease is due to the stricter influx control measures which have been applied in recent years.

All male Bantu were routinely vaccinated on the occasion of their medical examination and during the year 66,117 vaccinations in all were performed. In addition, the following persons were referred to hospitals and clinics for various conditions as listed hereunder :-

Venereal disease	1,332
Scabies	97
Bilharzia	108

Male work-seekers from rural areas and male domestic servants changing their employment were and still are routinely X- ayed at the Durban Chest Clinic for the Department of Bantu Administration and during the year the following results were recorded :-

Total Bantu X- ayed	6,325
Cases of active pulmonary tuberculosis discovered	51
Cases of presumably inactive pulmonary tuberculosis discovered	27

D. FOOD POISONING

Food poisoning investigations during the year were necessary on six occasions but in only one instance could a definite conclusion be reached. On this occasion six people were known to have been involved, and the vehicle was cream from cakes manufactured by a local bakery. Salmonella typhimurium was isolated from this cream and from the stools of three of the workers in the shop.

Further details of food poisoning outbreaks are reported in Chapter IX (Health Inspection).

IV. TUBERCULOSIS

INTRODUCTION

The following figures represent the number of known current cases of pulmonary tuberculosis in Durban as at the end of the year 1968 :-

Race	City Cases	Ex-City Cases
European	1,234	167
Coloured	1,141	145
Bantu	10,522	3,177
Asiatic	3,962	220
Total	16,859	3,709

The total number of City cases is slightly lower than last year's figure whilst the total of ex-City cases is slightly higher. Closed case files are not included in this table. City cases are those which have been assessed as the financial responsibility of this Municipality while the ex-City cases are those for whom Durban is not financially responsible. This ex-City group comprises cases living outside the Durban Municipal area but working in Durban, country cases who have come to Durban because of their illness and are then found to be suffering from pulmonary tuberculosis while sojourning in this City and known pulmonary tuberculosis cases visiting relatives in Durban.

STATISTICS OF CITY CASES

(a) Pulmonary Tuberculosis

(i) Notifications

The number of notifications of pulmonary tuberculosis received during 1968 is set out below together with the figures since 1961 :-

Year	E	C	B	A	Total
1961	117	96	1,648	416	2,277
1962	129	85	1,524	332	2,070
1963	121	77	1,355	316	1,869
1964	121	110	1,256	479	1,966
1965	100	98	1,336	532	2,066
1966	102	105	1,656	549	2,412
1967	133	149	1,566	575	2,423
1968	79	103	1,262	495	1,939

The attack rates per 1,000 population were :-

Year	E	C	B	A	Total
1961	.70	3.74	8.82	1.86	3.78
1962	.76	3.21	8.03	1.44	3.35
1963	.70	2.82	7.04	1.33	2.97
1964	.69	3.91	6.43	1.96	3.06
1965	.56	3.03	6.74	2.12	3.14
1966	.56	3.52	8.23	2.14	3.60
1967	.76	4.85	7.68	2.18	3.55
1968	.42	3.27	6.11	1.83	2.78

The age groups of pulmonary tuberculosis cases notified during 1968 were :-

Ages	E	C	B	A	Total
0 - 4 years	4	23	245	71	343
5 - 14 years	2	13	154	90	259
15 - 24 years	5	13	138	116	272
25 - 44 years	16	36	480	139	671
45 - 64 years	40	14	210	67	331
65 years and over	12	4	35	12	63
Total	79	103	1,262	495	1,939

Source of Notifications

Of the 1,939 new pulmonary tuberculosis cases notified the sources of infection were:-

Tuberculosis clinics ... 1,493;
Hospitals ... 436; and
Private practitioners ... 10.

Comment

Tuberculosis clinics accounted for 77% of new notifications, whilst the various hospitals were the source of almost all the remaining 23%. These figures are on a par with those for last year.

Of the 1,939 notifications, 26 were in respect of children 0 - 4 years old with a positive heaf and no evidence of pulmonary tuberculosis on X-Ray.

Not only were there fewer notifications of pulmonary tuberculosis in all race groups, but the attack rate was also substantially lower than for 1967. One of the factors that could have been partially responsible for this was a re-arrangement of policy at the Durban Chest Clinic with their total attendances having shown a fair decrease on the previous year. This would inevitably have resulted

in a reduced rate of case finding and therefore fewer notifications. Another variable factor may well be the approach of medical officers in their diagnosis of pulmonary tuberculosis, particularly in children. Influenced by the results of a positive tuberculin test the less experienced officer may exercise caution rather than not notify the case as suffering from pulmonary tuberculosis when there is the slightest doubt on X-Ray examination. This is, of course, no cause for criticism.

(ii) Deaths

Deaths of City cases, corrected for inward and outward transfer, are set out below together with the figures for the previous seven years :-

Year	E	C	B	A	Total
1961	14	13	129	42	198
1962	14	15	133	37	199
1963	14	6	129	22	171
1964	9	8	108	23	148
1965	15	13	120	30	178
1966	11	10	57	19	97
1967	9	7	82	24	122
1968	7	10	73	16	106

The corresponding death rates per 1,000 population were :-

Year	E	C	B	A	Total
1961	.08	.51	.69	.19	.33
1962	.08	.57	.70	.16	.32
1963	.08	.22	.67	.09	.27
1964	.05	.28	.55	.09	.23
1965	.08	.44	.60	.11	.27
1966	.06	.33	.28	.07	.14
1967	.05	.23	.40	.09	.18
1968	.04	.32	.35	.06	.15

(b) Non-Pulmonary Tuberculosis

(i) Notifications

The total notifications of non-pulmonary tuberculosis are set out below :-

Year	E	C	B	A	Total
1961	1	4	102	44	151
1962	14	5	56	33	108
1963	2	-	50	30	82

Year	E	C	B	A	Total
1964	6	1	50	44	101
1965	2	2	50	48	100
1966	2	-	46	37	85
1967	-	-	29	31	60
1968	1	-	45	37	83

These 83 notifications have been analysed according to age groups as follows :-

Ages	E	C	B	A	Total
0 - 4 years	-	-	3	-	3
5 - 14 years	-	-	5	2	7
15 - 24 years	1	-	5	13	19
25 - 44 years	-	-	21	14	35
45 - 64 years	-	-	9	7	16
65 years and over	-	-	2	1	3
Total	1	-	45	37	83

A further 46 cases were notified as suffering from pulmonary tuberculosis in addition to other tuberculous involvement. Of the total of 129 cases of non-pulmonary tuberculosis, the commonest conditions were :-

Tuberculous meningitis	...	32 cases
Tuberculous lymphadenitis	...	29 cases
Tuberculous peritonitis	...	15 cases

(ii) Deaths

The number of deaths from non-pulmonary tuberculosis for the past 8 years, corrected for inward and outward transfer, was :-

Year	E	C	B	A	Total
1961	1	2	32	14	49
1962	-	3	36	11	50
1963	1	-	19	10	30
1964	1	-	28	12	41
1965	1	1	21	5	28
1966	1	5	29	5	40
1967	1	1	29	9	40
1968	-	2	17	5	24

The corresponding death rates are shown overleaf :-

Year	E	C	B	A	Total
1961	.006	.078	.171	.062	.081
1962	-	.113	.190	.048	.081
1963	.006	-	.099	.042	.048
1964	.006	-	.143	.049	.064
1965	.005	.034	.105	.019	.042
1966	.006	.167	.144	.019	.059
1967	.005	.033	.142	.034	.059
1968	-	.063	.082	.019	.034

HOSPITAL FACILITIES

Natal is divided into Central, Southern, Northern and Zululand zones for the purpose of admission of pulmonary tuberculosis cases into hospital. Durban falls into the Central zone together with the magisterial areas Umlazi, Pinetown, Camperdown, Ndwedwe, Inanda, Lower Tugela and Mapumulo.

The tuberculosis bed capacity of hospitals situated in the Central zone were as follows :-

Hospital	E	C	B	A	Total
1. King George V Hospital	82	60	1,317	155	1,614
2. F.O.S.A. T.B. Settlement	-	-	-	186	186
3. Charles James SANTA Centre, Umlazi	-	-	280	-	280
4. Botha's Hill T.B. Settlement	-	-	177	-	177
5. Osindisweni Mission, Verulam	-	-	181	-	181
6. McCord Mission Hospital	-	-	38	-	38
7. St. Mary's Mission, Mariannhill	-	-	73	-	73
8. Umlazi Mission Hospital	-	-	59	-	59
9. Ekuphilisweni Mission, Kearsney	-	-	46	-	46
10. Illovo Sugar Estates Hospital	-	-	43	-	43
11. Montebello Mission Hospital	-	-	90	-	90
12. Umpumulo Mission Hospital	-	-	47	-	47
Total	82	60	2,351	341	2,834

On the 31st December, 1968, these hospitals contained the following numbers of patients who were this City's financial responsibility :-

Hospital	E	C	B	A	Total
1. King George V Hospital	26	33	206	81	346
2. F.O.S.A. T.B. Settlement	-	14	8	92	114
3. Charles James SANTA Centre	-	-	73	-	73
4. Botha's Hill T.B. Settlement	-	-	45	-	45
5. Osindisweni Mission Hospital	-	-	21	-	21
6. McCord Mission Hospital	-	-	9	2	11
7. St. Mary's Mission Hospital, Mariannhill	-	-	19	-	19
8. Umlazi Mission Hospital	-	-	12	-	12
Total	26	47	393	175	641

A further 64 Durban cases were hospitalised in tuberculosis hospitals outside the Central zone, e.g. Richmond Hospital with 40 Bantu patients and Dannhauser Hospital with 17 Bantu patients. Only 10 patients were hospitalised in local Provincial hospitals.

All Hospital Admissions - During 1968, a total of 1,748 City cases were admitted to various hospitals and comprised 91 Europeans, 94 Coloureds, 1,176 Bantu and 387 Asiatics. This total shows an increase of over 200 compared with the previous year's admissions. Discharges of City cases numbered 1,132 made up of 74 Europeans, 58 Coloureds, 726 Bantu and 274 Asiatics. One hundred and nineteen patients absconded or left hospital against medical advice which is again a much lower figure than for the previous year. These cases where possible were immediately followed up by the field staff of this Department to ensure continuation of treatment at the local tuberculosis clinics, and rehospitalisation where desirable.

With the exception of Bantu males, some difficulty was experienced during the year in obtaining hospital beds for tuberculosis patients mainly in respect of Bantu children and Asiatic males.

King George V Hospital - This large hospital is situated within the borough of Durban and is administered by the State Health Department. As at the end of the year, 54% of hospitalised City cases were being accommodated in this institution. With the kind permission of the Medical Superintendent, the following statistics referring to King George V Hospital were provided for 1968 :-

King George V Hospital	E	C	A	B	Total
Admissions	303	112	320	2,354	3,089
Discharges (including deaths)	317	125	297	2,297	3,036
Deaths	26	10	28	296	360

King George V Hospital	1961	1962	1963	1964	1965	1966	1967	1968
Irregular discharges as a percentage of all discharges	18.5%	12.5%	13.0%	11.0%	8.1%	8.7%	7.0%	4.7%
Pulmonary tuberculosis "relapse" rate (Ratio of re-admissions to total admissions)	15.5%	16.8%	16.2%	17.0%	17.3%	16.0%	9.5%	10.9%

OUT-PATIENT SERVICES

There are six clinics in Durban providing diagnostic and treatment facilities for pulmonary tuberculosis. The central Durban Chest Clinic which serves commerce and industry and the Central area of the City is operated by the State Health Department, while peripheral non-White areas are served by the five clinics situated at kwaMashu, Cato Manor, Lamontville, Merebank and Chatsworth. These peripheral clinics are operated by this Department.

During the year, meetings were held with officials of the State Health Department to complete negotiations for the City Council to take-over the Durban Chest Clinic. The 1st April, 1969 was settled upon as the date of take-over and towards the end of the year positions were advertised with a view to the timeous recruitment of staff, medical officers in particular.

During 1968 the Local Health Commission clinic at Umhlatuzana ceased to function and moved to new premises in Shallcross which is situated outside the City boundary.

(A) Durban Chest Clinic

The following statistics were supplied by the Medical Officer-in-charge of the Durban Chest Clinic for the calendar year 1968 :-

Diagnostic and Treatment Services

(i) X-Rays

Pre-employment 70 m.m. X-Rays	21,035
Influx control 70 m.m. X-Rays	6,471
Government Departments	1,303
Mass X-Ray of Suspects and Contacts -	
Borough	18,105
Ex-Borough	5,021
Shipping and other firms - 100 m.m. and large plate X-Rays	4,571
Clinical interviews - 100 m.m. and large plate X-Rays -	
Borough	19,764
Ex-Borough	15,147
Total X-Rays taken at Durban Chest Clinic	91,417

(ii) Notifications

Borough	1,663
Ex-Borough	1,391

(iii) Tuberculin Tests

Heaf tests performed -	
Borough	4,723
Ex-Borough	1,522
Heaf tests read -	
Borough	3,470
Ex-Borough	917
Heaf tests found to be positive -	
Borough	959
Ex-Borough	316

(iv) B.C.G. Immunisations

Borough	2,401
Ex-Borough	513

(v) Streptomycin Injections

Borough	18,649

(vi) Other Injections

Borough	649

(vii) Sputum Examinations

Positive sputa	1,301
Negative sputa	7,666
Total sputa tested	8,967

(viii) Hospital Admissions

European			43
Coloured	-	New cases	43
		Re-admissions	20
Bantu	-	New cases	1,523
		Re-admissions	560
Asiatic	-	New cases	243
		Re-admissions	27
Total admissions			2,459

(B) Mobile Mass X-Ray of Employees in Commerce and Industry

The State Health Department has 70 m.m. mobile mass X-Ray units available for the screening of employees in commerce and industry at a tariff rate of 25 cents per head. The fee is paid by the firms and this Department raises the accounts and makes the bookings. During the year 42,268 X-Rays were taken in Durban.

(C) Peripheral Municipal Tuberculosis Clinics

Introduction - The following table reflects the venues and facilities available at these clinics :-

Clinic	Race	Days	X-Ray Facilities
kwaMashu	Bantu	Monday to Friday	Available at each clinic each day from 9 a.m. to 1 p.m.
Cato Manor	Bantu and Asiatic	Mondays only	
Merebank	Asiatic	Fridays only	
Chatsworth	Asiatic	Tuesdays and Thursdays	
Lamontville	Bantu	Wednesdays only	

Mobile X-Ray Units

This Department's 1½ ton mobile X-Ray unit failed to maintain a satisfactory standard of performance from time to time. It is felt that this might be due to the design of the X-Ray equipment. The other unit despite its age functioned satisfactorily during the year.

Clinic Attendances

The following figures reflect the work performed at these clinics during 1968 :-

Details	Cato Manor	kwa-Mashu	Mere-bank	Chats-worth	Lamont-ville	Total
Number of sessions	48	250	50	101	51	500
Total attendances	4,672	47,952	9,006	20,055	11,055	92,740
Contacts seen	410	1,823	216	1,095	815	4,359
Suspects seen	385	2,706	1,308	1,675	1,023	7,097
Tuberculin tests	529	2,685	1,145	1,677	1,236	7,272
B.C.G. Inoculations	263	3,024	840	1,292	564	5,983
Streptomycin injections	139	5,493	64	1,037	582	7,315
X-Rays	1,108	8,590	1,494	3,983	2,338	17,513

There has been a progressive increase in the total number of attendances at these clinics, rising from 75,798 attendances in 1966, through 82,278 for 1967 and reaching a total of 92,740 in 1968. As stated previously, with the retention of old cases of pulmonary tuberculosis and the ever-increasing load due to new notifications this figure can be expected to rise.

During 1968 the following numbers of persons were admitted to these clinics for the first time :-

Cato Manor	kwa-Mashu	Mere-bank	Chats-worth	Lamont-ville	Total
829	5,826	1,529	2,806	1,813	12,803

Investigation of these persons yielded the following number of cases of pulmonary tuberculosis :-

Details	Cato Manor	kwa-Mashu	Mere-bank	Chats-worth	Lamont-ville	Total
Pulmonary tuberculosis cases	50	566	37	173	177	1,003
Pulmonary tuberculosis cases as a percentage of clinic admissions	6.0%	9.7%	2.4%	6.2%	9.8%	7.8%

Tuberculin Testing

The heaf test was routinely performed on all children under 15 years of age using Weybridge tuberculin supplied by the State Health Department. The table overleaf sets out an analysis of tests performed :-

Tuberculin Tests	Cato Manor	kwa-Mashu	Mere-bank	Chats-worth	Lamont-ville	Total
Tests done	529	2,685	1,145	1,677	1,236	7,272
Tests read	447	2,208	1,054	1,535	1,114	6,358
	(84.5%)	(82.2%)	(92.0%)	(91.5%)	(90.1%)	(87.4%)
Positive	208	1,028	415	535	623	2,809
Negative	239	1,180	639	1,000	491	3,549

The percentage of heaf tests read continued to be high, the lowest being 82.2% at kwaMashu. Persistent tracing of defaulters was responsible for obtaining these high percentages.

B.C.G. Immunisation

In Durban B.C.G. is administered to the following major groups :-

(i) Newborns delivered at King Edward VIII Hospital, McCord Zulu Hospital and St. Aidan's Mission Hospital, and recently at the Shifa Hospital;

(ii) Tuberculin negative reactors attending the tuberculosis clinics; and

(iii) Tuberculin negative reactors discovered on routine testing of non-White school children.

Asiatic, Bantu and in addition Coloured schools were also visited and Class I, Standard VI and Standard X pupils at the Bantu schools, and Class I and Standard VIII pupils at the Asiatic and Coloured schools, were tuberculin tested and if negative given B.C.G. vaccine.

Total B.C.G. Immunisations

The number of B.C.G. immunisations administered in the City during the year was made up as follows :-

Newborns at King Edward VIII Hospital	15,132
Newborns at McCord Zulu Hospital	1,661
Newborns at St. Aidan's Mission Hospital	3,502
Newborns at Shifa Hospital	53
Municipal Tuberculosis Clinics	5,983
Durban Chest Clinic	2,401
Non-European Schools	6,163
Total	34,895

Field Work and Control Programmes

The field staff responsible for tuberculosis investigations and control work remained at 5 European Health

Briefing a Group of Non-European Tuberculosis Field Staff

Visitors, 1 European Health Inspector, 16 Bantu and 8 Asiatic Health Assistants. Home visits for 1968 totalled 72,011 and comprised 4,085 visits to Europeans, 4,434 to Coloureds, 39,159 to Bantu and 24,333 to Asiatics. This field work entailed investigation of cases, referral of contacts and suspect cases, maintaining contact with tuberculosis cases and their families, and the tracing of defaulters to obtain their co-operation and regular attendance at the clinics.

SUPPLEMENTARY FEEDING OF INDIGENT TUBERCULOSIS CASES

A sum of R9,000, subject to 7/8ths refund by the State Health Department, was available for 1968 for the purchase of suitable foodstuffs for supplementing the diet of indigent tuberculosis patients. Special vitaminised maize supplement, as well as protein supplement, was included in these food parcels. The parcels were made up at this Department's central premises and then distributed to patients at the various clinic centres.

During 1968, 8,449 rations were distributed which was slightly lower than the 8,608 rations given out in 1967. The gross cost of these rations amounted to R8,871.

The table below refers to the number of patients on rations, as well as the rations given to the various race groups during the year :-

Age Group (Years)	E		C		B		A		Total	
	Patients	Rations	Patients	Rations	Patients	Rations	Patients	Rations	Patients	Rations
0 - 4 years	-	-	2	101	13	334	5	213	20	648
5 - 8 "	-	-	9	453	13	368	19	658	41	1479
9 - 12 "	-	-	1	47	7	156	9	347	17	550
13 years and over	1	13	22	536	121	3411	57	1812	201	5772
Total	1	13	34	1137	154	4269	90	3030	279	8449

DOMICILIARY ASSISTANCE

The Natal Anti-Tuberculosis Association, which is affiliated to SANTA, has funds available for the care of needy families whose breadwinner has been stricken with tuberculosis and is unable to draw an income. The average number of cases assisted each month was approximately 450 to 500.

The amount of money spent on this care work has increased steadily in recent years, but during 1968 slightly less was available for distribution than in 1967. The

following figures are relevant :-

1963	...	R14,683
1964	...	R15,635
1965	...	R16,290
1966	...	R17,325
1967	...	R17,525
1968	...	R17,445

The Care Committee of the Natal Anti-Tuberculosis Association is assisted by the five European Health Visitors responsible for tuberculosis control in this Department, who serve on the Committee.

The creation of many Bantu anti-tuberculosis associations in the areas surrounding Durban is welcomed and with the help of the local NATBA office it is hoped that a Bantu Care group will be formed in the not too distant future in the large kwaMashu Bantu township which is presently situated within the Durban municipal area.

V. VENEREAL DISEASES

INTRODUCTION

The functioning of this Department's Special Clinics was not without problems during the year. Firstly, medical staff shortages, either due to illness or vacancies, resulted in cancellation of the kwaMashu Special Clinic from time to time. Secondly, a death due to anaphylaxis following a penicillin injection occurred during August, resuscitative measures having been applied without avail. Thirdly, State Health Department policy in regard to hospitalisation of cases was made more stringent than in the past.

During the year benzathine penicillin was introduced at the Clinic as this long-acting penicillin became available from the State Central Medical Stores. Clinical evaluation suggests it is as effective as the other penicillins, requires fewer injections, and is therefore less time consuming and more favourable for the patient who in turn, is required to make fewer visits to the Clinic.

This report covers all special clinics operated in the City but does not reflect cases treated in hospitals, by district surgeons or private practitioners, as legally they are not required to make any return to the local authority.

NEW CASES

The total number of new cases seen during 1968 was 21,628 compared to 19,793 for 1967. The 15,748 new City cases seen during the year represents a rate of 2.26 per 100 population for 1968 compared to 2.09 for the previous year. The comparative figures for the racial groups are:-

Year	E	C	B	A	Total
1968	601 (0.32)	366 (1.16)	14,011 (6.78)	770 (0.28)	15,748 (2.26)
1967	610 (0.33)	427 (1.39)	12,467 (6.12)	791 (0.30)	14,295 (2.09)

TOTAL ATTENDANCES

This figure was 54,777, an increase of 3.29% over the previous year (53,031) and has occurred despite the introduction of benzathine penicillin during the latter part of the year, which reduced the number of attendances per patient.

CLINIC SERVICES

Addington Hospital: One session was held each day, Mondays to Saturdays, for Europeans and Coloureds at the Special Clinic in the grounds of Addington Hospital. This clinic is administered and staffed by the Provincial Hospital who are reimbursed on a per capita basis by the Durban Municipality in respect of City cases. Attendances for the year were as follows :-

Race	New cases			Total attendances		
	M	F	Total	M	F	Total
European	838	79	917	2,017	217	2,234
Coloured	374	46	420	1,317	174	1,491

Congella and kwaMashu: The Congella Clinic is administered and staffed by this Department and is situated in the grounds of the King Edward VIII Hospital. This clinic is open all day, Mondays to Fridays.

The kwaMashu clinic functions at Goodwin's Cottage in this Bantu township for one morning session of 3 hours per week. This is the clinic session that has had to be cancelled on various occasions when medical officers were not available.

Attendances at Congella and kwaMashu clinics during the year were as follows :-

Race	New cases			Total attendances		
	M	F	Total	M	F	Total
Bantu	13,969	5,465	19,434	36,441	12,746	49,187
Asiatic	666	191	857	1,452	413	1,865

WARD ADMISSIONS

Early in the year this Department was informed by the State Health Department that cases of venereal disease detained in a hospital for treatment would not be accepted for purposes of part-refund except under very exceptional circumstances, such as females employed in hostels suffering from gonorrhoea, since a single injection of long-acting penicillin usually rendered a patient non-infectious within 24 hours.

During the period January to May, 1968, 47 males and 187 females were admitted for isolation and treatment to Clairwood Hospital. Thereafter, no cases were seen which fulfilled the criteria required for hospitalization.

CONTACTS

Contact tracing has proved very fruitful and during the year 50.18% of contacts cited by the patients, attended for investigation and treatment at the clinic. This figure is in respect of Bantu cases only.

SIDE ROOM

At the Congella Clinic, side room examinations are undertaken on smears of discharges as well as spun urine deposits to look for gonococci and other organisms. The following examinations were performed during the year:-

Smears - 20,788 with 7,970 positive (38.34%)
Urines - 2,033 " 822 " (40.43%)

LABORATORY

Serological examinations carried out at the Government Laboratories, Currie Road, for the Congella and kwaMashu special clinics were as follows :-

Kolmer
VDRL } - 27,135 with 7,404 positive (27.29%)

ANTE-NATAL CASES

A total of 1,489 ante-natal cases were tested serologically, at the Congella and kwaMashu clinics, of whom 783 (52.59%) were positive and received treatment. Total ante-natal attendances at these clinics were 2,283.

TABLE SHOWING VENEREAL DISEASES IN DURBAN DURING 1968

	DETAILS	NEW CASES										TOTAL ATTENDANCES									
		Eur.		Col.		Bantu		Asiatic		Total		European		Coloured		Bantu		Asiatic		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1.	Sero-Negative Primary Syphilis	10	-	3	-	274	18	4	-	291	18	47	1	18	-	1,000	63	13	-	1,078	64
2.	Sero-Positive Primary Syphilis	15	1	13	1	931	188	15	5	974	195	139	23	120	2	3,406	693	47	11	3,712	729
3.	Secondary Syphilis	2	1	7	3	130	524	6	6	145	534	32	10	55	31	345	1,295	19	13	451	1,349
4.	Tertiary Syphilis (Clinically recognised)	-	1	-	-	-	-	1	1	1	2	-	2	-	10	4	1	1	1	5	14
5.	Latent Syphilis (Diagnosed on result of serological test alone)	6	1	4	3	588	628	25	22	623	654	48	14	87	44	2,543	2,534	88	61	2,766	2,653
6.	Neuro-Syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
7.	Congenital Syphilis (Under 1 year)	-	-	-	-	52	46	2	3	54	49	-	-	-	-	143	153	4	9	147	162
8.	Congenital Syphilis (Over 1 year)	-	-	-	-	12	13	-	-	12	13	12	-	-	-	34	35	-	-	46	35
	Total Syphilis	33	4	27	7	1,987	1,417	53	37	2,100	1,465	278	50	280	87	7,475	4,774	172	96	8,205	5,007
9.	Gonorrhoea	467	46	222	15	5,031	502	263	35	5,983	598	1,219	122	787	51	10,914	769	498	64	13,418	1,006
10.	G.C. Vulvo-Vaginitis	-	-	-	-	-	130	-	3	-	133	-	-	-	-	-	208	-	4	-	212
11.	G.C. Ophthalmia	-	-	-	-	13	11	1	2	14	13	-	-	-	-	15	16	2	3	17	19
	Total G.C. Infections	467	46	222	15	5,044	643	264	40	5,997	744	1,219	122	787	51	10,929	993	500	71	13,435	1,237
12.	Ulcus Molle	1	-	2	-	1,715	231	73	8	1,791	239	1	-	5	-	4,282	415	151	18	4,439	433
13.	Lymphogranuloma Venereum	-	-	-	-	42	3	1	-	43	3	-	-	1	-	163	15	1	-	165	15
14.	Granuloma Inguinale	-	-	-	-	1	2	-	-	1	2	-	-	5	-	13	4	-	-	18	4
15.	Venereal Warts	7	-	4	4	424	143	19	10	454	157	7	-	8	6	1,711	441	63	39	1,789	486
16.	Non-specific Urethritis	118	4	17	-	3,043	635	149	26	3,327	665	216	4	38	1	7,031	1,521	315	55	7,600	1,581
17.	Non-Venereal	212	25	102	20	2,289	2,634	122	75	2,725	2,754	297	41	173	29	6,410	5,169	298	145	7,178	5,384
	Total	338	29	125	24	7,514	3,648	364	119	8,341	3,820	521	45	230	36	1,960	7,565	828	257	21,189	7,903
	Grand Total	838	79	374	46	14,545	5,708	681	196	16,438	6,029	2,018	217	1,297	174	38,014	13,332	1,500	424	42,829	14,147
	Total of Races	917		420		20,253		877		22,467		2,235		1,471		51,346		1,924		56,976	

STATISTICAL SUMMARY (ALL RACES) : CASES TREATED IN 1968

Details	European				Coloured				Bantu				Asiatic				Total		Grand Total
	City		Ex-City		City		Ex-City		City		Ex-City		City		Ex-City		City	Ex-City	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
New cases	525	76	313	3	320	46	54	-	10,901	3,110	3,068	2,355	598	172	68	19	15,748	5,880	21,628
Total attendances	1,585	212	432	5	1,207	172	110	2	28,981	7,401	7,460	5,345	1,305	375	147	38	41,238	13,539	54,777
Hospital admissions	-	-	-	-	-	-	-	-	23	86	19	99	3	2	2	-	114	120	234

VI. MATERNAL AND CHILD HEALTH

This Section is in the main responsible for preventive and promotive work amongst expectant and nursing mothers and infants and children up to the age of 5 years. The assistance and efforts of the highly experienced health visitor force and the ancillary workers are geared, through the persistent use of health education, to the goal of achieving in the general public a better understanding of positive health, both physical and mental.

