Annual report of the Medical Officer of Health / Nairobi Municipality.

### Contributors

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# NAIROBI MUNICIPALITY

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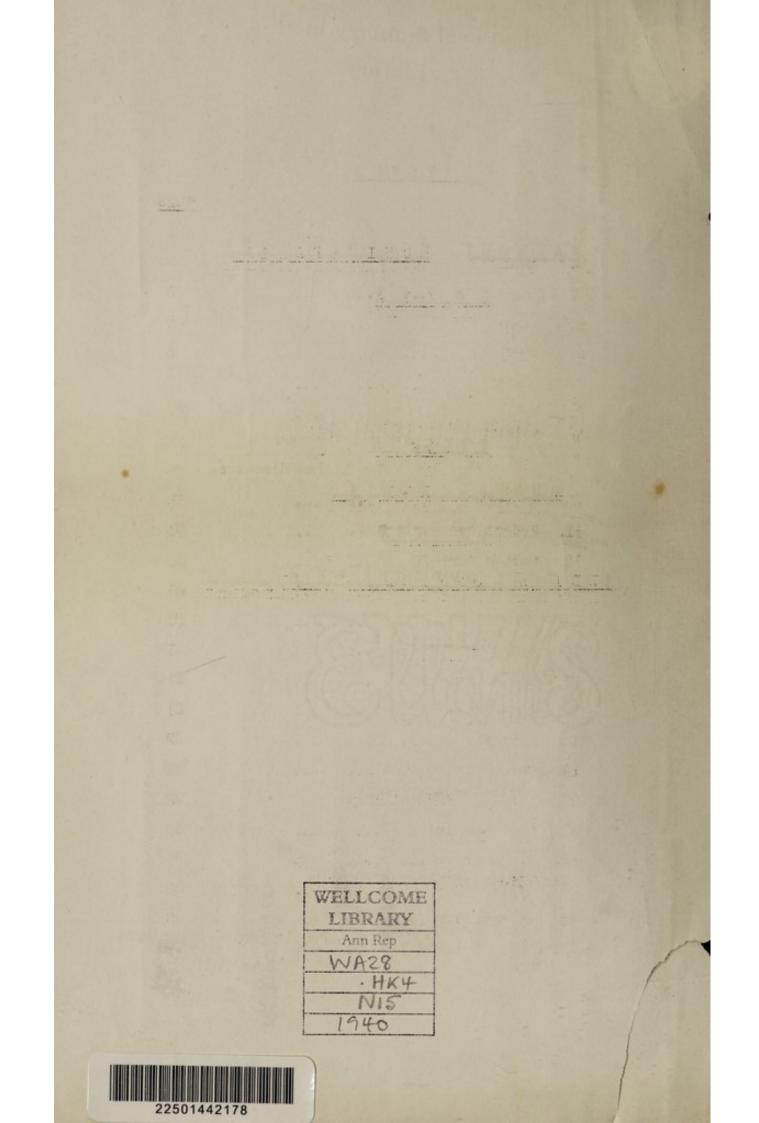
With the Compliments

of

The Medical Officer of Health.

Public Health Department, Town Hall, Nairobi, Kenya.

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TOWN HALL, NAIROBI.

March 12th, 1941.

#### Her Worship the Mayor and Councillors of the Municipal Council of Nairobi.

Your Worship and Gentlemen:

I have the honour to present to you herewith my annual report on the sanitary circumstances, sanitary administration, vital statistics and other matters of a health nature, of the Municipality of Nairobi for the year 1940, as required by "The Local Government (Municipalities) Ordinance, 1928" "The Medical Officers of Health Rules, 1929, "Sec. 2 (12) d."

> I am, Your Worship and Gentlemen, Your obedient servant,

> > H.W. TILLING, M.R.C.S.(Eng.)L.R.C.P.(Lond) D.P.H. (Lond).

MEDICAL OFFICER OF HEALTH.

#### 1. GENERAL

For reasons of economy necessary under the existing war conditions, the report for this year will not be printed and will be in the nature of a summary and not comparable to the detailed reports of previous years.

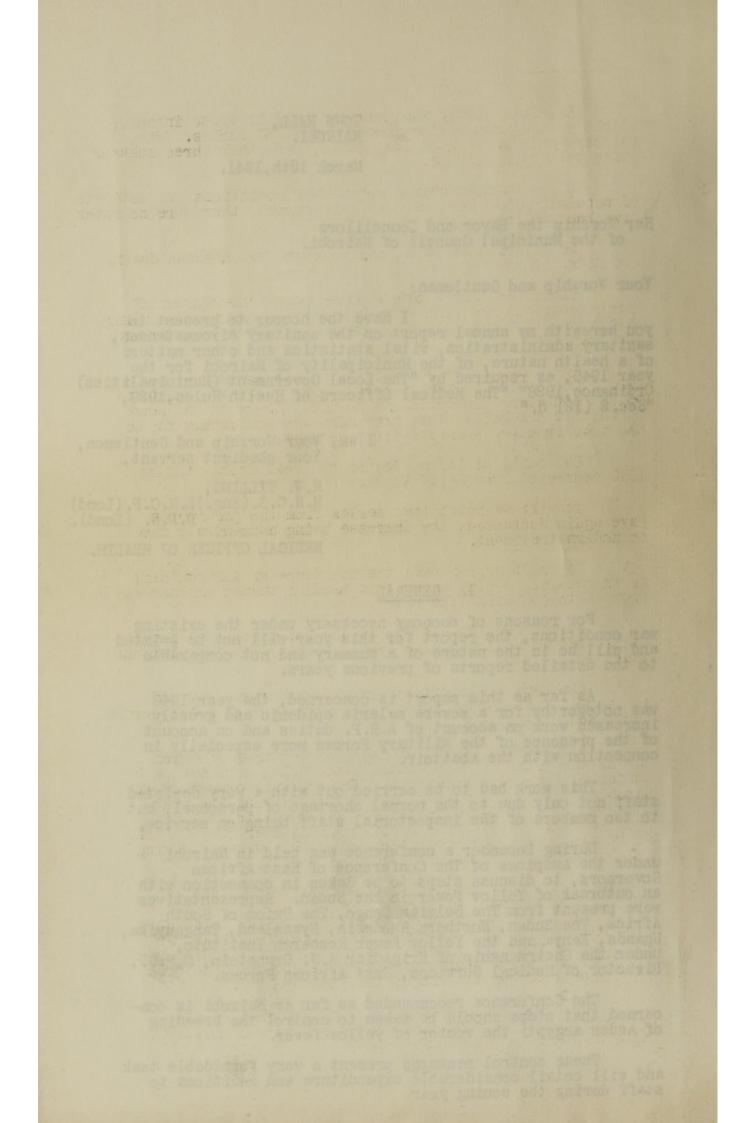
As far as this report is concerned, the year 1940 was noteworthy for a severe malaria epidemic and greatly increased work on account of A.R.P. duties and on account of the presence of the Military Forces more especially in connection with the abattoir.

This work had to be carried out with a very depleted staff not only due to the normal shortage of personnel, but to two members of the inspectorial staff being on service.

During December a conference was held in Nairobi under the auspices of The Conference of East African Governors, to discuss steps to be taken in connection with an outbreak of Yellow Fever in the Sudan. Representatives were present from The Belgian Congo, The Union of South Africa, The Sudan, Northern Rhodesia, Nyasaland, Tanganyika, Uganda, Kenya and the Yellow Fever Research Institute, under the Chairmanship of Brigadier A.J. Orenstein, C.M.G., Director of Medical Services, East African Forces.

The Conference recommended as far as Nairobi is concerned that steps should be taken to control the breeding of Aedes aegypti the vector of yellow fever.

These control measures present a very formidable task and will entail considerable expenditure and additions to staff during the coming year



Rainfall during the year amounted to 40.83 inches, slightly in excess of the average of 35.53 inches. The increase was due to good long rains, the other three seasons being below the average.

Owing to disturbance due to war conditions, no estimate of population has been made in this report, therefore no rates have been calculated.

No legislation of a health nature was enacted during the year.

There has been a slight decrease in the number of births notified compared with the previous year, this being mainly due to the families of Asians and Africans leaving the town.

There was an increase in the total number of deaths from 1,005 to 1,280, the increase among residents amounted to 122 and among non-residents to 153. There is evidence to support the belief that more Africans are coming in to the town from the reserves for treatment.

The ratio of infant deaths to total deaths during 1940 decreased from 28.2% to 24.4%.

It will be noted that deaths from the pneumonias have again decreased, the decrease being undoubtedly due to modern treatment.

It would appear that the incidence of tuberculosis is increasing, deaths under this heading showed an increase from 32 to 45 during the year.

Deaths from dysentery, cancer and blackwater fever registered increases during 1940 compared with the previous year.

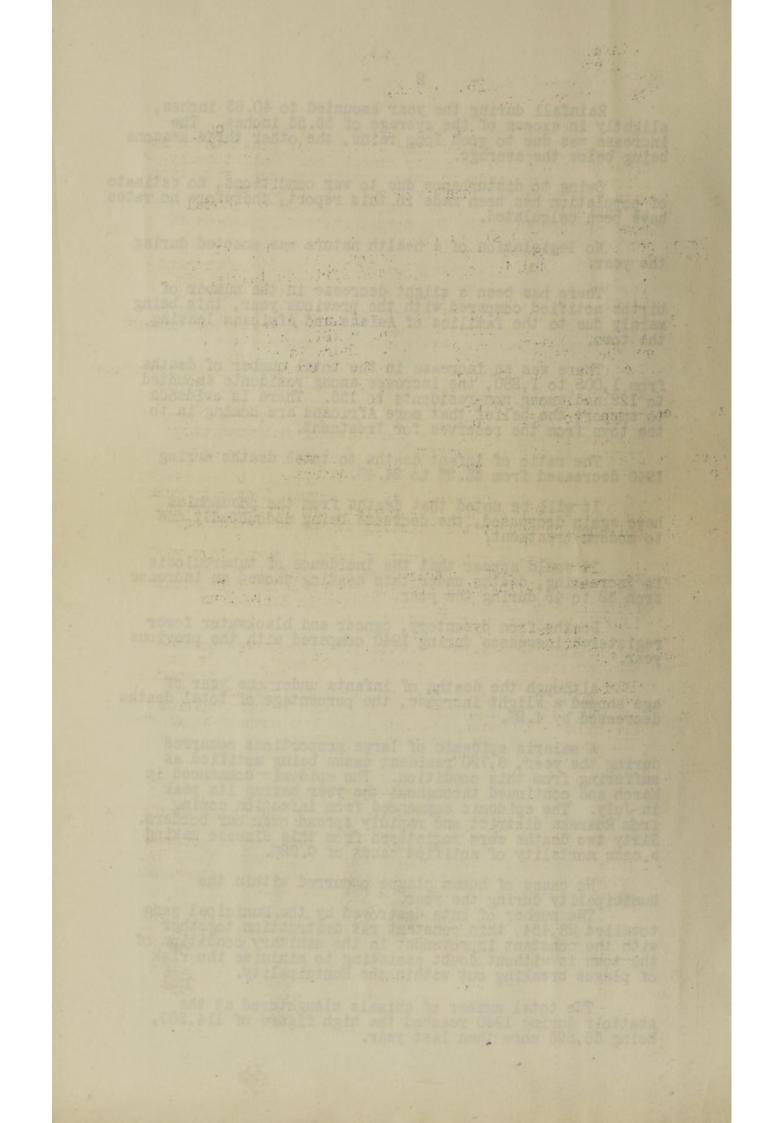
Although the deaths of infants under one year of age showed a slight increase, the percentage of total deaths decreased by 4.2%.

A malaria epidemic of large proportions occurred during the year, 6,720 resident cases being notified as suffering from this condition. The epidemic commenced in March and continued throughout the year having its peak in July. The epidemic commenced from infection coming from Ruaraka district and rapidly spread over our borders. Sixty two deaths were registered from this disease making a case mortality of notified cases of 0.92%.

No cases of human plague occurred within the

Municipality during the year. The number of rats destroyed by the Municipal gang totalled 28,454, this constant rat destruction together with the constant improvement in the sanitary condition of the town is without doubt assisting to minimize the risk of plague breaking out within the Municipality.

The total number of animals slaughtered at the Abattoir during 1940 reached the high figure of 114,260, being 36,523 more than last year.



The presence of the Military Forces has caused the normally overworked condition of the plant to be increased to a state of acute congestion. Whilst every effort has been made to cope with the unusual situation with some success, it is regarded as urgent that extensions be made to the Abattoir in order to deal more efficiently with the normal increasing amount of work.

The expenditure of the Public Health Department for the year amounted to £13,097, an increase of £527. It will be noted that the heading of administration showed a decrease of £755, whereas Infectious Diseases Prevention showed an increase of £1,122, mostly on account of Notification fees, oil and native wages.

Once again attention is directed to the unsatisfactory method of collection and disposal of nightsoil. It is sincerely to be hoped that early consideration will be given to the betterment of the existing systems, more especially to disposal as the state of the trenching grounds is highly undesirable.

It is further recommended as urgent the necessity of dealing with the sludge at the sewage disposal works in such a manner that will obviate the present serious nuisance caused by the existing system of trenching.

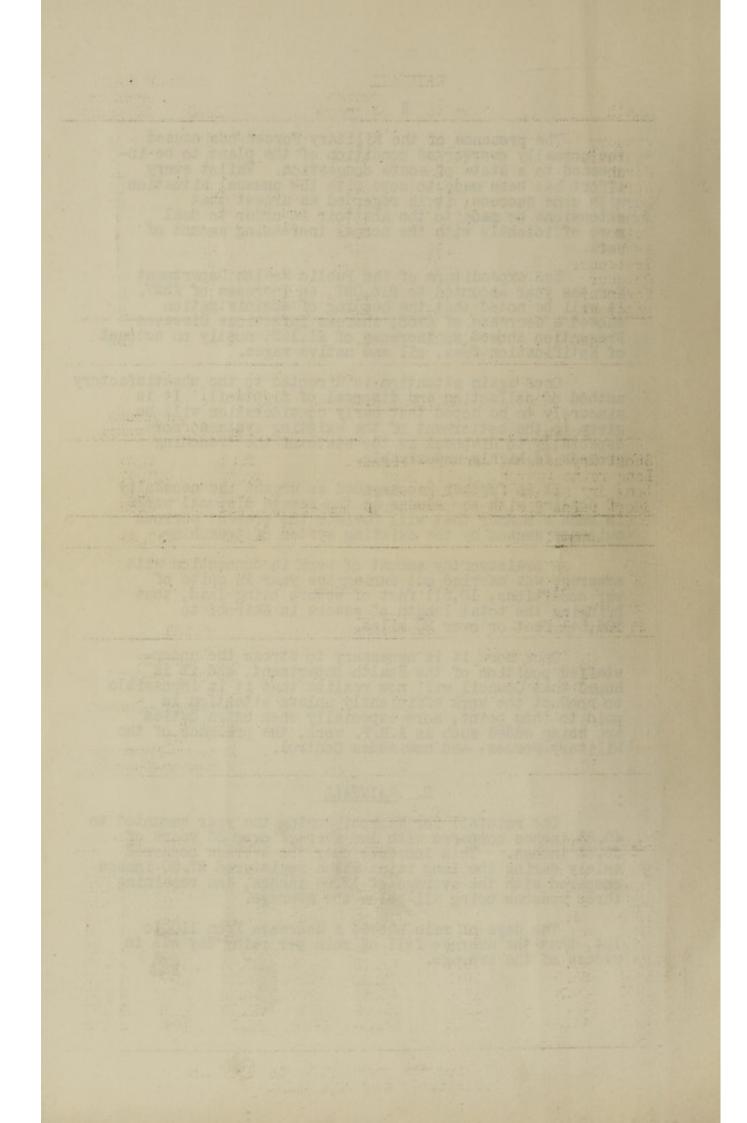
A praiseworthy amount of work in connection with sewerage was carried out during the year in spite of war conditions, 15,511 feet of sewers being laid, thus bringing the total length of sewers in Nairobi to 105,841 feet or over 20 miles.

Once more it is necessary to stress the understaffed position of the Health Department, and it is hoped that Council will now realize that it is impossible to conduct the work efficiently unless attention is paid to this point, more especially when extra duties are being added such as A.R.P. work, the presence of the Military Forces, and now Aedes Control.

#### 2. RAINFALL

The rainfall for Nairobi during the year amounted to 40.83 inches compared with the average over 33 years of 35.53 inches. This increase over the average occurred solely during the long rains which registered 27.60 inches compared with the average of 17.94 inches, the remaining three seasons being all below the average.

The days of rain showed a decrease from 110 to 104, thus the average fall of rain per rainy day was in excess of the average.