Two important aspects are that firstly it must always be remembered that whilst the work is within the community, communities are composed of families, and families of individuals. Thus although broad epidemiological approaches and patterns can often be applied to the community, in a service such as this the individual cannot be forgotten. So it is that attention must often be paid to other members of the family - the school child, the aged, those with physical and/or mental disabilities. Secondly whilst the function and work is primarily preventive many social and medical problems are encountered and must be referred to the relevant agency. It can be said that virtually all social problems have a medical aspect and that most medical problems are not without social ramifications. In this way then the health visitor with her ready entry into the home must play an ever-increasing role in preventive and social medicine in the community which of course is largely dependent for its health and well-being on the local health department.

Another function for which this Section is responsible is the statutory control and registration of midwives in private practice.

This Department continued to assist the family planning programmes of the Natal Association for Maternal and Family Welfare and in addition continued to provide family planning sessions at 3 clinic venues as part of the phased take-over from the Association.

The duties and responsibilities of this Section embrace all racial groups and areas of the City. The large staff consisting of full-and part-time clinical medical officers, health visitors, clinic sisters, nurses, clinic assistants, nurse aides, health assistants, general assistants and interpreter/cleaners falls under the overall direction of an Assistant Medical Officer of Health.

The staff establishment of the Maternal and Child Health Section is tabulated below and includes staff allocated to Immunisation services (which are regarded as part of this Section) but excludes personnel engaged in the Tuberculosis, Infectious Diseases and Venereal Diseases duties.

Post	E	C	B	A	Total	Total 1967	Total 1966
Senior Clinical Medical Officer	1	-	-	-	1	(1)	(1)
Clinical Medical Officer	1	-	-	-	1	(1)	(1)
Part-time Medical Specialist	1	-	-	-	1	(1)	(1)
Part-time Clinical Medical Officer	5	-	-	-	5	(5)	(5)
Chief Health Visitor	1	-	-	-	1	(1)	(1)
Deputy Chief Health Visitor	1	-	-	-	1	(1)	(1)
Senior Health Visitor	1	-	1	1	3	(3)	(3)
Health Visitor	23	3	16	9	51	(49)	(46)
Clinic Sister	5	-	-	-	5	(5)	(5)
Nurse	-	-	4	8	12	(11)	(11)
Clinic Assistant	10	-	-	-	10	(11)	(12)
Nurse Aide	-	4	14	22	40	(36)	(30)
Overseer	-	-	-	1	1	(1)	(1)
Health Assistant	-	-	4	4	8	(8)	(8)
General Assistant	2	-	-	1	3	(2)	(2)
Interpreter/Cleaner	-	-	7	8	15	(13)	(12)
Total	51	7	46	54	158	(149)	(140)

In addition to the abovementioned medical officers, the Section was again able to utilise a "panel" of 4 medical practitioners, 2 of whom provided regular medical coverage for school immunisation programmes throughout the year and all assisting at child health immunisation clinics from time to time during staff shortage.

Comparison of the staff establishments over the three year period reflects a steady expansion, except in the case of European Clinic Assistants, where 2 posts have been converted to Bantu Nurse Aides and thus diverted to an area of greater need.

A. MATERNAL HEALTH

(i) Ante-Natal Clinics

An ante-natal clinic service is provided by the Department for Europeans, Coloureds and Asiatics who have elected to be confined in their own homes by registered European and Coloured midwives and unregistered Asiatic midwives authorised to practise within the Durban municipal area. At all ante-natal clinics a medical officer is in attendance and the routine of taking smears for exfoliative cytology on most attenders was continued. Of the 664 cases so examined no cases of malignancy were found.

Midwifery facilities for the Bantu are provided by the Natal Provincial Hospital service. Post-natal visits

to all races are undertaken by health visitors who follow up birth notifications.

Details of attendances at Departmental clinics and home visits are set out below :-

Details	E	C	A	Total	Total 1967
Ante-natal clinic sessions	12	11	94	117	115
Attendances	52	47	1,656	1,755	1,868
Rhesus factor tests	22	18	725	765	285
Exfoliative cytology tests	33	15	616	664	250
Haemoglobin tests	14	16	743	773	969
Wasserman tests	29	20	748	797	800
Ante-natal visits	74	21	269	364	405
Post-natal visits	2	12	941	955	970

Of the 1,656 Asiatic cases it was necessary to refer 226 cases for hospital delivery mostly because of multiparity and ill health.

(ii) Facilities for Maternity Cases

Accommodation for maternity cases is provided by the following Provincial and private hospitals :-

Institutions	Maternity Beds			
	E	C	B/A	Total
1. Provincial				
Addington Hospital	50	35	-	85
King Edward VIII Hospital	-	-	241	241
2. Private Hospitals				
St. Aidan's Hospital	-	-	24	24
St. Augustine's Hospital	30	-	-	30
McCord Zulu Hospital	-	-	60	60
Mothers' Hospital	46	-	-	46
Shifa Hospital	-	-	14	14
Parklands Nursing Home	24	-	-	24
Total	150	35	339	524

(iii) Supervision of Midwives

Listed midwives are supervised by a European Health Visitor, equipment and registers being examined regularly, and home-visiting carried out periodically to ante-natal and clinic attenders, and to Asiatic midwives' homes. All notified cases of stillbirths, ophthalmia neonatorum and puerperal sepsis are investigated.

Details of supervision of midwives is listed overleaf.

Details	E	C	A	Total	Total 1967
Certificated midwives listed	3	2	-	5	7
Confinements attended	68	26	90	184	148
Non-certificated midwives listed	-	1	49	50	61
Confinements attended	-	10	888	898	842
Confinements by unlisted midwives (i.e. illegal operators)	-	2	7	9	
Midwives' appliances examined	2	3	322	327	461
Visits to midwives' patients at home	-	8	147	155	142
Warnings to midwives not complying with regulations	-	2	7	9	12

(iv) Total number of Confinements conducted in Durban by Midwives only (including midwives employed by Natal Provincial Administration)

Midwives	E	C	B	A	Total	Total 1967
Certificated	80	86	703	539	1,408	1,504
Non-certificated	-	11	-	841	852	842
Total	80	97	703	1,380	2,260	2,346

(v) Family Planning

Since 1962, the Department has seconded a part-time clinical medical officer to the Natal Association for Maternal and Family Welfare and in 1963 the City Council authorised the appointment of an Indian Nurse to assist at the Association's clinics. In March, 1967 the City Council adopted a recommendation that there be a phased take-over of family planning services from that Association. Thus in August, 1967 family planning clinics were commenced at the Merebank and both Chatsworth Asiatic clinics, in conjunction with child health sessions and with a medical officer in attendance at each clinic. With few exceptions only oral contraceptives were used. During 1968 these clinics became well established and this Department will, in the near future, be able to expand the service and extend the take-over to include some Bantu and Coloured clinics. Details of attendances at Departmental family planning clinics are set out below :-

Venue	Sessions	First attendances	Re-attendances	Total
Chatsworth, Unit 2	149	559	4,085	4,644
Chatsworth, Unit 10	128	814	4,723	5,537
Merebank	149	319	3,244	3,563
Total	426	1,692	12,052	13,744

All new cases and many re-attending cases are seen by the medical officer, thus during 1968 a total of 3,205 were seen by the medical officer.

Extensive records are kept of all cases, and defaulters were visited at home to ascertain the reason for default. These included pregnancy following patient failure, discomfort, preferral of other contraceptive devices not offered at the Department's clinics, family opposition and change of address. Domiciliary visiting of defaulters has proved worthwhile, resulting in re-attendances at clinic in many instances and at the same time providing a good opportunity not only for reassuring the mother, but also for disseminating health education.

Future planning for expansion of services must, it would appear, provide for greater diversity of methods used e.g. the intra-uterine device.

(vi) Exfoliative Cytology

In addition to the ante-natal cytology service, since 1963 this Department has offered a cytology service to Durban women attending private practitioners. The former tests are submitted to State Health Laboratory in terms of Government Notice No. 514 of 1966. The latter, referred to as the Council Scheme, are examined and reported on by the Cytology Unit of the Natal Provincial Laboratory at Addington Hospital. The cost to the Department is R1.00 per patient but to the medical practitioner whether he be in general or specialist practice, and consequently the patient, there is no charge (i.e. for the cytology). The total number of exfoliative cytology examinations carried out under the Council scheme for the early detection of cancer, since the inception of this scheme in September 1962, appears hereunder :-

Year	Total Examinations	Repeat Examinations	Confirmed Malignancy
1963	2,614	34	12
1964	2,915	324	18
1965	3,807	590	25
1966	4,754	611	26
1967	5,199	630	22
1968	5,785	718	15
Total	25,074	2,907	118

The following table further analyses the 1968 totals with particular reference to race and age groups. The figures shown in brackets are the number of examinations repeated due to reports of abnormal, borderline or suspect malignant changes. The number of cases of proven malignancy detected by cytology and confirmed by histological examination are also reflected. It should

be recorded that the most tedious part of the procedures relating to this scheme is the problem of follow-up of cases. This presents difficulties of liaison and communication with medical practitioners, and final confirmation of cases may take many months.

Age Group in Years	Examinations, with repeat examinations in brackets					Confirmed malignancy	Total Examinations 1967	Confirmed malignancy 1967
	E	C	B	A	Total			
Under 30	1,560 (128)	33 (-)	6 (-)	118 (10)	1,717 (138)	2	1,565 (94)	1
30-39	1,583 (208)	39 (4)	9 (1)	129 (5)	1,760 (218)	3	1,552 (209)	4
40-49	1,261 (215)	19 (-)	1 (-)	81 (4)	1,362 (219)	4	1,214 (214)	10
50-59	530 (93)	4 (1)	2 (-)	20 (-)	556 (94)	4	504 (77)	3
Over 60	210 (21)	- (-)	- (-)	3 (-)	213 (21)	2	152 (22)	4
Not stated	170 (26)	- (-)	- (-)	7 (2)	177 (28)	-	212 (14)	-
Total	5,314 (691)	95 (5)	18 (1)	358 (21)	5,785 (718)	15	5,199 (630)	22

B. CHILD HEALTH

(i) Clinics

The child health clinics in the City, which are held at 35 venues throughout the Municipal area serve the various racial groups and were well attended during 1968. The primary function of the service is advisory and educational for mothers of babies from birth to school-age.

In some areas, halls were again hired for the purpose, and sessions held daily, weekly or fortnightly according to the needs of the area. Four purpose-designed clinics are now in operation, 1 for Europeans and Coloureds in the centre of the City, and 3 in Asiatic townships. These buildings were designed to accommodate Child Health and Tuberculosis services and since August, 1967 a Family Planning unit, and where possible all sections are operated on the same day. Such purpose-designed buildings are of course the ideal and other clinic venues adequate in size and situation remained a problem. Several inspections were

Weighing a Baby in a Child Health Clinic
(By Courtesy of Malcolm Lyle A.R.P.S.)

made to find more suitable premises both for additional clinics in areas further afield and where extreme congestion is being experienced.

In spite of these problems total attendances in 1968 increased to 472,740 as compared to 463,399 in 1967.

A noteworthy change effected during the year was that at Chatsworth Indian Township, Neighbourhood Unit 10, a further two sessions were commenced in June, 1968, making a total of 6 per week. No further clinic sessions or venues were introduced in other areas.

Details of sessions and attendances at all clinics are shown in the following tables :-

European clinics	Sessions	Attendances
Aliwal Street	48	2,823
Bellair	24	759
Cunningham Road	12	420
Durban North (2 venues)	50	2,065
Fynnlands	50	4,358
Greyville	51	4,724
Hillary	25	1,148
Mayville (Westridge)	51	2,612
Montclair	52	4,659
Morningside	52	3,187
Old Fort Place	114	2,102
Overport	50	3,518
Red Hill	21	1,525
Sea View	48	2,696
Virginia	52	1,971
Warwick Avenue	148	9,448
Wentworth	51	3,717
Woodlands	51	3,136
Total	950	54,868
Total 1967	958	51,427

Coloured clinics	Sessions	Attendances
Austerville	98	12,558
Mayville	91	6,679
Red Hill	28	4,465
Sparks Estate	201	15,129
Warwick Avenue	101	8,684
Wentworth Government Village	48	10,049
Total	567	57,564
Total 1967	540	59,947

Bantu clinics	Sessions	Attendances
Cato Manor	52	245
Chesterville	204	21,531
kwaMashu - Goodwin's Cottage	248	43,063
Rydalvale	398	60,878
Lamontville	428	28,572
Lancers Road	146	21,453
Total	1,476	175,742
Total 1967	1,441	174,587

Asiatic clinics	Sessions	Attendances
Asherville	97	9,488
Cato Manor	97	6,516
Chatsworth Unit 2	249	29,401
Chatsworth Unit 10	250	30,034
Clairwood	206	24,616
Lancers Road	255	42,342
Mayville	146	12,572
Merebank	248	25,536
Reservoir Hills	51	4,061
Total	1,599	184,566
Total 1967	1,478	177,438

The total number of clinic sessions and attendances were as follows :-

Details	E	C	B	A	Total	Total 1967
Clinic sessions	950	567	1,476	1,599	4,592	4,417
Clinic attendances	54,868	57,564	175,742	184,566	472,740	463,399
New cases	3,209	1,819	11,145	9,932	26,105	26,953
Cases seen by Doctor	3,475	3,657	5,574	5,641	18,347	11,901

The increase of 6,446 cases seen by the medical officers was probably due to the strict enforcement by the Provincial Hospitals of the 60 cent attendance fee, with the consequent presentation of ill infants at Council clinics. Although the child health service is primarily a preventive and promotive one, these sick children could not merely be turned away and the constant screening of such cases placed extra burden on both health visitor and medical officer.

(ii) Home Visiting

On receipt of the birth notification, all mothers except those confined by private practitioners were visited as soon as possible after discharge from hospital, or after termination of the midwives' attendance in the homes. Further home visits were made when considered necessary and covered a wide range of facets of child and family health, including feeding, nutrition and behaviour problems, family planning and immunisation defaulters, cases of physical illness or handicaps or mental ill health and routine follow-ups. Throughout all domiciliary visiting there was constant dissemination of health education.

A total of 277 visits were made to "protected" infants, foster children and cases of neglect at the request of the Durban Child Welfare Society.

Details of home visits conducted are as follows :-

Home Visits	E	C	B	A	Total	Total 1967
First visit	3,479	3,281	21,043	12,837	40,640	49,663
Re-visit	10,931	2,521	8,716	7,845	30,013	23,602
Total	14,410	5,802	29,759	20,682	70,653	73,265

(iii) State Subsidised Skim Milk Powder Scheme

The distribution of State subsidised dried skim milk powder at child health clinics for the prevention of kwashiorkor continued throughout the year, a total of 206,936 lbs being issued of which 12,473 lbs were issued free of charge, to indigent families.

Kwashiorkor

As kwashiorkor was de-proclaimed as a notifiable disease on 5th April, 1968, under the Public Health Act No. 36 of 1919, as amended, statistics of notifications were not officially maintained after this date but prior to that date 76 notifications were received, consisting of 1 Coloured, 73 Bantu and 2 Asiatic children. All cases were immediately visited and investigated and this led to the discovery of other cases in the family or of malnourished children needing clinic advice and health education. These visits, in turn, often led to regular clinic attendances, great improvement in physical condition and at the same time immunisation was effected.

Malnutrition

Deaths from malnutrition (including kwashiorkor)

under 5 years, are reflected below :-

Year	E	C	B	A	Total
1961	-	2	109	17	128
1962	-	2	102	8	112
1963	-	2	83	4	89
1964	-	1	78	7	86
1965	-	-	72	3	75
1966	-	1	27	3	31
1967	-	3	19	5	27
1968	-	-	52	3	55

Note - (a) Of the 52 Bantu deaths, 48 were due to kwashiorkor, whilst 2 of the 3 Asiatic deaths were from kwashiorkor.

(b) As deaths from this disease were no longer investigated the resultant increase in deaths during 1968 probably includes a number of ex-City and imported cases.

(iv) Creches, Play Centres and Places of Care

Numerous routine visits were paid to these premises throughout the year, and a satisfactory level of hygiene was maintained. Four new European places of care were recommended for registration and two further Bantu creches were registered in kwaMashu.

(v) Lectures and Demonstrations

Lectures and demonstrations on clinic procedure and the duties of Health Visitors were given to Bachelor of Social Science, Diploma of Nursing and B.Sc. (Nursing) students, Final General Nursing (European and non-European) and non-European Medical students.

(vi) Marriage Guidance Week - June,1968

The Health Visitors, in conjunction with the Health Education Section, participated in the activities of marriage guidance week manning a stall in a departmental store in the City. Posters, photographs, maps and pamphlets were on view as well as a daylight screen which continuously showed slides depicting the various aspects of the health visitor's work.

(vii) Care of the Aged and Infirm

The Health Visitors during their normal course of duty are frequently faced with problems of the aged, particularly when this is associated with physical and/or mental infirmity. However, they have little power or right to deal with them. By liaison with various agencies and

voluntary bodies these problems are usually solved but sometimes only after a considerable lapse of time, during which the individual may be suffering pain and ill-health, be a danger to himself or others and often in unsatisfactory environmental conditions. The latter may not constitute a contravention of the City of Durban By-laws or the Public Health Act but certainly the whole situation points to the lack of legislation which is required to cover such circumstances.

VII. IMMUNISATION

Adequate immunisation coverage of the population to prevent outbreaks of infectious disease remains one of the important functions of the Department. Facilities are provided free of charge at the Departmental child health clinics throughout the City for immunisation of susceptible members of the community against diphtheria, whooping cough and tetanus, poliomyelitis and vaccination against smallpox. Facilities are also available at the central immunisation clinic in this Department's building. Here too, food-handlers are inoculated against typhoid and paratyphoid fever.

B.C.G. vaccination in the control of tuberculosis is described elsewhere in this report.

Parents are reminded of immunisation by postcards despatched by this Department when infants reach the age of 3 months and are requested to take their children to the nearest clinic or private medical practitioner for the necessary immunisation.

Children of all races at nursery schools, places of care and primary schools are visited by the Department's school teams. The triple antigen diphtheria, whooping cough and tetanus is given to children under 3 years of age, while combined diphtheria and tetanus is administered to those over 3 and under 10 years of age. All such immunisation is effected only after checking records of past immunisation and with parental consent.

During the year frequent reports were received from the Education Department that many children over 9 years of age, especially immigrants, had received little or no immunisation. It was decided that such children, if over 10 years of age, would receive the diphtheria and tetanus antigens separately and for the former, adsorbed dissolved floccules followed by dissolved floccules were used to obviate the chance of reactions.

Schools immunisation programmes, presenting as they do the problems of mass immunisation have proved ideally suited to the use of the multi-dose jet injection instrument. The two hydraulically-operated machines were thus used extensively and almost exclusively in this field and continued to prove simple of operation and highly acceptable to the children.

Further immunisation was carried out in the field by two purpose-designed mobile immunisation vans operating mostly in outlying areas for the non-White races, where clinic facilities are limited. A house-to-house immunisation campaign in which assistance was given by the Health Education Section continued until September, 1968 in the Indian

township of Chatsworth. This systematic programme included the 22 primary schools and as a result a total of 79,328 oral poliomyelitis vaccine doses and 3,625 smallpox vaccinations were done in this area.

Vaccination against Smallpox

Vaccination against smallpox continued at all child health clinics, in the field, and at the request of many non-European school principals, for non-vaccinated children in schools. The latter arose when proof of vaccination against smallpox was more strictly enforced on school entry to non-White schools. The number of vaccinations carried out is reflected in the following table :-

Vaccinations	E	C	B	A	Total	Total 1967
Primary vaccinations	3,206	1,621	6,633	10,923	22,383	26,796
Re-vaccinations	167	81	51	1,038	1,337	3,078
Total	3,373	1,702	6,684	11,961	23,720	29,874

In addition to the above, 66,117 Bantu work-seekers were vaccinated against smallpox at the Bantu Administration Department, making a grand total of 89,837 vaccinations for the year. This figure does not include vaccinations performed in Durban by private medical practitioners, the Port Health Officer or the various categories vaccinated by District Surgeons.

Combined Diphtheria, Whooping Cough and Tetanus Immunisation

The triple antigen was administered to children from 3 months to 3 years of age, mainly at the departmental child health clinics but also at places of care and nursery schools. The details are summarised in the following table:-

Age Group	DWT Dose	E	C	B	A	Total
Under 1 year	1st	2,837	1,608	6,030	8,888	19,363
	2nd	2,703	1,489	4,209	7,995	16,396
	3rd	2,526	1,341	3,269	7,236	14,372
	Total	8,066	4,438	13,508	24,119	50,131
1 - 3 years	1st	155	61	1,438	879	2,533
	2nd	125	68	1,226	843	2,262
	3rd	173	96	1,138	966	2,373
	Booster	1,510	1,083	933	3,602	7,128
	Total	1,963	1,308	4,735	6,290	14,296
Grand Total		10,029	5,746	18,243	30,409	64,427

The total for 1967 was 61,283.

Combined Diphtheria and Tetanus Immunisation

Primary and infant schools and places of care were visited by the two school teams to immunise and give booster doses of vaccine against diphtheria and tetanus to children below the age of 10 years. The combined antigen was also administered in clinics. Details are summarised as follows :-

Age Group	DT Dose	E	C	B	A	Total
Under 1 year	1st	23	15	35	50	123
	2nd	14	4	27	54	99
	3rd	9	4	55	20	88
	Booster	-	-	-	-	-
	Total	46	23	117	124	310
1 - 6 years	1st	245	146	1,328	1,891	3,610
	2nd	190	98	772	1,555	2,615
	3rd	96	96	635	1,375	2,202
	Booster	1,508	1,289	877	3,513	7,187
	Total	2,039	1,629	3,612	8,334	15,614
School age	1st	497	377	1,364	3,301	5,539
	2nd	424	368	1,389	3,229	5,410
	3rd	335	419	1,107	3,871	5,732
	Booster	2,669	923	426	1,999	6,017
	Total	3,925	2,087	4,286	12,400	22,698
Grand Total		6,010	3,739	8,015	20,858	38,622

The total for 1967 was 36,667.

Tetanus Immunisation

Tetanus prophylactic vaccine was administered mainly to school children, as shown in the following table:-

Age Group	Dose	E	C	B	A	Total
1 - 6 years	1st	-	-	-	-	-
	2nd	-	-	-	-	-
	3rd	-	1	-	-	1
	Booster	1	-	-	-	1
	Total	1	1	-	-	2
School age	1st	194	131	604	766	1,695
	2nd	146	116	573	799	1,634
	3rd	108	212	454	1,082	1,856
	Booster	2,053	725	193	3,126	6,097
	Total	2,501	1,184	1,824	5,773	11,282
Adult	1st	23	-	11	-	34
	2nd	11	1	8	2	22
	3rd	8	-	24	12	44
	Booster	55	1	1	54	111
	Total	97	2	44	68	211
Grand Total		2,599	1,187	1,868	5,841	11,495

The total for 1967 was 14,516.

Immunisation against Poliomyelitis

Full details are given below :-

Age Group	Dose	E	C	B	A	Total
Under 1 year	1st	3,561	1,642	6,838	9,038	21,079
	2nd	3,241	1,475	4,152	7,959	16,827
	3rd	3,060	1,314	3,132	7,091	14,597
	Total	9,862	4,431	14,122	24,088	52,503
1 - 4 years	1st	433	256	4,737	3,229	8,655
	2nd	352	246	2,872	4,156	7,626
	3rd	464	262	2,512	4,547	7,785
	Total	1,249	764	10,121	11,932	24,066
5 - 9 years	1st	439	171	1,246	7,305	9,161
	2nd	369	141	649	7,671	8,830
	3rd	388	172	503	6,250	7,313
	Total	1,196	484	2,398	21,226	25,304
10 - 19 years	1st	256	141	28	11,167	11,592
	2nd	146	96	6	13,508	13,756
	3rd	160	87	8	10,988	11,243
	Total	562	324	42	35,663	36,591
Over 19 years	1st	673	107	1,246	3,509	5,535
	2nd	404	141	42	5,181	5,768
	3rd	404	117	13	5,675	6,209
	Total	1,481	365	1,301	14,365	17,512
Grand Total		14,350	6,368	27,984	107,274	155,976

The total for 1967 was 152,330.

The total doses administered to the 10 - 19 year Asiatic group was high and was due to the intensive immunisation programmes in all the Chatsworth Indian Township schools.

Typhoid Control in Food-Handlers

Clinics were held twice weekly throughout the year for Vi-tests to be performed on selected food-handlers and for the administration of typhoid, paratyphoid A and B vaccine, details of which are shown in the following tables :-

Vi-tests	E	C	B	A	Total	Total 1967
Stool samples	17	-	713	11	741	960

No positive results were recorded.

TAB Vaccine	E	C	B	A	Total	Total 1967
1st dose	68	-	670	22	760	1,015
2nd dose	28	-	556	17	601	794
3rd dose	6	-	-	-	6	-
Booster dose	14	-	644	15	673	253
Total	116	-	1,870	54	2,040	2,062

VIII. HEALTH EDUCATION

INTRODUCTION

It is now widely accepted that virtually all officials in a health department participate in furthering preventive and promotive work, although to varying degrees, in the overall network of health education. In this way the broad spectrum of a variety of accumulated knowledge and experience of a multiplicity of persons is used to the benefit of the community.

In addition the health education section continued its routine daily programmes throughout the year, amongst all race groups of the community. The methods used varied with the occasion and included films and talks, talks from the mobile health education unit, group talks and house-to-house visiting. In group talks visual aids were utilised. These included models, charts, slides or 16 m.m. films. It is apparent that as the non-White race groups become more sophisticated, films become more appreciated and although when used on their own may not always be completely understood, used as a visual aid, in conjunction with a talk and discussion on the particular subject, they are a most effective method and always attract non-White audiences. Doubtless, in this era of the silver screen these communities expect to see health films, thus emphasizing two important problems, (i) the lack of suitable 16 m.m. health films or film strips in the Republic and (ii) the difficulty in finding suitable venues which can be adequately darkened for daylight presentation. The latter difficulty was often resolved in this Department by the use of a daylight screen. The former problem remained despite extensive use being made of films drawn from film libraries of various organisations, only 2 films were added to the Departmental library of films, due mainly to the lack of preview facilities of overseas productions before purchase. This was unfortunate as 16 m.m. films are probably the most successful visual aids which can be used in health education.