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	RAIN		DAYS	OF RAIN
Month	1940	Average 33 years	1940	Average 33 years
January February March April May June July August September October November December	$1.09 \\ 1.52 \\ 7.23 \\ 11.40 \\ 8.97 \\ 2.08 \\ 0.69 \\ 0.44 \\ 0.23 \\ 1.98 \\ 3.36 \\ 1.84 $	$ \begin{array}{r} 1.48\\ 2.25\\ 4.78\\ 8.03\\ 5.13\\ 1.74\\ 0.66\\ 0.97\\ 1.10\\ 2.12\\ 4.58\\ 2.69\end{array} $	6 5 13 19 18 5 5 5 5 9 11 5	5 5 10 18 15 8 5 6 6 8 14 10
Annual	40.83	35.53	104	110

# SEASONAL RAINFALL

Season	1940	33 years
Short dry season (January-February) Long rains (March, April, May) Long dry season (June-September) Short rains (October, November, December)	2.61 27.60 3.44 7.18	3.73 17.94 4.47 9.39
Annual	40.83	35.53

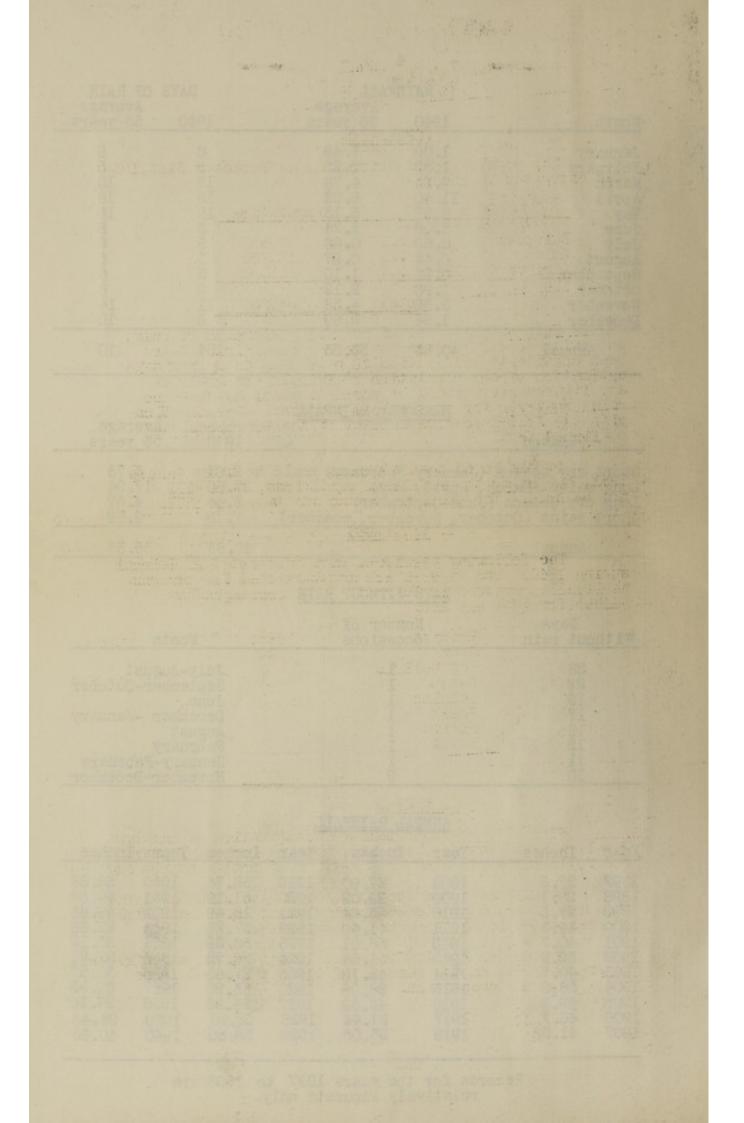
# DAYS WITHOUT RAIN

Days Without rain	Number of occasions	Month
28 22 19 17 16 12 11		July-August September-October June December -January August February January-February November-December

# ANNUAL RAINFALL

Year	Inches	Year	Inches	Year	Inches	Year	Inches
1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907	27.5 28.1 27.5 44.3 40.7 32.9 40.7 26.9 59.3 46.7 41.98	1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918	$\begin{array}{r} 27.90\\ 29.02\\ 25.64\\ 41.49\\ 56.01\\ 31.04\\ 42.18\\ 28.88\\ 43.59\\ 51.44\\ 23.05\end{array}$	1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	$\begin{array}{c} 38.74\\ 51.19\\ 18.49\\ 57.28\\ 56.22\\ 26.72\\ 27.83\\ 53.25\\ 24.86\\ 28.91\\ 36.50\end{array}$	1930 1931 1932 1933 1934 1935 1936 1936 1937 1938 1939 1940	58.88 39.58 39.85 22.68 23.12 31.24 30.87 52.85 28.16 24.46 40.83

Records for the years 1897 to 1906 are relatively accurate only.



#### 3. POPULATION

5

The population of Nairobi as at December 31st,1939 was estimated as under:-

R	ace		Population		
European Asian African &	:::	:::		6,800 17,700 41,000	_
	T	otal		65,500	_

This estimate was of necessity approximate only, but owing to distrubance due to war conditions it has been considered inadvisable to make even an approximate estimation of the population of Nairobi for 1940, as any figures given would be purely a guess and have no value whatever for statistical purposes. Consultation with the Statistical Department of the Government has confirmed this.

It was hoped that a census would be taken during 1941, but owing to prevailing conditions, this will not be held. The previous census was taken in 1931.

#### 4. MARRIAGES

The following marriages were celebrated in Nairobi during 1940. The figures are not corrected for persons habitually resident in Nairobi. The corresponding number for 1939 was 149.

British	183
Goan	10
Seychellois	5
Dutch	4
Belgian	1
Greek	1
Native	12
Danish	2

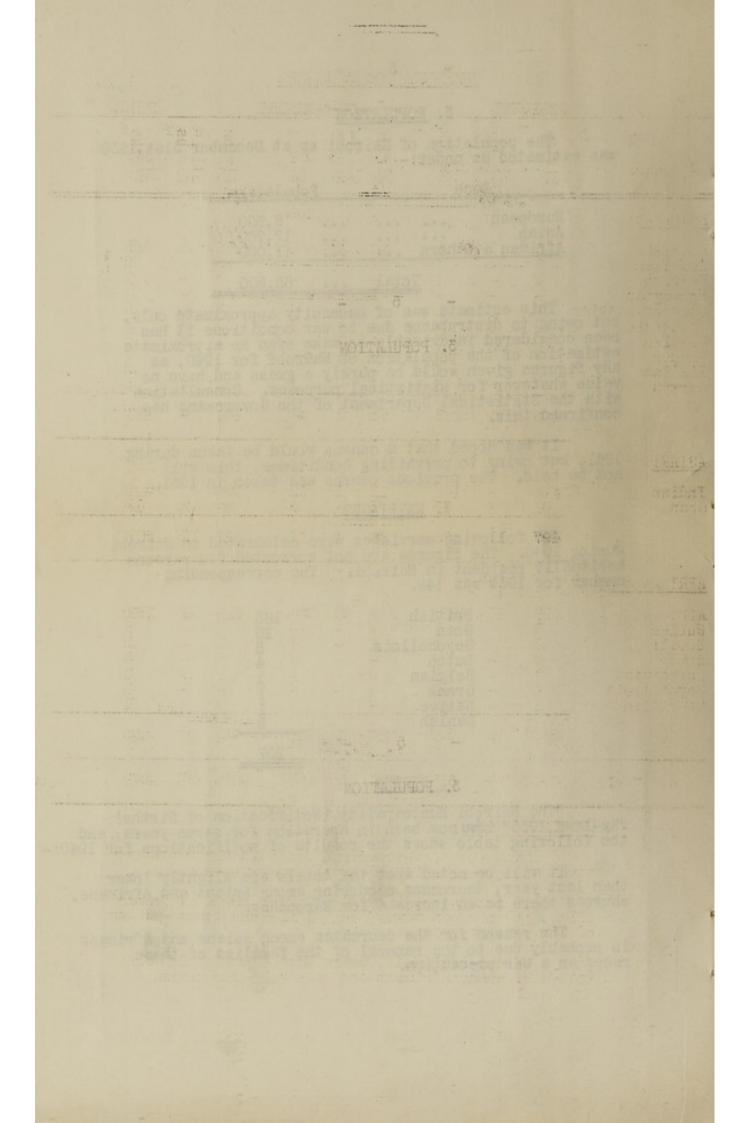
#### 5. BIRTHS

"The Nairobi Municipality (Notification of Births) "By-laws,1933" have now been in operation for seven years, and the following table shows the results of notifications for 1940:-

207

It will be noted that the totals are slightly lower than last year, decreases occurring among Asians and Africans, whereas there is an increase for Europeans.

The reason for the decreases among Asians and Africans is probably due to the removal of the families of these races as a war precaution.



NOTIFICATION OF BIRTHS

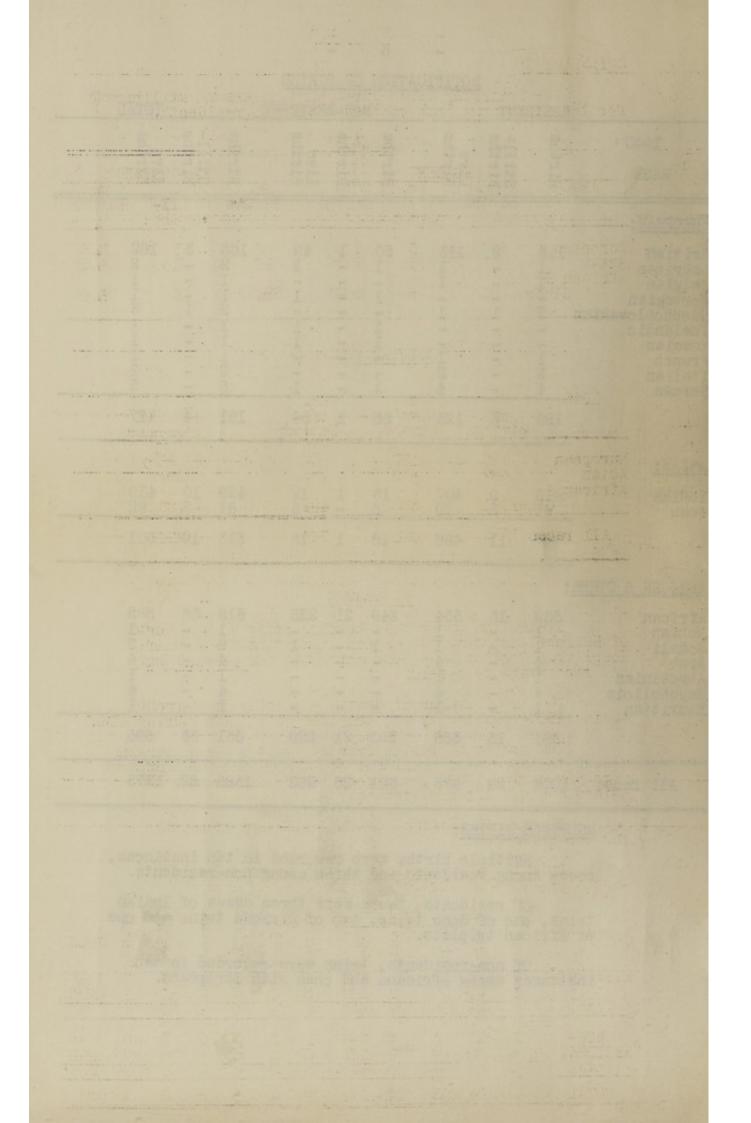
	RESIL	ENT			NON-H	RESIDE	NT		TOTAL	
1940 RACE	Births	Still- Births	Live Births	Births	Sull- Births	Live Births	Births	Still- Births	Live Births	
EUROPEAN:								-		
British American Belgian Norwegian Czechoslovakian Icelandic Russian French Italian German	115 1 2 - 1 2 4	2	113 1 1 1 1 1 2 4	50 1 1 1	1	49 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	165 2 1 2 1 2 1 2 5	3	162 2 1 5 1 2 5	
1999	126	3	123	55	1	54	181	4	177	
ASIAN:	-			155		124				
Indian Goan	416 81	92	407 79	13 3	1	12 3	429 84	10 2	419 82	
A STATE OF LASS	497	11	486	16	1	15	513	12	501	
AFRICAN & OTHER	:									
African Nubian Somali Arab Abyssinian Seychellois Mauritian	369 1 4 1 4 1 4	15	354 1 4 1 4	249 1 - -	21	228 1 - -	618 1 2 4 1 4 1	36 1 1 1 1 1	582 1 2 4 1 4 1	
	381	15	366	250	21	229	631	36	595	
All races	1004	29	975	321	23	298	1325	52	1273	

#### MULTIPLE BIRTHS:

Multiple births were recorded in ten instances, seven among residents and three among non-residents.

Of residents, there were three cases of Indian twins, one of Goan twins, two of African twins and one of African triplets.

Of non-residents, twins were recorded in two instances among Africans and once with Europeans.



#### STILLBIRTHS:

The following table gives particulars of stillbirths for the year among both residents and non-residents.

	RES	IDENT	NON-RESIDENT				
1940	No. Births	No. Still- births	% to Births	No. Births	No. Still- births	% to Births	
European Asian	126 497	3 11	2.3%	55 16	1	1.8%	
African & Other	381	15	3.9%	250	21	8.4%	

#### STILLBIRTHS

#### NATURAL INCREASE

1940	No. of Births	No. Live Births	No. of Deaths	Natural Increase
European Asian African &	126 497	123 486	62 195	61 291
	ther381	366	492	- 126
All race	es 1004	975	749	226

#### 6. DEATHS

Statistics under this heading refer to residents of Nairobi including the prison population and Mathari Hospital. Figures have been corrected for outward but not for inward transfers.

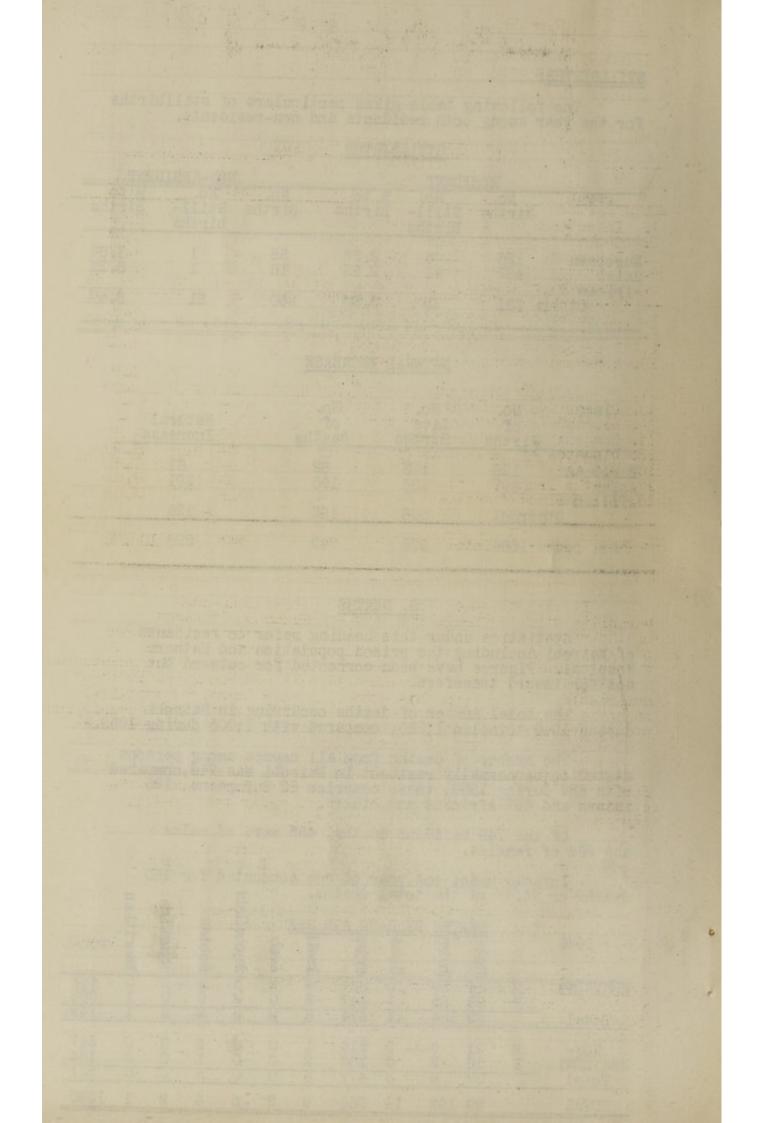
The total number of deaths occurring in Nairobi during 1940 totalled 1,280, compared with 1,005 during 1939.

The number of deaths from all causes among persons stated to be normally resident in Nairobi was 749, compared with 627 during 1939, these comprise 62 Europeans, 195 Asians and 492 Africans and others.

Of the 749 resident deaths, 483 were of males and 266 of females.

Infants under one year of age accounted for 183 deaths or 24.4% of the total deaths.

1940			ATHS		CE AN		Arab	Seychellois	Nubian	Abyssinian	Mauritian	TOTAL
RESIDENT	M F	34 28	99 85	10 1	327 147	42	20	32	20	20	0	483 266
Total		62	184	11	474	6	2	5	2	2	1	749
NON- RESIDENT	M F	21 16	62	3 0	314 163	12	00	00	21	00	00	347 184
Total		37	8	3	477	3	0	0	3	0	0	531
TOTAL	12	99	192	14	951	9	2	5	5	2	1	1280



Group	No. deaths	% of total
<ol> <li>Infectious and parasitic diseases</li> <li>Cancer &amp; other tumours</li> </ol>	172 14	22.96 1.87
<ol> <li>Diseases of nutrition etc.</li> <li>Diseases of the blood</li> <li>Chronic poisoning</li> </ol>	14 27 9	3.61 1.20
5. Chronic poisoning	_	-
<ol> <li>Diseases of the nervous system</li> <li>Diseases of the circulatory system</li> </ol>	49 27	6.54 3.60
<ol> <li>B. Diseases of the respiratory system</li> <li>Diseases of the digestive system</li> <li>Non-venereal diseases of the urinary</li> </ol>	166 70	22.16 9.35
system	20	2.67
11. Diseases of pregnancy 12. Diseases of the skin	11	1.47
13. Diseases of the bones 14. Congenital malformations	6 82	0.80
15. Diseases of early infancy 16. Old age	82 14	10.95
17. Deaths from violence 18. Ill defined diseases	14 53 29	7.08 3.87
Total	749	100.00

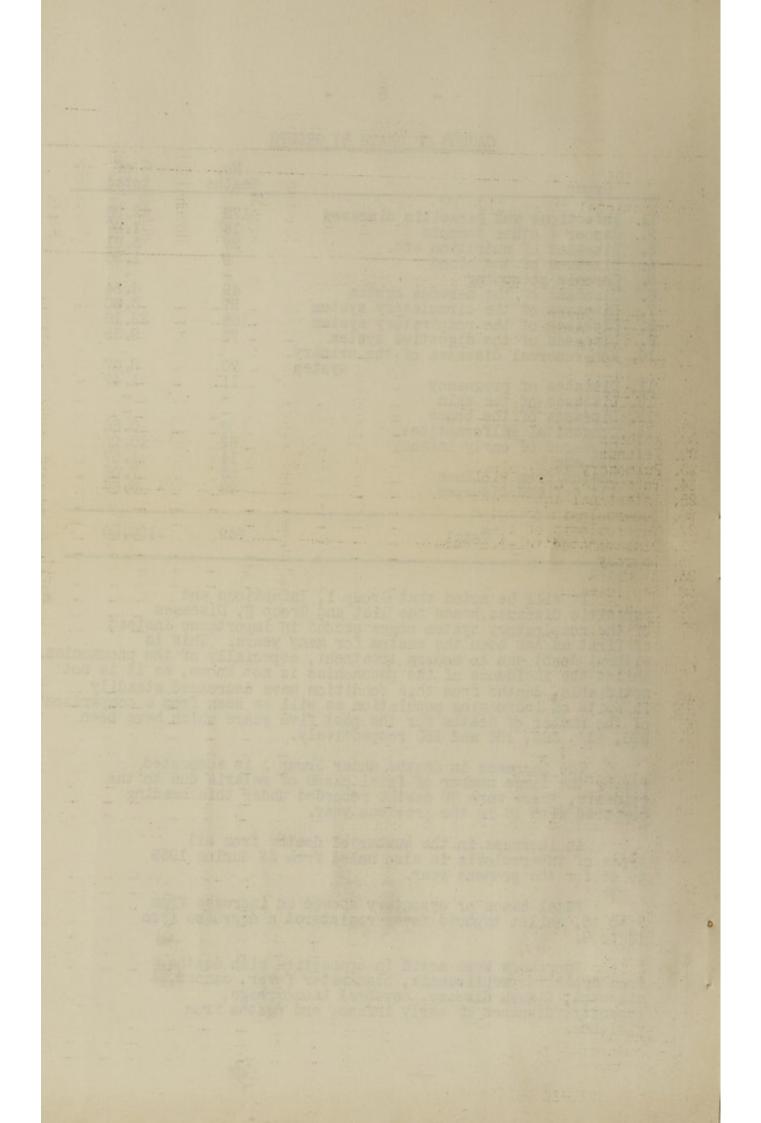
It will be noted that Group 1, Infectious and parasitic diseases, heads the list and Group 8, Diseases of the respiratory system comes second in importance instead of first as has been the custom for many years. This is without doubt due to modern treatment, especially of the pneumonias. Whilst the incidence of the pneumonias is not known, as it is not notifiable, deaths from this condition have decreased steadily in spite of increasing population as will be seen from a comparison of the number of deaths for the past five years which have been 326, 437, 365, 166 and 150 respectively.