In contrast to the appeal and popularity of films among the non-European races it proved extremely difficult to organise European groups during the daylight hours, especially to attend at this Department's auditorium. The idea of a morning's health programme appeared to represent to many a dreary picture of dullness, the doubt seemed to linger on "What can I learn from health films?" with probably the underlying thought that "I know all about it already". To attract such audiences requires considerable publicity, the film must be both good and with the utmost impact and be supported by competent comments, discussion or practical demonstration under the guidance of an able health educator.

Fortunately the non-European races are extremely keen on health education in general and arrangements caused only small problems; a gratifying fact, as these are the groups with the greatest need of such services. In fact, difficulty was experienced in finding ready-made groups only in the Asiatic community. In this sector there has been a resistance to holding meetings and to forming "groups" for group talks and discussion. This applies more specifically to the women during the day, as evening shows to man and wife have been most successful, especially on the subject of family planning. In spite of difficulties the principle of group discussion was pursued, venues have been found and further effort given to encouraging this type of approach for the future.

During the past year female lecturers joined the Section and are proving to be a worthwhile acquisition. To the previous all male staff of 18 (1 European Health Educator, 1 European Technician, 2 European General Assistants, 1 Coloured Lecturer, 7 Bantu Lecturers and 6 Asiatic Lecturers) were added 1 European Health Visitor, 1 Asiatic Female Lecturer and 1 Bantu Female Lecturer.

The work performed among the various racial groups during the year was as follows :-

WHITE COMMUNITY

Programmes for the public with 16 m.m. film, talks and discussions were held at various venues throughout the City and also in the auditorium. Nor was the staff of this Department ignored and groups of staff viewed films on matters of public health interest on a number of occasions during the year.

(a) European Schools

Seven visits were made to 6 schools, which included the Open Air School. Various subjects were covered and included 16 m.m. films and talks on The Human Body, Bilharzia, Disease, Smoking, Care of Teeth, Nutrition, Safety in the Home, General and Personal Hygiene, and Problems of Growing Up.

In addition, the Durban Teacher's Training College was shown the film on Bilharzia, followed by discussion, which is the policy adopted for all film presentations.

(b) Departmental Auditorium

(i) Women's Groups

Two church groups and one Institute group attended film programmes, which were followed by discussion. The topics and number of presentations are set out overleaf.

Film Subject	Number of Presentations
Food and Malnutrition	2
Food Poisoning	1
Food Preservation	1
Mystery in the Kitchen (Nutrition)	3
Quick Freeze (Foods)	1
Total	8

(ii) South African Railways and Harbours Apprentices

A programme covering the subjects of Alcoholism, Smoking, Bilharzia, Tuberculosis, Rabies, Venereal Disease, and Road Safety, was presented to a group of 223 first year apprentices of the South African Railways and Harbours, again followed by a lively period of questions and answers.

(iii) Social Clubs

Members of four social clubs viewed, on eight occasions, different films covering the subjects of Smoking, Rabies, Food and Nutrition, and Dental Caries.

(iv) Other Groups

Members of the Institute of Water Pollution Control used the auditorium on three occasions for lectures, supported by slides and films on the subjects of River Pollution, Reclamation of Waste Waters, and The Functioning and Efficiency of Maturation Ponds in Sewage Disposal. On each occasion interested members of the staff also attended.

Members of the Mental Health Society and other interested members of the public attended an evening of films covering the subject of mental stresses and strains and the problem of the population explosion.

Twenty-five boys with their camp leader from the Rotary Boys Camp spent an afternoon in the Department, and were welcomed by the City Medical Officer of Health. Films on Bilharzia and Smoking were shown, and talks and demonstrations given embracing the subjects of Milk and Milk Laboratory Techniques, Housing and Plans Examination, Child Health Care and Immunisation Clinics, Mobile X-Ray Services, Insect Pest Control, Food Hygiene and Dairy Control, and Health Education. A panel of experts was available at question time, which proved to be quite a lively occasion.

The Deputy City Medical Officer of Health addressed a women's group on the activities of the Department, the talk being supported by coloured slides.

(c) Other Venues

One visit was made to a meeting of a rate-payers' group, when members were presented with films on Bilharzia and The Housefly; the films were supported by a short talk and discussion.

Four visits were made to women's Church, Guild and Institute Groups at which the following films were shown :-

Film Subject	Number of Presentations
Bilharzia	1
Food and Malnutrition	1
Food Poisoning	2
Food Preservation	1
Mystery in the Kitchen (Nutrition)	2
Rabies	1
Smoking	1
Total	9

A mixed church group was presented with films on Smoking and Alcoholism.

Two factories were visited during the lunch hour shift period. At one, films on Tuberculosis, Bilharzia, and Rabies were shown on two occasions whilst at the other, three visits were made and the subject of tuberculosis covered.

The films on Smoking and Alcoholism were shown to the inmates of the Lulama Rehabilitation Treatment Centre.

(d) Family Week

The section co-operated with the Marriage Guidance Council in the projection of films during Family Week. The films dealt with Child and Family Health, Mental Health, Marriage Conflicts and Socio-family Problems and were shown at the Centenary Hall, Little Theatre, a city departmental store theatre and the Museum Projection Room.

COLOURED COMMUNITY

Unfortunately the position of Coloured Lecturer was filled for only four months of the year; however, during this period it was possible to carry out quite a reasonable amount of health education amongst this group.

(a) Coloured Schools

Nine schools were visited on several occasions to reach all pupils. The film subjects covered and the number of presentations were as follows :-

Film Subject	Number of Presentations
Bilharzia	23
General Cleanliness	22
Nutrition	1
Rabies	1
Smoking	1
The Louse	22
Total	70

(b) Adult Groups

(i) Groups of housewives in the Austerville-Wentworth complex were visited on three occasions, at each of which talks and films on Malnutrition, Insect Pests, General Cleanliness, The Louse, and Bilharzia were presented.

(ii) A clothing factory in the City employing Coloured males was visited during the lunch break, where two talks were given on the subject of scabies, which at that time was a rather serious problem.

(c) Domiciliary Visits

The Lecturer supported the mobile van carrying out the poliomyelitis immunisation campaign, and also gave talks on subjects which appeared to be the most needed. The subject of scabies was linked with that of general hygiene; the need for general immunisation of the children at the baby clinics was stressed, whilst talks on Family Planning and Nutrition were always of value.

The visits are summarised as follows :-

Area	Subject					Total
	Family Planning	General Hygiene	General Immunisation	Nutrition	Poliomyelitis	
Ack-Ack Housing	-	23	21	-	-	44
Austerville	54	-	38	-	-	92
Avoca	-	-	-	-	79	79
Bayhead	-	-	43	-	-	43
Clare Estate	-	23	46	-	37	106
Greenwood Park	-	-	27	-	42	69
Kenville	-	-	18	-	55	73
Mayville	-	27	34	-	-	61
Puntan's Hill	-	18	-	-	-	18
Red Hill	-	-	-	-	122	122
Sea View	-	-	27	-	-	27
Sparks Estate	26	51	81	121	157	436
Sydenham	-	56	-	-	-	56
Total	80	198	335	121	492	1,226

BANTU COMMUNITY

(a) Film Shows

Sixteen m.m. films were used wherever possible as visual aids in support of lectures at schools, factories and other venues. All classes at the Bantu schools visited were presented with a programme which was termed General Hygiene. This covered Personal and Environmental Hygiene, Clean Food-Handling and Food Utensils Hygiene; the subject of Scabies was also mentioned, although this complaint was not found to be common amongst this race group. The talk was always supported by the film entitled Cleanliness Brings Health. Other subjects which were covered and supported by films included Tuberculosis, Bilharzia, Family Planning, and Food Hygiene. In all cases a "live" commentary in Zulu was given by the Lecturer.

The programmes presented in this way were as follows :-

(i) Schools

Area	Number Visited	Number of Presentations	Film Subject
Chesterville	4	14	General Hygiene
kwaMashu	25	131	-do-
Lamontville	6	15	-do-
Stormville	1	2	-do-
Chesterville	4	14	Tuberculosis
kwaMashu	8	23	-do-
Lamontville	6	15	-do-
Stormville	1	2	-do-
Chesterville	1	4	Bilharzia
Total	56	220	

(ii) Factories

Number Visited	Number of Presentations	Film Subject
1	7	Food Hygiene
2	2	Family Planning
5	6	Tuberculosis
8	15	Total

(iii) Other Venues

Venue	Number of Visits	Number of Presentations	Film Subject
kwaMashu - Church Group	1	1	Family Planning
Lamontville - Church Group	1	1	-do-
Lamontville Old Age Home	1	1	What is Disease?, and The Louse
S.J. Smith Hostel	1	1	Nutrition
S.J. Smith Hostel	2	2	Tuberculosis
Total	6	6	

(b) Talks from Loudspeaker Van

Talks from the loudspeaker van are always popular in the housing schemes and hostels, and invariably draw a large audience, some of whom may have been quite some distance away. To many it appears to be quite enjoyable to

sit in the doorway or garden and listen to health education floating over the hills and dales - apparently one can even prepare dinner at the same time! The loudspeaker van also proved an extremely useful media for addressing the large labour forces at factories. The subjects covered included one entitled Vaccination and Immunisation, which was directed at the parents and emphasized the importance of clinic attendance to prevent disease and safeguard the child's health. Talks given are summarised hereunder :-

Area	Subject						Total
	Bilharzia	Gastro-enteritis	General Personal Hygiene	Nutrition	Tuberculosis	Vaccination and Immunisation	
Chesterville	8	12	-	-	11	266	297
Factories	-	-	-	-	-	41	41
Glebelands	-	-	-	5	6	7	18
Hostels	-	-	-	5	9	-	14
kwaMashu	95	-	-	108	39	610	852
Lamontville	83	17	3	10	121	215	449
Total	186	29	3	128	186	1,139	1,671

(c) Group Talks

Small groups of people were gathered together by individual lecturers using portable hailers. Having formed the group the lecturer was then able to give health talks in a conversational manner, which proved most effective. This year when the all male staff was joined by a female lecturer she proved to be a great asset to the section; her duties include the health education of both the school child (especially girls) and group talks to mothers. She also visited on a house-to-house basis where she has become very welcome. Amongst the subjects covered in this way are noted the subject of Child Care, which is a general talk covering cleanliness in child handling and feeding, correct feeding, clinic attendance, personal and general hygiene and where it appears necessary the subject of family planning is introduced. Consequently although family planning is not shown as a separate subject, it is being disseminated amongst the Bantu quietly and efficiently and included under the heading Child Care. For one hour each morning a lecturer also addressed those attending at the Durban Chest Clinic, the subject naturally being Tuberculosis. Another is stationed at the Bantu Administration Department daily to address new arrivals into the

City who are seeking work, whilst those attending at the kwaMashu Venereal Disease Clinic were also given lectures and personal advice.

Details of group talks given are subjoined :-

Area	Subject									Total
	Bilharzia	Child Care	Food Handling Hygiene	Gastro-enteritis	General Personal Hygiene	Nutrition	Tuberculosis	Vaccination and Immunisation	Venereal Disease	
Bantu Administration	416	-	62	-	52	34	984	738	2,376	4,662
Chesterville	54	20	-	317	-	125	487	644	-	1,647
Domestic Servants	-	10	-	-	-	-	-	-	35	45
Durban Chest Clinic	-	-	-	-	-	-	194	-	-	194
Eating Houses and Beerhalls	-	-	-	-	-	255	13	26	99	393
Factories and Work Places	-	10	11	-	2	40	13	74	34	184
Glebelands	-	10	10	-	-	47	196	31	-	294
Hostels	-	67	13	37	23	466	324	-	366	1,296
kwaMashu	630	113	88	-	-	147	320	985	446	2,729
kwaMashu V.D. Clinic	-	-	-	-	-	-	-	-	317	317
Lamontville	323	44	-	167	6	199	980	1,198	-	2,917
Total	1,423	274	184	521	83	1,313	3,511	3,696	3,673	14,678

(d) Domiciliary Visits

House-to-house visiting by lecturers remained a very important method of 'selling' Health, especially where the personal approach was required. It will be noted that the majority of visits were made in connection with poliomyelitis which is necessary when supporting the mobile immunisation van.

The visits are summarised hereunder :-

Area	Subject										Total
	Bilharzia	Child care	Food Hand-ling Hygiene	Gastro-enteritis	Nutrition	Poliomyelitis	Tuberculosis	Vaccination and Immunisation	Venereal Disease		
Chesterville	-	10	-	53	43	251	457	-	-		814
Glebelands	-	5	-	10	-	59	72	-	80		226
kwaMashu	252	223	57	-	101	10,322	522	944	351		12,772
Lamontville	-	46	-	79	88	394	570	-	-		1,177
Total	252	284	57	142	232	11,026	1621	944	431		14,989

(e) Special Groups

Two lecturers were invited to speak at the seminar of the National Development and Management Foundation of South Africa on two occasions. The subject presented was Nutrition and was supported by coloured slides.

INDIAN COMMUNITY

Work amongst this race group was vigorously pursued throughout the year with the noticeable overall difference that group talks were not so easily organised as with the Bantu. One of the reasons for this is that venues are at a premium; however, when suitable venues were found, there appeared to be a reluctance during daylight hours for members of this community to attend; groups could not easily be formed in the streets, nor was much interest roused by talks from the loudspeaker van. Consequently the majority of the work was done by house-to-house visiting. This group appears to be most apathetic and difficult to reach, although occasional evening film shows in Chatsworth were well attended when both sexes were present. The solution to reaching this community will receive further attention in the coming year.

Another problem encountered which is now also as prevalent in the new housing schemes as in the older areas is that of scabies. The reasons for this appear to lie in many factors of which overcrowding, lack of personal and general hygiene, lack of a permanent hot water supply, and apathetic attitude of sufferers to curative treatment appear to be foremost.

Accordingly, as will be seen from the statistics the subject of Scabies in conjunction with General Cleanliness were very actively pursued. In addition to these subjects and where necessary, the problem of Nits and Lice which is also fairly prevalent also received attention.

(a) Film Shows

Films were presented at schools and factories, all films being followed by talks. In addition, one church in Merebank and two in Chatsworth were used for six evening shows at which parents were invited and a guest speaker presided. These proved most successful, the attendance varying from 100 - 350.

Details of films shows are as follows :-

(i) Schools

Number visited	Number of Presentations	Film Subject
18	46	Bilharzia
1	3	Body Defences against Disease
16	35	Cleanliness
9	21	Insect Carriers of Disease
1	4	Rabies
12	28	The Louse
57	137	Total

(ii) Factories

Number visited	Number of Presentations	Film Subject
1	2	Bilharzia
5	6	Family Planning
1	7	Food-Handling Hygiene
2	2	Nutrition
2	3	Tuberculosis
11	20	Total

(iii) Mixed Groups at Churches

Area	Number Visited	Number of Presentations	Film Subject
Chatsworth	5	5	Family Planning
Merebank	1	1	- do -
Total	6	6	

(b) Talks from Loudspeaker Van

These were mainly confined to talks on the importance of vaccination and immunisation and attendance of the pre-school child at clinic, and directed to the parents. Two hundred and twelve talks were given on this subject, whilst 13 were given on the subject of scabies.

(c) Group Talks

When the all male lecturing staff were joined by a female lecturer during the latter part of the year the innovation proved most helpful in dealing with the mothers on the subject of Family Planning and Child Care.

The group work is summarised as follows :-

Area	Subject									Total
	Bilharzia	Family Planning	Food-Handling Hygiene	General Cleanliness and Scabies	Immunisation	Nutrition	Tuberculosis	Venereal Disease		
Avoca	-	11	-	-	-	-	-	-		11
Beach Front Cafes and Restaurants	-	-	78	-	-	-	-	-		78
Central Flats	-	-	-	-	-	-	2	8		10
Chatsworth	-	78	-	381	-	16	33	-		508
Clairwood	-	78	-	126	-	-	5	-		209
Factories	4	25	-	14	1	4	4	2		54
Greenwood Park	-	1	-	3	-	-	-	-		4
Mayville	-	4	-	-	-	-	-	-		4
Merebank	-	38	-	79	-	-	5	-		122
Sea Cow Lake	-	18	-	-	18	13	-	-		49
Sydenham	-	31	-	-	-	8	13	-		52
Total	4	284	78	603	19	41	62	10		1,101

(d) Domiciliary Visits

These constituted the major part of the programme, 25,605 house-to-house visits being made in support of the mobile poliomyelitis immunisation campaign, 8,794 visits were made during the immunisation survey, whilst 480 houses were visited in the Greenwood Park, Red Hill, Avoca and Mayville areas on a survey to ascertain the percentage of births not officially registered. The remainder of house visiting is reflected as follows :-

Area	Subject								
	Bilharzia	Child Care	Family Planning	General Cleanliness and Scabies	Immunisation	Nits and Lice	Tuberculosis	Total
Bayside	-	-	20	89	-	-	-	109
Cato Manor Housing Scheme	-	-	-	-	17	-	-	17
Central Flats	-	-	-	-	484	-	-	484
Chatsworth	-	80	155	3,894	-	1,328	-	5,457
Clairwood	-	21	21	645	27	116	10	840
Congella	-	-	-	34	-	12	-	46
Mayville	64	-	-	117	209	-	-	390
Merebank	-	26	22	532	90	94	-	764
Overport	-	18	-	252	21	75	-	366
Sea Cow Lake	-	-	-	153	-	51	-	204
Springfield	-	13	29	499	-	135	-	676
Sydenham	-	-	-	18	234	-	-	252
Total	64	158	247	6,233	1,082	1,811	10	9,605

(e) General

(i) An Indian Trade Cavalcade was established in Chatsworth and the Section was allocated a tent for the purpose of showing health films. During the four days 37 presentations were made to all age groups.

(ii) The non-European medical students from the Medical School spent an afternoon at the Department where talks and demonstrations on pests and vermin were given and the film entitled The Rat Problem was shown. The Milk Laboratory was also visited.

(iii) Senior student nurses at King Edward VIII Hospital were shown films on The Art of Successful Instruction and hygienic production and handling of milk.

IX. HEALTH INSPECTION

STAFF

The complement underwent a slight change during the year through the creation of a post of Senior Health Inspector to replace a Health Inspector (European) previously employed in the Chatsworth Indian Township, and approval was given for the appointment of 4 additional Health Inspectors (Indian).

The establishment of learner health inspectors, officially designated Health Assistants, was increased from 12 to 16 posts.

COMPLAINTS

The Department received 3,579 complaints during the year, which are summarised as follows :-

Animal Keeping	7	Offensive Smells	215
Bugs	34	Poultry Keeping	60
Cockroaches	45	Refuse - Dumping	187
Conservancy Services	3	Removals	27
Drainage -		Rodents	382
Appurtenances	27	Sanitary Accommodation	39
Defects	354	Shacks - (illegal)	2
Fleas	12	Smoke/Air Pollution	9
Flies	203	Structural Defects	128
Food -		Uncleanliness of	
Unhygienic Handling	31	Premises	421
Unsound	37	Vacant Land	555
Housing - Illegal	23	Ventilation/Lighting	2
Overcrowding	21		
Miscellaneous	72		
Mosquitoes	683		

All of these complaints were promptly investigated and appropriate action taken where necessary.

INSPECTIONS

A summary of visits carried out by the Health Inspectorate and ancillary personnel is set out hereunder :-

Food-handling Premises		Other Premises	
Bakeries	532	Barracks/Compounds	596
Boarding Houses	1,973	Dwellings	101,706
Butcheries	4,842	General Dealers	10,102
Dairies (mainly ex-City)/ Depots	3,466	Hairdressers	983
Food Manufactories	1,018	Laundries/Dry-cleaners and Depots	1,028
General/Fresh Produce Dealers	19,503	Lodging Houses/Flats	14,072
		Offensive Trades	789

Food-handling Premises (Contd.)		Other Premises (Contd.)	
Hotels (Liquor licensed)	1,821	Sundry - Trading	14,851
Milk Bars	181	Non-trading	36,948
Offensive Trades	82		
Restaurants/Eating Houses	7,917		
Tea Rooms	1,282		
Sundry	3,703		

Total number of inspections: 227,395

There has been a substantial increase in the number of inspections compared with last year (159,710) and the reason can be found in the appointment of additional Indian and Bantu health inspectional staff for service in the non-European townships.

Arising from these inspections the following action was taken :-

Personal notices issued at time of inspection	15,940
Written notices	2,845
Letters	1,747
Prosecutions (Counts)	198

LICENSING

(a) Trade Licence Applications

Reports on public health implications were submitted to the City Licensing Officer respecting various applications lodged with the licensing authority. The new applications received and reported upon in the year totalled 2,909.

(b) Bantu Housing

In view of the progress made towards the rehousing of the Bantu in the local townships and locations the number of applications to house non-domestics was reduced to an insignificant level, only 8 being forwarded by the Director of Bantu Administration in terms of the Regulations under the Bantu (Urban Areas) Consolidation Act No. 25 of 1945, for comment on the public health circumstances.

(c) Animal Keepers

Twenty-eight annual permits were renewed for the current year and 2 new permits were issued. The total number of animals authorised to be kept within the City were:

570 Horses; 11 Bovines; 4 Sheep; 3 Goats;
270 Dogs (in kennels - kept for reward).

(d) Mattress Makers/Upholsterers

In terms of the regulations under the Public Health Act, 36 annual certificates were issued to mattress-makers and upholsterers, 7 being in respect of new applications.

With regard to the regulations, the Minister of Health published his intention to replace the existing code with new regulations regarding "Mattress-Makers, Pillow and Cushion Manufacturers, Quilted Bedding Manufacturers and Upholsterers". The draft regulations were published under Government Notice No. 1736 dated 27th September, 1968 and the City Council on 18th November, 1968 approved the proposed regulations being applied to its area of jurisdiction in terms of Section 138 of the Public Health Act, 1919.

OFFENSIVE TRADES

(a) Sulphur Dioxide Survey

The monitoring programme continued during the year but the only apparatus available was the 24-hour samplers as difficulty was experienced over the acquisition of the automatic recorders. Data evaluated to date does not point to any evidence of undue SO_2 pollution but the ad hoc liaison committee will continue consideration of the implications. Meanwhile, users of sulphur-fuel oil in the area have had limitations placed on their daily output tonnage of sulphur dioxide which restrictions will be reviewed as and when production expansion takes place.

(b) Schedule of Trades

Tabulated hereunder are the offensive trades (144) listed at the year end :-

Trades	New Registrations 1968	Existing (Registered prior to 1968)	
		Fixed periods	Indefinite Permission
Animal Organic Matter	-	-	4
Asbestos Works	1	1	2
Bones, Horns and Hooves	-	1	4
Brewery	-	1	-
Candle Works	-	-	1
Cement Works	2	5	7
Chemical Works	4	1	16
Distillery	-	-	3
Dye Works	-	-	1
Fertilizer Works	1	-	4
Gut Scraping Works	-	-	1

Trades	New Registrations 1968	Existing (Registered prior to 1968)	
		Fixed Periods	Indefinite Permission
Hides and Skins	-	4	12
Lead Smelting Works	2	-	3
Metallurgical Works	-	3	6
Oil Refining, Processing Products	2	2	8
Paint Works	1	4	10
Paper Mills	-	-	1
Products of Petroleum	-	9	1
Reduction Works	-	-	1
Soap Works	-	2	6
Sugar Refining	-	-	1
Tallow Melting Works	-	-	1
Woolwashery	-	1	2
Whaling Factory	-	-	1
Whaling Materials	-	1	-
Total	13	35	96

ENVIRONMENTAL SANITATION

(a) Sewer Surcharges

The position in regard to the overloaded state of Durban's sewerage remains unchanged but when the major works presently under construction are completed the public health problems should be alleviated. Meanwhile it is unfortunate but inevitable that surcharges will take place and during the year this Department investigated 32 such occurrences; the majority of these complaints emanated from the Mayville area. Remedial measures by the City Engineer's Department were instituted as soon as possible, in most cases before public health nuisances arose.

(b) Circus Site

Over the years several different sites have been used for the accommodation of visiting circuses, the last venue being Municipal land at the intersection of Brickhill and Old Fort Roads. Every time a circus came to town the Department had to contend with a variety of complaints ranging from the lack of refuse removal, unsuitable drainage associated with the stabling of animals, through poor sanitary accommodation to general untidiness. For a long time the Department had pressed for the setting aside of a permanent position where adequate provision could be made for

water-borne sanitation, water supply and drainage. This aim was realised by the setting aside of adequate land in Jelf Taylor Road which is well removed from residential accommodation, parking is available and there is no traffic hazard. From the public health viewpoint the basic sanitation now provided is satisfactory, comprising a permanent water supply and drainage, together with a sewer connection, as well as a concrete apron for the washing down of elephants and other animals. An ingenious engineering innovation has been the laying of a permanent sewer on site with a temporary connection for toilets, separate for the races and sexes, including a concrete slab floor foundation. The superstructure, with the sanitary fittings and water connections, are removed by the City Engineer's Department after each occasion of use. These arrangements represented a vast advance over erstwhile conditions and eliminated a source of complaint. None the less there are a few minor improvements which need to be effected in due course.

(c) Illegal Camping

Being the Republic's premier tourist resort it is perhaps inevitable that during holiday periods when hotel accommodation and the limited caravan park facilities are fully booked certain caravanners and campers arrive unexpectedly at the coast, sometimes with livestock and servants, and attempt to establish themselves on various town lands adjoining the beach or on official car parking lots. This illegal and haphazard camping usually takes place where sanitary accommodation, ablution facilities, water supply and other amenities are absent. Firm action has, of necessity, to be taken by the Department in collaboration with the police authorities to move these people on before the situation gets out of hand and public health nuisances abound.

(d) Incorporated Area - Reservoir Hills

With a view to regularizing the common boundary with the Borough of Westville an exchange of territory was effected and the net gain to Durban amounted to some 335 acres. The area incorporated is sparsely populated, having some 75 dwellings in all, of which 60 are of inferior wood and iron construction. A water supply is available but no other municipal services; consequently pit privies are in use and refuse is being burnt or buried in situ. The City Engineer has been requested to service this area.

(e) Anti-Tetanus Precautions

An interesting exercise was the consideration which had to be given to the precautions which should be taken in the case of a long-established riding school which had been acquired by the City Council for use as a children's play lot. The Department was consulted and naturally there was concern at the public health implications of this change of use. Partly due to topographical features

the requirements entailed the complete removal of 4 feet of soil and replacement with clean soil or, alternatively, the covering of the entire site with quicklime to a depth of ½ inch followed by 3 feet of clean top soil. In either event there was work and cost involved but these precautions were considered desirable because of the possible danger in the future from tetanus spores.

(f) Pantechnicon Site

This Department has for years been plagued by complaints of illegal overnight parking of long-haulage pantechnicons and similar vehicles whose drivers had a proclivity for taking up a stand on any vacant municipal site, preferably near the beach. The personnel naturally had to care for themselves and to set up camp they lit fires, misused the immediate vicinity and left the area in an untidy state. Following departmental representations approval was ultimately given for the setting aside of a site in Somtseu Road to be put out to public tender as a private venture. Unfortunately, the arrangement has not met with great success so far due to several factors which include the delay on the part of the lessee in getting started and the lack of legislation empowering the police authorities to compel transporters to use this site.