The increase in deaths under Group 1 is accounted for by the large number of fatal cases of malaria due to the epidemic, there were 62 deaths recorded under this heading compared with 16 in the previous year.

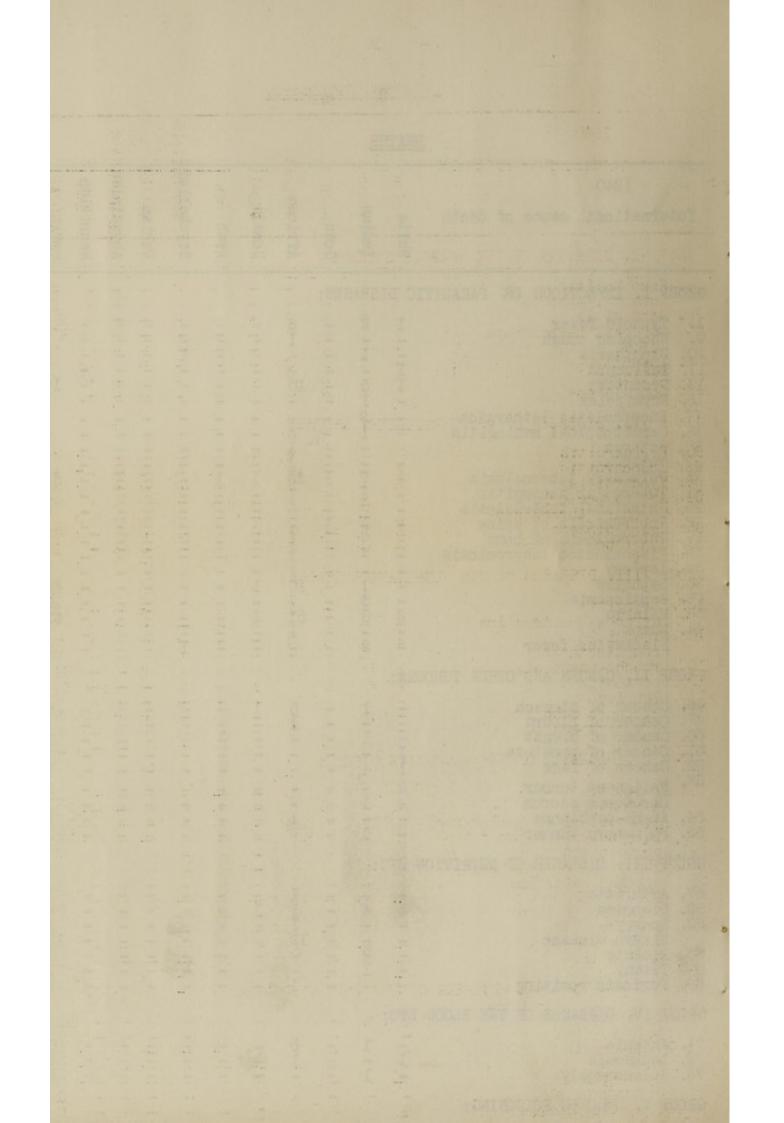
An increase in the numbers of deaths from all types of tuberculosis is also noted from 32 during 1939 to 45 for the present year.

Fatal cases of dysentery showed an increase from 9 to 16, whilst typhoid fever registered a decrease from 12 to 9.

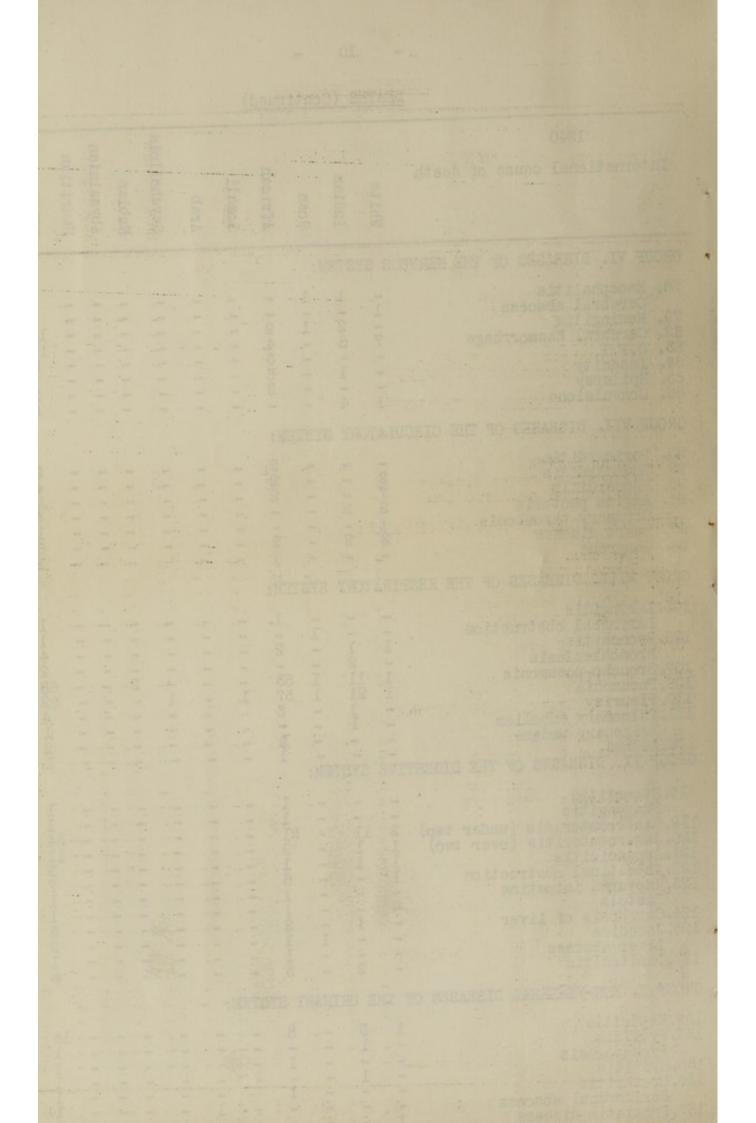
Increases were noted in connection with deaths from syphilis, septicaemia, blackwater fever, cancer, diabetes, Kikuyu disease, cerebral haemorrhage, insanity, diseases of early infancy and deaths from violence.



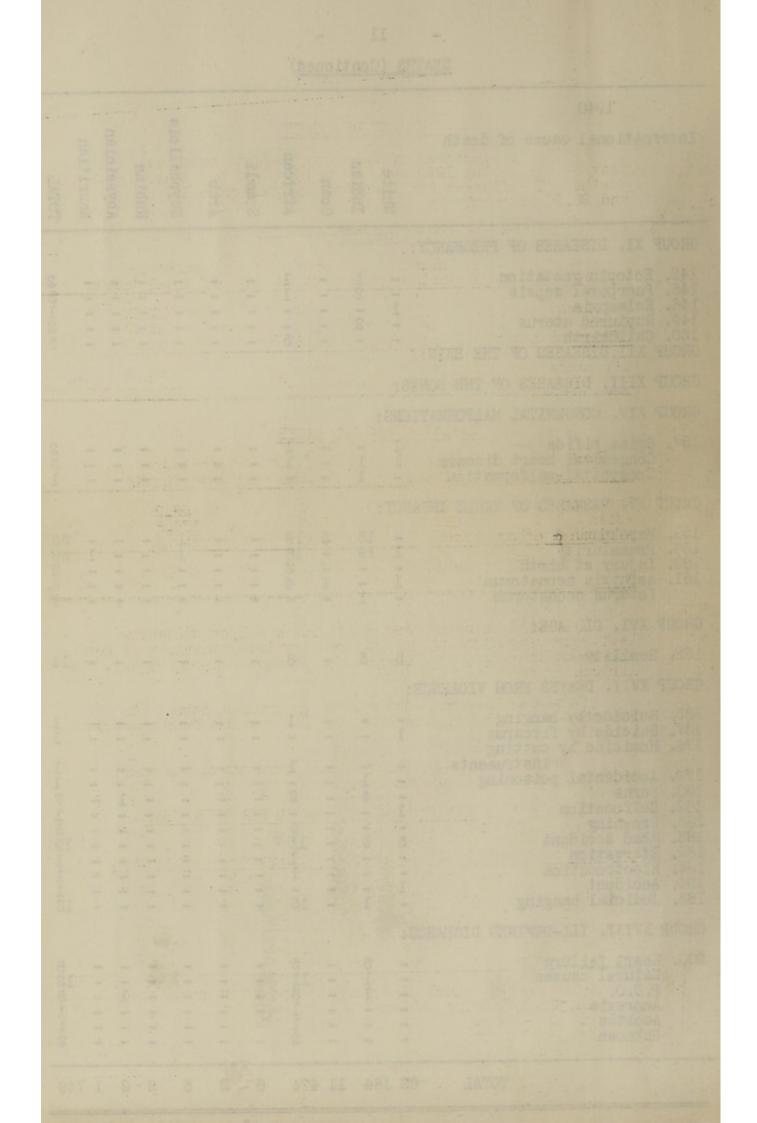
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Ī	EATH	IS									
1940 International cause of death	White	Indian	Goan	African	Somali	Arab	Seychellois	Nubian	Abyssinian	Mauritian	TOTAL
GROUP I. INFECTIOUS OR PARASITI	IC DI	ISEAS	SES:								
<ol> <li>Typhoid fever</li> <li>Whooping cough</li> <li>Diphtheria</li> <li>Imfluenza</li> <li>Dysentery</li> <li>Erysipelas</li> <li>Encephalitis lethargica</li> <li>Cerebrospinal meningitis</li> <li>Anthrax</li> <li>Tetanus</li> <li>Pulmonary tuberculosis</li> <li>Tubercular meningitis</li> <li>Intestinal tuberculosis</li> <li>Tuberculosis of spine</li> <li>Tuberculosis of bone</li> <li>Disseminated tuberculosis</li> <li>Leprosy</li> <li>Syphilis</li> <li>Septicaemia</li> <li>Malaria</li> <li>Mumps         <ul> <li>Blackwater fever</li> </ul> </li> </ol>	1	211151211171111113812		61 10 1311515 11110751							912161 24115251111120213
GROUP II. CANCER AND OTHER TUMOU	JRS:										
<ul> <li>46. Cancer of stomach</li> <li>47. Cancer of pleura</li> <li>50. Cancer of breast</li> <li>51. Cancer of prostate</li> <li>52. Cancer of face</li> <li>53. Malignant tumour Carcinoma sacrum</li> <li>54. Adeno-carcinoma</li> <li>55. Pulmonary tumour</li> </ul>	1 1 1 2 1 1 1	1 - - 1	111111111	31 11 -	1						51111 2111
GROUP III. DISEASES OF NUTRITION	N ET	0:									
Kikuyu disease 63. Rickets 66. Tetany 69. Periodic vomiting		21	111111	12 - 1	1	111111	111111		111111	111111	1942941
	- -		111	5 1 -		111	111	111	111	111	621



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Ī	EATH	s (c	onti	nued	2						
1940							ois		an	g	
International cause of death	White	Indian	Goan	African	Somali	Arab	Seychellois	Nubian	Abyssinian	Mauritian	TOTAL
GROUP VI. DISEASES OF THE NERVO	DUS S	YSTE	M:								
<ul> <li>78. Encephalitis Cerebral abscess</li> <li>79. Meningitis</li> <li>82. Cerebral haemorrhage</li> <li>83. G.P.I.</li> <li>84. Insanity</li> <li>85. Epilepsy</li> <li>86. Convulsions</li> </ul>	1 7 - 1	1 26 1 4	1	1 194962 1			11111111				2 12 17 5 7 25
GROUP VII. DISEASES OF THE CIRC	CULAT	ORY	SYST	EM:							
<ul> <li>90. Pericarditis</li> <li>92. Endocarditis</li> <li>93. Myocarditis</li> <li>94. Angina pectoris Coronary thrombcsis</li> <li>95. Heart disease</li> <li>98. Gangrene</li> </ul>	1272121	1 1 1 2 1 2 1	111111	2221	111111						2494161
GROUP VIII. DISEASES OF THE RES	SPIRA	TORY	SYS	TEM:							
<pre>105. Laryngitis Laryngeal obstruction 106. Bronchitis Bronchiectasis 107. Broncho-pneumonia 108. Pneumonia 100. Pleurisy 111. Pulmonary embolism Pulmonary oedema 112. Asthma GROUP IX. DISEASES OF THE DIGES</pre>		- 12 11 21 11 21 1 1 - SYS'		1 2 53 57 3 2 1			1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1		1111111111	1 4 8 8 2 4 1 2 1
<pre>115.Stomatitis Pharyngitis 119.Castroenteritis (under two) 120.Gastroenteritis (over two) 121.Appendicitis 122.Intestinal obstruction 123.Ruptured intestine Fistula 124.Cirrhosis of liver 125.Jaundice Liver abscess 129.Peritonitis</pre>	1111111			1121916112113 RY S	- - - - - - - - - -			111111111111		111111111111	114137113215
132. Nephritis	1	5	-	8	-	-	-	-	-	-	14
133. Pyelitis Pyonephrosis 135. Cystitis 136. Urathritis Periumsthral abscess 137. Prostatic disease		1	11111	1	11111		11111	11111	11111	11111	11111



- 11 - DEATHS (Continued)											
1940 International cause of death	White	Indian	Goan	African	Somali	Arab	Seychellois	Nubian	Abyssinian	Mauritian	TOTAL
GROUP XI. DISEASES OF PREGNANCY:											
<ul> <li>142. Ectopic gestation</li> <li>145. Puerperal sepsis</li> <li>146. Eclampsia</li> <li>149. Ruptured uterus</li> <li>150. Childbirth</li> <li>GROUP XII.DISEASES OF THE SKIN:</li> </ul>	- 1 -	12 12 1	11111	11-3		11111		11111	11111	11111	20120
GROUP XIII. DISEASES OF THE BONE											
GROUP XIV. CONGENITAL MALFORMATI 157. Spina bifida Congenital heart disease Congenital malformation	1 1 -	:		1	. 111						2 3 1
GROUF XV. DISEASES OF EARLY INFA	NCY	:									
<ul> <li>158. Marasmus</li> <li>159. Prematurity</li> <li>160. Injury at birth</li> <li>161. Asphyxia neonatorum</li> <li>Ictorus neonatorum</li> </ul>	1	13 19 - 1	2 - 1 - 1 -	19 16 2 4 -			1	11111	11111	1	35 38 6 1
GROUP XVI. OLD AGE:											
162. Senility	3	3	-	8	-	-	-	-	-	-	14
GROUP XVII. DEATHS FROM VIOLENCE	2:										
165. Suicide by hanging 167. Suicide by firearms 174. Homicide by cutting	ī	-	-	1 -	-	-	-	-	-		1
179. Accidental poisoning	-	1 4	-	1 - 2	-	-	-	-	-	-	1
180. Burns 182. Suffocation 183. Drowning 186. Road accident 189. Starvation 193. Electrocution 194. Accident	1 5 1	4 - 3 1	111111	31111	1 1 1 1 1 1			111111	4111111	111111	1171391116
198. Judicial hanging GROUP XVIII. ILL-DEFINED DISEASE	-	1	-	15	-	-	-	-	-	-	16
200. Heart failure		5	_	5	-	-	-	-	_	-	8
Natural causes P.U.O. Anorexia Ascites Unknown	11111	511	11111	515112	1111	11111	11111	1111	1	11111	82 12 5 1 12
TOTAL	62	184	11	474	6	2	5	2	2	1	749



### · 12 -

### 7. INFANT MORTALITY

The total number of deaths in infants under one year of age during 1940 was 183 or 24.4% of the total deaths. The figures for the previous year were 177 and 28.2% respectively.

	INFANT DE	CATHS		
Race	Infant deaths	Total deaths	Percentage of total deaths	
European Asian African & other	7 85 91	62 195 492	11.29 43.59 18.49	
All races	183	749	24.43	
	INFANT MORT	FALITY RATES		
Race	Live Births	Deaths	Per 1000 live births	
European Asian African & other	123 486 366	7 85 91	56.9 174.8 248.6	
All races	975	183	187.6	

It will be noted that these rates follow those for last year very closely, the figures for 1940 showing a slight all-round increase, the European by 21.7, the Asian by 0.1, the African by 30.8, and all races by 7.1.

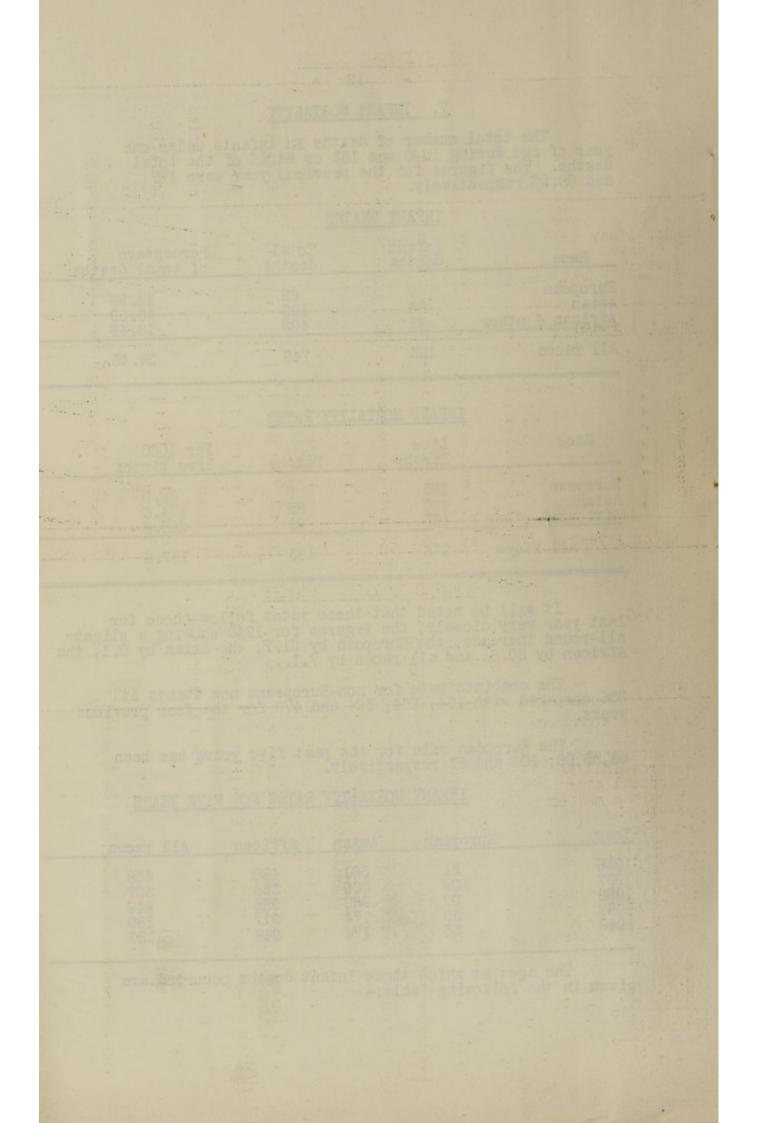
The combined rate for non-Europeans now stands at 206 compared with 194, 264, 324 and 479 for the four previous years.

The European rate for the past five years has been 56,35,90, 109 and 51 respectively.

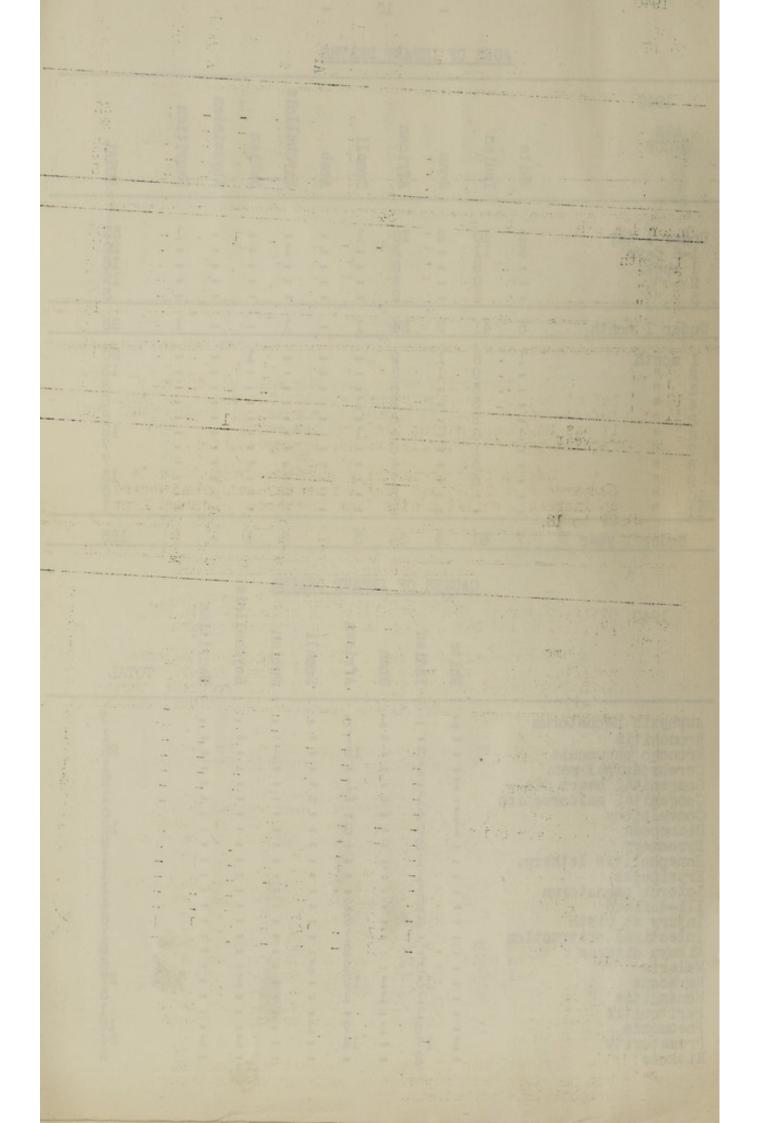
#### INFANT MORTALITY RATES FOR FIVE YEARS

Year	European	Asian	African	All races
1936	51	561	480	458
1937	109	309	338	307
1938	90	262	266	249
1939	35	174	217	180
1940	56	174	248	187

The ages at which these infant deaths occurred are given in the following table:-



			-	13	5	-					
	1	GES (	OF IN	FANT	DEAT	HS					
1940 AGE GROUP	White	Indian	Goan	African	Somali	Arab	Seychellois	Nubian	Abyssinien	Mauritian	TOTAL
Under 1 day 1-6 days 1 week 2 " 3 "	200111	10 11 8 9 3	2	16 5 8 3 2	1		1	11111	1111	1	32 20 16 12 5
Under 1 month	5	41	2	34	1	-	1	-	-	1	85
1 month 2 " 3 " 4 " 5 " 6 " 7 " 8 " 9 " 10 " 11 "	1	8988886H8511		93526464731				1			20 13 8 6 12 7 7 13 3 1
Under 1 year	7	81	4	84	3	-	2	1	-	1	183
1940			Indian	OF IN	Vfrican African	Somali	Nubian EH	Seychellois	<b>N</b> auri tian		TOTAL
Asphyxia neonatorum Bronchitis Broncho pneumonia Cerebrospinal men. Congenital heart di Congenital malforma Convulsions Diarrhoea Dysentery Encephalitis lethan Erysipelas Icterus neonatorum Ill-defined Injury at birth Intestinal obstruct Kikuyu disease Malaria Marasmus Meningitis Peritonitis Pneumonia Prematurity Rickets	is. ation		1611149211124113311	1	51911181112212221174						7 126 1215 18211146 1267 5 1842



1940	White	Indian ,	Goan	African 4	Somali	Nubian	Seychellois	Mauritian	TOTAL
Septicaemia Spina bifida Suffocation Syphilis Tetany	11	1 - 1 1	11111	1 6 -		11111	11111	11111	1 2 1 8 1
TOTAL	7	81	4	84	.3	1	2	1	183

The pneumonias still head the list of causes of infant deaths, but the percentage of this cause to total infant deaths is still steadily decreasing, during 1940 it was 24.0% and during the four preceding years the figures were 33.8%,53.1% and 44.9% respectively.

Deaths from prematurity increased from 22 to 34 compared with 1939, and deaths from marasmus also showed an increase, whilst deaths from diarrhoea decreased from 22 to 18.

#### 8. NOTIFIABLE INFECTIOUS DISEASES

The number of cases of notifiable diseases notified during 1940 totalled 6916 compared with 743, 779, 1,121 and 927 during the four previous years.

The number of cases of locally acquired malaria notified during the year reached the large figure of 6,720, compared with 545, 564 and 942 for previous years, details of these figures will be found in another section of this report.

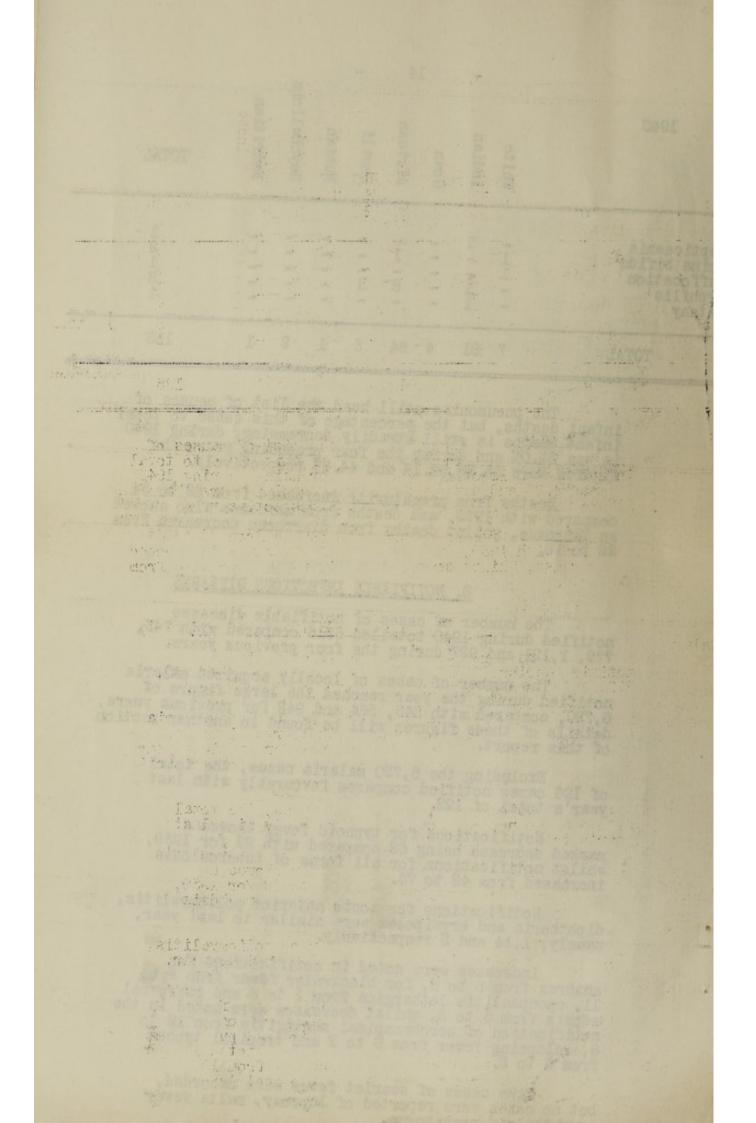
Excluding the 6,720 malaria cases, the total of 196 cases notified compares favourably with last year's total of 192.

Notifications for typhoid fever showed a marked decrease being 62 compared with 92 for 1939, whilst notifications for all forms of tuberculosis increased from 42 to 73.

Notifications for acute anterior poliomyelitis, diphtheria and erysipelas were similar to last year, namely, 1,14 and 2 respectively.

Increases were noted in notifications for anthrax from 5 to 8, for blackwater fever from 3 to 11, encephalitis lethargica from 1 to 3 and puerperal sepsis from 3 to 5, whilst decreases were noted in the notification of cerebrospinal meningitis from 18 to 8, relapsing fever from 6 to 2 and tropical typhus from 5 to 2.

Five cases of scarlet fever were recorded, but no cases were reported of leprosy, malta fever or ophthalmia neonatorum.



				-	1	5	-						
		1	INFEC	TIO	JS DIS	SEASI	es no	TIFIE	D				
Disease			White	Indian	Goan	African	Arab	Seychellcis	Chinece	DEDITIO	Т	OTA	L
Acute ant.poliomy Anthrax Blackwater fever Cerebrospinal men Diphtheria Encephalitis leth Erysipelas Puarperal sepsis Relapsing fever Scarlet fever Tropical typhus Tuberculosis Typhoid fever	ingi	tis	1 1 4 1 1 1 5 2 2 2 1 5 2 2 2 1 5	1 6283131111		18152 - 12 - 18 580						1	1 884
TOTA	L		29	52	3 :	107	1	2 :	1 ]	1		196	8
DISEASE	Jan.	Feb.	Mar.	April	DENCE	June	INFEC	TIOUS 'Sny	Sept.	il cu		Decr.	<u>IED</u> TOTAL
Malaria Acute anterior poliomyelitis Anthrax Blackwater fever Cerebrospinal meningitis Diphtheria Encephalitis Løthargica Erysipelas Puerperal sepsis Relapsing fever Scarlet fever Tropical typhus Tuberculosis Typhoid fever	74 111 5 31114183	54 - 1 1 1 3 2 5 10	167 - - 1 1 - - - - - - - - - - - - - - -	476 - 12 - 2 11 - 58	1265 - - - - - - - - - - - - - - - - - - -	796	1729 	1247 - 1 2 - 2 - 1 - - - - - - - - - - - - -	617 -2 1 - - - - - - - - - - - - - - - - -	150 	83 1111 1 1111100	64	6720 1 8 11 8 14 5 2 5 2 5 2 5 2 73 62
. TOTAL	100	77	179	497	1278	811	1742	1263	628	172	95	74	6916

÷. 1 1 3.E 1 :=== 14-54-167.476 1207 796 3429 1247-817 150 85 84.

### MORTALITY RATES OF NOTIFIED CASES

Disease	No. of cases	No. of deaths	5
Malaria	6720	62	0.92
Acute anterior poliomyelitis	1	-	10 50
Anthrax Blackwater fever	11	3	12.50 27.27
Cerebrospinal meningiti Diphtheria	14	4 2 2	50.00 14.28
Encephalitis lethargica Erysipelas	32	2 1 3	66.66 50.00
Puerperal sepsis Relapsing fever	52	ð -	60.00
Scarlet fever Tropical typhus	52		
Tuberculosis Typhoid fever	73 62	45 9	61.64 14.51

9. INFECTIOUS AND COMMUNICABLE DISEASES

#### ACUTE ANTERIOR POLIOMYELITIS:

One European non-fatal case was reported during the year.

Only four cases have been recorded previously, two in 1931, one in 1934, and one in 1939.

ANTHRAX:

Eight African cases were recorded with one death. The average over the past 10 years has been four annually.

BERI-BERI: No cases were reported, although it is noted that 12 deaths occurred among Africans from Kikuyu disease.

BLACKWATER FEVER: The cases of blackwater fever notified increased from 3 to 11. These cases occurred among 7 Asians, 1 European, 1 African, 1 Seychellois and 1 Chinese. Two Indian and one Seychellois deaths were registered from this disease.

<u>CEREBROSPINAL MENINGITIS</u>: The incidence of this disease was lower than last year, only 8 cases being notified against 10 in 1939. These cases concerned 5 Africans, 2 Indians and 1 Seychellois. One Indian and three African cases had a fatal termination.

CHICKENPOX, MEASLES, WHOOPING COUGH, MUMPS: The incidence of these non-notifiable diseases was a little higher than in 1939, judging by admissions to hospital.

Chickenpox was more prevalent in the earlier and later months of the year and accounted for 688 patient days in hospital against 752 last year. Measles were present during the whole year with the exception of July, but more prevalent in the first and last quarters, this condition accounted for 961 days in hospital against 984 last year.

Whooping cough was only present during the latter half of the year and was responsible for 337 days in hospital against 67 in 1939.

Mumps occurred during the first half of the year and also during October accounting for 394 days in hospital compared

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with 163 during 1939.

One African death from whooping cough and one from mumps were registered during the year.

CHOLERA: No case of cholera has yet been recorded from Nairobi.

DIPHTHERIA: A total of 14 cases were reported among 4 Europeans, 8 Indians, 1 African and 1 Seychellois. One Indian and one Seychellois case were fatal. The majority of these cases occurred during the first four months of the year, but the disease did not appear in epidemic form.

DYSENTERY: There was a decided increase in the number of deaths from dysentery during 1940, there being 16 comprising 1 European, 5 Indian and 10 African compared with 9 last year. It may be assumed that the incidence of this disease was very much higher than the ratio of the deaths.

ENCEPHALITIS LETHARGICA: Three Indian cases were reported during the month of January with two deaths. Last year one fatal Indian case was recorded.

ENTERIC FEVER GROUP: There were fewer cases of this condition reported during the year, 62 against 92 last year. The cases occurred among 13 Europeans, 19 Asians and 30 Africans and were fairly evenly spread out over the year, it did not appear in epidemic form.

Nine fatal cases were noted between 1 European, 2 Indians and 6 Africans.

ERYSIPELAS: Similar to last year, only two cases of this disease were reported.

GLANDERS, RABIES: Neither of these diseases has yet been recorded in Nairobi.

LEPROSY: No new case of this disease was notified from Nairobi, the patient days in hospital for this condition total 782, compared with 1,136 for the previous year.

MALTA FEVER: No cases were reported, there were four cases during 1939.

MALARIA: Information regarding this infection will be found in a separate section of this report.

<u>OPHTHALMIA NEONATORUM</u>: No cases were reported, this is not a common condition. One case was notified in 1939, the case previous to that being in 1935.

PLAGUE: No case of human plague occurred in the Municipality during 1940.