FOOD HYGIENE

(a) Food Inspection

In terms of the Regulations relating to Food Inspection framed under the Public Health Act, large quantities of food were inspected and seized by the Health Inspectorate or voluntarily surrendered by the owners at the City Markets and other wholesale and retail premises in the City. The quantities involved were considerable as the following details indicate :-

City Markets

3,666 bags and pockets	Greenbeans, cabbages, peas, carrots, chillies, cucumbers, cauliflowers, potatoes.
859 trays	Peaches, apricots, plums, tomatoes and gooseberries.
1,127 boxes	Marrows, sponspek, bringals, green-peppers, onions, rhubarb.
613 portions/items	Dressed fowls, turkeys, ducks and rock pigeons.

Other Traders

42,078 tins/jars	Fish, meat, jam, soup, etc.
13,649 lbs	Cooked meats, frozen and salted fish, poultry, meal, coffee beans, chicory, salt, frozen vegetables, dried milk, offal and yeast.

Other Traders (Contd.)

1,442 packets	Frozen fish and vegetables, whale steak, chicken portions and marshmallows.
	Quantities of oysters, meat pies, bread and ice cream cones.

In all cases, other than voluntary surrender, destruction was authorised by a medical officer of health.

(b) Food Sampling

In accordance with routine procedure under the Food, Drugs and Disinfectants Act, 1929, samples of food totalling 693 during the year were submitted for analysis either by the State Chemical Laboratories in Pretoria or the City Analyst in Durban. A wide range of commodities was sampled, including the following :-

Boerewors	64	Minced meat	117
Chilli powder	4	Orange juice/squash	4
Chutney	7	Sauces	10
Coffee/Chicory	7	Sausages	101
Cooking Oil/Fats	16	Baking powder	3
Cream	36	Margarine	3
Honey	36	Processed meats	15
Ice Cream	72	Mustard Oil	2
Milk	160	Vinegar	3

Of the aforesaid samples 26 were found to be unsatisfactory, namely :-

Boerewors	4	Sausages	6
Cooking Oil	1	Baking Powder	1
Honey	2	Chilli Powder	3
Ice Cream	1	Vinegar	2
Minced Meat	6		

Where legal proceedings were instituted, fines to the sum of R455 accrued.

(c) Food Poisoning

During the year six occurrences of food poisoning were reported, of which three deserve further comment. The first occurred in August and involved 7 Bantu at a local factory where the source of poisoning was probably cooked samp and beans left in sleeping apartments and contaminated by rodents. Measures were immediately adopted for rodent destruction and proofing of the premises as well as for the introduction of improved food hygiene.

In October, 32 nurses at a local hospital took ill after eating meat pies. Regrettably these cases were reported some 48 hours after the event consequently samples of the pies were unobtainable for analysis. Examination of stools of patients and kitchen staff were negative. Although the cause of this outbreak could not be established, close attention was given to production methods and food handling procedures at the bakery which had supplied the pies.

In the same month 6 cases of food poisoning were reported following the consumption of cream cakes obtained from a local bakery. In this instance a sample of the suspect food was available and bacteriological examination confirmed the presence of S. typhimurium. Stool tests of the non-European staff employed by the bakery demonstrated the presence of the same organism in three of the four persons involved. The personnel at risk were immediately excluded from handling food pending full medical attention.

In all cases the patients recovered.

(d) Bacterial Checks

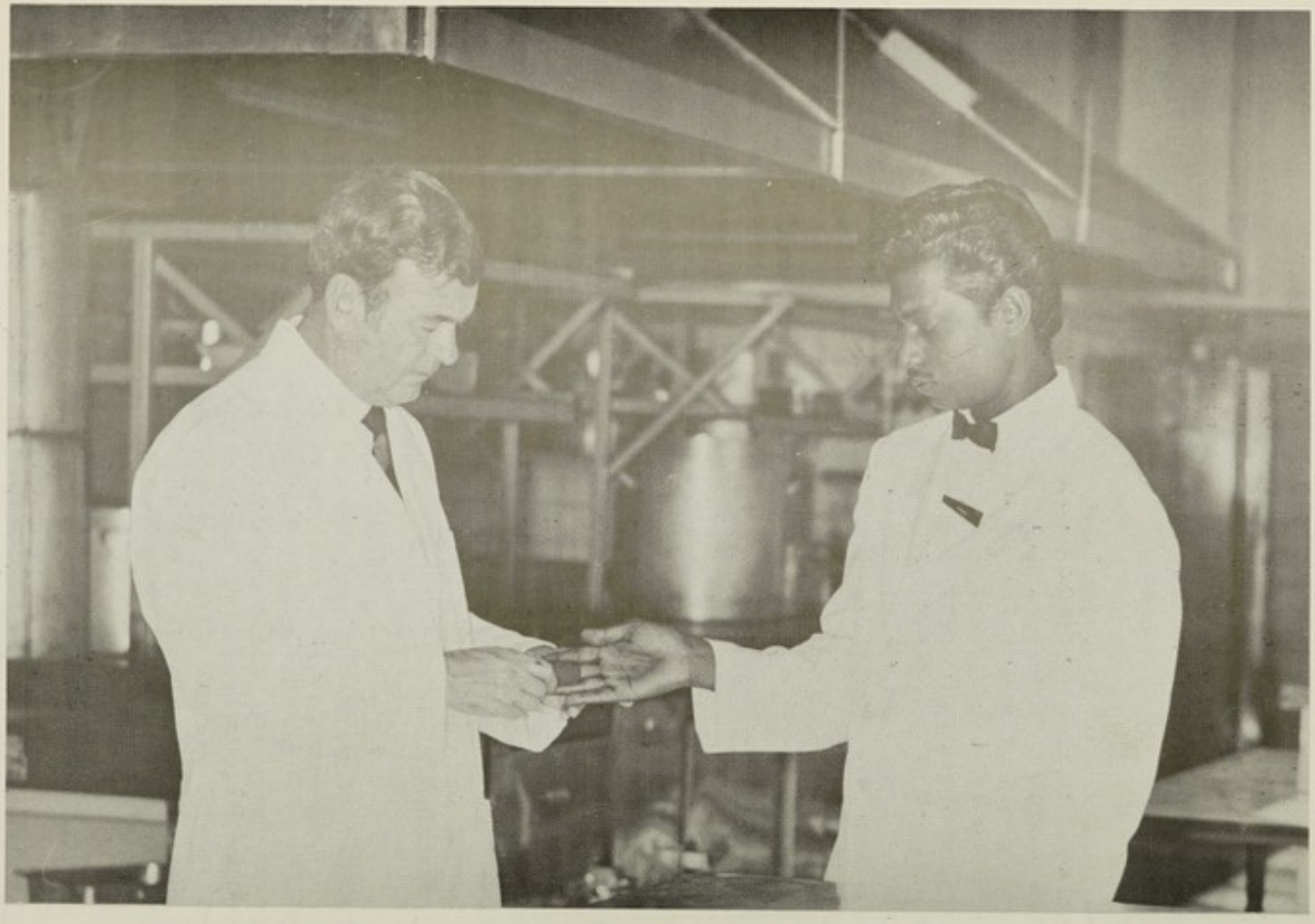
From time to time perishable prepared foods such as pies and cold meats were examined bacteriologically by the Department's laboratory and results obtained in 1968 showed a marked improvement over the previous year at the various establishments. This is largely attributable to the "agar sausage" sampling technique which makes it possible to identify hygienic weaknesses at any stage in the process of food manufacture.

(e) Whale Meat

It was reported last year that there was a proposal to market the "export" whale meat locally for human consumption but that this proposition had been forestalled due to the absence of proof of fitness. During the current year the firm appointed a veterinarian to undertake certain examinations of the meat at the factory and the Director of the Municipal Abattoir was then satisfied on public health grounds that the meat distributed would be suitable for human consumption.

(f) Beach Caterers

For several years this Department has recommended the early demolition and replacement of several establishments which, on the grounds of structural deterioration, congestion and other factors, were no longer in keeping with the modern demands of public health. During the course of the year the lease expired on the Model Dairy, Lower Marine Parade, and the adverse public health



Determination of Food Handlers Cleanliness using Agar Sausage Technique

circumstances led to the rejection of an application for renewal of lease and the structure was demolished. The site has now been allocated to the Durban Aquarium and Oceanographic Research Institute for extension to the Oceanarium and provision will be made in the plans for restaurant facilities to serve both patrons and the public.

(g) Indian Market

In my report for the year ended 31st December, 1966 reference was made to the most unsatisfactory public health conditions at this old market. At that time it was recorded that, in view of minor improvements already effected and the limited life of the Market which would be terminated on 31st December, 1967, public health objection to renewal of trading licences was waived. Since then, however, the City Council on 11th December, 1967 authorised the Director of Markets to permit the stand or stall holders to remain in occupation on a monthly basis until such time as the Market site is required for road improvement or other municipal purposes, or until such time as an alternative market site is made available. This relaxation was subject to the Director of Markets obtaining the written acceptance by each of the tenants that his right of occupation was being continued on certain conditions, the most important being :-

(i) That he would vacate his stall or stand when required to do so when the land was required for road development or other municipal purposes;

(ii) There would be no sales of rights to occupy a vacant stall or stand (except sales in execution of an order of Court); no sub-letting, or signing or transferring of the right to occupy any stall or stand or admitting of any partner and no transfers of any tenancies to deceased estates or heirs of deceased stall or stand holders;

(iii) The storage of food on, and sales from the public footpath outside the Market would be discontinued;

(iv) There would be no overstocking or congestion in stalls and to ensure this, arrangements should be made for more frequent replenishment from outside the Market;

(v) Any warehousing or storage utilised away from the Market to be approved by the City Health Department.

The Director of Markets was authorised to enforce the observance of the foregoing conditions and to give one week's notice of termination to any stand or stall holder who commits a breach thereof.

It was further resolved that in the event of the stand or stall holder not accepting the conditions specified above and failing to vacate after 31st December, 1967, the Town Clerk be authorised to instruct the City Solicitors to take all necessary steps to institute legal proceedings for ejectment and to proceed to the final end.

These developments were not in complete accord with the public health requirements but it must be conceded that stall holders had re-equipped and re-arranged their stalls, the City Engineer had improved the surface drainage in the Market and had taken steps to construct additional toilets. In these circumstances there was little the Department could do other than to oppose emphatically any increase in the volume of trading at the Indian Market and enforce compliance with the terms of the Public Health legislation.

(h) Food Nuisances

A number of complaints were received including one regarding tainted food purchased from a coffee bar where the refrigerator had been internally painted with a rubber emulsion; tainted soup purchased at a local hotel caused by the purchaser's servant having herself cleaned the container with a paraffin-impregnated cloth; and a piece of animal hide found in a meat pie. In all cases the offending parties were warned.

(i) Food Surveys

The Health Inspectorate has for many years made a point of inspecting premises where food is manufactured, prepared or handled at least once during the hot humid months to check on hygiene, apart from such other inspections as may be necessary. This annual exercise has always been programmed by the Administration Section but since the appointment of a Senior Health Inspector to co-ordinate food hygiene activities in the Department, the possibility of research has become feasible and much greater interest has been engendered in this aspect of public health. Occasion arose during the six month period ending 31st August,1968 to carry out a sample exercise to evaluate compliance with structural, equipment and hygienic standards in the various "risk" categories of food premises. The following summarizes the inspectorial work involved :-

Establishment	Premises		Inspections	Statutory Notices Served
	As at 29.2.68	As at 31.8.68		
Butchers	268	268	1,317	288
Restaurants	408	423	1,926	436
Liquor Licensed	129	126	467	119
Manufactories	93	95	420	54
Boarding houses, etc.	153	176	555	81
Total	1,051	1,088	4,685	978

This survey demonstrated that the Inspectorate's activities in this field were now achieving a higher standard of food establishment generally, as the results indicated overall improvements in structural matters of 10%, in equipment of 13% and in handling hygiene of 15%.

Several hotels which were responsible for a lowering of the percentage of the general average standard indicated have since been demolished. Apart from permanent food premises, control was also exercised and inspections carried out of food preparation and handling at sporting fixtures, fairs, exhibitions and public gatherings of like nature.

Early morning and evening inspections were regularly made of catering establishments and food deliveries.

(j) Food Legislation

(i) Proposed Standing Regulations: Animal Slaughter Act

In terms of Regulations proposed under the Animal Slaughter, Meat and Animal Products Hygiene Act, 1967, no pet food may be stored in any department of an abattoir where any meat for human consumption is dealt with and, whilst it was specified that no carcase or meat shall be used for the purpose unless passed, it was provided that the Chief Meat Hygiene Officer may specify the kind of condemned or other material which may be used. It therefore appeared that under certain circumstances pet foods could legally contain material which was unsuitable for human consumption and the City Council, in response to the invitation published by the Minister of Agriculture, resolved that whilst there was no objection from the public health viewpoin to the provisions of the Regulations generally, there was possible danger that fresh meat marketed as pet food would inadvertently be used for human consumption. It was accordingly suggested that the Regulations be so framed as to ensure that such food complied with the standards for human consumption.

(ii) Regulations relating to Food Inspection

A "food inspector" is defined inter alia as a "health inspector generally or specifically authorised thereto" by a statutory local authority. In this connection it had been held that duly appointed health inspectors in this Department were not ipso facto authorised for the purpose and that the general authority of the City Council was necessary to regularise the position legally. This of course would then obviate the necessity for obtaining particular authority for every newly-appointed health inspector. The City Council accordingly resolved on 13th May, 1968 that in terms of the Regulations relating to Food Inspection made under Section 115 of the Public Health

Act, No. 36 of 1919, every duly appointed health inspector of the staff of the City Health Department was generally authorised as a food inspector for the proper performance of his duties under the Regulations.

(iii) Food By-laws

The Food By-laws adopted in 1950 have been amended from time to time but in the interests of public health it was deemed necessary to undertake a comprehensive review of these by-laws. This was carried out during the year and in November an extensive schedule of amendments was submitted to the City Council for approval. A new departure in these amendments is the inclusion of bacteriological standards for food, ice and water. Amongst other provisions the Medical Officer of Health will be provided with additional powers to restrict or prohibit the sale of food from unsatisfactory premises.

FOOD LECTURES

It is routine practice for certain members of the Health Inspectorate to address select audiences on the importance of correct food handling hygiene and, typical of this assignment, was the address to delegates attending the annual congress of the Associated Clubs of South Africa. Another occasion of importance was a series of lectures given to the catering staff of the South African Airways. The dissemination of this information always appears to be well appreciated.

STANDARD PRACTICE

In response to an approach by the South African Bureau of Standards the City Council authorised the attendance of the Senior Health Inspector (Food Hygiene) at the meeting of the Committee on Pre-packed Meat Products. This Department, and the official mentioned in particular, had been very interested in local problems and had gone a long way towards arriving at a satisfactory solution to taint, sliminess, odour and other unpleasant forms of deterioration occurring in factory-packed processed meats in summer.

BUILDING CONTROL

(a) Building Plans

Structural projects referred to the Department for examination from a public health viewpoint, other than for housing purposes totalled 1,254 as follows :-

Type of Structure	Number of Plans
New commercial and industrial buildings	125
New State and Municipal buildings	19
Other new buildings	18
Additions to all non-residential buildings	1,078
Additions to State and Municipal buildings	14
Total	1,254

(b) Windowless Factory

The Department was again called upon to lend approval to the construction of a large floor area factory embodying under one roof, without windows or internal barriers, a raw material store, production area and finished goods store. The project was associated with the paper industry and it was claimed that because of the nature of the product it was necessary to achieve and maintain a set of working conditions which gave a rigidly controlled humidity in all three sections of the plant as humidity could affect the paper material and the various glues which were to be used in the process. This would be to an extent that the finished product could suffer serious defects if this control could not be strictly maintained. The Department of Labour had already sanctioned the project subject to mechanical ventilation per occupant as follows -

Raw material store	92 c.f.m.
Production area	33 c.f.m.
Finished goods store	106 c.f.m.

Under these circumstances the project was approved but certain conditions were laid down including the provision of several windows, 50% of which had to be of the openable type. The principals were also required to submit a written undertaking that the low density occupation areas referred to as the raw material store and finished goods store would not at any time be staffed by a greater number of persons than 25 and 30 respectively.

(c) Building Standards Liaison

Representatives of the City Health Department continued membership with the Durban Building By-law Liaison Committee which is charged with two main functions, firstly to consider ad hoc amendments and secondly, the complete revision of the local code. A large number of subjects came before the Committee during the year, the most important from the public health viewpoint being :-

(i) Toilets in Public Buildings

Complaints had been received regarding the

inadequacy of lavatories for females in public buildings such as cinemas and an investigation confirmed that in some cases there was need for improvement. It was agreed to adopt the formula laid down in the Standard Building Regulations prepared by the South African Bureau of Standards. Incidentally it was found that the problem was aggravated by the smallness of the powder room and the slow flushing capabilities of orthodox cisterns and these features were taken into account.

Complaints had also been received regarding insufficiencies for females at sporting stadia and the national standards have been adopted in this respect also.

(ii) Minimum Height of Living Rooms

Years ago the minimum size of a living room in Durban was 100 square feet with a ceiling height of 9 feet. This was reduced to 90 square feet and 8' 6" in 1954. Following representations by local architects it has been agreed to allow a blanket reduction in ceiling heights to 8 feet in rooms with floor areas of 100 square feet or more, otherwise the erstwhile standards will apply, and certain further relaxations have been permitted in the case of rooms with sloping ceilings.

(iii) Ventilation of Cinemas

Following upon criticism by the public of the poor ventilation in some cinemas which was no doubt stimulated by objection to tobacco smoking, it was decided to set up an ad hoc sub-committee consisting or representatives of the City Electrical Engineer's Department, City Health Department and the South African Industrial Refrigeration and Air-conditioning Contractors' Association together with a local ventilation consultant. On site investigation disclosed that in several cases the conditioning plant was mal-functioning in various respects, structural alterations had been made to the building overlooking the demands of air-conditioning, and operators had no experience of the technicalities involved. Some theatres were very well provided for but it was nevertheless obvious that there had to be a revision of the by-law control. The Building By-laws have now been amended to set a number of mechanical ventilation and/or air-conditioning parameters including air temperatures, humidity, re-circulation, velocity, volume, distribution and intake and discharge points. The problems associated with mechanical ventilation of shops, offices and factories were also investigated and the By-laws have been amended accordingly. The most important aspect was that respecting air changes and this is now governed as follows :-

The system shall be capable of supplying outside air into all frequented or occupied parts of a building

at a minimum constant rate as follows:-

A windowless auditorium containing seating only:

Air space cubic feet available per seat	Cubic feet of fresh air per minute per seat
120 or less	17
121 to 200	15
201 to 280	14
281 to 360	13
361 to 500	12
501 to 700	11
701 and over	10

Other buildings:

Description	Cubic feet of fresh air per minute per square foot of floor area
(a) Shops or premises used or designed for use, whether in part or in whole for carrying on a business involving the manufacture, preparation, handling, sale or consumption of food as defined in the Food By-laws.	0.5
(b) Public buildings excluding places of worship	0.4
(c) Factories	0.1 or 10 cubic feet per person whichever is the greater.
(d) All other buildings or portions thereof (not falling under (a) to (c))	0.3

(iv) Parking Garages

The sub-committee also gave attention to parking garages following upon receipt of complaints of fumes. The By-laws have been amended to ensure that all garages other than those used in conjunction with dwelling houses or maisonette buildings shall where feasible be naturally ventilated with permanent openings covering a total area equal to that calculated on the following formula :-

Area of Garage "A" Square Feet	Minimum Area of Permanent Openings
Not exceeding 1500	0.02A
1501 to 2400	(0.1A - 120)
Exceeding 2400	0.035A*

* of which 0.01A shall be sited to constitute cross-ventilation of the remainder of the area to the satisfaction of the City Engineer.

Where this standard cannot be assured and particularly in respect of a floor lower than the average adjoining finished ground level, there shall be provided mechanical ventilation and such emergency stand-by plant with equipment installed as may be required by the City Engineer under the requirements of the Building By-laws.

Codes of Practice have been prepared in the aforesaid respects for the information of those interested.

X. MILK SUPPLIES

The City's milk shed lies mainly in the Natal Midlands, the Drakensberg foothills and East Griqualand. In the latter area 12.2% (12.5%) of Durban's milk is produced. (All figures in parenthesis indicate the comparative figure for the previous year).

A total of 567 (597) milk producers were registered and their milk was either consigned directly to the City in cans or bulked and refrigerated at up-country balancing stations and conveyed to the City in bulk tankers. The installation of refrigerated milk tanks on producing premises has progressed favourably and at the end of the period under review 57 (30) of these tanks were in operation.

Raw milk is received and processed by three pasteurising depots in or on the periphery of the City and distributed to depots in the City by means of refrigerated pantechnicons, with the final delivery to householders by means of hand-carts. Only heat-treated milk was allowed for sale and apart from pasteurised milk a daily average of 4,810 (3,850) gallons of milk was sterilised.

Milk Gallonage

The average daily intake of raw milk during the year was 48,709 (46,780) gallons. After processing, approximately 25.19% (25.7%) of this quantity was sold outside the City boundaries in adjoining towns and to shipping.

Sampling

Regular sampling of milk and milk products was carried out and in addition to routine sampling for the departmental milk laboratory, milk and allied products were submitted to the City Pathologist, the City Analyst, the local State Bacteriological Laboratories and the State Chemical Laboratories, Pretoria.

I. Samples taken under the Food, Drugs and Disinfectants Act and submitted to -

(i)	City Analyst	Cream	37	(36)
		Ice Cream	47	(48)
(ii)	State Chemical Laboratories	Milk	153	(156)

II. Samples submitted to the City Pathologist for Bacteriological Examination -

Milk	153	(156)
Cream	2	(3)
Ice Cream and Soft Dairy Mix	35	(28)

III. Samples submitted to the State Bacteriological Laboratories for Tuberculosis Examination (Biological) -

	7	(15)

IV. Samples submitted to the Departmental Milk Laboratory

Raw Bulked Herd Milk	5,541	(4,703)
Pasteurised Milk	755	(1,024)
Pasteurised Cream	194	(151)
Ice Cream	773	(923)
Soft Dairy Mix	407	(445)
Iced Confections	226	(240)

Prosecutions

Food, Drugs and Disinfectants Act	1	(Nil)
Milk (and Milk Products) By-laws	6	(1)
Public Health Act	Nil	(3)

Control of Milk Supplies and Statistics

Apart from a regular sampling and testing programme, visits were made to producing and processing premises and verbal and written advice given. The inspectorate staff were guided to a large extent in these visits by the laboratory results obtained on the milk supplies. Hereunder is a breakdown of these visits :-

Number of inspections of City dairy premises	778	(1,046)
Number of inspections of Country dairy premises	1,531	(1,465)
Number of inspections of Country depots	226	(195)
Other inspections (e.g. milk complaints, milk sampling from delivery carts, etc.)	452	(-)
Total number of dairy inspections	2,987	(2,706)

Number of personal notices served on producers	511	(477)
Number of written notices served on producers	480	(512)

During the period under review, 39 (52) new producers were registered and 69 (51) went out of production leaving a total of 567 (597) at the year end.

In spite of the reduction in the number of registered producers, the average daily production of fresh

milk increased to 71,214 (69,367) gallons with an average of 125.6 (116.2) gallons per producer. The lowest production was registered during May, when the daily average dropped to 66,513 (62,650) gallons and the highest daily average of 77,120 (79,516) gallons was recorded in December.

The accompanying histogram, representing a breakdown of milk production over the past nine years, clearly indicates an appreciable increase in the number of farmers that are producing 150 gallons and more per day.

Mechanical refrigeration was installed in 86.0% (85.5%) of producing premises and 39.8% (33.1%) of registered farmers were making use of mechanical milking.

Structurally, the same high standard of producers' premises was maintained with virtually very little change from the scoring of 1967.

Standard of Premises	Percentage Conforming to Departmental Requirements
91% - 100%	23.2% (23.9%)
81% - 90%	62.9% (62.3%)
71% - 80%	13.9% (13.8%)
Below 71%	Nil (Nil)

See accompanying graph.

Inland Balancing Stations

Milk from most producers was sampled at inland balancing stations and 1,452 (2,201) gallons of milk were rejected because of contamination with visible dirt and failure to pass rapid platform rejection tests (titratable acidity, ten minute resazurin and alcohol-alizarin).

These visits also afforded an opportunity to inspect milk cans and a total of 56 were condemned as being unsuitable. Can rinse tests to check the efficacy of can washing facilities were carried out. Structural improvements and the installation of new plant and machinery were recorded at several depots.

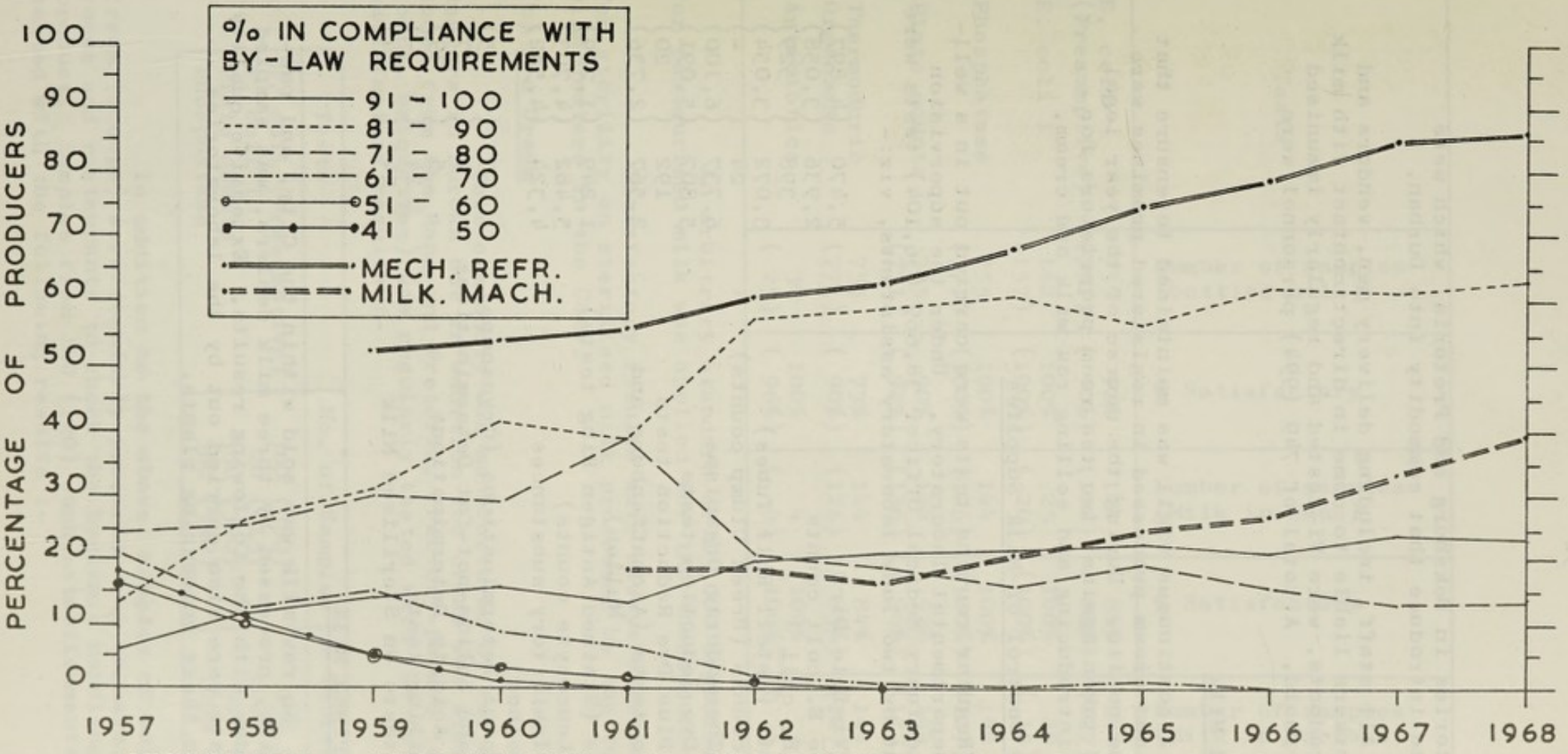
Pasteurising Depots and Ice Cream Factories

The production methods and staff hygiene of these premises were regularly checked and, whenever necessary, line sampling was carried out to pinpoint any particular source of post-pasteurisation contamination. Extensive quality control tests were also carried out by the factories' own technical staff.