There were 10 cases during 1938 and 25 cases during 1937.

During December three cases were brought into the town from outlying districts for treatment.

The improvement in the sanitary condition of the town is certainly lessening the risk of plague appearing in epidemic form.

PNEUMONIA: During 1940, pneumonia was responsible for 82 deaths and Bronchopneumonia for 68, making a total of 150 deaths from the pneumonias.

17

Direction of the cases were repaired anong a set of the cases were repaired and i governations. One indice and one investigate case were fatel. The salority of these cases conversed durant the initial fort months of the year, but the director with not higher in spi diate form. nu in high Storage Ona : A Higher Constraints (12) Fill Daniel Constraints (12) Fill Daniel Constraints (12) and a second sec . Crieging Loo Refut Severe reported. & Last Sher She Pressees of this? deed that the same states been in the tell Ist 287 287 No new case of this dispase was notified from Walrood . I the sectors days in heapt tal for this condition total 788. angele section of the state of a state to to the found the state bart of the set of the

114 of the deaths were of Africans and others, 34 of Asians and 2 of Europeans.

As has been already remarked there has been a steady and continuous decrease in the number of deaths from the pneumonias during recent years, undoubtedly due to the effect of modern treatment.

Although we are not in a position to give the incidence of this disease, even in spite of increased population, the deaths have decreased in a marked degree. During the past five years the number of deaths have been 326, 437, 365, 166 and 150 respectively.

of the 150 deaths from the pneumonias, 44 were in infants under one year of age.

<u>PUERPERAL SEESIS</u>: Only five cases were reported during the year comprising 4 Asians and 1 African. There were two Asian and one African deaths.

It is obvious that this does not represent a true picture of the situation, and many more cases must exist without being notified.

RELAPSING FEVER: Only two non-fatal African cases were notified. This disease appears to be becoming less prevalent in Nairobi. In 1938 there were 38 cases, and in 1937 there were 10 cases.

SCARLET FEVER: This is not a common disease in Nairobi, 5 European cases were notified during the year, they were not fatal.

Previous cases occurred in 1931, 1935 and 1937.

TROPICAL TYPHUS: Two European cases were reported compared with an everage of six for the previous five years.

It is extremely doubtful whether all the cases of this condition are being notified.

TUBERCULOSIS: Tuberculosis of all forms was responsible for 75 notifications during the year, this shows a decided increase over the 42 notifications last year. There were 45 deaths from this disease of which 35 were from the pulmonary variety.

The notifications concerned 2 Europeans, 11 Asians and 60 Africans whilst the deaths concerned 10 Asians and 35 Africans.

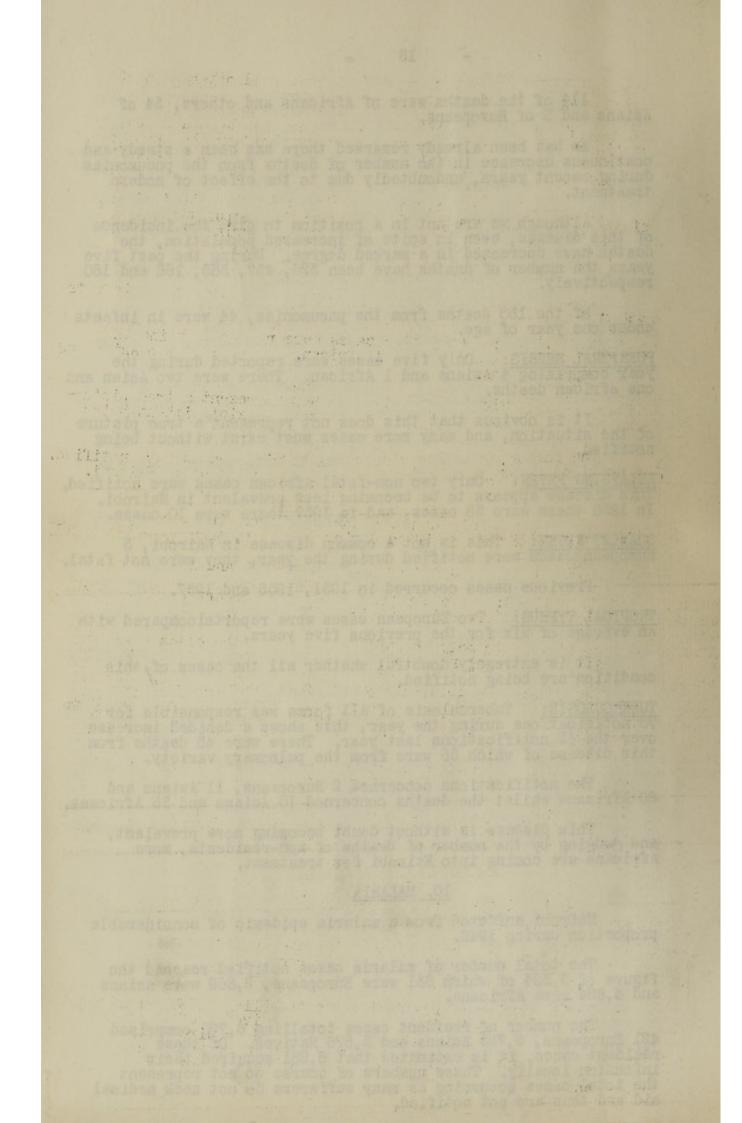
This disease is without doubt becoming more prevalent, and judging by the number of deaths of non-residents, more Africans are coming into Nairobi for treatment.

# 10. MALARIA

Nairobt suffered from a malaria epidemic of considerable proportion during 1940.

The total number of malaria cases notified reached the figure of 8,324 of which 631 were Europeans, 2,869 were Asians and 4,824 were Africans.

The number of resident cases totalling 6,720 comprised 421 Europeans, 2,723 Asians and 3,576 Natives. Of these resident cases, it is estimated that 6,281 acquired their infection locally. These numbers of course do not represent the total cases occurring as many sufferers do not seek medical aid and thus are not notified.



The epidemic which commenced from infection coming from the Ruaraka district outside the northern boundary of the Municipality, commenced in March, increased sharply to May, decreased slightly in June, but increased to a maximum in July, and then decreased gradually towards the end of the year.

The months of greatest intensity were May, July and August with the maximum in July.

Rainfall during March, April and May was heavy, but the remainder of the year was dry.

Deaths from malaria during the year totalled 62, making a case mortality of notified cases of 0.92%.

Energetic measures were adopted to deal with the epidemic which measures will be continued and great assistance was rendered by the Military Authorities in seconding staff for this purpose.

The activities of this section are controlled by the Anti-Malaria Committee which includes representatives of the Military and Air Force, Government Medical Department, Public Works Department, and Nairobi District Council.

The following tables give detailed information regarding the notified cases of malaria:-

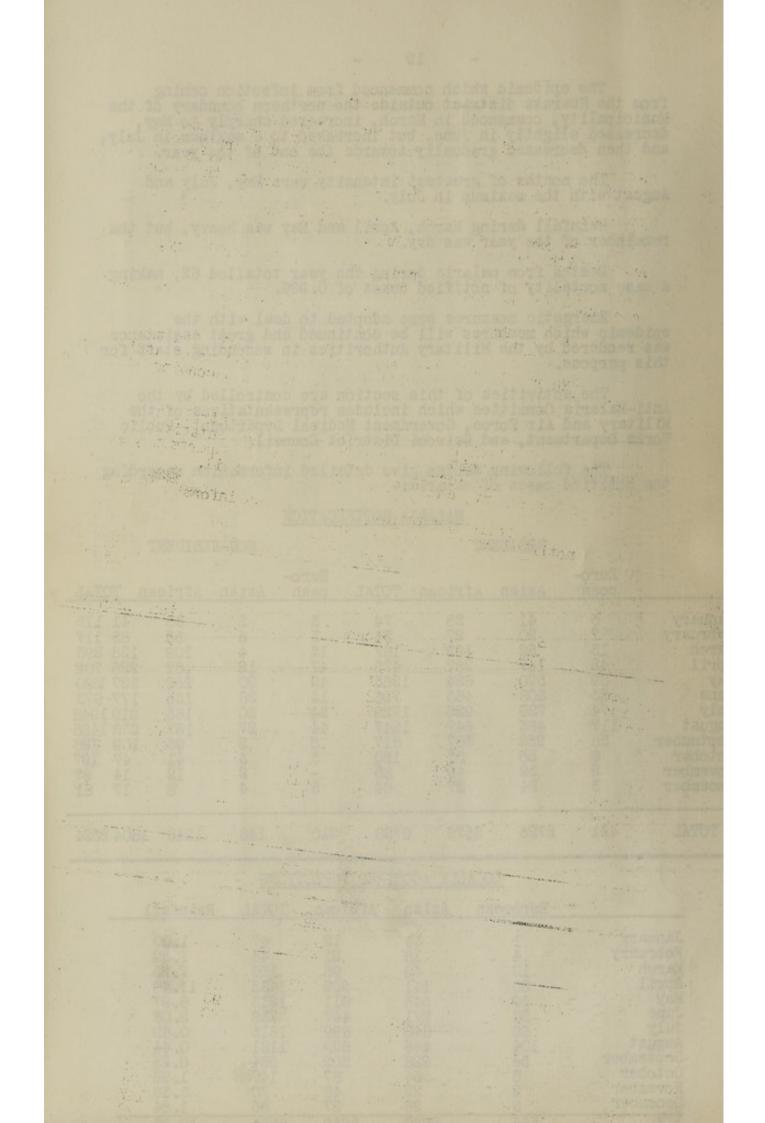
# MALARIA NOTIFICATION

#### RESIDENT

# NON-RESIDENT

	Euro- pean	Asian	African	TOTAL	Euro- pean	Asian	Africa	an TOTAL
January February March April May June July August September October November December	5 7 13 42 69 23 74 117 58 82 3	41 20 52 147 570 308 729 483 252 55 32 34	28 27 102 287 624 465 926 647 307 87 49 27	74 54 167 476 1263 796 1729 1247 617 150 83 64	3 3 13 47 49 14 44 5 3 5	2 5 4 20 28 27 9 5 24	36 55 109 167 258 135 165 167 95 41 12 8	$\begin{array}{c} 41 \ 115 \\ 63 \ 117 \\ 126 \ 293 \\ 226 \ 702 \\ 327 \ 1590 \\ 177 \ 973 \\ 219 \ 1948 \\ 238 \ 1485 \\ 109 \ 726 \\ 47 \ 197 \\ 14 \ 97 \\ 17 \ 81 \end{array}$
TOTAL	421	2723	3576	6720	210	146	1248	1604 8324

1000000	European	Asian	African	TOTAL	Rainfall
January February March April May June July August September October November December	$ \begin{array}{r} 1 \\ 4 \\ 12 \\ 30 \\ 59 \\ 20 \\ 68 \\ 104 \\ 54 \\ 6 \\ 2 \\ 3 \\ 363 \\ \end{array} $	34 18 49 141 543 271 646 448 228 54 22 26 2280	12 21 95 262 611 447 899 629 302 87 46 27 3638	$\begin{array}{r} 47\\ 43\\ 156\\ 433\\ 1213\\ 738\\ 1613\\ 1181\\ 584\\ 147\\ 70\\ 56\\ 6281\\ \end{array}$	1.09 1.52 7.23 11.40 8.97 2.08 0.69 0.44 0.23 1.98 3.36 1.84 40.83



#### 11. RODENT DESTRUCTION

Routine rat trapping has continued to be carried out, the rat gang consists of five boys working under the direction of the sanitary inspectors within the Commercial area.

The Railway Administration continues to provide its own rat gang which operates on railway premises and land. This gang accounted for 6,371 rats during the year, compared with 9,418 for 1939.

The number of rats accounted for by the Municipal gang totalled 28,454, compared with 29,250 last year.

A percentage of the catch is examined daily for B. pestis, but during the year none were found to be positive.

Month	Municipal gang Number of rats	Railway gang Number of rats	TOTAL
January February March April May June July August September October November December	2,477 2,473 2,338 2,537 2,619 3,244 2,540 2,656 2,217 2,466 1,679 2,108	735 622 510 531 599 412 391 551 551 546 499 447 528	3,212 3,095 2,848 3,068 3,218 3,656 2,931 3,207 2,763 2,965 2,126 2,636
TOTAL	28,454	6,371	34,825

#### RATS DESTROYED

#### 12. NATIVE BURIALS

The native pagan burial ground situated off the road to the civil aerodrome continues to function satisfactorily, the first portion having become filled a further acre has been enclosed, 678 interments have been made in this ground during the year.

A new native hearse has been put into use and functioned without trouble during the year. There were 975 African and other burials during 1940 taxing the existing transport to the utmost and it may be necessary, in the near future, to acquire another vehicle to cope with the work and relieve the present hearse during repair or overhaul periods.

The hearse used in connection with these burials was requisitioned a total of 721 times, 346 times to the Native Hospital, 90 to No. 1 General Hospital, 86 to Infectious Diseases Hospital, 79 to Mortuary, 46 to Pumwani Maternity Hospital, 40 to Mathari Hospital and 34 times to the Prison Hospital.

#### 13. WATER SUPPLY

Nairobi continues to obtain its water supply from the Kikuyu Springs and the Ruiru River in the proportion of 67.3% and 32.7% respectively. Routine examinations of the water show that the quality is maintained in **a** satisfactory state.

Hould no rat trapping bas continued to be carried	
Contervisi kres. The Fallway Administration doublances to provide its	
This game standard of 0.371 rate dering the year, despared	
The number of rate accounted for by the Municipal's pair totalled 58,485 compared with 28,230.12 st rate.	
a. postis, but during the year none were found to be positive.	
Henth Municipal ante - Bativer gane - TCTAL	
Norther of the second s	
Transferrer State State	
20191, 54,824 5,871 54,825	
10. ANTIVE BURIALS	
The native pages burial ground al cated off the road to the sivil abrodrome confinues to function satisfactorily, the first portion having become filled a further and has been assissed. We interpents have been ands in Whis ground daring the year.	
A new native heares has been put hato was and functioned without trouble during the rear! There sere 30 African and other burials during 1040 that rear! There sere 30 African and other burials during 1040 that is attacting the new future, to socutie bundher websels to once with 104 root and relieve the present	
hannes during ropair or growing pair ofs.	
Haritys Hospitial, 30 to Hospitian (out this, ou to infection Finance Hospitial, 99 to Southings, 40 to Familia Patients Hospitial, 40 to Heritani Hospitial and 34 starsa to familian	
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the Maireld conditions to chight its water supply from the the Mairely from the second of the instruments in the the properties of the second	
state.	

The amount of water delivered to Nairobi and districts during the year totalled 608,820,000 gallons, compared with 560,298,260 gallons delivered last year, the average daily delivery being 1,688,000 gallons, compared with 1,466,412 gallons daily during 1939.

# 14. AMBULANCE

The Municipal ambulance which is housed at the Fire Station was called out on 92 occasions, 62 calls being in connection with European patients, 17 with Asian patients, 8 calls were in connection with Air Raids and on 5 occasions it was standing by.

The distance travelled totalled 840 miles.

# 15. POUND

During the year, the following animals were impounded in the Pound situated in the Municipal Landhies:-

Oxen	701	Mules	7
Dogs	88	Donkeys	5
Sheep	43	Monkeys	2
Goats	38	Rabbit	1

#### 16. NEW BUILDINGS

The number of plans submitted during the year totalled 381. Somewhat less than the number for 1939, the decrease being explained by the disturbed war conditions prevailing.

A large number of these plans required further scrutiny following amendments. Inspections in connection with works in progress numbered 2,298, compared with 2,487 for 1939.

A total of 248 completion certificates were issued.

#### 17. CONSERVANCY

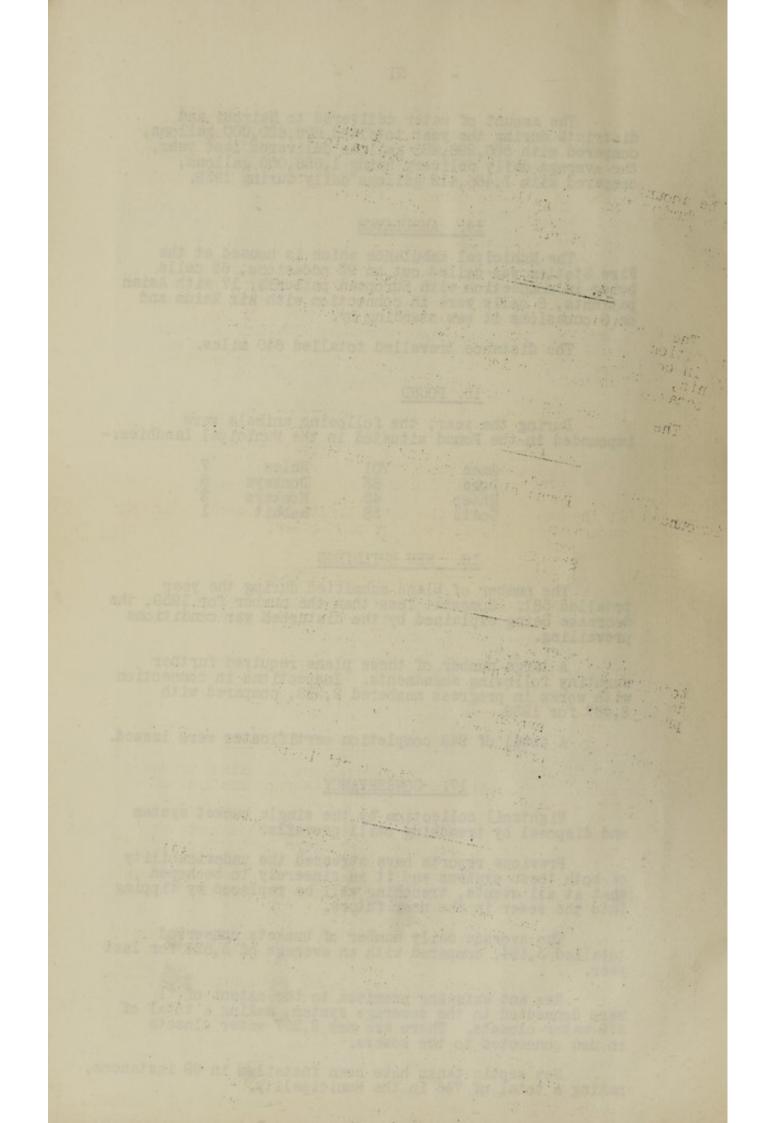
Nightsoil collection by the single bucket system and disposal by trenching still prevails.

Previous reports have stressed the undesirability of both these systems and it is sincerely to be hoped that at all events, trenching will be replaced by tipping into the sewer in the near future.

The average daily number of buckets conserved totalled 3,394, compared with an average of 3,524 for last year.

New and existing premises to the extent of 71 were connected to the sewerage system, making a total of 379 water closets. There are now 2,257 water closets in use connected to the sewers.

New septic tanks have been installed in 69 instances, making a total of 746 in the Municipality.



Seven conserving tanks in connection with septic tanks on land not capable of dealing with the effluent have been installed bringing the total to 28, whilst 9 septic pits were permitted, the nature of the ground being suitable to warrant their use.

#### 18. SEWERS

A considerable amount of work in connection with sewerage was carried out during the year in spite of war conditions, 15,511 feet of sewers being laid, compared with 13,415 feet laid during 1939. Of this total, 1,988 feet were laid in connection with Zone B scheme and 9,260 feet in connection with the Group Hospital sewer, the remaining 4,263 feet being distributed as follows:-

Cross Road	2,003	feet
Near Reata Road	867	"
Near Latema Road	267	11
Khimji Road	296	11
Swamp extension	205	
Quarry Road Housing	625	11

At the end of 1940, the total length of sewers in Nairobi amounted to 105,841 feet, over 20 miles.

#### 19. CARCASES REMOVED

The following animals died within the Municipality and their carcases were removed by special service and destroyed:-

Mules	6	Donkey	1
Oxen	5	Pony	1
Dogs	5	Cat	1
Horses	2		

# 20. SANITARY INSPECTIONS

Owing to being called on service, sickness and leave, 59 inspector months work was performed out of a maximum 72.

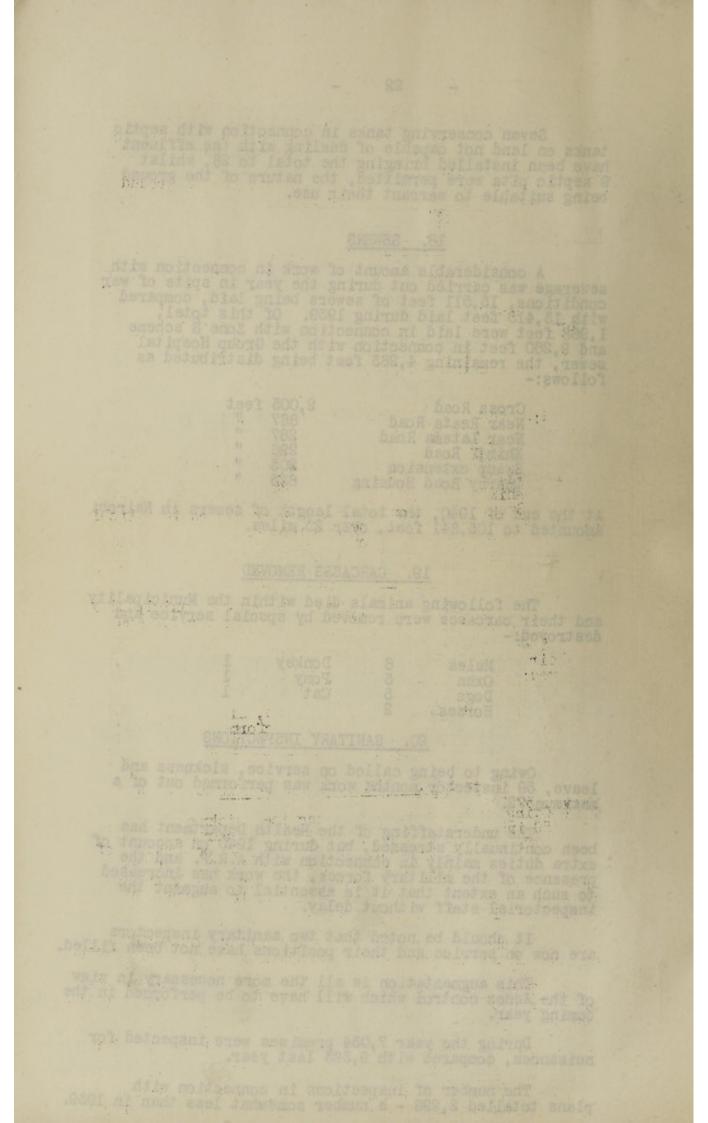
The understaffing of the Health Department has been continually stressed, but during 1940 on account of extra duties mainly in connection with A.R.P. and the presence of the military forces, the work has increased to such an extent that it is essential to augment the inspectorial staff without delay.

It should be noted that two sanitary inspectors are now on service and their positions have not been filled.

This augmentation is all the more necessary in view of the Aedes control which will have to be performed in the coming year.

During the year 7,034 premises were inspected for nuisances, compared with 9,393 last year.

The number of inspections in connection with plans totalled 2,298 - a number somewhat less than in 1939.



1,241 defects were remedied by intimation or notices, compared with 1,192 remedied last year.

Slightly fewer notices were served during 1940, 406 against 418 during 1939.

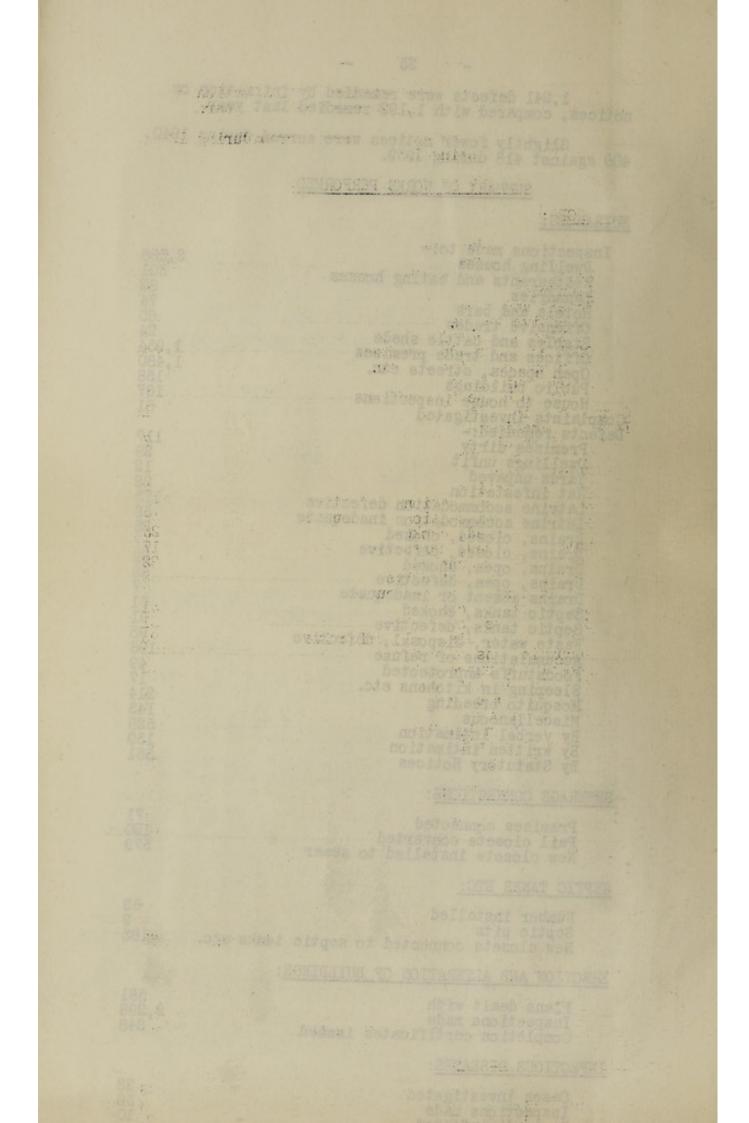
# SUMMARY OF WORKS PERFORMED

# NUISANCES:

.....

Inspections made to:- Dwelling houses Restaurants and eating houses Laundries Hotels and bars Offensive trades Stables and cattle sheds Offices and trade premises Open spaces, streets etc. Public buildings House to house inspections Complaints investigated	2,388 301 82 74 60 24 1,934 1,934 1,480 158 167 81
Defects remedied:- Premises dirty Dwellings unfit Yards unpaved Rat infestation Latrine accommodation defective Latrine accommodation inadequate Drains, closed, choked Drains, closed, defective Drains, open, choked Drains, open, defective Drains absent or inadequate Septic tanks, choked Septic tanks, defective Waste water, disposal, defective Accumulations of refuse Foodstuffs unprotected Sleeping in kitchens etc. Mosquito breeding Miscellaneous By verbal intimation By written intimation By Statutory Notices SEWERAGE CONNECTIONS:	$117 \\ 29 \\ 12 \\ 22 \\ 173 \\ 38 \\ 23 \\ 17 \\ 22 \\ 7 \\ 31 \\ 95 \\ 196 \\ 49 \\ 17 \\ 214 \\ 143 \\ 528 \\ 139 \\ 581 \\ 139 \\ 139 \\ 139 \\ 130 \\$
Premises connected Pail closets converted New closets installed to sewer	71 120 379
<u>SEPTIC TANKS ETC:</u> Number installed Septic pits New closets connected to septic tanks etc.	69 9 163
ERECTION AND ALTERATION OF BUILDINGS:	
Plans dealt with Inspections made Completion certificates issued	2,298 248
INFECTIOUS DISEASES:	
Cases investigated Inspections made Rooms disinfected	28 38 10

-



Number destroyed

28,454

# NOTICES SERVED:

Public Health Ordinance	156
Municipal By-laws:-	-
Insanitary Huts	6
Cleansing Plots	84
Inadequate latrine accommodation	9
Drainage	95
Others	40
Closing Orders (Insanitary Dwellings By-laws)	15

# 21. FOOD CONTROL

# INSPECTIONS TO PREMISES UNDER SPECIAL CONTROL

Premises	No of Inspections
Aerated water factories	184
Bakeries	64
Butchers' shops	361
Dairies & Milk shops	423
Laundries	82
Eating houses	301
Vegetable dealers	123
Hotels & Boarding houses	74
Markets	190
Grocers	261

#### FOOD INSPECTED AND CONDEMNED

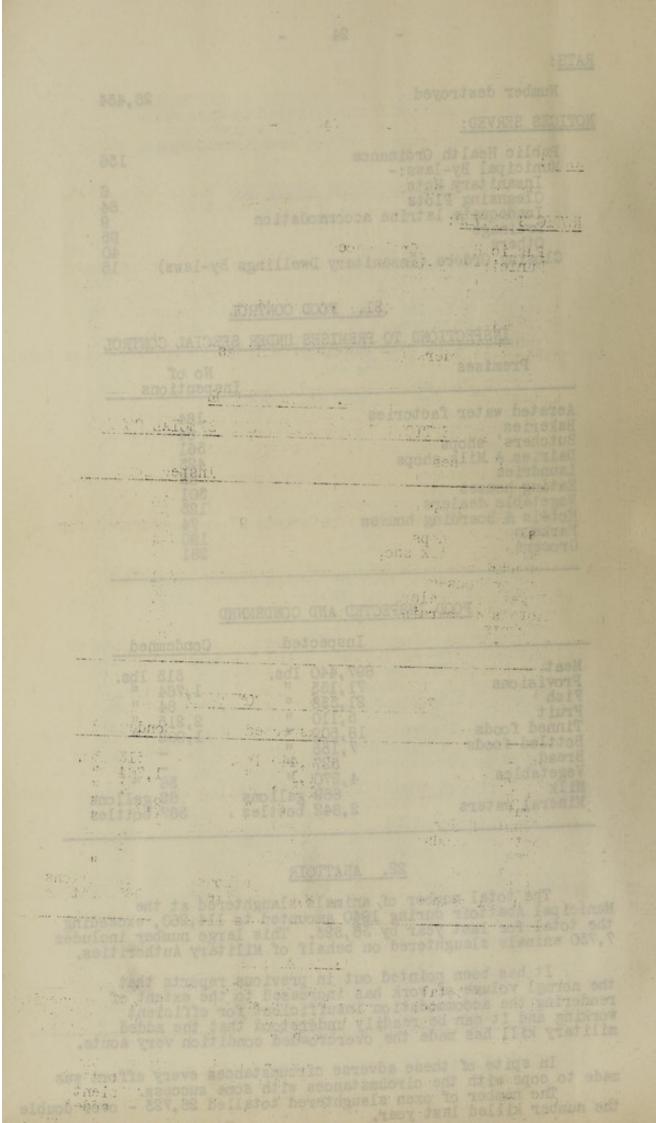
07 the 59.0	Inspected	Condemned
Meat Provisions Fish Fruit Tinned foods Bottled foods Bread Vegetables Milk Mineral waters	697,440 lbs. 71,133 " 21,338 " 5,110 " 18,509 " 7,155 " 527 " 4,270 " 669 gallons 2,842 bottles	313 lbs. 1,764 " 84 " 2,215 " 1,902 " - - - - - - - - - - - - - - - - - - -

#### 22. ABATTOIR

The total number of animals slaughtered at the Municipal Abattoir during 1940 amounted to 114,260, exceeding the total for last year by 36,523. This large number includes 7,730 animals slaughtered on behalf of Military Authorities.

It has been pointed out in previous reports that the normal volume of work has increased to the extent of rendering the accommodation insufficient for efficient working and it can be readily understood that the added military kill has made the overcrowded condition very acute.

In spite of these adverse circumstances every effort was made to cope with the circumstances with some success. The number of oxen slaughtered totalled 26,723 - over double the number killed last year.



The number of sheep killed increased from 14,783 to 24,461, whilst the number of native sheep and goats reached the figure of 59,946, an increase of 13,393 over the previous year.

Owing to the slaughter of pigs being controlled, the number killed during 1940 decreased from 3,522 to 2,623.

Tables are appended showing the number of animals slaughtered together with percentages of condemnations.

The number of oxen condemned for all causes amounted to 5,702 or 21.3% of the kill compared with 16.2% for last year. Of these 5,702, 4,645 or 17.3% were condemned on account of measles, compared with 14.2% last year.

Of the remaining number 508 were rejected on account of being fevered, 149 for dropsy, 123 for jaundice, 104 for piroplasmosis, 73 for emaciation, 30 for tuberculosis, 24 for sepsis, 20 for bruising, 15 for rinderpest and 11 for other causes.

No condemnation for East Coast Fever was recorded during the year.

Of the 106 calves rejected, 97 were condemned for measles.

216 or 0.8% of the sheep killed were condemned, 58 for emaciation, 63 for lymphadenitis, 56 for being fevered, 11 for dropsy, 10 for jaundice, 13 for sepsis and 5 for other conditions.

Of the 59,946 native sheep and goats slaughtered, 2,089 or 3.4% were condemned, 808 for heartwater, 563 for being fevered, 257 for dropsy, 223 for lymphadenitis, 123 for jaundice, 81 for emaciation, 22 for pleuro-pneumonia and 12 for other conditions.

Of the 2,623 pigs killed, 42 or 1.6% were condemned, 16 for measles, 12 for being fevered, 9 for tuberculosis, 4 for sepsis and 1 for jaundice.

The total amount of meat condemned during 1940 reached the high figure of 2,102,695 lbs., about double of that condemned during the previous year.

INSPECTIONS			e		
1940	Inspected	Condemned	Condemned		
Oxen Calves Sheep Goats Pigs	26,723 507 24,461 59,946 2,623	5,702 106 216 2,089 42	21.3 20.9 0.8 3.4 1.6		
TOTAL	114,260	8,155	7.1		

to 23,141, whiles of sheet killed insteamed from 14,725 reached the willet the lighter of sative sheet while gan the matched the righter of sative sheet while gan the the rievious reat. the mather is the staught top of ride boths ochtfolled, statiste for the spended sheet at the dimension of side its of the remaining finater for Wire Wineted in account of being tevenes, 140 in Righey 155 154 aundice, 104 for pir Shakahoate, 15 for enteration, 80 for theoremlosis, 81 for second of of brunslag is for innderpast and it for blick dander. erflich. In 108 calves rejected, if were contamified for 58 for enalgelen, 65 for lymphatentied were deridented, fevered, 11 for dropsy; 10 for jaundles, 15 for send, and 5 fer other conditions. 8.033 or 5.1 best to using best for using the heat of 5.1 best for using the heat of 5.2 best for using the for the heat of 5.2 best for using the for the heat of 5.2 best for the heat of le son nos de distribuit de 48 or i.C var le son nos de lor pelog ferer 1. for della for son son de for feundice. When total a point of stat honored diffing 1040 ....

# ORGANS CONDEMNED APART FROM CARCASSES

Hearts Heads Tongues Kidneys Livers Lungs Spleens Stomachs Intestines Other	9,084 7,785 7,814 15,461 42,396 43,163 7,953 8,291 7,581 296
TOTAL	149,824

#### CONDITIONS NECESSITATING CONDEMNATIONS

1940	OXEN	CALVES	SHEEP	GOATS	PIGS	TOTAL
Cysticercus bovis Cysticercus cellulosae Dropsy Emaciation Jaundice Lymphadenitis Pleuropneumonia Sepsis Tuberculosis Heartwater Piroplasmosis Bruising Fevered Melanosis Anaplasmosis Cancer Rinderpest Moribund	4,645 149 73 123 123 1 24 30 3 104 20 508 1 2 2 15 1	97 1 6 1 1 1 1	- 11 58 10 63 13 1 13 56 - -	- 257 81 123 225 22 9 1 808 - 2 563 - -	16 	4,742 16 418 218 258 287 24 51 40 812 104 25 1,139 1 2 2 15 1
TOTAL	5,702	106	216	2,089	42	8,155

# 23. STAFF

Details of the staff working in the Public Health Department during the year are given under.

# MEDICAL OFFICER OF HEALTH:

Dr.H.W. Tilling carried out the duties throughout the year.