The Veterinary Medical Officer inspected the ice

CLASSIFICATION OF REGISTERED MILK PRODUCERS ON A DAILY PRODUCTION BASIS AND RELATED INFORMATION

YEAR	NO. OF REGISTERED PRODUCERS	AVERAGE DAILY PRODUCTION GALLS	AVERAGE DAILY MILK INTAKE INTO DURBAN GALLS
1960	710	72.0	336480
1961	735	67.4	341700
1962	659	76.0	366190
1963	621	75.4	374680
1964	600	95.3	403130
1965	596	91.3	423020
1966	618	105.6	446780
1967	597	116.2	480200
1968	567	125.6	509000



STRUCTURAL IMPROVEMENT OF REGISTERED FARM DAIRY BUILDINGS AND INSTALLATION OF MECHANICAL REFRIGERATION AND MILKING MACHINES

cream factories in Boksburg and Pretoria, which were licensed to introduce that commodity into Durban.

All staff, including delivery men, vendors and factory workers liable to come in direct contact with milk and its products, were Vi-tested and regularly immunised against typhoid. A total of 749 (994) personnel were affected.

Unlicensed Milk

A continuous vigil was maintained to ensure that only milk and cream processed in registered premises were sold to the public. During the course of the year legal action was taken against two tea room proprietors for illegally introducing and selling raw milk and cream.

Laboratory Control of Milk Supplies

Regular routine tests were carried out in a well-equipped departmental laboratory. Under the supervision of the Veterinary Medical Officer 38,669 (36,104) tests were carried out by two lady laboratory assistants, viz:-

Tests for Visible Dirt	5,470	(4,897)
Presumptive E. coli counts	2,936	(3,058)
Tests for E. coli I	398	(529)
Plate counts (Astell Roll Tubes)	3,072	(3,054)
Bacterial counts (Breed Clump counts)	24	(-)
Tests for Thermoduric Organisms	6,737	(6,100)
Resazurin Dye Reduction tests	5,807	(5,091)
Methylene Blue Dye Reduction tests	192	(20)
Phosphatase tests (Aschaffenburg and Mullen)	2,567	(2,736)
Brucellosis (Stained Antigen Ring tests)	1,249	(1,289)
Mastitis (Leucocyte counts)	5,482	(4,703)
Tests for Inhibitory substances (T.T.C. Method)	4,324	(4,552)
Freezing Point Determinations (Cryoscope)	3	(5)
Butterfat and Solids-not-fat Determinations	4	(7)
Titratable Acidity Determinations	5	(39)
Clot on Boiling tests	24	(-)
Turbidity tests on Sterilised Milk	24	(24)

(a) Pasteurised Milk

No raw milk was sold within the City, and pasteurised milk, processed by three milk dealers, was sampled every weekday with the following results. Extensive quality control tests were also carried out by the laboratories attached to these processing plants.

Tests	Number of samples (bottled milk)	% Satisfactory	Number of samples (Milk in cans)	% Satisfactory	Number of samples (Milk in cartons)	% Satisfactory
E. coli (Presumptive)	755 (771)	92% (90%)	144 (126)	88% (88%)	144 (127)	88% (86%)
E. coli I	162 (157)	100% (100%)	25 (20)	100% (100%)	20 (15)	100% (100%)
Phosphatase	755 (771)	100% (100%)	144 (126)	100% (100%)	144 (127)	100% (100%)
Plate counts	755 (771)	90% (92%)	144 (126)	93% (96%)	144 (127)	91% (94%)
Thermoduric Organisms	755 (771)	73% (90%)	144 (126)	84% (83%)	144 (127)	86% (81%)
Antibiotics	30 (25)	100% (96%)	4 (3)	100% (100%)	3 (4)	100% (100%)

An arbitrary standard of 15,000 organisms per ml. for pasteurised milk was applied for the thermoduric organisms.

Satisfactory results were always obtained on tests for sterility on sterilised milk processed by the two main milk dealers in the City.

(b) Ice Cream

This commodity was manufactured by two milk dealers in Durban but in addition ice cream was also introduced from the Rand and Pretoria. Factory-packed ice cream (cups, briquettes) was regularly tested with the following satisfactory results :-

Tests	No. of Samples	% Satisfactory
E. coli (Presumptive)	360 (380)	95% (91%)
E. coli I	20 (15)	100% (100%)
Plate counts	360 (380)	99% (93%)
Phosphatase	360 (380)	100% (100%)

In addition to the above, samples of bulk ice cream (scoops) were regularly procured from bazaars, tea rooms and restaurants to check the hygienic handling of this product. Samples from 140 (120) such establishments were tested with the following results :-

Tests	No. of Samples	% Satisfactory
E. coli (Presumptive)	413 (543)	50% (59%)
E. coli I	127 (198)	90% (81%)
Plate counts	413 (543)	77% (74%)
Phosphatase	413 (543)	100% (100%)

(c) Soft Dairy Mix

Twenty-seven (20) tea rooms were licensed to dispense soft dairy mix. The bacteriological standards of ice cream are applicable to this product.

Tests	No. of Samples	% Satisfactory
E. coli (Presumptive)	407 (445)	69% (71%)
E. coli I	64 (52)	100% (100%)
Plate counts	407 (445)	90% (82%)
Phosphatase	407 (445)	100% (100%)

(d) Cream

Only pasteurised cream, processed by the three registered milk dealers was sold to the public.

Tests	No. of Samples	% Satisfactory
E. coli (Presumptive)	194 (151)	86% (85%)
E. coli I	14 (4)	100% (100%)
Plate counts	194 (151)	96% (97%)
Phosphatase	194 (151)	100% (100%)

(e) Iced Confections

Some of these "iced lollies" contain a quantity of milk or milk powder and they were therefore regularly tested.

Tests	No. of Samples	% Satisfactory
E. coli (Presumptive)	226 (240)	75% (72%)
E. coli I	31 (21)	100% (95%)
Plate counts	226 (240)	90% (94%)

(f) Producer (Farm) Milk

Each registered producer's milk was sampled approximately once a month at the receiving depot and these samples were returned to the Departmental laboratory under refrigeration where the following tests were carried out :-

Tests	No. of Samples	% Satisfactory
Resazurin (1 hour)	5,541 (4,703)	94% (89%)
Visible Dirt	5,470 (4,692)	95% (93%)
Antibiotics (T.T.C.)	3,812 (4,552)	89% (95%)
Thermoduric Organisms	5,404 (4,703)	81% (86%)
Mastitis (Leucocyte count)	5,482 (4,703)	95% (93%)
Brucellosis (Ring test)	1,249 (1,211)	94% (81%)
Tuberculosis (Biological)	7 (15)	100% (100%)

Although not contained in the City's Milk (and Milk Products) By-laws, the following standards were applied in respect of raw milk :-

Resazurin Test (1 hour) : Sample failed if disc reading was below $2\frac{1}{2}$.

Thermoduric Organisms : Unsatisfactory if count exceeded 50,000 organisms per ml.

Leucocyte count for Mastitis : Negative : Min. to 500,000 cells per ml.
Suspicious : 500,000 to 1 million cells.
Positive : more than 1 million cells.

In addition to the foregoing tests, tanker supplies were regularly sampled and swab tests carried out to check on the efficacy of cleansing and sterilisation.

Milk from farm bulk tanks, especially where collection was on alternate days, was tested for psychrophilic organisms. Raw milk supplies were also occasionally tested for E. coli I and Enterococci contamination.

The Veterinary Medical Officer carried out regular country visits and carried out herd inspections, sampling and platform tests. Problems in connection with the hygienic production of milk such as faulty milking machine hygiene, inadequate farm dairy refrigeration, and bulk storage on farms, were investigated. Advice was also given on the control of animal diseases that could affect milk supplies and close liaison was maintained with State and private veterinarians.

A fairly representative sample of the water supplies available in farm dairies (186 samples) was tested bacteriologically and where necessary producers were advised to take remedial measures. This important aspect of milk

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production should not be overlooked, as recent research has shown that unsound water supplies may affect the incidence of mastitis as well as the hygienic quality of milk.

Animal Diseases Affecting Milk Supplies

Regular routine testing for certain pathogens was carried out and producers were advised on the control and eradication of diseases that were of public health interest.

Mastitis

This disease is a major problem in the dairy industry and is receiving much attention by research workers. Faulty animal husbandry and milking techniques are the main causes.

Dairymen were assisted by means of a diagnostic service and advised on control measures, and arrangements were also made whereby milking machines were checked for faults by an agricultural engineer.

An acute outbreak of mastitis, due to a pseudomonas infection and involving a large herd, was recorded.

Brucellosis

Approximately 6% (19%) of all raw milk samples submitted to the Stained Antigen Ring test gave either a positive or a suspicious result. Of 8,145 (4,762) bovine blood samples tested by the State-controlled veterinary research laboratory at Allerton, Pietermaritzburg, 4.6% (9%) were positive. A total of 17,316 (33,800) animals were immunised by means of the Strain 19 vaccine.

Tuberculosis

Seven (15) biological tests on bulked herd milk were carried out without any positive reactions. Out of a total of 38,000 (49,200) bovines tested by the State Veterinary Department for accreditation and other reasons, 0.51% were positive for tuberculosis with a further 0.28% suspicious reactors.

Seven (6) herds received treatment with tuberculostatic drugs and 154 (156) herds were accredited as tuberculosis-free.

Other Diseases

Throughout the milk shed unhygienic calf rearing methods with accompanying diseases such as colibacillosis,

verminosis, coccidiosis and paratyphoid accounted for a high calf mortality and a loss of future milk producers.

A number of disease conditions such as infertility, piroplasmosis, anaplasmosis and mineral and plant poisoning adversely affected the production of milk. Of interest was an outbreak of bracken poisoning in a midland district which affected several herds.

General

In addition to the testing of milk and milk products the Departmental laboratory bacteriologically tested a large number of other perishable foodstuffs such as meat pies, cold meats and sea foods. Bacteriological surveys were also carried out at food-handling establishments to determine their standard of hygiene.

Fifteen (13) final year veterinary students from Onderstepoort spent three weeks in the Veterinary Hygiene section of this Department and the City Abattoir as part of their vacational training in Special Hygiene and Veterinary Public Health.

The Veterinary Medical Officer regularly attended meetings, and took part in the procedures, of the Natal Branch of the South African Society of Dairy Technology.

XI. FIELD HYGIENE

The Field Hygiene Section is functionally responsible for pest control on municipal premises. It is also available to the public for advice and, if warranted, active assistance in times of public health emergency. Whereas legally the onus for pest eradication lies with the occupier or owner of private property, who may be prosecuted if they fail in their duty in this respect, in practice certain measures are undertaken departmentally on request or in default of compliance with a notice, and the "actual" or tariff cost is recovered.

The Section endeavours to keep pace with new trends and a staff of 11 Europeans, 17 Indians and 96 Bantu maintains a commendable work performance standard throughout. The various activities are summarised below.

MOSQUITOES

During February a spate of complaints was received from a portion of the residential area of the Bluff and, from the species sanitation investigation of 674 dwellings, it was revealed that fairly heavy breeding of Culex fatigans had occurred in collections of tins, bottles and discarded tyres, in defective soakpits and septic tanks and in several disused fish ponds on 88 properties. These nuisances could have been easily prevented by a number of householders exercising a little care.

A breakdown of complaints indicating the sources from which nuisances emanated, is shown below, with last year's figures in parenthesis:-

Miscellaneous containers	317	(311)
Defective soakpits/septic tanks	59	(64)
Obstructed stormwater drains	61	(27)
Other drains and sub-floor areas	52	(65)
Sanitary fitments	22	(40)
Buildings under construction	47	(20)
Natural swamps	23	(59)
Undetermined	62	(61)
Unsubstantiated	40	(80)
	683	(727)

The Umhlangane River overflowed its banks on several occasions following heavy rain resulting in the inundation of some two hundred acres in the Sea Cow Lake area which were low-lying, overgrown and matted with rank vegetation. The topographical factor, nature of the land and inadequate drainage gave rise to stagnation of the

impounded water and prolific culicine development occurred. Mosquito infestation was heavy in the vicinity of the swamp and actually affected the Parlock Indian Township a mile or more distant from the main breeding foci.

Normal methods of larval control were extremely difficult to apply and experimental "cartwheel" drainage formations with large holes at the "hub" were dug. This innovation whilst not proving completely effective in draining the area nevertheless facilitated anti-larval measures and expedited recedence of the flood water. However, large quantities of larvicides were expended in conjunction with these measures, which were necessarily repeatedly undertaken during the summer.

In the continual search for the malaria vector, which was maintained during the year by a trained staff of two Asiatic and ten Bantu spotters, a total of 531 Anopheline larvae was collected but none was identified as A. gambiae or A. funestus.

The biological control of mosquito breeding by the use of Tilapia fish, where practicable in sewage ponds and natural swamps, continued to be the most effective and economical method but in some cases these means were disturbed by the unintentional interference of the public. Although four explanatory notice boards have been erected at the Beachwood swamp, adults and children alike appear to have been sealing off the water with anything to hand in their attempts to net the fish and in so doing upsetting drains, fouling the water and causing an unfavourable environment for fish life. The notice boards were destroyed or damaged.

The culling of Tilapia from the sewage stabilisation ponds at kwaMashu and Chatsworth non-European townships continued as a routine measure to prevent overstocking, and many fish of some 2 lbs weight were netted. The unfavourable circumstances for fish at the Chatsworth ponds, due to overloading with sewage and the consequential anaerobic conditions leading to high fish mortality, were corrected when the Southern Sewerage Works at Merebank were commissioned in October, 1967. By the early part of 1968 the sewage flow into the ponds had reverted to recommended proportions and no further fish problems were encountered. The diversion of sewage to the new scheme permitted the discontinuance of ponds at Lamontville, which had been brought into use in 1964 due to a limitation of suitable land at Chatsworth for increased pondage, and so the Department was involved in the netting of many thousands of fish and their subsequent burial to prevent nuisances arising from fly breeding.

The following is an analysis of anti-mosquito measures carried out during the year, the previous year's

figures being shown in parenthesis:-

Ditching in linear yards	379,632	(439,185)
Anti-larval oil used in gallons	737	(502)
Other insecticides in gallons	72	(52)

FLIES

The year under review has been reasonably satisfactory from the complaints incidence, as demonstrated below (figures for last year in parenthesis).

Garden cuttings/compost heaps	56	(55)
Refuse receptacles	32	(15)
Poultry keeping	28	(11)
Manure/stables	28	(22)
Refuse on vacant land	2	(2)
Sports fields	2	(-)
Miscellaneous conditions	17	(32)
Undetermined	14	(32)
Unsubstantiated	24	(37)
	203	(206)

Most of the complaints were lodged in spring and early summer and were in respect of slight infestation with one notable exception.

A market gardener applied large quantities of raw poultry manure to the soil in preparation for his crops. The entire plot was covered and prolific fly development occurred so requiring the Department to adopt active control measures in situ and in connection with excessive adult fly infestation of neighbouring dwellings. Although several insecticidal dusts were tried against "hoppers" the only satisfactory control measure used stemmed from the use of diazinon 1% powder. Adults on the wing were attacked with excellent results by the setting of baits of fish treated with an organophosphate compound.

The latter type of bait was again used successfully in the vicinity of sewage ponds and shack areas.

RODENTS

Reports from the World Health Organisation and in overseas pest control publications still indicate a resistance of rodents to blood anti-coagulant poisons becoming a serious problem in some countries and, although several advices of local occurrences were received, widespread surveys, poisoning programmes and laboratory investigation failed to produce any confirmatory evidence here.

Complaints investigated invariably showed the fault to lie in incorrect application and a mistaken belief that the poison was a rapid killer.

Following upon the death of a Bantu factory worker, suspected of being due to plague, epidemic precautions in three phases were immediately adopted. These were in the factory, in the Bantu housing areas adjacent to where he resided outside the City's boundaries, and in premises adjoining the factory. The staff involved in the exercise were fully equipped with protective clothing, materials and equipment and intensive anti-rodent measures were undertaken. Rodents recovered were submitted to the State Health authorities and fleas were despatched to the Plague Ecology Centre in Johannesburg.

This case proved not to be plague but it is of interest to record certain facts associated with the Department's precautionary measures -

(i)	Traps set - break-back	1,116	
	cage	32	
(ii)	Poisons used - cyanide gas	104	lbs
	warfarin	20	lbs
	insecticides	101	lbs
(iii)	Premises inspected (excluding housing areas)	79	
(iv)	Rodents recovered	64	

The anti-rodent liaison and conjoint destruction programmes with the State including the Port Health authorities were maintained affecting the Harbour and contiguous areas. These activities, with last year's results shown, are summarised below -

Rodents destroyed	1,558	(1,800)	
Rodents submitted for plague index	252	(260)	
Poisons used - dry	4,000	(3,317)	lbs
liquid	1,649	(1,846)	grms
in	34¼	(38½)	gals

BUGS

The control of bedbug infestation in all Bantu hostels (and beer halls) is carried out at the request of the Director of Bantu Administration by a unit comprising a European overseer and five trained Bantu labourers. These anti-cimex precautions in the six hostels consisting of 30,000 beds were in addition to the gang's periodical anti-cockroach measures undertaken in street drains, sewer manholes and gutter-bridges situate in municipal undertakings.

The diversification of this gang's functions

demanded a complementary re-arrangement of bedbug control and it was found advantageous to add this work to the responsibilities of the general gang stationed at kwaMashu Bantu Township. A modification of this concept involving the employment of a sub-gang of two Bantu labourers under the direction of a Bantu Spotter has proved very successful in this large township.

In the Chatsworth Township and Merebank housing scheme cimex destruction measures were satisfactorily maintained at a cost of 20 cents per room recoverable by the City Treasurer from the Indian householder concerned.

COCKROACHES

Many complaints were received and investigated. Unfortunately the elimination of cockroaches is not very successful to the uninitiated as habits of the species vary and even experienced occupiers often become despondent and seek assistance.

This Department does not compete with private enterprise and carry out anti-cockroach measures on private properties but it does ensure that infestation is properly controlled in public sewers and municipal undertakings. It is, however, available on request to advise on the best corrective steps in the circumstances.

When undertaken properly, successful results are obtained from techniques which have been developed to suit certain types of infestation. For instance, at a large municipal undertaking where residual chemicals were considered inadvisable all species have been kept under control by the application of 0.5% pyrethrum solution with thermal fogging equipment at least once quarterly. Conversely where residual effect is required excellent results have been achieved by the careful, direct treatment of surfaces with organophosphates, either 0.5% diazinon or 1% fenchlorophos, the latter having the added advantage of lower toxicity (LD50 - 500 Kg). No cockroach resistance to these two poisons has been evident.

BUSH CLEARANCE

The clearing of rank weeds and overgrowth on vacant sites by cutting down and removing the vegetation is a major service conducted for the benefit of the public in developing areas where there are potential or actual public health nuisances. This work is usually carried out on request or in default of a notice served under the By-laws and the cost is recovered from the owner at tariff rates. There are eight gangs engaged on this aspect of the Section's work of which one is staffed exclusively by a Bantu overseer and gangers and another by Indians. During the year a total of 483 acres (as compared with 472 the

Cockroach control - Fogging Street Manholes

previous year) were cleared from land in private and municipal ownership.

Whilst this particular programme is not vital to the public health nevertheless it is appreciated by neighbouring occupiers because of the elimination of mosquito breeding, rat harbourage, various misusage, dumping of refuse and general interference with the amenities of the area. What is important, however, is that this mobile force is available at short notice to tackle various field emergencies and its existence has been of great value on a number of occasions in the past.

INSECTICIDES

In accordance with routine practice a number of new preparations were subjected to efficacy testing, most proving satisfactory in the appropriate class.

On several occasions it was necessary to deviate from the use of previously satisfactory and economical chemicals in the control of pests at Bantu hostels due to the probability of resistance. This was certainly substantiated in the case of Blatella germanica and Periplaneta americana cockroaches, and to a lesser degree in bedbugs.

Usually, however, complaints of resistance are unfounded and a typical example was in connection with a brand of proven quality (concentrated diazinon) which was mixed incorrectly and applied by atomising with a "flit" hand spray pump thus having little effect upon the pest but exposing the operator to a serious hazard from the inhalation of the product. The method of control recommended by the Department in this instance met with the desired result.

PEST CONTROL OPERATORS

Pest control measures carried out in dwellings are causing concern because of a number of factors. These include the high toxicity of some of the pesticides obtainable on the local market, the possible long term toxic effects of others and the advertised guarantees by certain exterminators claiming extraordinary results from their services, which latter suggests that high concentrations of pesticides may well be in use.

The Pest Control Association in Natal has been agitating for some time for the introduction of legislation to control the trade use of methyl bromide as a fumigant and the activities of those persons who utilise the various pesticides commercially for the destruction of domestic pests.

This Department is of the opinion that control

in this field is most desirable, but that the problem is really one to be solved by the State, firstly because it already has some jurisdiction over pesticides for agricultural purposes, secondly because the use of hydrogen cyanide gas is already controlled by regulations under the Public Health Act and, thirdly because the operations of pest firms are not confined to any one particular local authority area. However, requests to the State Department of Health for the adoption of legislation have been unsuccessful so far.

Control of the use of hydrogen cyanide is delegated to municipal health departments through the regulations referred to above but the only curb local authorities have over any other aspect of pest control is by way of trading licences. In Durban all firms in this category are required to take out either fumigator or disinfestor licences and all applications are first referred to the City Health Department for report. In this connection it is intended to call for certain undertakings.

Whereas previously householders had to make their own efforts, often largely ineffectual, to destroy completely or materially reduce infestation of domestic pests such as cockroaches and bedbugs, the advent of the more powerful pesticides with prolonged residual effect has led to a marked increase in this field for entrepreneurs. The increase of some twenty firms in the past few years is a significant indication of the volume of operations undertaken.

Most pesticides can be used without danger to householders, their pets and the operators themselves if the proper precautions are closely followed and manufacturers' instructions and recommended dilutions adhered to strictly. Unfortunately there is a human predilection to increase the recommended strength to obtain a better "kill" and this tendency is probably not confined to householders.

There is no course of study for managements or operators and all that is required to set up in business is a trading licence.

Following joint consultations with representatives of the Natal and South African Pest Control Associations and certain of the independent operators, the Department agreed, as an interim measure pending the promulgation of some legislation on a national scale, to tackle the problem of control and supervision of these operations through the medium of the trading licence procedure.

In the future no new licences will be approved

unless the applicants accept a restriction on their businesses in the form of a signed "Agreement" in which they undertake to observe certain precautions, keep proper records, become familiar with the toxicity and antidotes of the various preparations, adhere to Government recommendations and makers' instructions and carry out all measures under proper supervision, etc., etc.

Operators will be tested to ensure adequate appreciation of the dangers of pest control operations to the public and themselves, and applicants will also have to acquire suitable premises from which to conduct their businesses.

Apart from new applicants, existing operators will be requested to conform to these arrangements.

One of the difficulties inherent in unilateral control as adopted as a "stopgap" in Durban, is the fact that firms licensed in other areas may operate here with impunity. It is therefore desirable that other local authorities should consider this matter to determine whether they have a similar problem and, if so, whether they are prepared to adopt identical steps in the meanwhile.

Obviously the only suitable permanent means of control would be through Government legislation along the lines of the hydrogen cyanide regulations, under which all operators are required to obtain certificates of competency which are recorded in a central registry and to conduct their operations in the manner laid down.

XII. ALLIED HEALTH SERVICES

Certain public health or allied functions are undertaken by sister departments and the City Health Department is indebted to the Municipal Heads concerned for the following information:-

ABATTOIR SERVICES

The volume of slaughtering carried out at the Municipal Abattoir during the year 1968 and particulars of the meat condemned as unfit for human consumption were as follows (last year's figures shown in parenthesis):-

Animal	Slaughtered	Condemned		
		Carcasses	Quarters	Portions (lbs)
Bovines	136,864 (145,268)	1,069 (1,384)	85	260,508 (347,639)
Swine	85,699 (84,833)	2,414 (2,149)	2	61,595 (44,181)
Sheep	757,969 (656,147)	1,082 (944)	896	2,005,978 (2,415,794)
Goats	22,503 (31,466)	58 (71)	12	38,157 (107,863)
Total	1,003,035 (917,714)	4,623 (4,548)	995	2,366,238 (2,915,477)

Cattle throughput at the Municipal Abattoir showed a steady increase in relation to consumer demand for fresh meat from 1954/55 until 1965/66. At this time however two successive and severe droughts were experienced in the country and cattle supplies to the Abattoir have decreased considerably since this time and in the year 1968 had dropped from the 1966 level of 153,622 cattle slaughtered to 136,864. Supplies of mutton and pork however were not seriously affected and have maintained a steady increase.

The slow recovery period for cattle fit for marketing may, to a large extent be attributed to the longer gestation period in the case of bovines and also the longer time required to raise the animal to a standard fit for marketing which, in the case of sheep and pigs, does not apply to the same extent.

A serious factor which has not been sufficiently appreciated in the past is that the cattle population in the Republic is not keeping pace with the demand for meat. In fact figures for European-owned cattle in the Republic show that far from keeping pace with anticipated demands for meat in the future, the cattle population is steadily declining. In June, 1963 statistics show that there were 8,544,000 European-owned cattle and by August, 1967 these had dropped to 7,514,000. Unless this trend is reversed, by encouraging farmers to undertake greater beef production, this country may very well be faced with serious shortages of beef in the near future and the appropriate Government Departments should take cognizance of these factors.

Negotiations with the Abattoir Commission regarding the erection of a new abattoir have reached the stage where the Commission has approved the principle and the site which has been chosen. Many other aspects require consideration and agreement and these are being pursued at present.

As the South African Railways have indicated quite clearly that they will experience great difficulty in maintaining adequate supplies of animals to the present site after 1972, it is evident that no time must be lost in finalising negotiations.

CEMETERY AND ALLIED SERVICES

Sixteen public cemeteries were maintained satisfactorily during the year but the need for additional land for this purpose has become increasingly acute. The departments concerned are co-ordinating their planning with regard to the development of new areas and the replanning of existing cemetery lands for their maximum usage.

Particulars with regard to the disposal of human

remains are as follows (last year's figures shown in parenthesis):-

Race Group	Interments	Pauper Burials	Cremations*
White	1,204 (1,308)	7 (6)	1,375 (1,347)
Asiatic	1,175 (1,218)	5 (4)	565 (515)
Bantu	6,822 (6,943)	560 (629)	- (-)
Other	311 (347)	7 (15)	- (-)
Total	9,512 (9,816)	579 (654)	1,940 (1,862)

* Not undertaken by the Municipality

GENERAL ENGINEERING AND ALLIED SERVICES

(a) Water

(i) The main source of Durban's water supply is now the Umgeni River on which has been built two major water conservation works. In the upper 300 square miles of its catchment, the Government's Midmar Dam conserves water for the use of Pietermaritzburg, Cato Ridge, Hammarsdale and the augmentation, when required, of Durban's Nagle Dam which is situated where the catchment is 1,000 square miles and empounds 5,500 million gallons when full. Its contents are discharged into aqueducts capable of conveying 90 million gallons a day to the City's Purification Works at Durban Heights - works which can treat the same amount.