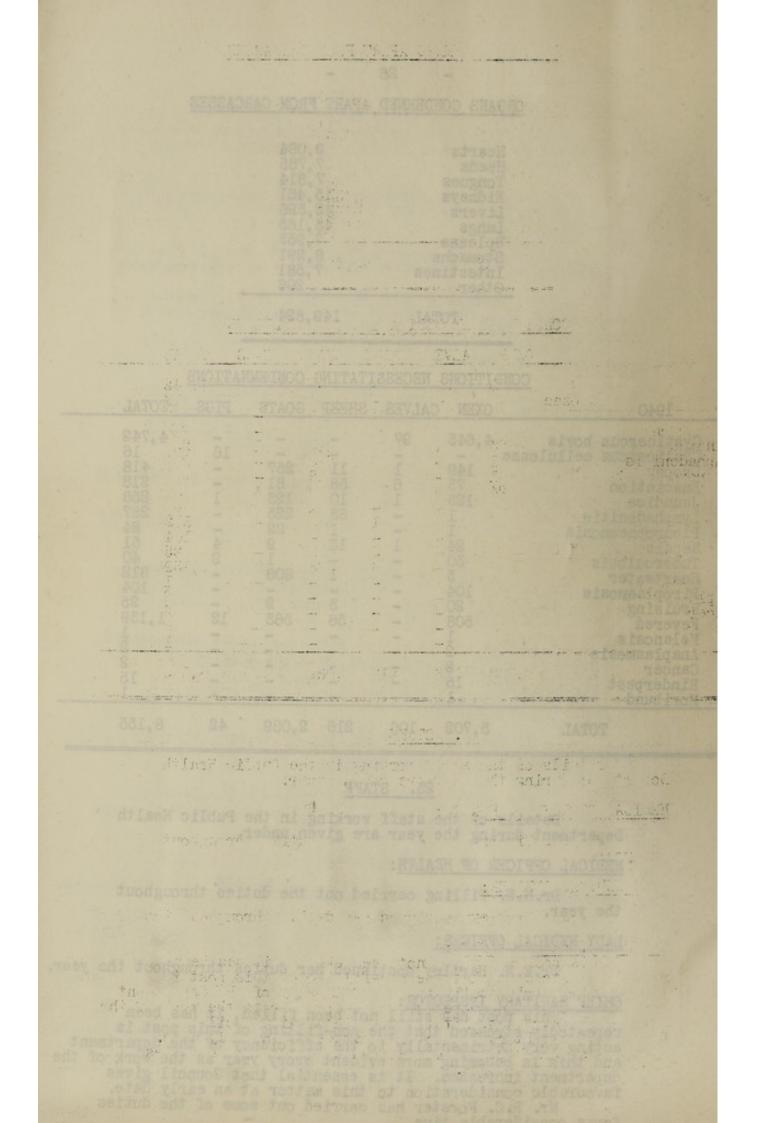
#### LADY MEDICAL OFFICER:

Dr.E.N. Hartley continued her duties throughout the year.

#### CHIEF SANITARY INSPECTOR:

This post has still not been filled, it has been repeatedly stressed that the non-filling of this post is acting very detrimentally to the efficiency of the department and this is becoming more evident every year as the work of the department increases. It is essential that Council gives favourable consideration to this matter at an early date. Mr. R.C. Forster has carried out some of the duties for a considerable time

for a considerable time.



#### SANITARY INSPECTORS:

Mr. R.C. Forster who is recognised as Senior Sanitary Inspector carried out his duties throughout the year.

Mr. D. Mackintosh joined the Military Forces in July, the vacancy caused by his absence has not been filled.

Mr. S.W. White joined the Royal Air Force in November, this vacancy also has not been filled.

Mr. P. Cairns continued his duties through the year.

Mr.E.H. Scrivener continued his duties although from November to the end of the year he was absent on account of sickness.

#### INSPECTOR OF MEAT AND FOODS:

Mr. A.A. Watts carried out his very arduous duties throughout the year.

#### ANTI-MALARIA OFFICER:

Mr. G.R.C. van Someren joined the Military Forces early in the year, but has been seconded to work with the Anti-Malaria Section which is controlled by the Military Authorities.

# SANITARY OVERSEER:

Mr. T. Bagnall continued his duties, but was absent on account of sickness the last month of the year when his services terminated with the Department.

#### HEALTH VISITORS:

Miss B.B. Pearson was absent on overseas leave from April to September, whilst Miss J. Smith returned from overseas leave in March, relief duty being carried out by Miss C.E. Eason.

Mrs. A. Gibb and Miss P. Benjamin continued their duties throughout the year.

#### CLERK:

Miss W.W. Harris returned from overseas leave during February.

# PERSONNEL OF PUBLIC HEALTH DEPARTMENT DURING 1940

Appointed	1.	From	To
	MEDICAL OFFICER OF HEALTH:		
11-4-30.	Dr.H.W. Tilling	1-1-40	31-12-40
1-2-37	LADY MEDICAL OFFICER: Dr.E.N. Hartley	1-1-40	31-12-40
	CHIEF SANITARY INSPECTOR: Vacancy		
4-8-29 15-9-31 26-8-33 1-1-36 1-9-38	SANITARY INSPECTORS: Mr.R.C. Forster Mr. D. Mackintosh Mr.S.W. White Mr. P. Cairns Mr.E.H. Scrivener	1-1-40 On Serv On Serv 1-1-40 1-1-40	vice

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Mr: R.C. Forster who is recognized as some or sun ter.

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Mr. D. Machintosh foined the Hilltary Fores in July,

Mr. S.W. White Joined the Royal Air Force in Royanoer,

In. F. Guifile continued his duties through the year.

Hry H. H. Soriveney continued his duties although iron Hovember to the and of the year he was absent on account of

INSPECTOR OF MEAT AND FOODS:

Mr. A.A. Wetts carried out his very arducus durings

ANTEL-MALARTA OFFICIEN

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REALTY VISITORS:

April to September, delies Miss J. Safth returned Prost

distra through the year.

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1.

Appointed INSPECTOR MEAT & FOODS: 1-1-29 Mr. A.A. Watts	<u>From</u> 1-1-40	<u>To</u> 31-12-40
ANTI-MALARIA OFFICER: 1-2-37 Mr. G.R.C. van Someren	On Servi	ice.
1-6-29 SANITARY OVERSEER: Mr. T. Bagnall	1-1-40	31-12-40
HEALTH VISITORS: 1-1-36 Miss B.B. Pearson 1-1-36 Miss J. Smith 1-6-36 Mrs. A. Gibb 1-9-37 Miss P.Benjamin	1-1-40 1-1-40 1-1-40 1-1-40	31-12-40 31-12-40 31-12-40 31-12-40
1-7-35 CLERK: Miss W.W. Harris	1-1-40	31-12-40

# 24. EXPENDITURE

20

The expenditure of the Public Health Department for the year amounted to £13,097 of which Government by grants made on account of public health services, contributed £6,256, leaving £6,841 to be borne by Council.

The details of expenditure are given under. The figures in brackets refer to expenditure during 1939.

It will be noted that there was a considerable saving, amounting to £755 under the heading of Administration, whilst there was increased expenditure to the extent of £1,122 for Infectious diseases prevention, the main items of this increase being hospital fees £241, Notification fees £368, Native wages £393 and Oil £192.

Expenditure in connection with Auxiliary Health Services was approximately the same as last year, the small increase being mainly due to salary increments and relief.

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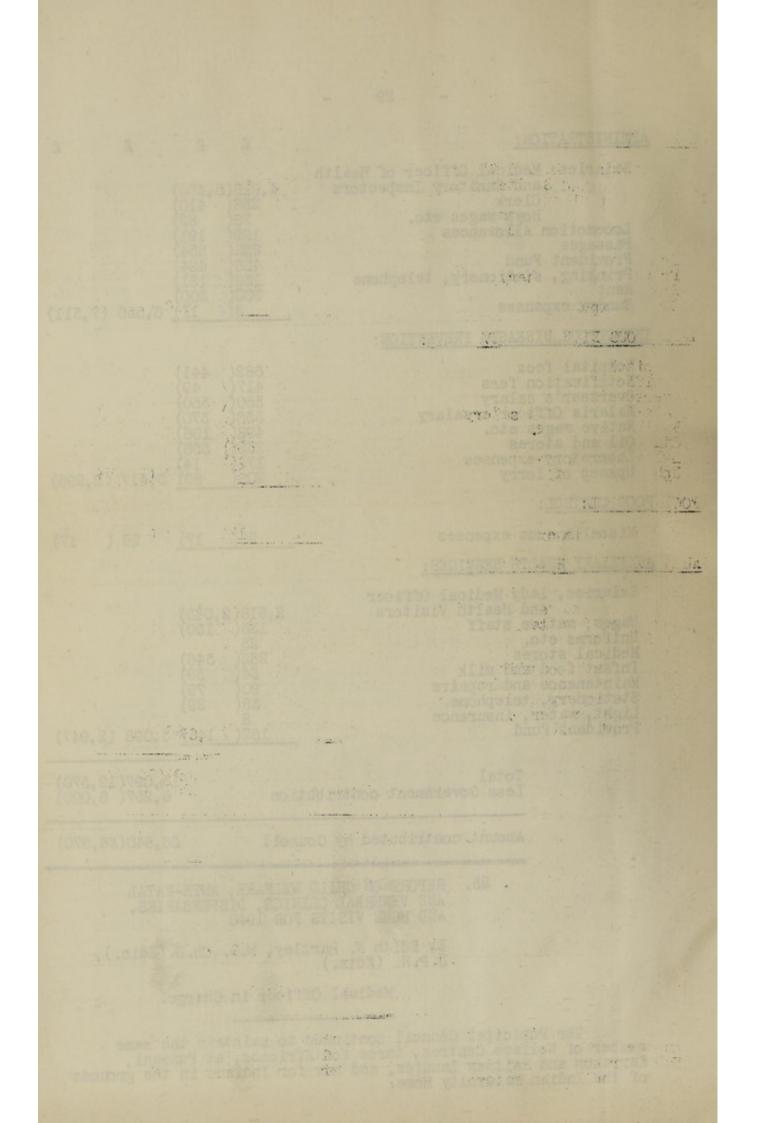
ADMINISTRATION:	£	£	£	£
Salaries: Medical Officer of Health and Sanitary Inspectors Clerk Boys wages etc. Locomotion Allowances Passages Provident Fund Printing, stationery, telephone Rent Sundry expenses	4,916(5 266( 78( 192( 228( 428( 138( 300( 8(	,488) 410) 82) 191) 254) 424) 151) 300) 11)	6,556	(7,311)
INFECTIOUS DISEASES PREVENTION:				
Hospital fees Notification fees Overseer's salary Malaria Officer's salary Native wages etc. Oil and stores Laboratory expenses Upkeep of lorry	682( 417( 350( 336( 498( 752( 176( 206(	441) 49) 350) 370) 106) 556) 14) 80)	3,417	(2,295)
FOOD CONTROL:				
Miscellaneous expenses	26(	17)	26	( 17)
AUXILIARY HEALTH SERVICES:				
Salaries, Lady Medical Officer and Health Visitors Wages, native staff Uniforms etc. Medical stores Infant food and milk Maintenance and repairs Stationery, telephone Light, water, insurance Provident Fund	2,318(2 133( 23 282( 54 90( 38( 8 152(	150) 346) 59) 79) 29)	3,098	(2,947)
and the second sec				
Total Less Government contribut	ion		13,097( 6,257(	12,570) 6,000)
Amount contributed by Cou	ncil		£6,840(	£6,570)
25. REPORT ON CHILD AND VENEREAL CLI AND HOME VISITS	WELFARE, NICS, DIS FOR 1940	ANTE SPENS	-NATAL ARIES,	

29

By Edith N. Hartley, M.B., Ch.B. (Edin.), D.P.H. (Edin.).

Medical Officer in Charge.

The Municipal Council continued to maintain the same number of Welfare Centres, three for Africans, at Pumwani, Kariakor and Railway Landies, and one for Indians in the grounds of the Indian Maternity Home.



The same number of Health Visitors were retained, two had their overseas' leave, Miss Smith, of Kariakor, from October, 1939 to Farch, 1940, and Miss Pearson, of Railway Landies, from April, 1940 to September, 1940, and Hiss Eason acted during their absence. Mrs. Gibb continued her work at Funwani, and Miss Benjamin at the Indian Welfare Centre.

The war continued to overshadow the work, as mothers and children were encouraged by the Authorities to return to their homes in the Reserves, and this was intensified when Italy entered the war in June, as the monthly attendances show.

Child Welfare	April	May	June	July	August	_
Pumwani	1,217	897	810	569	495	
Kariakor	572	726	355	353	313	
Railway Landies	1,082	885	747	383	296	

When the mothers realized that Nairobi remained free from Air Raids, they returned gradually to the Locations, but not up to the pre-war figures. The returns for the last three months show that the trend is to come back to Nairobi.

Child Welfare	October	November	December	
Fumwani	678	687	1,098	
Kariakor	277	235	363	
Railway Landies	553	5 <b>77</b>	930	

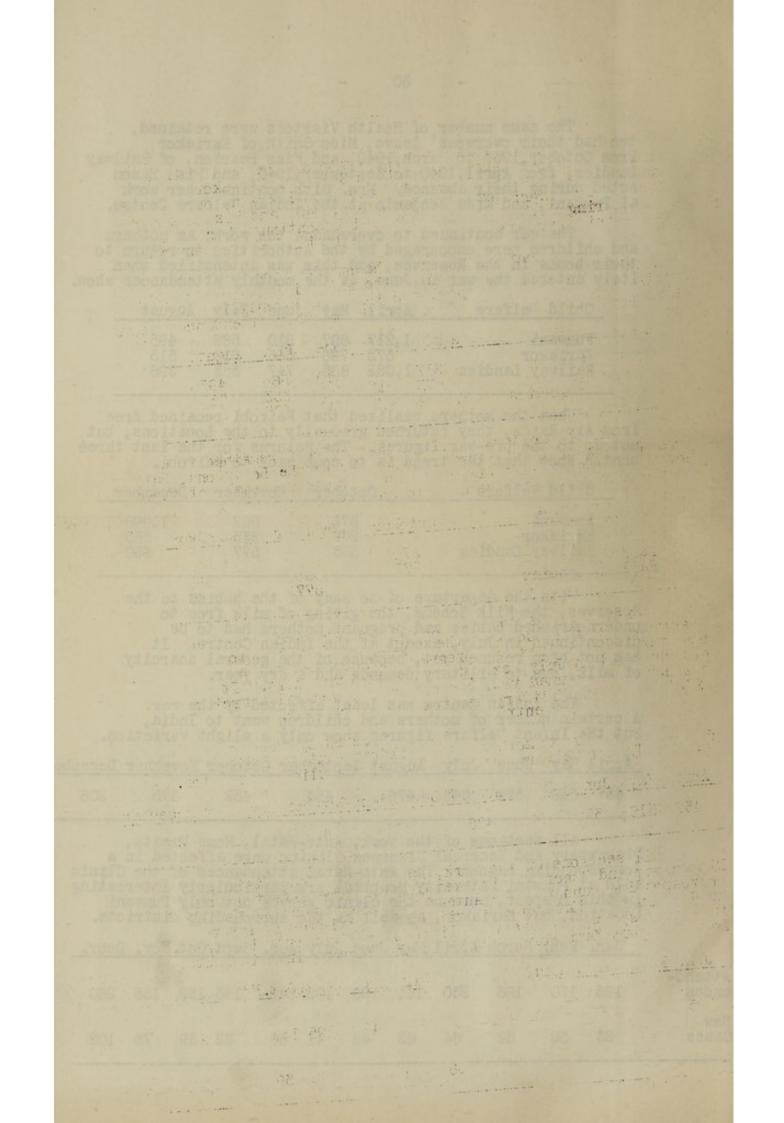
With the departure of so many of the babies to the Reserves, the Milk Scheme, the giving of milk free to undernourished babies and pregnant mothers had to be discontinued in July, except at the Indian Centre. It has not been resumed yet, because of the general scarcity of milk, due to Military demands and a dry year.

The Indian Centre was least affected by the war. A certain number of mothers and children went to India, but the Infant Welfare figures show only a slight variation.

April	May	June	July	August	September	October	November	December
437	519	376	343	476	454	452	375	208

All sections of the work, Ante-Natal, Home Visits, Dispensary and Venercal Diseases Clinics were affected in a corresponding manner. The Ante-Natal attendances of the Clinic held at Pumwani Maternity Hospital are particularly interesting in this respect, because the clinic serves not only Pumwani Location, but Kariakor, as well as the surrounding districts.

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Decr.	_
Attend- ances		178	166						195		155	260	
New Cases	83	59	62	64	62	48	41	66	62	39	73	102	



Because Pumwani Location contains the majority of the houses of Native prostitutes, and with the establishment of camps for Native troops in the vicinity of Nairobi, the Health Visitor made special efforts to induce, with a good deal of success, these women to come for treatment. The figures are interesting because they show the same decrease in the middle of the year.

Jan.	Feb.	Farch	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
		199									

The Health Visitor of the Kariakor Welfare Centre continued to be in charge of the work in Shauri Moyo and a small section of the Railway Landies. This part of her work was done from the Landies Welfare Centre.

The same Ayahs and Native staff were retained and we are indebted to the General Manager of the Kenya and Uganda Railways and Harbours for allowing the boy to continue to assist at the Landies Welfare Centre.

As pointed out in my report for 1937, again in 1938, the Indian Community is very large and resident over an extensive area, that it is impossible for one Welfare Centre to deal adequately with all the work that requires to be done.