The Umlaas River, from which Durban previously derived its entire supply, yields water at the Vernon Hooper Dam and the downstream Intake Waterworks. This river has, in the past, been relied upon to yield up to an average of 13 million gallons a day. This river's yield dropped temporarily to a negligible quantity during the recent severe drought in the catchment.

Durban's water purification capacity totals 103 million gallons a day. Its peak consumption during the summer was 94 million gallons a day. Hose and sprinkler restrictions had to be imposed for a period of about three months.

All water consumed in the City passes through its various purification works where it is filtered and sterilised. Aluminium sulphate, lime, activated silica, caustic soda and chlorine are used in the various Purification Works known respectively as Umlaas, Coedmore, Northdene and Durban Heights. The Durban Heights Works purifies Umgeni River water and has already been operated at its present maximum capacity of 90 million gallons daily.

Development of the City's Water Distribution system has been continued. Two five million gallon

reservoirs at Lamont were commissioned, a new 33" diameter aqueduct to the Amanzimtoti Regional Water Supply Corporation was laid and brought into full use. New water towers at the Bluff and Woodlands were completed and many large trunk mains installed to meet the demand from the ever extending water reticulation system of the City, and out of City consumers.

(ii) Bacteriological and Chemical Examinations

A full range of samples were bacteriologically examined and chemically analysed and the results show a continued high level quality of purified water.

(iii) Beaches and Public Swimming Baths

Surveys of beaches from Beachwood to Isipingo were made at monthly intervals.

Control of the purification of water in eight European Baths, 6 European Paddling Ponds, 5 Coloured and/or African Baths and one paddling pond for the latter communities was maintained by regular visits, analytical checks and advice to Bath Supervisors.

During the Christmas season with the large influx of holiday makers to the City, more frequent checks of the main swimming baths were made. Visits were also made at weekends when peak load conditions prevailed.

(b) Public Cleansing Services

To replace older vehicles and to cope with expansion of these services 13 new vehicles of 24 cu.yd. capacity were purchased. In addition 2 compressing type vehicles for use in the central area are on order.

The disposal of refuse by land reclamation methods still continues satisfactorily at the Bluff Valley, Chatsworth and Stromia Road tips.

(c) Air Pollution

During the year 165 smoke complaints have been dealt with and 127 contravention notices have been sent out in terms of the Smoke Control By-laws. Smoke control by industry, hotels, flats and shipping has been satisfactory throughout the year and 39 firms have qualified for the Council's Certificate of Merit for smoke control during 1968. A close liaison has been maintained with the South African Railways own Smoke Inspector with regard to smoke control from South African Railways locomotives and depots, but diesel vehicle smoke continues to be a problem pending the introduction of a diesel smoke limit in the Road Traffic Ordinance.

Odour control by Durban industries has generally been satisfactory throughout the year but North Coast odours have been experienced on some 30 occasions and have given rise to numerous complaints. The frequency of these odours is now, however, less than half that of the 1963 peak.

As part of the National Survey for air pollution, Durban operates three air pollution monitoring stations continuously at the City Hall, Congella and Wentworth Fire Stations. These stations measure smoke in the atmosphere in terms of the Soiling Index which is the darkening potential of smoke and soot suspended in one cubic metre of air. Results obtained at these three stations since 1955, that is before air pollution control commenced, show significant reductions in smoke emission despite the increased industrial, harbour and transport activities. With regard to the results obtained during summer, percentage reductions at the three sites range from 21% to 63% and during winter seasons, the reduction over the years has ranged from 32% to 66%.

Adhesive tapes and mini-collectors have been used to investigate dust complaints and complementary microscopic and analytical techniques have been developed. These investigations have enabled strong representations to be made to firms concerned regarding the need for more effective control of dust, grit and fly-ash.

(d) Progress with 15 Year Sewerage Reticulation Programme

(i) Trunk and Main Sewers

Construction of the Collingwood Road section of the Umbilo trunk sewer, and of the Umhlatuzana Township section of the Umhlatuzana trunk sewer was completed during the course of the year.

Work carried out on the following trunk sewers during the course of the year had not been completed by the end of the year; Mobeni section and Kharwastan section of Umhlatuzana trunk sewer, Riverside Road trunk sewer and Upper Umbilo trunk sewer.

At the end of the year, contracts were advertised for the construction of the Reservoir Hills trunk sewer.

Designs were completed during the year for portions of Umhlatuzana trunk sewer serving parts of Kharwastan Township and Queensburgh, while designs were in hand for the trunk sewer between Umhlatuzana Township and Stainbank Nature Reserve for crossings of the Amanzimnyama Canal, and for various sections of the Umbilo main sewer, including the South Coast Road/Hullet Lane/ Karim Lane intersection.

(ii) Reticulation

Progress was maintained on the designs and construction of reticulations as shown on the adjoining table.

(iii) Pump Stations

The Maydon Road sewage pump station was completed and put into operation.

The construction of the Bayhead pump station was completed and the plant installed.

Designs were completed for pump stations at Carolina Crescent, Woodlands, and at Badulla Drive to serve the Merebank Housing Scheme.

(e) Trade Effluents

The principal work of the Section is that of routine sampling of industrial effluents to ensure that neither toxic nor harmful agents are introduced into the sewerage system. This programme has been continued as in former years.

Closely associated with this aspect of the work of the Section is that of guidance and advice regarding pre-treatment and water conservation measures. It is true to say that Industrialists generally are now much more conscious of the need for water conservation than previously.

More strict measures are being taken in regard to oil pollution from garages and workshops. To this end, the assistance of the Licensing Department and that of the Building Inspector is of particular help.

The overall picture is one of steady improvement.

SPECIAL CAPITAL WORKS

WATER SUPPLY

The second Umgeni Augmentation Water Scheme, which increased the amount of purified water, available from the Umgeni River, from 50 M.G.D. to 100 M.G.D., has now been completed in all respects, and the purification works at Durban Heights, which incorporates the most modern techniques, is operating at peak efficiency.

Work in the past year has been centred on two aspects - the first is the building up of an adequate reserve supply of purified water, in case of any breakdowns either in the raw water supplies or at the purification works. The existing reserve capacity of 32 M.G.D. at Durban Heights,

SCHEDULE
SEWERAGE RETICULATION PROGRAMME

	Area	Area Under Design	Area Designed Not Constructed	Area Under Construction	Area Constructed Not Operative	Area Constructed and Operative	Total Area
1	Avoca						1,566
2	Bayhead						650
3	Bellair - Hillary	170 9%	308 17%	173 9%	207 11%		1,852
4	Clare Estate	470 33%		179 13%			1,365
5	Durban North	8 1%					986
6	Effingham	339 23%			62 4%	33 2%	1,437
7	Fynnlands			103 11%			644
8	Greenwood Park	87 100%					87
9	Kharwastan						368
10	Mobeni - Jacobs						389
11	Montclair-Woodlands		65 21%				311
12	Reservoir Hills	23 2%	44 3%	165 11%	461 32%		1,465
13	Riverside	183 29%					623
14	Rossburgh-Sea View	378 39%		220 22%	85 9%		971
15	Sea Cow Lake				99 11%		892
16	Springfield	207 60%			75 13%		344
17	Sydenham	121 86%					141
18	Umhlatuzana						590
19	Virginia						444
20	Wentworth-Bluff			212 12%			1,769
21	Westlands						2,870
22	Westridge						1,054
23	Merebank				534 65%	288 35%	822
24	Isipingo Beach	93 47%					198

AREAS MEASURED IN ACRES

in addition to the various service reservoirs scattered throughout the City, gave no more than 12 hours supply, which was inadequate, and consequently it was planned to increase this reserve to a minimum of 36 hours, at present demands. For this purpose, a new balancing reservoir, to hold 75 million gallons - the largest covered reservoir in the Republic - is under construction at Durban Heights, and will be completed during 1969, at an estimated cost of R1,650,000.

The second project consisted of a new aqueduct from Durban Heights to Northdene, which makes available a further 26 M.G.D. to the southern areas. This was necessary to meet the high demand for water from that part of the City, particularly due to the establishment of the vast Indian and Bantu townships at Chatsworth and Umlazi respectively, and the rapid growth of the industrial areas in the south.

Despite the considerable increase of available water supplies over the past four years, demands are increasing rapidly and investigations are now proceeding with a view to further augmentation schemes, in order to keep abreast of the very rapid development of Durban.

MAIN SEWERAGE

It is planned to modernize the complete main sewerage system of the City, including the incorporation of the latest techniques of sewage purification and disposal, and to this end three new sewage treatment works are under construction, to serve the Southern, Central, and Northern Main Drainage Areas respectively. The principles of treatment to be followed in the case of the first two areas, are primary purification of the effluent, with discharge to sea, and full treatment of the sludge, while the Northern Works, where a sea outfall is not a practical proposition, is planned to give full treatment of the sewage, with the discharge of the purified effluent into the tidal reaches of the Umgeni River.

Southern Areas

Progress on the construction of the treatment works, which is being planned to treat 20 M.G.D. immediately, and capable of extensions to 80 M.G.D., has continued. The primary units of screens, degritters and sedimentation have been completed, and were in fact commissioned the previous year, while work is proceeding apace on the sludge treatment units, which comprise primary and secondary digesters, gasometer, thickeners, heat treatment for dehydration by means of heat exchanges, heating vessels and filter presses, finally giving a sterile sludge with a moisture content of about 30%, which can be used for fuel within the process, or for landfill, or for fertiliser.

It is anticipated that the sludge units will be fully commissioned during July, 1969, but the works have been in operation during the whole of 1968, with the primary units coupled to temporary sludge lagoons. The effluent - since November, 1968 - has been conveyed to the 54" diam. sea outfall, which is some 2½ miles in length, discharging into sea water at 200 ft. depth, and which was also completed during the year under review. These works, which were scheduled to be in full operation early in 1969, have unfortunately been delayed by the reported shortage of finance for capital works, and will not be completed until late in 1969.

Central Area

This area, which takes the sewerage from the heavily developed Central Business District, and the Berea, drains to the Point Outfall Works, which was originally constructed in 1895, and discharges the sewage into the Harbour entrance during ebb tides. The new treatment works, which will eliminate this system completely, is situated on the seaward side of the northern tip of the Bluff, and entailed the construction of a 12 ft. diameter tunnel under the harbour entrance, with a top level of 60 ft. below Low Water at ordinary spring tides, in order to take the sewage to the site of the new works across the harbour.

Owing to the restricted nature of the site, the treatment works for the Central Area follows a different technique in that the sludge treatment will incorporate the new process whereby the sludge is reduced to an end product consisting od disposable ash only - there will be no digestion stages at all. Settlement will be by means of rectangular collectors; and the effluent will be discharged to sea through a 48" diameter sea outfall, some 2 miles in length, discharging into the sea at a depth of 180 feet. The outfall was completed by the end of 1968, but shortage of capital money has delayed the completion of the Works, which cannot now be commissioned until August, 1969.

Northern Area

The treatment works for this drainage area is situated north of the Umgeni River, off Sea Cow Lake Road, and is designed to give full treatment, with screens, degritters, primary sedimentation, biological treatment of the effluent on the activated sludge principle, and digestion and heat drying of the sludge. The purified effluent will be taken to maturation ponds, for final discharge into the tital waters of the Umgeni River in full accordance with the standards specified by the State in terms of the Water Act of 1956.

Considerable progress has been made with the construction of these works, which had been planned for commissioning in May, 1969, but the unfortunate reduction in capital money allocation for these works has delayed this completion date to November, 1969. Temporary stabilisation ponds on a small scale have, however, been provided to cope with some of the urgent cases in this area, where waterborne sewerage is badly needed, because of the high water table and the unstable geological formation of Ecca shales, but these ponds are unable to cope with any appreciable flow with safety, and are being used as little as possible.

General

The whole scheme of modernisation of the sewage treatment system of the City had been planned for completion by May, 1969, but unfortunately the reported condition of financial stringency has resulted in this date being postponed by some six months at a minimum. It is to the credit of the staff carrying out this major work that arrangements have been made to utilise portions of the works at the earliest opportunity, and, as indicated, the Southern Works, which will not be completed now until September, 1969, has been able to cope - by temporary measures - with a flow of some 5 M.G.D. This form of 'makeshift' treatment, however, is at best most unsatisfactory, and it is a matter of regret that adequate financial allocations could not be made for these projects which rate high in the list of public health amenities. Durban has suffered too long from inadequate services in this field, and no further delay should be countenanced in completing the full programme of sewage treatment works. Once this has been achieved, it becomes possible to provide waterborne sewerage to the many areas in Durban where this service is a necessity of some urgency.

XIII. GENERAL

CONFERENCES

The Department received a number of invitations during 1968 to attend conferences, seminars and the like but, due to factors such as the distance involved, pressure of work and financial limitations, all were declined except the several mentioned below.

On 10th June the Department was host to the South African Branch of the Royal Society of Health at its one-day Symposium. The Medical Officer of Health was chairman of the morning session and several members of the staff were committed with various aspects of the organisation of this important function. The conference was officially opened by His Honour the Administrator of Natal and was well attended by various interested departments and organisations in Natal and from other centres in the Republic. The morning session on the subject of Bilharzia was devoted to the following papers -

(a) Snail and Bilharzia Distribution in South Africa:
Dr. D.H.S. Davis

(b) Field Aspects of the Prevention of Bilharzia and Promotional Health Matters:
Dr. R.J. Pitchford

(c) Some Clinical Aspects of Bilharzia:
Dr. S.J. Powell

(d) Laboratory Diagnosis of Bilharzia:
Prof. J.H.S. Gear

Summary by Prof. R. Elsdon-Dew.

The afternoon was set aside to consider the "Public Health Hazards of Nuclear Warfare" with the presentation of papers as follows -

(a) Nuclear explosions and their effects on modern cities with an emphasis on decontamination and public health:
Comdt. M. Kolbe

(b) Public health aspects of radiation following nuclear explosion with particular reference to foodstuffs, milk and water supplies:
Dr. J.P. Roux

(c) The Atom Bomb, Nuclear Warfare and Civil Defence:
Brig. J.P. de Villiers

The success of this conference was in no small measure ensured by the hospitality extended by the City Council.

The following month the Medical Officer of Health attended the 13th Annual General Meeting of the South African National Council on Alcoholism held in Durban over three days, and in August he proceeded to Bulawayo for the Rhodesian Medical Congress. The Annual General Meeting of the South African National Council for Mental Health held on 3rd and 4th October in Pietermaritzburg was also attended.

The Annual Meeting of the South African National Council for Child Welfare in Bloemfontein from 11th to 13th September was attended by the Chief Health Visitor representing the Department, and the Vice-Chairman of the Public Health Committee of the Council. The South African Veterinary Medical Association's Annual Conference held in Pretoria from 10th to 13th September was attended by the Veterinary Medical Officer and whilst in the Transvaal he took the opportunity of conducting inspections of certain ice-cream manufactories in Pretoria and Boksburg which are registered under the Milk (and Milk Products) By-laws for the introduction of products into Durban.

The Institute of Public Health's Biennial Health Congress held in East London from 18th to 22nd November, 1968 was attended by the Vice-Chairman of the Public Health Committee, the Deputy City Medical Officer of Health and the Chief Health Inspector.

The foregoing conferences were in addition to a number of local meetings, functions, and addresses which members of the staff attended either on a regular or ad hoc basis.

TRAINING FACILITIES

The Department continued in 1968 to provide training facilities for various groups of students and in-service tuition for Municipal or departmental staff. The City Medical Officer of Health in his capacity as Honorary Senior Lecturer in Public Health conducted a series of lectures for fifth year medical students at the University of Natal.

MEDICAL BURSARY

For several years the City Council has been considering the desirability of offering a bursary and arising from its decision on 29th January, 1968 applications were invited from European male scholars whose parents were unable to afford the full cost of studies, or who were deceased, for a course towards the M.B., Ch.B. degree at any university in the Republic, to the value of R700 annually for six years.

Applications received as a result of press publicity numbered twelve and, on the recommendation of the Natal University's Bursaries and Scholarship Committee, the award was made to John Morton Gill of Durban North who is

attending the Medical Faculty of the University of the Witwatersrand.

AWARDS TO NURSES

(i) Mothercraft Bursary

Miss I.A.C. Prinz was awarded the City Council's annual bursary and she also obtained the Dr. Emdin award for the best trainee at the mothercraft centre.

(ii) Student Awards

The following nurses were selected to receive the Durban City Council's awards for outstanding trainees at City Hospitals -

Addington Hospital	
Miss Beryl Jean Walker	Gold Medal
Miss Jennifer Mary Sissons	Silver Medal
St. Augustine's Hospital	
Miss Theresa Mary Ribiero	Rolled Gold Fob Watch
Miss Mary Noelle Tonissant	Stainless Steel Fob Watch
Entabeni Hospital	
Miss Elizabeth Anne Campbell	Rolled Gold Fob Watch
Miss Janet Gene Williams	Stainless Steel Fob Watch
King Edward VIII Hospital	
Miss Nozibele Sophelina Honono	Rolled Gold Fob Watch
Miss Daria Fredericks	Stainless Steel Fob Watch
McCord Zulu Hospital	
Miss Alome Mamaotoane Bapela	Rolled Gold Fob Watch
St. Aidan's Hospital	No award.

EXTENDED POWERS

The names and addresses of persons are very frequently required in the normal course of public health work and fortunately, in the vast majority of instances, the information requested is supplied without demur. In a few cases when there is not a ready response production of the health inspector's letter of authority, in which section 146 of the Public Health Act, 1919, regarding the penalty for obstructing an official in the course of his duties, is set out in extenso, usually achieves the desired result.

However, during the year a health inspector was obstructed in the performance of his duties by a shopkeeper who also refused to disclose his name. A prosecution was instituted for a contravention of the aforesaid provision but the plea that only the police had the right to obtain this information was upheld.

As there had been several other instances of obstruction in the past any doubt as to what information an inspector was entitled to obtain under the Act should be removed as soon as possible. On consideration of the implications the City Council decided to seek an amendment to its extended powers for Durban authorising not only medical officers of health and health inspectors to exercise this power in the exercise of their duties but also other servants and officers of the Council.

In reply to these representations the Provincial Secretary advised that the Administrator-in-Executive Committee intended to introduce an amendment to the Local Government Ordinance 1942 on the lines of the proposal at the earliest opportunity and that the Durban City Council should therefore not proceed therewith.

MEDICAL BUREAU

A clinic is held daily at the City Health Department by one of its Senior Clinical Medical Officers for the medical examination of prospective male entrants to the Municipal service (European, Coloured and Indian candidates), and a clinic is held on two afternoons a week for female entrants. Apart from the clinical examination, all applicants are referred to the Durban Chest Clinic for X-Ray.

Medical Boards under the Conditions of Service are also held by two medical officers at the written request of the Head of Department concerned.

The extent of these activities is summarised below :-

Service	European Males	European Females	Non-Europeans	Total
Entrance examinations	1,274	400	591	2,265
Medical boards	26	-	4	30

A free medical service is available to certain categories of employees in the Beach, Fire, Licensing and City Police Departments and during 1968 the consultations numbered 994. The privilege is only enjoyed by employees who were appointed prior to 1st August, 1965 and consequently there is a regression in attendances as demonstrated by the figures for 1966 and 1967 which were 1,455 and 1,166 respectively.

PROSECUTIONS

Legislation Contravened	Admitted Guilt	Found Guilty	Fines Paid	Remarks
FOOD BY-LAWS			R	
Unclean conditions	25	9	630.00	1 case : R10.00 or 10 days 1 case : Fined R15.00 4 cases : R20.00 or 20 days 2 cases : R30.00 or 30 days 1 case : R80.00 or 80 days
Exposure of food to contamination	21		470.00	
Unclean food delivery van	8	1	180.00	1 case : R15.00 or 15 days 1 case not guilty
Unclean/unsound utensils		2	45.00	1 case : R30.00 or 30 days 1 case : R15.00 or 15 days
Failure to provide clean overalls for staff	10	2	180.00	1 case : R20.00 or 20 days 1 case : R10.00 or 10 days
Failure to provide hot water for utensil sanitation	1		25.00	
Failure to provide soap and towels for employees		2	30.00	1 case : R20.00 or 20 days 1 case : R10.00 or 10 days
Failure to repaint interior of premises	2	2	40.00	1 case : R20.00 or 20 days
Structural conditions				1 case : Cautioned and discharged.
Storage of personal clothing in a storeroom	7		70.00	
Sale of food at a place of public resort without taking precautions to avoid contamination	8		170.00	

Legislation Contravened	Admitted Guilt	Found Guilty	Fines Paid	Remarks
			R	
FOOD BY-LAWS (Contd.)				
Delivery of food in a non purpose-designed vehicle	2		35.00	
Sale of unsound food	3		65.00	
Keeping of live animals on food premises	2		25.00	
Incompatible use of food room	5		75.00	
Unauthorised use of vehicle for conveyance of food	1	2	90.00	1 case : R20.00 or 20 days 1 case : R35.00 or 30 days
Defective fixtures and fittings	1		25.00	
Contaminated paper used for wrapping purposes	1		15.00	
PUBLIC HEALTH BY-LAWS				
Unclean conditions	11	3	255.00	1 case : R10.00 or 10 days 2 cases: R15.00 or 15 days 2 cases: Not guilty
Structural defects	14	1	240.00	1 case : R20.00 or 20 days
Defective drainage system	14	2	205.00	1 case : R15.00 or 15 days 1 case : Cautioned and discharged
Defective sanitary fitments	3	1	35.00	1 case : Cautioned and discharged

Legislation Contravened	Admitted Guilt	Found Guilty	Fines Paid	Remarks
			R	
PUBLIC HEALTH BY-LAWS (Contd.)				
Failure to provide refuse receptacles	3		35.00	
Failure to repaint exterior of premises	2		20.00	
Failure to provide an effective drainage system	3	1	50.00	1 case : R15.00 or 15 days 1 case : Not guilty
Permitting fly development	2	1	65.00	1 case : R40.00 or 40 days 1 case : Not guilty
Permitting mosquito development	1	3	25.00	3 cases: R5.00 or 5 days 1 case : Not guilty
Slaughtering of animals in unapproved premises		1	15.00	1 case : R15.00 or 15 days
GENERAL BY-LAWS				
Depositing refuse on a public roadway	9		165.00	
MILK (AND MILK PRODUCTS) BY-LAWS				
Sale of milk not conforming to bacterial standards	3		35.00	
Sale of milk obtained from unregistered source	3		45.00	

Legislation Contravened	Admitted Guilt	Found Guilty	Fines Paid	Remarks
			R	
PUBLIC HEALTH ACT				
Exposure of food to contamination	4		70.00	
Sale of unsound food	2		50.00	1 case : Not guilty
SLUMS ACT				
Failure to demolish a declared slum	8	3	180.00	1 case : R30.00 or 30 days 2 cases: Cautioned and discharged 1 case : Not guilty
BUILDING BY-LAWS				
Demolition of building without a rodent-free certificate	1		20.00	
Housing persons in premises not approved for human habitation	2		25.00	
FOOD, DRUGS AND DISINFECTANTS REGULATIONS				
Sale of minced meat containing preservative	4	1	180.00	1 case : R100.00 or 10 days
Sale of honey not conforming to chemical standards	3		60.00	
Sale of sausages not conforming to chemical standards	3		80.00	
Sale of sausages containing excess preservative	2		40.00	

Legislation Contravened	Admitted Guilt	Found Guilty	Fines Paid	Remarks
			R	
FOOD, DRUGS AND DISINFECTANTS REGULATIONS (Contd.)				
Sale of boerewors not conforming to chemical standards	2		45.00	
Sale of boerewors containing excess preservative	1		25.00	
Ice cream containing insufficient solids	1		20.00	
	198	37	4155.00	

XIV. STAFF AND FINANCIAL SUMMARY

AMENDMENTS TO STAFF ESTABLISHMENT

The following amendments to the staff establishment were authorised by the City Council and, where applicable, the approval of the Secretary for Health for part-refunds in terms of the Public Health Act, was obtained.

Section	Group	Designation of Post	No.of Posts	Remarks
(a) Additions to Establishment				
Administration	European	Chief Clerk (Grade II)	1	(w.e.f. 26.9.68)
		Chief Clerk (Grade II)	1	Replaced 1 post Senior Clerk (Grade II) (w.e.f. 26.9.68)
Health Inspection	-do-	Senior Health Inspector	1	Replaced 1 post Health Inspector (w.e.f. 4.11.68)
	-do-	Health Assistant	4	(w.e.f. 25.3.68)
	Indian	Health Inspector	4	(w.e.f. 4.11.68)
Health Visiting	Bantu	Nurse Aide	2	(w.e.f. 2.12.68)
	-do-	Interpreter/ Cleaner	1	(w.e.f. 2.12.68)
			14	
(b) Posts deleted from Establishment				
Health Visiting	European	Clinic Assistant	1	(w.e.f. 2.12.68)
Administration	-do-	Senior Clerk (Grade II)	1	(w.e.f. 25.9.68)
Health Inspection	-do-	Health Inspector	1	(w.e.f. 3.11.68)
			3	

Due to retirements and resignations a number of staff replacements were effected in the Department.

After extensive advertising of the vacant post of Assistant Medical Officer of Health it was possible to make an appointment to the second position of Assistant Medical Officer of Health which had been vacant for nine months.

Regrading and Re-designation of Posts

One position of Senior Clerk (Grade II) in the Administration Section was regraded and re-designated Chief Clerk (Grade II).

For the purpose of directing and supervising non-European Health Inspectors employed in the Department, one post of Health Inspector was improved to Senior Health Inspector.