By the kindness of the Municipal Council to the Lady Grigg Welfare League, Dr. Hartley, besides her duties to the Health Department, has been permitted to act in an honorary capacity, to their African Native Maternity Hospital, and during the year has performed the following operations:-

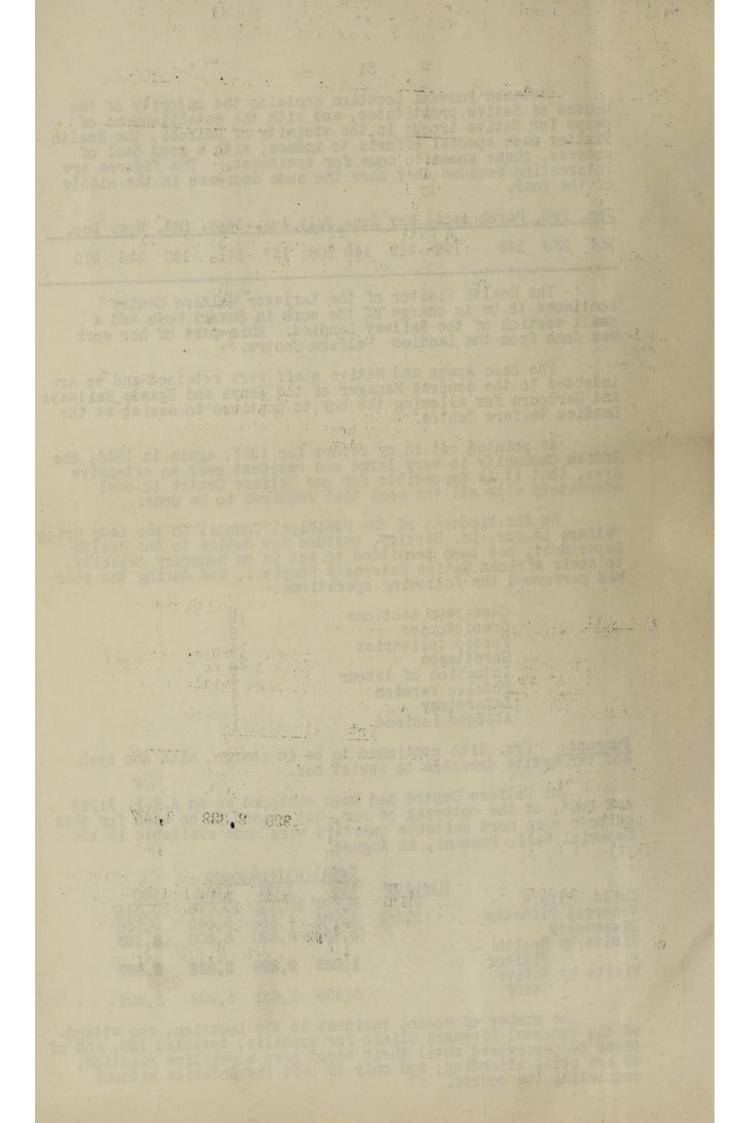
Caesarean sections	18
Craniotomies	8
Forcep deliveries	14
Curettages	23
Induction of labour	4
Podalic version	4
Laparotomy .	1
Abscess incised	1

Punwani: Mrs. Gibb continued to be in charge, with one ayah and two native dressers to assist her.

The Welfare Centre had been equipped as an A.R.P. First Aid Post, at the outbreak of war, but ceased to be used for this purpose when more suitable quarters were made available in the Memorial Hall, Pumwani, in August.

		Total Attendances					
	Clinics		1938		1940		
Child Welfare	52		10,420		10,319		
Venereal Diseases	51	3,988	4,558	3,545	2,066		
Dispensary Visits by Health		5,935	8,820	8,600	8,193		
Visitor Visitor		1,053	2,829	2.822	2,697		
Visits by Native		1,000	~,~~~	-,	-,		
Staff		3,899	3,631	3,228	3,209		

The number of women, resident in the Location, who attended the Venereal Diseases Clinic for syphilis, totalled 128, and of these 64 persevered until their blood gave a negative reaction, 49 are still attending, and only 15 left the Location without completing the course.



The "casual" women who attended numbered 286, and only 17 continued treatment until their blood was negative.

There were no resident women attending for yaws. The majority are sent from the General Dispensary and come from the Kikuyu and Masai Reserves, they stay in or near Pumwani for treatment.

The distribution of milk was discontinued at the end of July. From January to July 4 women and 46 babies received milk. It was given three times a week and 1,585 pints were consumed.

Kariakor: Miss Smith returned from overseas' leave and resumed her duties on April 1st, 1940.

There are very small attendances for venereal disease at this Centre, probably owing to the fact that no single woman is allowed to rent a room here. The patients are "casual" from surrounding districts.

This Centre, at the outbreak of war, was equipped as an A.R.P. First Aid Post, and has continued to be used as such.

The Milk Scheme had been discontinued in September, 1939, but was recommenced in April, but had to be discontinued again in August.

# Total Attendances

Child Velfare Venereal Diseases Dispensary	Clinics 53 51	1938 7,996 1,801 2,548	1939 5,707 785 1,871	1940 4,503 372 1,452
Visits by Health Visitor Visits by Ayah		1,421 2,352	756 1,225	672 1,766

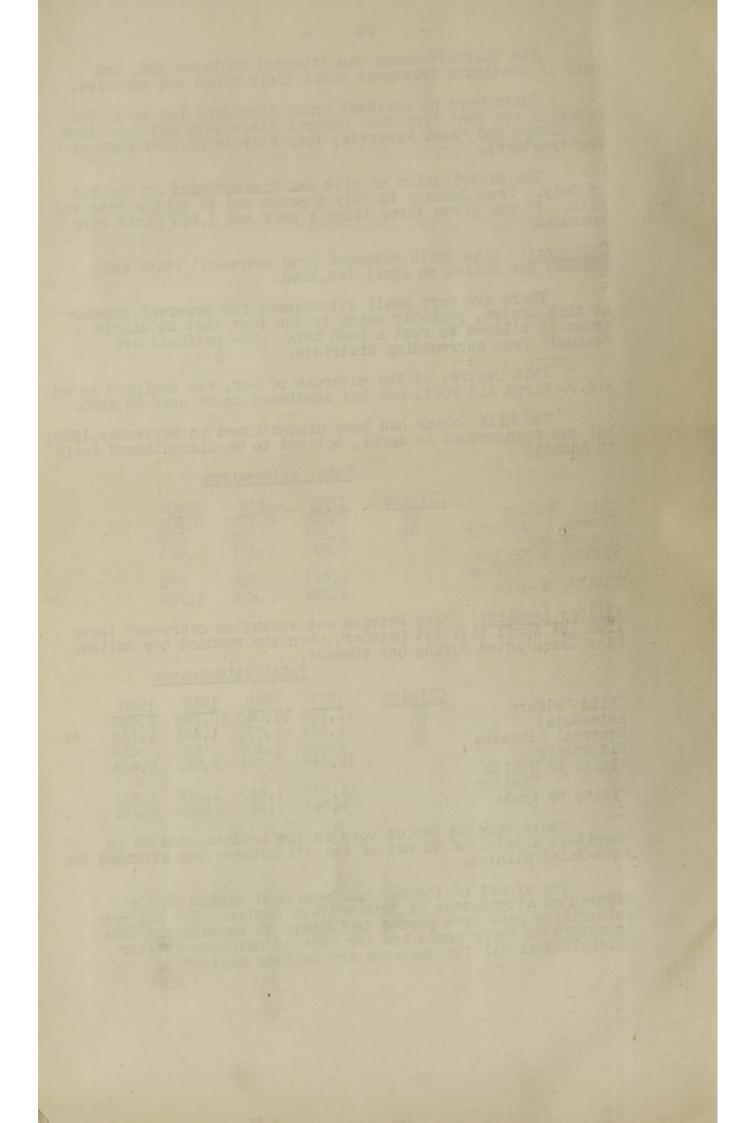
Railway Landies: Miss Pearson was absent on overseas' leave from 1st April till 1st October, when she resumed her duties. Miss Eason acted during her absence.

# Total Attendances

Child Welfare Ante-Natal Venereal Diseases Dispensary	Clinics 53 50 53 53	11,799	1938 13,040 1,778 1,404 8,864	10,769 1,483 382	$     \frac{1940}{8,655}     1,138     453     5,463   $
Visits by Health Visitor Visits by Ayahs		1,355 3,348	1,647 2,961	2,013 2,388	1,461 2,475

There were 64 babies born in the Landies, and 35 in Hospital, a total of 99 out of the 241 mothers who attended the Ante-Natal Clinics.

The effect of the war has been most marked on the figures of attendances at this Welfare Centre. The Railway Authorities gave free passes to Nothers in encouraging them to return to their homes and are able to maintain greater discipline as all the husbands are Railway employees.



Shauri Moyo and K.U.R.: The Health Visitor of Kariakor did the work in this location from the Railway Landies Welfare Centre.

	Total Attendances					
	Clinics	(for 3 mths.only)	1939	1940		
Child Welfare Ante-Natal Venereal Diseases	51 50 51	1,760 114 56	8,655 717 449	6,292 347 389		
Dispensary Visits by Health	01	484	3,013	3,216		
Visitor Visits by Ayah		334 400	1,369 2,426	1,487 3,906		

Indian Welfare Centre: Miss Benjamin continued to be in charge as Health Visitor and Mrs. Kapila as Assistant.

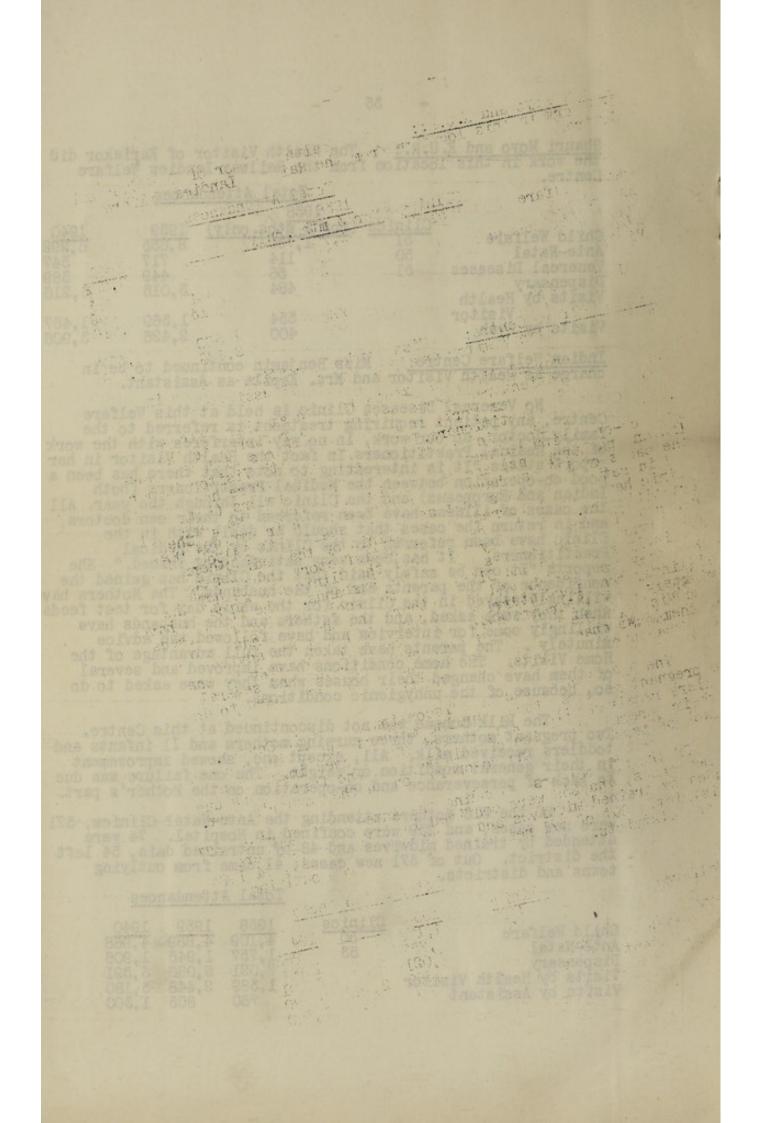
No Venereal Diseases Clinic is held at this Welfare Centre, any patient requiring treatment is referred to the family doctor, so our work, in no way interferes with the work of the Medical Practitioners. In fact the Health Visitor in her report states "It is interesting to note that there has been a good co-operation between the Medical Practitioners (both Indian and Europeans) and the Clinic all through the year. All the cases of illness have been referred to their own doctors, and in return the cases that should be dealt with in the Clinic have been referred to the Clinic by the Medical Practitioners. It has been very satisfactory indeed." She reports "It can be safely said that the Clinic has gained the confidence of the parents and of the husbands. The Mothers have willingly stayed in the Clinic for the whole day for test feeds when they were asked, and the fathers and the husbands have willingly come for interview and have followed the advice minutely. The parents have taken the full advantage of the Home Visits. The home conditions have improved and several of them have changed their houses when they were asked to do so, because of the unhygienic conditions."

The Milk Scheme was not discontinued at this Centre. Two pregnant mothers, three nursing mothers and 11 infants and toddlers received milk. All, except one, showed improvement in their general condition or weight. The one failure was due to lack of perseverance and co-operation on the Mother's part.

Of the 516 mothers attending the Ante-Natal Clinics, 371 were new cases, and 239 were confined in Hospital. 74 were attended by trained midwives and 48 by untrained dais, 54 left the district. Out of 371 new cases, 41 came from outlying towns and districts.

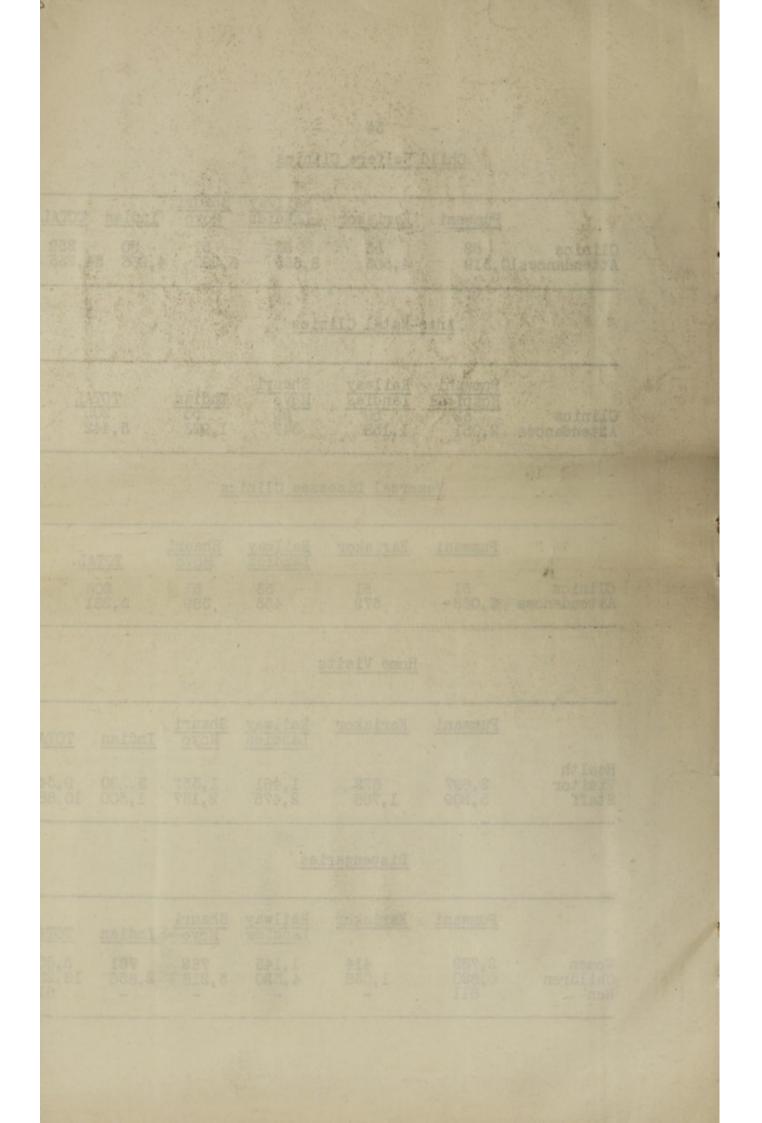
Total Attendances
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Child Welfare Ante-Natal Dispensary Visits by Health Visitor	Clinics 50 53	1938 4,109 1,757 7,021	1939 4,889 1,945 5,086 2,448	1940 4,966 1,906 3,591 3,180	
Visits by Health Visitor Visits by Assistant		1,389 760	2,448 805	3,180 1,300	



- 34 -								
Child Welfare Clinics								
	Pumwani	Kariakor	Railway Landies	Shauri Moyo	Indian	TOTAL		
Clinics Attendances1	.0,319	53 4,503	53 8,655	51 6,292	50 4,966 3	259 4,735		
Ante-Natal Clinics								
Clinics Attendances	Pumwani Hospital 52 2,051	Railway Landies 50 1,138	Shauri Moyo 50 347	<u>Indian</u> 53 1,906	<u>TOT</u> 20 5,44	5		
<u>Venereal Diseases Clinics</u>								
Manapa Cont. 4	<u>Pumwani</u>	Kariakor	Railway Landies	Shauri Moyo	TOT	AL		
Clinics Attendances	51 2,066	51 372	53 453	51 389	206 3,281			
Home Visits								
	Pumwani	Kariakor	Railway Landies	Shauri Moyo	Indian	TOTAL		
Health Visitor Staff	2,697 3,209	672 1,766	1,461 2,475	1,337 2,137	3,180 1,300	9,347 10,887		
Dispensaries								
	Pumwani	Kariakor	Railway Landies	Shauri Moyo	Indian	TOTAL		
Women Children Men	2,762 4,820 611	1,038 -	1,143 4,320 -	782 3,216	2,836 -	5,862 16,230 611		

. . .



	Comparison of Attendances and Visits								
	1932	1933	1934	1935	1936	1937	1938	1939	1940
Child Welfare Clinics	7,923	11,448	11,698	11,385	25,190	36,824	37,325	40,734	34,735
Ante- Natal Clinics	1,626	1,958	2,198	2,711	3,955	4,994	5,744	6,196	5,442
Venereal Diseases Clinics	4,219	3,432	3,967	6,277	8,703	8,363	7,819	5,161	3,281
Dispen- saries	23,316	1 <b>9,</b> 861	29,066	36,258	38,058	26,604	27,737	24,188	22,703
Total Attend- ances	37,084	36,699	46,929	56,631	75,906	76,785	78,625	77,475	67,161
Home Visits	3,646	4,373	7,738	12,146	12,532	15,812	17,213	19,480	20,234

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