STAFF ESTABLISHMENT

Section and Position	No.	Incumbent/Remarks
EXECUTIVE		
City Medical Officer of Health	1	Dr. C.R. Mackenzie, M.B.; B.Ch.; D.P.H.; D.T.M.& H. (Rand); F.R.S.H.
Deputy City Medical Officer of Health	1	Dr. G.L. Hilton-Barber, M.B.; Ch.B.; D.P.H.
Assistant Medical Officer of Health	2	Dr. N.L. Becker, M.B.; Ch.B.; D.P.H. Dr. M.B. Richter, M.B.; B.Ch.; D.P.H. (w.e.f. 1.8.68) Vacant w.e.f. 1.10.67
ADMINISTRATION		
(a) European		
Principal Assistant (Administration)	1	Donkin, F.D.
Personal Assistant	1	Poplett, D.J., M.R.S.H.
Senior Assistant (Technical)	1	Kibble, G.A., Cert. R.S.H.
Senior Assistant (Financial)	1	Dyer, R.B., Cert. R.S.H.
Chief Clerk (Grade I)	2	Blignault, L.V., Cert. R.S.H. Shackell, N.W.
Chief Clerk (Grade II) * Meat and Other Foods Certificate + Tropical Hygiene Certificate	2	* Aitkenhead, V.J., Cert. R.S.H. (w.e.f. 26.11.68) *+Behn, A.L., Cert. R.S.H. (w.e.f. 26.11.68)
Senior Clerk (Grade II)	3	
Clerk	12	
Principal Lady Assistant	2	Note: Designation and grade of one Principal Lady Assistant personal to existing incumbent
Senior Lady Assistant	3	
Lady Assistant	7	

Section and Position	No.	Incumbent/Remarks
Chief Typist	1	
Senior Typist	1	
Typist	4	
General Assistant (Unestablished)	1	
(b) Asiatic		
Clerk (Grade III)	1	
General Assistant	1	
Assistant	8	
(c) Bantu		
Health Assistant	1	
Watchman	2	
Labourer	1	
EPIDEMIOLOGY (embracing tuberculosis, infectious diseases and venereal diseases control)		
(a) European		
Senior Clinical Medical Officer	2	Tuberculosis Clinics Dr. P.R. Henson, M.R.C.S.; L.R.C.P.; D.P.H. Dr. E.A. MacIldowie, L.M.S.
X-Ray Technician	1	Tuberculosis clinics
Operator X-Ray (male)	1	" "
General Assistant	2	(1 for Home Disinfection Unit; 1 for Immunisation Service)
Note: The following staff was posted from the Health Visiting and Health Inspection Sections for full-time duty :-		
Tuberculosis Control		
5 Health Visitors		Field control
2 Clinic Sisters		Tuberculosis Clinics
1 Health Inspector		Field control
Infectious Diseases and Venereal Diseases		
1 Senior Health Inspector) 1 Health Visitor)		Field control
(b) Asiatic		
Health Assistant	8	Field control
Health Assistant	1)	Tuberculosis Clinics
Nurse Aide	2)	
Interpreter/Cleaner	1)	
Labourer	1	Home Disinfection Unit

Section and Position	No.	Incumbent/Remarks
(c) Bantu		
Health Assistant	16	Field control
Health Assistant	1)	Tuberculosis Clinics
Nurse Aide	2)	
Interpreter/Cleaner	2)	
HEALTH INSPECTION		
(a) European		
Chief Health Inspector	1	Johnston, M.M.
Deputy Chief Health Inspector	1	Smith, A.M.
Senior Health Inspector	12	* Ashdown, N.D.
		*+Butler, M.W. (Retired 5.6.68)
Note: Allocation of positions :-		Clark, A.G.
		Crickmore, C.R.A.
District Sanitation 7		* Green, C.E.O.
Food Hygiene 1		Harris, J.K.
Housing, Plans and Slums 1		* Hogan, J.P.
Infectious Diseases 1		Hornby, A.V.
Dairies 1		Ingram, W.A.
Field Hygiene 1		* McIver, E.I.
		*+Roberts, K.W.C. (w.e.f. 6.6.68)
Note: All Health Inspectors hold a certificate recognised in terms of Section 14(2) of the Public Health Act and additional qualifications as indicated.		* Sutherland, F.T.
		1 Vacant (w.e.f. 4.11.68)
Health Inspector	40	Alder, C.H.
		*+Ayre, N.P.W.
Note: Allocation of positions :-		*+Behn, A.L. (Promoted to Chief Clerk Grade II)
District and Food Hygiene 33		*+Black, D.N. (w.e.f.1.2.68)
Dairies 3		*+Blair, E.A.
Housing, Plans and Slums 1		* Booyens, M.M.
Epidemiology 1		* Brokenshaw, A.D.
Slums 2		*+Bruwer, W.F.
		*+Burgess, D.W.
		* Cannon, D.C.
		* Coreejes, G.J.
		*+Currie, A.
* Meat and Other Foods Certificate		*+Davies, O.S.
+ Tropical Hygiene Certificate		*+de Villiers, P.D.
		*+Dunbar, A.M.
		* Fick, J.V. (Resigned 29.2.68)
		* Griffin, R.E.
		* Hiron, B.V. (w.e.f.20.3.68)
		*+Hook, T.C.
		*+Hull, V.H.

Section and Position	No.	Incumbent/Remarks
		*+Johnston, R.B. Keen, F. * Kimber, J.F. * Knowles, D.H. * Marsh, H.N. *+McCawley, F.G.I. * Miles, A.R. *+Moffitt, N.S. *+Ogden, G.B. *+Pearman, E.F.J. * Phillips, L.G.F. * Roberts, A.J.L. *+Roberts, K.W.C. (Promoted to Senior Health Inspector) * Schou, M.S. *+Smith, L.J. *+Spencer, D.W. * van Rooyen, H.M. (w.e.f. 1.2.68) *+Walsh, W.W. *+Whitaker, D.G.M. * Worthington, C. *+Worthington, R.C. *+Young, N.R. 1 Vacant
Health Assistant	16	Trainee Health Inspectors
General Assistant	7	Rodent Control
(b) Asiatic		
Health Inspector	6	* Hirasen, Velu Gonaseela, M. (w.e.f. 29.4.68) 4 Vacancies (w.e.f.4.11.68)
Health Assistant	3	
Assistant	5	Rodent Control
(c) Bantu		
Health Inspector	2	Vacant
Health Assistant	2	
VETERINARY HYGIENE		
European		
Veterinary Medical Officer	1	Dr. A.J. Louw, B.V.Sc.
Laboratory Assistant	2	
FIELD HYGIENE		
(a) European		
Supervisor	1	Cox, L.J.A.
Senior General Assistant	1	
General Assistant	8	

Section and Position	No.	Incumbent/Remarks
(b) Asiatic		
Overseer	1	
Spotter	2	
Assistant	2	
Labourer	12	
(c) Bantu		
Overseer	1	
Health Assistant	1	
Spotter	10	
Labourer	84	
HEALTH VISITING		
(a) European		
Chief Health Visitor	1	Rankin, M.H.E., Medical and Surgical, Midwifery, Mothercraft, Health Visitor's and School Nurse's Certificates
Deputy Chief Health Visitor	1	Harding, E., Medical and Surgical, Midwifery, Mothercraft, Health Visitor's and School Nurse's Certificates
Senior Health Visitor	1	Stead, R.J., Medical and Surgical, Midwifery, Mothercraft, Health Visitor's and School Nurse's Certificates
Health Visitor	28	ØxAnderson, E.M. ØxAtkinson, B.J.(w.e.f. 1.5.68) Ø Berghammer, A. (Resigned 30.9.68) ØxBricknell, M.B. ØxBrown, M.K. Ø Butler, M.A. Ø Churchill, I.M.(w.e.f. 1.4.68) Ø Dugmore, S. (w.e.f.1.4.68) (Resigned 31.8.68) ØxEssery, M.V. Ø Frickel, M.A.(w.e.f. 1.2.68) ØxHamlyn, E.F. Hook, E.M. Ø Lloyd, A.A.M.M. Ø McCagie, S.M. ØxMitchell, B.I. Ø Muller, M. Ø Pettigrew, E. Ø Robinson, J.O. Ø Schärf, A.(w.e.f.1.4.68) Ø Schlemmer, P.A. (Resigned 11.9.68)
Note: Allocation of positions :-		
Family Health Service 19		
Epidemiology -		
T.B. Control 5		
V.D. and I.D. 1 6		
Immunisation 3		

Section and Position	No.	Incumbent/Remarks
		ØxSchwarz, C.J.P.
		Ø Strickland, M.A.
		Ø Sutherland, J.W.
		Ø Truscott, J.A.
		Ø Tyzack, P.
		Ø Ward, J.
		Ø Watts, D.J.
		Ø Webb, M.E.
		Ø Winter, B.G.
		2 Vacancies
Clinic Sister	7	Ø Hawksworth, S.M.
Note: Allocation of positions :-		ØxHunter, J.W.
		Ø Martin, M.E.S.
		Ø McCall, G.M.
Family Health Service 3		Ø Nickson, M.A.
Immunisation 2		Ø Strydom, D.M.
Tuberculosis 2		Venter, E.G.
Clinic Assistant	10	
(b) Coloured		
Health Visitor	3	Ø Charles, G.T.
		Ø Deane, D.P.A.
		Ø Ward, R.G.
Nurse Aide	3	
Nurse Aide/Seamstress	1	
(c) Asiatic		
Senior Health Visitor	1	Ø Naidoo, R.R.
Health Visitor	8	Ø Jacob, S.
		Ø Manogaran, R.A.
		Ø Naidoo, K.
		Ø Naidu, S. (w.e.f.1.10.68)
		Ø Nair, K.
		Ø Nair, R.G.
		Ø Rama, D. (Resigned 29.2.68)
		Ø Reddy, T.
		Ø Sadananden, R.F.
Nurse	5	Ø Ambigay, S.
		Ø Anthony, A.
		Ø Naidoo, S.P. (Resigned 30.11.68)
		Ø Tholasiamah, N.
		Ø Naidu, S.
		1 Vacant (w.e.f. 1.12.68)
Nurse Aide	21	
General Assistant	1	
Interpreter/Cleaner	7	

Section and Position	No.	Incumbent/Remarks
(d) Bantu		
Senior Health Visitor	1	Ø Zulu, K.M.
Health Visitor	16	Ø Bhengu, M. Ø Dotwana, H.B. Ø Kgoare, L. Ø Malamba, M.V. Ø Mazibuko, P.A. Ø Mkize, L.D. Ø Mkwanazi, K. Ø Mlambo, S. Ø Moholo, D.V. Ø Nala, N. Ø Ndlovana, M.N. Ø Ngqulunga, O.G. Ø Nkabinde, I. Ø Ntaka, E.N. Ø Sibiya, F. Ø Tsekiso, A.
Nurse Aide	13	2 Vacant
Interpreter/Cleaner	7	1 Vacant
IMMUNISATION		
Note: European staff comprising :-		
3 Health Visitors 2 Clinic Sisters and 2 Clinic Assistants are posted to this Section from the Health Visiting Section on a full-time basis; the services of part-time medical officers, appointed to a panel are employed on a sessional basis.		
(a) Asiatic		
Nurse	2	Ø Shunmugan, M. 1 Vacant
Health Assistant	4	
Overseer	1	
(b) Bantu		
Nurse	3	Ø Gumede, B. Khahledi, M. (w.e.f. 1.2.68) Putini, D.
Health Assistant	4	Ø Midwifery Certificate x Mothercraft Certificate

Section and Position	No.	Incumbent/Remarks
FAMILY HEALTH (CHILD HEALTH) SERVICE		
Senior Clinical Medical Officer	1	Dr. H.A.B. Pletts, M.B.; B.Ch.
Clinical Medical Officer	1	Dr. E. Shirley, M.B.; Ch.B.
Part-time Clinical Medical Officer	4	Dr. L.E.J. Chapman, B.Sc.; M.B.; B.Ch.; D.P.H. Dr. E.K. McDonald, M.B.; Ch.B. Dr. M. Ness, M.B.; B.S. Dr. H. Kennedy, M.B.; Ch.B.
Part-time Medical Specialist	1	Dr. S.T. Trezise, M.B.;Ch.B.; M.R.C.O.G.
EXFOLIATIVE CYTOLOGY		
Asiatic		
Health Assistant	1	Vacant
MATERNAL AND FAMILY WELFARE (Planned Parenthood)		
(a) European		
Part-time Clinical Medical Officer	1	Dr. P. Kirtle, M.B.; B.S.
(b) Asiatic		
Nurse	1	Ø Govender, P. Ø Midwifery Certificate
HEALTH EDUCATION		
(a) European		
Senior Health Inspector (Health Educator)	1	Hazle, A.D., Public Health Inspector, Meat and Other Foods and Tropical Hygiene Certificates
Technician	1	Godfrey, D.M.
Health Visitor	1	Vacant
General Assistant	2	
(b) Coloured		
Lecturer	1	Vacant (w.e.f. 14.6.68)
(c) Asiatic		
Lecturer	1	
Junior Lecturer	5	
Junior Lecturer (Female)	1	Appointment (w.e.f. 13.5.68)

Section and Position	No.	Incumbent/Remarks
(d) Bantu		
Lecturer	2	1 Vacant
Assistant Lecturer	1	
Junior Lecturer	4	
Junior Lecturer (Female)	1	Appointment (w.e.f. 16.1.68)
NON-EUROPEAN HEALTH AND MEDICAL SERVICES		
NON-EUROPEAN VENEREAL DISEASES CLINICS		
(a) European		
Senior Clinical Medical Officer (City Venereologist)	1	Dr. A.A. Wailer, M.R.C.S.; L.R.C.P. (Deceased 3.6.68) Dr. S. Ward, M.R.C.S.; L.R.C.P. (w.e.f. 22.8.68)
Clinical Medical Officer	2	Dr. J.H. Meiring, M.B.; Ch.B. Dr. H.B. Savage, M.R.C.S.; L.R.C.P. Dr. S. Ward (Locum tenens to 21.8.68)
(b) Bantu		
Nurse	4	Cele, M. Emerson, R. Ø Nxumalo, V. Ø Zikalala, Z.L. Ø Midwifery Certificate
Health Assistant	9	
Interpreter/Cleaner	1	
MEDICAL BUREAU		
Senior Clinical Medical Officer	1	Dr. M. Casson, M.D.; M.R.C.S.; L.R.C.P.
TOTAL STAFF ESTABLISHMENT		
European	207	(Includes 1 unestablished and 6 part-time appointments)
Non-European		
Coloured 8		
Asiatic 113		
Bantu 191	312	
	519	
Consultant Pathologists to the Department		Drs. G.A. Drummond and Partners
Consultant ANALYST.		Messrs. Harding-Kloot and Martin.

FINANCIAL SUMMARY

An abbreviated statement of the cost, excluding Capital expenditure, of the services undertaken by the City Health Department for the financial year ended 31st July, 1968, with comparative figures for the preceding year, is set out below :-

Expenditure	1967/68 R	1966/67 R
Salaries, Wages and Allowances	841,125	756,254
Drugs and Medical Requisites	22,815	12,900
Tuberculosis Hospitalisation -		
Government Hospitals : Nett Cost	39,626	32,880
Other Hospitals : Gross Cost	222,378	222,141
Hospitalisation of Infectious Diseases including Venereal Diseases	39,672	29,585
Transport and Subsidised Locomotion	61,583	57,264
Miscellaneous, including Electricity, Insurance, Rents, Telephones and Stationery	231,587	220,026
	1,458,786	1,331,050

Income	1967/68 R	1966/67 R	1967/68 R	1966/67 R
General, including hospital fees recovered	57,565	52,887		
Government part-refunds: Public Health Act	504,287	494,914		
Health Services debited to Bantu Hostels and Locations	121,145	91,320	682,997	639,121
		Nett Cost	775,789	691,929

1967/68

GROSS EXPENDITURE : R 1,458,786

FOR EACH **R**

WHERE IT CAME FROM

BOROUGH FUND REVENUE ACCOUNT	53c
GOVERNMENT PART REFUND ON SALARIES, HOSPITAL FEES, CLINICS AND HOSPITAL FEES RECOVERED	36c
BANTU REVENUE CONTRIBUTION	8c
FEES AND GENERAL INCOME	3c

WHERE IT WENT

SALARIES, WAGES, ALLOWANCES AND ALLIED STAFF EXPENDITURE	60c
HOSPITAL AND AMBULANCE FEES, DRUGS AND LABORATORY SERVICES	20c
MISCELLANEOUS, INCLUDING ELECTRICITY, WATER, TELEPHONE, RENTS, RATES, INSURANCE, ETC.	15c
LOAN CHARGES ON CAPITAL	4c
REPAIRS, MAINT. AND RENEWALS	1c

APPLIED TO INDIVIDUAL SERVICES

TUBERCULOSIS CONTROL AND CLINICS	26c
HEALTH INSPECTION	19c
ADMINISTRATION	18c
CHILD HYGIENE AND FAMILY PLANNING	19c
FIELD HYGIENE	7c
INF. DISEASES AND IMMUNISATION	6c
VENEREAL DISEASES	3c
HEALTH EDUCATION	2c

NET COST PER CAPITA : R 0·98 PER ANNUM

POPULATION : 696,254

REPORT "B"

HOUSING

A. POPULATION

The estimated population for the City of Durban as at the 31st December, 1968 was as follows:-

European	187,788	26.97%
Coloured	31,520	4.53%
Bantu	206,687	29.68%
Asiatic	270,259	38.82%
Total	696,254	100.00%

B. EUROPEAN HOUSING

Information provided by the City Engineer, shows that funds for European housing were made available during the year and, in addition to the completion of a block of 200 economic flats (Flamingo Court) in Farrimond Road, Umbilo, it was possible to make a start with the first stage of development of 114 houses in a scheme at Hillary, which is in the Southern section of the City. It is anticipated that it will be possible to put the construction of the second stage of this latter project, comprising 170 flats and 9 duplex units, in hand timeously to maintain continuity of development.

A sub-economic scheme to provide low cost housing for Europeans in the form of a block of 80 flats in Leathern Road was prepared and submitted to the National Housing Commission. The proposal was referred back for a review of the costs and facilities to be provided and will be re-submitted in due course.

Construction of the "Home for Retired Durban Citizens" in Goodwin Drive to accommodate 464 aged persons was commenced. The accommodation comprises 360 single rooms and 52 double rooms for both males and females. The provision of this badly needed facility is indeed most welcome. Investigations into the possibility of providing further single accommodation for the aged at the Arcadia Homes, Bluff, were put in hand.

The City Treasurer has stated that as at the 31st December, 1968 the applications for accommodation recorded in the Housing Section of his Department were :-

Purchasing Scheme	1,206
Letting Scheme	692
Total	1,898

Units of accommodation completed under the Council's housing schemes were as follows:-

Loan and Selling Schemes (private powers)	18
Economic Letting Scheme (Farrimond Road)	200
	218

It is evident that there is still an ever-growing demand for accommodation in the middle and lower income groups.

The Department of Community Development provided 89 houses for Whites at Hillary of which 42 were at Falloden Park.

The Regional Representative of the Department of Immigration has supplied particulars of the 3,486 immigrants who arrived in Durban in 1968. Of these 34% (1,171) left Durban within a day or two for various centres outside Natal, after having been provided with transit accommodation in various hotels. The balance (2,315) were either placed in employment in Durban or somewhere else in Natal after an average period of 10 days accommodation in hotels. The immigrants therefore did not materially influence the general housing position.

C. COLOURED HOUSING

The City Council's contribution for this race group was the completion of the 10 "Timbrik" houses and the commencement of a contract for the construction of a further 74 brick dwellings at Sparks Estate, of which a total of 37 were completed during the year.

The possibility of further schemes in the remaining Merebank/Wentworth and Sydenham areas has received consideration. A project comprising several blocks of sub-economic flats on the old Sydenham Hotel site was investigated with a view to an application being submitted for State approval but details had not been completed by the year's end.

Regrettably the demand for housing for the Coloured community is far greater than the supply and according to the City Treasurer's records alone, the shortfall as at 31st December, 1968 was as follows:-

Purchasing Schemes	1,180
Letting Schemes	412
Total	1,592

The number of completed dwelling units under the City Council's housing schemes during the same period was:-

Loan Scheme (private powers)	3
Economic Selling Scheme	37
Economic Letting Scheme	10
Total units	50

The Regional Representative, Department of Community Development has advised that housing accommodation under development by the State during 1968 included 1,074 units for the Coloured community at Wentworth. In addition 98 families were resettled during the year in accommodation which was mainly of the better type houses that were previously Indian owned but situated in a proclaimed Coloured area.

D. INDIAN HOUSING

Due to the temporary lack of Government housing funds allocated to the City Council, a substantial backlog developed in the local authority's planned contribution towards providing houses and flats for the Indian community. This is unfortunate as in recent years the Council has played a commendable role in making Indian housing available in both the economic and sub-economic categories which is clearly illustrated by the development of the huge Chatsworth township and other schemes.

Towards the middle of the year an allocation of funds permitted contracts for the construction of 3,779 houses and services to be accepted in Chatsworth. Tenders were also invited for the construction of a further 788 better class houses on sites originally earmarked for development under the Loans to Individuals Scheme in various neighbourhood units of Chatsworth township.

Work on the provision of services in the Silver Glen Township, within the Chatsworth complex, continued with funds provided by the Department of Community Development which is itself undertaking certain housing development comprising 73 dwelling units. The State Department also resettled 532 Indian families during 1968.

Progress was made in collaboration with the Local Health Commission (Natal) in regard to the incorporation of its Newlands Public Health Area into the City as a prerequisite to the planning and development of an Indian township in the area. The subsumption will in all probability become effective during the first half of 1969.

In addition to this projected housing development

on the City's North Western boundary the preparation of outline plans for a large Indian township at Phoenix, also presently outside and to the North of Durban, was undertaken in collaboration with the Department of Community Development. So far, agreement has been reached regarding principles involved in this scheme and although it was not possible to open negotiations for the acquisition of the land during the year it is anticipated that progress in this regard will be made in 1969.

Whilst these schemes will alleviate the housing shortage in the future the present situation gives no cause for complacency. Only 163 houses were erected during 1968 in the various Indian areas of the City under the Council's Loan Schemes and, according to the City Treasurer's records for the year, the demand for housing based upon the number of applications lodged with his Department was as follows:-

Purchasing Schemes	11,408
Letting Schemes	3,428
Total	14,836

These applications represent increases of 1,275 and 849 respectively over last year thus supporting the view that there is still an ever-growing demand for Municipal-assisted housing.

The Government housing authorities have stipulated that units of accommodation will be allocated to applicants through their offices which means that the Department of Community Development has a virtual 100% control over initial occupancy.

E. BANTU HOUSING

The City Engineer has advised that with further allocation of Government funds, it was possible to recommence development in the Council's kwaMashu Bantu township and work on the completion of the final neighbourhood unit, No. 12, was put in hand. During the year, 158 houses were handed over for occupation.

Detailed planning and estimates were undertaken for the early submission of an application for approval in respect of a 17,000 bed hostel scheme at Umlazi-Glebe.

The vast Umlazi Bantu Township situated to the South of the City boundary is being developed by the City Council on behalf of the South African Bantu Trust. The construction of housing, services, schools, etc., proceeded at a steady rate and during the year 1,486 houses were handed over for allocation making a total of 17,716 to date. It is anticipated that funds to maintain this growth rate during the coming year will be made available by the Trust and thus

contribute still further towards the proper housing of the Bantu of Durban and the peri-urban areas.

The following details reflect the Municipal Bantu housing position in Durban as at the 31st December, 1968.

Institution and Type of Accommodation	Number of Units	Estimated Number of Persons Housed
(a) Municipal Family Housing		
Lamont and Lamont Extension Lamont Extension Economic Housing Scheme	1,911 851	20,700
Chesterville	1,265	9,300
kwaMashu - Approximately 16,000 houses when complete. Type KHG (Shared) houses treated as two units	14,221	95,000
Total	18,248	125,000

(b) Municipal Single Accommodation:	Beds
(for Men)	
Dalton Road Location	1,450
Jacobs Location	886
S.J. Smith Location	4,481
kwaMashu Location (Hostel Unit)	16,880
Umlazi Glebe (Hostel Beds)	2,900
(for Women)	
Thokoga Women's Hostel, Grey Street	684
Total	27,281

In addition to permanent residents at these institutions, tickets for casual accommodation are issued nightly and lodgers' permits are issued in family locations.

Other forms of Bantu housing include (i) Bantu-owned properties of which there are 200; (ii) domestics housed on employers' residential premises; (iii) Railway, Government and Provincial accommodation, and (iv) premises licensed under Section 9(4) of the Bantu (Urban Areas) Consolidation Act No. 25 of 1945, as amended.

F. SLUM CLEARANCE

The slum clearance programme was maintained throughout the year, and the staff engaged in this function, comprising two health inspectors who are fully engaged under the part-time direction of a senior health inspector, remained

unchanged. The section was responsible for making detailed inspections and preparing cases for presentation to the Slum Clearance Court of 182 properties. A number of these properties had from two to six dwelling units situated thereon and therefore, in point of fact, a total of 222 building units were dealt with, which gives a more accurate picture of the amount of work involving the Slums Inspectorate. Of these premises, 114 were occupied by Indians, 28 by persons of mixed races, 17 by Coloureds, 16 by Europeans, 6 by Bantu and the remaining one by Chinese. The properties housed 572 families comprising 2,989 persons.

The Slum Clearance Court was duly convened on 54 occasions during the year and 38 premises were declared slums. The majority of owners were directed to carry out demolition and only a small minority were required to effect repairs and renovations to the satisfaction of the local authority. The Slum Clearance Court took evidence and considered a number of other cases which were eventually struck off the roll, as the owners concerned voluntarily applied for and were granted permits to demolish under the Housing Act.

In order to appreciate the extent of the Department's activities from the time of resuscitation of slum clearance in 1965 to the end of the year, the following is recorded.

1.	Number of premises processed which were occupied as follows:-		651
	(a) Europeans	82	
	(b) Coloureds	51	
	(c) Indians	412	
	(d) Bantu	21	
	(e) Mixed races	84	
	(f) Chinese	1	
		651	
2.	Building units involved		862
	Family units housed therein		2,120
	Persons involved		11,099
3.	Sittings of the Slum Clearance Court		174
4.	Total number of premises "declared" slums		252
	(a) Following declaration of a slum, demolition orders were made in respect of 188, of which 141 have been completed.		
	(b) A further 41 orders involved partial repair and partial demolition, of which 14 have been complied with and 6 were nevertheless totally demolished by the owners.		

(c) The balance of 23 were to be repaired and renovated to the satisfaction of the local authority of which 10 have been completed.

5.	Rescission orders granted.	99
6.	Number of properties where the owners effected demolition voluntarily (68 of these properties were dealt with by the Slum Clearance Court and were struck off the roll when permits for demolition were granted).	112
7.	Repairs, renovations and partial demolition carried out voluntarily.	11
8.	Number of properties withdrawn due to ownership having passed to a public authority (Department of Community Development, City Council or Provincial Administration).	54
9.	Properties struck off the roll due to permits granted in terms of the Housing Act	111
10.	Number of Appeals to the Minister against the decision of the Slum Clearance Court, all of which were dismissed.	5
11.	Prosecutions were instituted for non-compliance by due date in 25 cases which resulted in fines or "admission of guilt" being paid in the sum of R390.	
12.	Pending - includes properties currently being dealt with in Slum Clearance Court and others still to be set down for hearings.	111

13. Summary :

Number processed		651
Declared slum	252	
Demolished voluntarily	112	
Partial repair/demolition	1	
Suitably repaired voluntarily	10	
Withdrawn	54	
Permit granted to demolish	111	
Pending	111	
	651	

G. DEMOLITIONS AND CONVERSIONS

In terms of the Housing Act no person may demolish or convert to other use any housing accommodation without the approval of the Minister for which purpose application must

first be lodged with the local authority. During the year 400 applications were submitted respecting premises occupied or previously occupied by 148 European families, 18 Coloured, 220 Indian, 7 Bantu, 2 Chinese and 5 mixed. These premises were found at the time of investigation to be 85 owner-occupied, 120 vacant and 195 occupied by tenants. In the latter category, departmental recommendation was conditional upon the occupiers obtaining alternative accommodation.

These applications for permission to demolish or convert dwellings were lodged with the undermentioned projects in view :-

Flats/maisonettes	85
Commercial purposes	59
Reconstruction in brick	55
Industrial usage	39
Municipal services (housing, roads, abattoir, sewerage, open space and telephone exchange)	34
Hotel development	3
Social Centre, sporting facilities, religious purposes, place of care, sub-division of site and car parking	6
No immediate development - (mainly slums)	119
Total	400

H. BUILDING PLANS

During the year a total of 3,787 plans for residential accommodation were submitted to the Department for public health approval. The type of accommodation is reflected hereunder :-

Details	Number of rooms	Plans	Units
New private dwellings	1 room		-
	2 rooms		9
	3 rooms		40
	4 rooms		443
	5 rooms		283
	6 rooms and over		287
Total new dwellings		961	1,062
New flats	1 room		934
	2 rooms		994
	3 rooms		523
	4 rooms and over		186
Total flats		118	2,637
Sub total		1,079	3,699
Other residential		5	
Additions to residential		2,703	
Grand Total		3,787	3,699

APPENDIX 'A'

SOME THOUGHTS ON VITAL STATISTICS IN RELATION TO FUTURE PROBLEMS IN THE BANTU GROUP

When the vital statistics over the ten year period 1959 to 1968 are reviewed some noteworthy trends are apparent, which direct the attention to future problems in the Bantu racial group.

The total population (all races) reflects a steady rise from 590,204 in 1959 to 696,254 in 1968. Likewise the Bantu population has increased from 192,513 in 1959 to 206,687 in 1968. Two important factors involved were the decrease in the Bantu death and infant mortality rates and the increase in the Bantu birth rate.

(a) Deaths

(i) Total deaths (all races) in 1959 : 6,996, the crude death rate being 11.85.

Total deaths (all races) in 1968 : 6,390, the crude death rate being 9.18.

Bantu deaths in 1959 were 3,638, the crude death rate being 18.90.

Bantu deaths in 1968 were 2,364, the crude death rate being 11.49.

(ii) Bantu infant mortality rate :-

1959 : 276.64 (actual deaths under 1 year being 1,657)

1968 : 107.43 (" " " 1 " " 925)

(b) Births

Total births in 1959 were 16,312, with a crude birth rate of 27.63 and in 1968 " 22,371, " " " " " " 32.13.

Bantu births in 1959 were 5,994, with a crude birth rate of 31.13 and in 1968 " 8,911, " " " " " " 43.11.

Other factors of interest are :-

(c) Maternal death rate

For all races in 1959 this rate was 1.07 and although it rose to 1.74 in 1960 it decreased to 0.68 in 1968.

The Bantu rate decreased from 1.84 in 1959 to 0.70 in 1968.

(N.B. There were rises to 2.34 and 2.06 in 1961 and 1965 respectively.)

(d) Infectious disease notifications

From a total of 825 notifications in 1959, 488 of which were Bantu, there has been a steady decrease to a total of 370 in 1968, of which 108 were Bantu.

It is well to consider these figures along with some immunisation statistics in respect of Bantu, when it will be realised that an immense amount of work is necessary to effect even a small reduction in the incidence of infectious diseases. For example :-

(i) Poliomyelitis immunisation

In 1958 only 1,453 doses were given by injection and in 1959 a mere 7,815, but with the introduction of the oral vaccine the figure was 30,791 in 1960, 88,737 in 1961, and 27,984 in 1968.
In all, from 1960 to 1968 the total number of oral poliomyelitis vaccine administered was 311,574 doses.

(ii) Diphtheria, Tetanus and Whooping Cough inoculations totalled 8,760 in 1959 and 29,126 in 1968.

(iii) Typhoid immunisation figures for recent years have been fairly static. In 1958 the total number of doses given to Bantu was 13,317, and in 1959 the figure was 27,078 whereas in 1968 the figure was 1,870.

(e) Pulmonary Tuberculosis figures worth noting for the Bantu group are as follows :-

In 1959 there were 4,699 known cases and
" 1968 " " 10,522.

New notifications in 1959 : 1,571
" " " 1968 : 1,262

Pulmonary tuberculosis attack rate in 1959 : 8.16
and " 1968 : 6.11

Deaths due to pulmonary tuberculosis in 1959 : 216, the rate being 1.12; and " 1968 : 73, the " " 0.35.

These figures should be considered (as were those for infectious disease notifications) in relation to staff activities, e.g. the increase in field staff visits from 26,445 in 1959 to 39,159 in 1968, which typifies the extent of the work and its ramifications. For comparison it is noteworthy that in 1959 the total visits for all races were 41,296 and in 1968 this was 72,011.

COMMENTS

It seems likely that the present trends will be maintained, i.e. a further decrease in death rate and infant mortality rate together with improved figures for incidence of infectious diseases including pulmonary tuberculosis. The birth rate rise might well eventually be affected by family planning activities but to what extent is unknown, the figures for this Department being :-

	1967	1968
New cases	907	1,692
Re-attendances	2,924	12,052
Total	3,831	13,744

Although the local family planning Association has been doing stalwart work for years, the results in terms of impression on the birth rate appear dubious. Any attempt to reduce the birth rate would need to be by concentrated, high pressure birth control measures.

The outcome of the above, over future years, will of course mean simply more people, at first at the extremes of age, but as the infants grow through childhood to maturity, the numbers of young adults will increase and these, on reproducing will again swell the numbers of infants and children. Whilst they themselves move on to the longer-living older group to swell those numbers the whole cycle again repeats itself.

The future problems are therefore directly related to the increase in population. There will be more infants and pre-school children with a necessity for extended maternal and child health services and immunising activity. More staff will be required to run preventive health services, particularly will there be a need for many more trained Bantu health visitors and more clinic accommodation. Taken with this, although relating to all age groups of the population, increased efforts against infectious diseases, tuberculosis, venereal diseases, etc., will be necessary to maintain the effects in the larger population. This in turn will require more staff, more clinic facilities and more domiciliary work. Nor should the environmental side be ignored, e.g. the more people, the greater the supervision and activities of the field inspectional and hygiene services.

Not only will pre-school institutions need extending but also existing educational facilities will eventually be completely inadequate for the increased school- and college-going Bantu population. Here again not only will more buildings be required, but also more teaching and other staff.

There will be more persons requiring employment, both in the young adult group and also in the older age group, and for the latter group more accommodation for the aged, frail and sick in old age homes.

For the overall Bantu population increased numbers will require increased housing and related services e.g. sewerage reticulation, roads, electricity, refuse removal and so forth. Hospital accommodation, recreational and sporting facilities cannot be allowed to lag behind the optimum desired.

With modern medical problems such as road accidents, cancers, heart disease, alcoholism and drug addiction displacing the old epidemics in importance in epidemiology, the field is wide open to research in various topics in the Bantu as regards preventive medicine. Likewise health education activities will have to be broadened and embrace the whole population, including schools. Nutrition education is one of the ways in which the food problem can be tackled as the more persons, the more food will be required, and the more knowledge needed of dietary and budgetting and allied facets. This, with increased agriculture and other farming activities as well as increased food production in general is already necessary to fight the world population explosion. If there are to be more people and less food per person the problems of attendant under- and mal-nutrition, already extant, can only be increased. In this connection the importance of food, famine and family planning should again be stressed. Hunger does not decrease fertility nor does famine stop a population explosion but where birth control is instituted in a population and really energetically pursued the effect must eventually show in either stabilising or decreasing the birth rate.

Future problems would thus appear to involve "More", viz. more people, more food, more staff, more facilities to attain and maintain good health, housing, and the like, and "Less", in less disease, and a longer life for the individual. The "less" is dependent on the "more" and could at any time become reversed.

(Classified according to International Intermediate List of 150 Causes From Seventh Revision, World Health Organisation, 1948)

Ref.	Cause of Death	Detailed List Numbers	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTALS			
			M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967
A 1	Tuberculosis of Respiratory System	001-008	4	3	7	9	9	1	10	7	48	25	73	82	5	11	16	24	66	40	106	122
A 2	Tuberculosis of Meninges and Central Nervous System	010					1	1	2	1	4	6	10	10	1	2	3	8	6	9	15	19
A 3	Tuberculosis of Intestines, Peritoneum, and Mesenteric Glands	011										2	2	1						2	2	1
A 4	Tuberculosis of Bones and Joints	012,013												1	1		1		1		1	1
A 5	Tuberculosis, All Other Forms	014-019				1					3	2	5	17	1		1	1	4	2	6	19
A 6	Congenital Syphilis	020								1	1	1	2	1					1	1	2	2
A 10	All Other Syphilis	022,023,026-029												1								1
A 12	Typhoid Fever	040									2	1	3	1					2	1	3	1
A 16	Dysentery, All Forms	045-048						1	1	2	4	7	11	19	1	1	2	2	5	9	14	23
A 20	Septicaemia and Pyaemia	053	2	2	4	2		1	1	2	3	3	6	6	1	2	3	12	6	8	14	22
A 21	Diphtheria	055									1		1	3	2	1	3	2	3	1	4	7
A 22	Whooping Cough	056									1	-	1						1	-	1	
A 23	Meningococcal Infections	057	1		1		1	1	2	1	1	2	3	3	1		1		4	3	7	4
A 26	Tetanus	061				1					4		4	12	3	3	6	1	7	3	10	14
A 29	Acute Infectious Encephalitis	082										2	2	1	2	2	4	1	2	4	6	2
A 32	Measles	085						1	1	6	24	31	55	24	13	12	25	16	37	44	81	46
A 34	Infectious Hepatitis	092	1	1	2	1		1	1			1	1	2	2	4	6		3	7	10	3
A 42	Other Diseases due to Helminths	124,126,128,130									1		1			1	1		1	1	2	
A 43	All Other Diseases Classified as Infective and Parasitic	036-039,049,054,059, 063-074,086-090,093, 095,096,120-122, 131-138										1	1	2				2		1	1	4
A 44	Malignant Neoplasm of Buccal Cavity and Pharynx	140-148	9	4	13	21				1	3		3	3	1	2	3	4	13	6	19	29
A 45	Malignant Neoplasm of Oesophagus	150	2	2	4	6	5		5	4	20	5	25	21	2	6	8	5	29	13	42	36
A 46	Malignant Neoplasm of Stomach	151	11	11	22	17	2		2	2	1	1	2	7	10	6	16	15	24	18	42	41
A 47	Malignant Neoplasm of Intestine, except Rectum	152,153	5	12	17	19						1	1	2	1	2	3	3	6	15	21	24
A 48	Malignant Neoplasm of Rectum	154	5	3	8	9						1	1	1	1	3	4	1	6	7	13	11
A 49	Malignant Neoplasm of Larynx	161	1	2	3	3				2	1		1	2				2	2	2	4	9
A 50	Malignant Neoplasm of Trachea, Bronchus and Lung, not specified as Secondary	162,163,166	45	13	58	62	2	1	3	4	10		10	12	2	1	3	5	59	15	74	83
A 51	Malignant Neoplasm of Breast	170		37	37	24				2		2	2	1		1	1	4		40	40	31
A 52	Malignant Neoplasm of Cervix Uteri	171		2	2	5		3	3	1		17	17	13		7	7	8		29	29	27
A 53	Malignant Neoplasm of Other and Unspecified Parts of Uterus	172-174		7	7	7		1	1	2				3		1	1	2		9	9	14
A 54	Malignant Neoplasm of Prostate	177	10		10	9				1	2		2	5	3		3		15		15	15
A 55	Malignant Neoplasm of Skin	190,191	1	2	3	2		1	1						1	1	2	2	2	4	6	4
A 56	Malignant Neoplasm of Bone and Connective Tissue	196,197	3	1	4	7					1		1			1	1	3	4	2	6	10
A 57	Malignant Neoplasm of All Other and Unspecified Sites	155-160,164,165,175, 176,178-181,192-195, 198,199	35	39	74	55				5	19	9	28	25	9	9	18	23	63	57	120	108
A 58	Leukaemia and Aleukaemia	204	8	5	13	9	4		4	1	2	1	3	5	3	5	8	3	17	11	28	18
A 59	Lymphosarcoma and Other Neoplasms of Lymphatic and Haematopoietic System	200-203,205	3	3	6	11					3	1	4	2	3	1	4	1	9	5	14	14
A 60	Benign Neoplasms and Neoplasms of Unspecified Nature	210-239	3	2	5	4	1	1	2		3	1	4	5		2	2	2	7	6	13	11
A 63	Diabetes Mellitus	260	4	12	16	5				1	4	5	9	9	19	23	42	18	27	40	67	33
A 64	Avitaminosis and Other Deficiency States	279-286				1				3	25	29	54	13	3	3	6	5	28	32	60	22
A 65	Anaemias	290-293	2		2	3					1		1	3	1	5	6	2	4	5	9	8
A 66	Allergic Disorders; All Other Endocrine, Metabolic and Blood Diseases	240-245,253,254, 270-277,287-289, 294-299	5	8	13	22	2	3	5	2	3	5	8	8	25	17	42	26	35	33	68	58
A 67	Psychoses	300-309																1				1

Ref.	Cause of Death	Detailed List Numbers	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTALS			
			M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967
A 69	Mental Deficiency	325																1				1
A 70	Vascular Lesions Affecting Central Nervous System	330-334	96	107	203	182	12	15	27	26	37	27	64	48	117	91	208	187	262	240	502	443
A 71	Non-meningococcal Meningitis	340	2	2	4	4					9	13	22	20	8	6	14	11	19	21	40	35
A 72	Multiple Sclerosis	345				2																2
A 73	Epilepsy	353		1	1	1				1	3	1	4	5	2	2	4	4	5	4	9	11
A 78	All Other Diseases of the Nervous System and Sense Organs	341-344,350-352, 354-369,380-384,386, 388-390,394-398	2	5	7	3	2	1	3	1	4	5	9	8	5	4	9	11	13	15	28	23
A 79	Rheumatic Fever	400-402				1									1	3	4		1	3	4	1
A 80	Chronic Rheumatic Heart Disease	410-416				1					2	2	4	1	3	2	7	3	7	4	11	5
A 81	Arteriosclerotic and Degenerative Heart Disease	420-422	246	154	400	408	6	8	14	19	5	3	8	11	163	56	221	215	422	221	643	653
A 82	Other Diseases of Heart	430-434	71	76	147	141	6	8	14	14	47	23	70	80	74	57	131	113	198	164	362	348
A 83	Hypertension with Heart Disease	440-443	12	21	33	18	2	6	8	8	16	12	28	20	55	58	113	94	85	97	182	140
A 84	Hypertension without mention of Heart	444-447	1	2	3	3					4	3	7	5	3	4	7	9	8	9	17	17
A 85	Diseases of Arteries	450-456	22	22	44	41		3	3	1	6	1	7	6	1	3	4	5	29	29	58	53
A 86	Other Diseases of Circulatory System	460-468	13	12	25	19	1	2	3	1	4	6	10	15	4	2	6	9	22	22	44	44
A 87	Acute Upper Respiratory Infections	470-475									1		1	1	1	1	2		2	1	3	1
A 88	Influenza	480-483		1	1						1		1		1	2	3	7	2	3	5	7
A 89	Lobar Pneumonia	490	13	10	23	27	4	3	7	5	18	10	28	31	19	8	27	7	54	31	85	70
A 90	Bronchopneumonia	491	41	44	85	99	13	13	26	29	117	94	211	147	136	124	260	247	307	275	582	522
A 91	Primary Atypical, Other, and Unspecified Pneumonia	492, 493				28	1	1	2		5	6	11	17	13	9	22	24	19	16	35	69
A 92	Acute Bronchitis	500		1	1			1	1		1		1	2	5	5	10	9	6	7	13	11
A 93	Bronchitis, Chronic and Unqualified	501,502	15	1	16	6	1	1	2	1	4	1	5	3	7	5	12	8	27	8	35	18
A 95	Empyema and Abscess of Lung	518,521				1		1	1		1	1	2	8	1		1	2	2	2	4	11
A 97	All Other Respiratory Diseases	503,511-517,520, 522-528	19	9	28	23	2	1	3	2	77	49	126	114	6	4	10	8	104	63	167	147
A 99	Ulcer of Stomach	540		3	3	2								1	7		7	2	7	3	10	5
A100	Ulcer of Duodenum	541	1		1									1				3	1		1	4
A102	Appendicitis	550-553	1	1	2									1	1		1		2	1	3	1
A103	Intestinal Obstruction and Hernia	560,561,570	2	3	5	9					2	1	3	5	2		2	7	6	4	10	21
A104	Gastro-enteritis and Colitis, except Diarrhoea of the Newborn	571,572	3	3	6	1	1	3	4	17	112	103	215	201	76	48	124	106	192	157	349	325
A105	Cirrhosis of Liver	581	6	3	9	9				2	16	2	18	23	5	5	10	16	27	10	37	50
A107	Other Diseases of Digestive System	536-539,542,544,545, 573-580,582,583,586,587	21	9	30	24	2	2	4	8	108	79	187	160	14	10	24	23	145	100	245	215
A108	Acute Nephritis	590		1	1							1	1	3	2		2	5	2	2	4	8
A109	Chronic, Other, and Unspecified Nephritis	591-594	8	15	23	22	1		1	3	2	5	7	9	17	7	24	14	28	27	55	48
A110	Infections of Kidney	600	2	4	6	7		1	1	1	2	3	5	7	1	4	5	6	5	12	17	21
A112	Hyperplasia of Prostate	610	2		2									3				1	2		2	4
A114	Other Diseases of Genito-urinary System	601,603,605-609, 611-617,622-637	3		3	5						2	2	7	1	1	2	2	4	3	7	14
A115	Sepsis of Pregnancy, Childbirth and the Puerperium	640,641,681,682,684												1		1	1	1		1	1	2
A116	Toxaemias of Pregnancy and the Puerperium	642,652,685,686												1				1				2
A117	Haemorrhage of Pregnancy and Childbirth	643,644,670-672										2	2	1		1	1			3	3	1
A118	Abortion without mention of Sepsis or Toxaemia	650												4		2	2	2		2	2	6
A119	Abortion with Sepsis	651										3	3			5	5	1		8	8	1
A120	Other Complications of Pregnancy, Childbirth, and the Puerperium	645-649,660,673-680, 683,687-689										1	1	2				1		1	1	3
A121	Infections of Skin and Subcutaneous Tissue	690-698	1		1	1								1		2	2	1	1	2	3	3
A122	Arthritis and Spondylitis	720-725				1		1	1							1	1			2	2	1
A124	Osteomyelitis and Periostitis	730																1				1
A126	All Other Diseases of Skin and Musculoskeletal System	700-716,731-736, 738-744						1	1			2	2		3	2	5	1	3	5	8	1

Ref.	Cause of Death	Detailed List Numbers	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTALS			
			M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967
A127	Spina Bifida and Meningocele	751												2				2				4
A128	Congenital Malformations of Circulatory System	754	2	1	3	3	1		1	1	3	5	8	9	3	5	8	6	9	11	20	19
A129	All Other Congenital Malformations	750,752,753,755-759	2	1	3	5		2	2	3	4	1	5	9	3	2	5	9	9	6	15	26
A130	Birth Injuries	760,761		2	2	4				2	9	9	18	16	3	3	6	14	12	14	26	36
A131	Postnatal Asphyxia and Atelectasis	762		2	2	7		1	1	5	9	11	20	39	4	5	9	9	13	19	32	60
A132	Infections of the Newborn	763-768				4	4	2	6	2	24	20	44	50	26	27	53	36	54	49	103	92
A133	Haemolytic Disease of the Newborn	770		1	1	2						1	1	2				1		2	2	5
A134	All Other Defined Diseases of Early Infancy	769,771,772				1				1	5	4	9	15	5	2	7	4	10	6	16	21
A135	Ill-defined Diseases Peculiar to Early Infancy, and Immaturity Unqualified	773-776	14	18	32	23	13	4	17	11	72	57	129	156	62	38	100	92	161	117	278	282
A136	Senility without mention of Psychosis	794	4	5	9	7		1	1	2	2	1	3	3	3		3	5	9	7	16	17
A137	Ill-defined and Unknown Causes of Morbidity and Mortality	780-793,795,796	93	69	162	172	28	21	49	53	307	268	575	519	115	100	215	200	543	458	1001	944
AE138	Motor Vehicle Accidents	E810-E835	8	3	11	27	3	1	4	9	28	7	35	66	27	11	38	44	66	22	88	146
AE139	Other Transport Accidents	E800-E802,E840-E866		1	1	1				1	4	3	7	8	3		3	1	7	4	11	11
AE140	Accidental Poisoning	E870-E896				2								4	1	1	2	8	1	1	2	14
AE141	Accidental Falls	E900-E904		2	2	6	1		1	4	3		3	13	1		1	6	5	2	7	29
AE142	Accident Caused by Machinery	E912									1		1					1	1		1	1
AE143	Accident Caused by Fire and Explosion of Combustible Material	E916	1		1	1					4		4	3	1	11	12	15	6	11	17	19
AE144	Accident Caused by Hot Substances, Corrosive Liquid, Steam and Radiation	E917,E918						2	2			1	1	4	1	1	2	3	1	4	5	7
AE145	Accident Caused by Firearm	E919	1	1	2														1	1	2	
AE146	Accidental Drowning and Submersion	E929	1		1		2		2	2	1	2	3	8	9		9	7	13	2	15	17
AE147	All Other Accidental Causes	E910,E911,E913-E915, E920-E928,E930-E962	10		10	11	2	3	5	5	39	11	50	43	17	5	22	11	68	19	87	70
AE148	Suicide and Self-inflicted Injury	E963,E969-E979	8	3	11	18	1	2	3	1	1		1	11	8	4	12	20	18	9	27	50
AE149	Homicide and Injury Purposely Inflicted by Other Person (Not in War)	E964,E980-E985	1		1	3				2	34	1	35	83	2		2	9	37	1	38	97
		TOTALS	908	790	1698	1701	136	128	264	294	1349	1025	2374	2364	1169	885	2054	1875	3562	2828	6390	6234
		CRUDE DEATH RATES	9.04		(9.21)		8.38		(9.58)		11.49		(11.60)		7.60		(7.11)		9.18		(9.13)	

CAUSES OF DEATH IN RESPECT OF INFANTS (UNDER 1 YEAR)

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

Ref.	Cause of Death	Detailed List Numbers	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTALS			
			M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967
A 1	Tuberculosis of Respiratory System	001-008									1	5	6	3					1	5	6	3
A 2	Tuberculosis of Meninges and Central Nervous System	010										1	1	3				1		1	1	4
A 5	Tuberculosis, All Other Forms	014-019									1		1	4					1		1	4
A 6	Congenital Syphilis	020								1	1	1	2	1					1	1	2	2
A 20	Septicaemia and Pyaemia	053		1	1						2		2	1	1		1		3	1	4	1
A 23	Meningococcal Infections	057	1		1										1		1		2		2	
A 26	Tetanus	061									2		2	9	2	1	3		4	1	5	9
A 29	Acute Infectious Encephalitis	082										1	1	1						1	1	1
A 32	Measles	085								1	10	16	26	17	5	2	7	1	15	18	33	19
A 34	Infectious Hepatitis	092	1		1			1	1						1		1		2	1	3	
A 43	All Other Diseases Classified as Infective and Parasitic	036-039,049,054,059, 063-074,086-090,093, 131-138												1								1
A 60	Benign Neoplasms and Neoplasms of Unspecified Nature	210-239									1		1						1		1	
A 63	Diabetes Mellitis	260																1				1
A 64	Avitaminosis and Other Deficiency States	279-286								1	2	4	6	3				1	2	4	6	5
A 65	Anaemias	290-293				1								2		2	2			2	2	3
A 66	Allergic Disorders; All Other Endocrine, Metabolic and Blood Diseases	240-245,253,254, 270-277,287-289, 294-299		1	1	1					1		1		2		2		3	1	4	1
A 69	Mental Deficiency	325																1				1
A 70	Vascular Lesions Affecting Central Nervous System	330-334				3					1	1	2	2	6	3	9	2	7	4	11	7
A 71	Non-meningococcal Meningitis	340		1	1	1					8	5	13	6		3	3	8	8	9	17	15
A 78	All Other Diseases of the Nervous System and Sense Organs	341-344,350-352, 354-369,380-384,386, 388-390,394-398									2	1	3	3				2	2	1	3	5
A 81	Arteriosclerotic and Degenerative Heart Disease	420-422		1	1			1	1									2		2	2	2
A 82	Other Diseases of Heart	430-434		1	1							1	1	2	1	1	2	4	1	3	4	6
A 84	Hypertension without mention of Heart	444-447												1								1
A 86	Other Diseases of Circulatory System	460-468																1				1
A 87	Acute Upper Respiratory Infections	470-475													1		1		1		1	
A 88	Influenza	480-483																3				3
A 89	Lobar Pneumonia	490	1		1					1	1	3	4	7	4	2	6		6	5	11	8
A 90	Bronchopneumonia	491	2	1	3	2	3	2	5	6	68	45	113	82	43	29	74	71	118	77	195	161
A 91	Primary Atypical, Other, and Unspecified Pneumonia	492,493									2	2	4	8	1	1	2	5	3	3	6	13
A 92	Acute Bronchitis	500		1	1						1		1	1	1	5	6	3	2	6	8	4
A 93	Bronchitis, Chronic and Unqualified	501,502		1	1						1	1	2					2	1	2	3	2
A 97	All Other Respiratory Diseases	503,511-517,520, 522-528	1		1						16	9	25	16	3		3		20	9	29	16
A102	Appendicitis	550-553													1		1		1		1	
A103	Intestinal Obstruction and Hernia	560,561,570									2		2	2				3	2		2	5
A104	Gastro-enteritis and Colitis, except Diarrhoea of the Newborn	571,572	2	2	4					13	90	81	171	156	59	34	93	75	151	117	268	244
A107	Other Diseases of Digestive System	536-539,542-544,545, 573-580,582,583,586, 587	1	1	2						51	40	91	85				1	52	41	93	86
A108	Acute Nephritis	590																1				1
A109	Chronic, Other, and Unspecified Nephritis	591-594										1	1		1		1		1	1	2	
A110	Infections of Kidney	600				1					1		1						1		1	1
A121	Infections of Skin and Subcutaneous Tissue	690-698				1								1								2
A126	All Other Diseases of Skin and Musculoskeletal System	700-716,731-736, 738-744													1		1		1		1	

Ref.	Cause of Death	Detailed List Numbers	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTALS			
			M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967	M	F	Tot.	1967
A128	Congenital Malformations of Circulatory System	754	1	1	2	2	1		1	1	3	3	6	9	2	4	6	4	7	8	15	16
A129	All Other Congenital Malformations	750,752,753,755-759	2	1	3	4		2	2	3	4	1	5	9	3	2	5	9	9	6	15	25
A130	Birth Injuries	760.761		2	2	3				2	9	9	18	16	3	3	6	14	12	14	26	35
A131	Postnatal Asphyxia and Atelectasis	762		2	2	7		1	1	5	9	11	20	39	4	5	9	9	13	19	32	60
A132	Infections of the Newborn	763-768				4	4	2	6	2	24	20	44	50	26	27	53	36	54	49	103	92
A133	Haemolytic Disease of the Newborn	770		1	1	2						1	1	2				1		2	2	5
A134	All Other Defined Diseases of Early Infancy	769,771,772				1				1	5	4	9	15	5	2	7	4	10	6	16	21
A135	Ill-defined Diseases Peculiar to Early Infancy and Immaturity Unqualified	773-776	14	18	32	23	13	4	17	12	72	57	129	156	61	38	99	92	160	117	277	283
A137	Ill-defined and Unknown Causes of Morbidity and Mortality	780-793,795,796	1	1	2	5	4	5	9	5	119	89	208	172	17	17	34	18	141	112	253	200
AE139	Other Transport Accidents	E800-E802,E840-E866									1		1						1		1	
AE140	Accidental Poisoning	E870-E896				1									1		1		1		1	1
AE141	Accidental Falls	E900-E904																1				1
AE147	All Other Accidental Causes	E910,E911,E913-E915, E920-E928,E930-E962	2		2	1						1	1						2	1	3	1
		TOTALS	29	37	66	63	25	18	43	54	511	414	925	887	258	181	439	378	823	650	1473	1382
		INFANT MORTALITY RATES (DEATHS OF INFANTS UNDER 1 YEAR PER 1000 LIVE BIRTHS)	19.55 (18.32)				26.82 (36.00)				107.43 (111.43)				52.82 (44.52)				67.26 (64.61)