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REPORT
ON THE HEALTH OF THE
CITY OF LIVERPOOL

FOR THE YEAR

1948

BY

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Medical Officer of Health.

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PUBLIC HEALTH DEPARTMENT,
LIVERPOOL.

MY LORD MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit to you my eighteenth Annual Report, relating to the health of the City of Liverpool. I wish to acknowledge the assistance given by other Departments in providing certain information which has been included in the Report.

On the 5th July, 1948, the City Hospitals and the greater part of the tuberculosis and venereal diseases services were transferred to the control of the Liverpool Regional Hospital Board.

On the same day the Local Authority's Welfare Services as required by the National Assistance Act, 1948, became the responsibility of the department and the initial steps in the development of these services are set out on pages 32-36.

The Mental Health Service for the City has also been taken over from the former Public Assistance Department and the Lancashire Mental Hospitals Board.

This period of transition has been a difficult one especially as a number of staff changes occurred during the year, but I am able to report that the new sections are taking shape and the department is now striving with renewed vigour to prevent disease; to develop the services for Maternity and Child Welfare; to provide care for the ageing and infirm, and the mentality and physically handicapped. We are also striving to improve the standards of sanitation of housing; and to fulfil every requirement for preserving the health of the people.

The total number of births was 17,695 giving a birth rate of 22.3 per 1,000 as contrasted with a figure of 26.4 for the previous year. The total number of deaths from all causes was 9,027 giving a general death-rate of 11.4 as compared with 13.5 in 1947. The infantile mortality rate was 54 per 1,000 live births as compared with 69 in 1947. The 1948 figures for the general death-rate (11.4) and the infantile mortality rate (54 per 1,000 live births) were the lowest ever recorded for the City; these rates

compare more favourably than in previous years with the figures for England and Wales during 1948 where the death rate was 10·8 and the infantile mortality rate 34.

The birth rate of 22·3 per 1,000 of the population was still higher than that of England and Wales which was 17·9 per 1,000. The registered live births numbered 17,695, compared with 19,904 in the previous year. Of this number 1,009 or 5·7 per cent. were illegitimate as compared with 1,151 or 5·8 per cent in 1947.

There were 479 stillbirths registered in 1948 giving a rate of 26·3 per 1,000 total births as compared with 25·2 per 1,000 births in 1947.

The number of deaths from infectious diseases (including influenza) was 169 as compared with 257 in the previous year. The 1948 figure is another record low figure for the City and is largely due to the low diphtheria death rate and a reduction in the deaths from diarrhoea in the first two years of life. The number of deaths from diphtheria in 1948 was 12, the same as in 1947, and of the twelve cases who died not one occurred in a person who had been immunised. There can be no doubt of the life saving properties of the mass immunisation scheme against diphtheria. During the year 13 cases of typhoid and paratyphoid fevers occurred with one death.

I again wish to express my thanks to the Chairman and members of the Health Committee for the courtesy and kindness with which they have considered the various suggestions and recommendations made to them, and finally I wish to acknowledge with thanks the assistance given by officers of the Health and other Departments in our common endeavour to be of service to the City.

I am,

Your obedient Servant,

W. M. FRAZER,

Medical Officer of Health.

CITY OF LIVERPOOL.

SUMMARY

OF

VITAL STATISTICS FOR 1948.

Area (land and inland water)	...	...	...	...	27,321 Acres (43 sq. miles)
Population (Estimated by Registrar General)	...	...	...	...	791,800
Live Births	...	...	17,695	Live Birth rate	22·3 per 1,000 of estimated population.
Deaths (all causes)	...	...	9,027	Death rate	11·4 per 1,000 of estimated population.
Deaths (under 1 year of age)			954	Infant Mortality rate	} 54 per 1,000 live births	
Deaths from :—						
Seven principal Zymotic diseases	}		236	Zymotic death rate	}	0·30
Pulmonary Tuberculosis				}			630	Pulmonary Tuberculosis death rate	}	0·79
Other forms of Tuberculosis	}		85		Non Pulmonary Tuberculosis death rate	}		0·11
Respiratory diseases							1,180		Respiratory death rate	}	1·49
Cancer	1,429	Cancer death rate	}	1·80
Maternal Deaths	14	Maternal Mortality rate			}	0·77 per 1,000 births

BIRTHS.

The number of live births recorded during the year 1948 was 17,695, equal to a rate of 22·3 per 1,000 of the estimated resident mid-year population. Of the total births, 9,071 were males and 8,624 were females. The number of illegitimate live births was 1,009 or 5·7 per cent. of the total births, 493 being males and 516 females.

The birth-rate in the City of Liverpool was considerably above the average of the great towns, which was 20·0 per 1,000 of the population, as well as of England and Wales taken as a whole, where the rate was 17·9 per 1,000.

The number of still-births registered was 479 as shown in the table below. This represented 26·3 per thousand of the total (live and still) births registered and 0·60 per 1,000 of the estimated population.

	LIVE BIRTHS.			STILL BIRTHS.		
	Males.	Females.	Total.	Males.	Females.	Total
Legitimate ...	8,578	8,108	16,686	234	212	446
Illegitimate ...	493	516	1,009	17	16	33
	9,071	8,624	17,695	251	228	479

The following figures show not only an increase in the actual number of illegitimate births, but an increase in the proportion of illegitimate births when compared with 1938.

	Births.	Birth Rate.	Illegitimate Birth Rate per 1,000 population.	% of Total Births.	Total Illegitimate Births.
1938	16,175	18·7	0·89	4·8	771
1942	13,729	20·5	1·30	6·3	871
1943	14,432	21·8	1·55	7·1	1,030
1944	15,412	23·1	1·91	8·3	1,274
1945	14,784	21·7	2·32	10·7	1,582
1946	18,528	25·2	1·84	7·3	1,351
1947	19,904	26·4	1·53	5·8	1,151
1948	17,695	22·3	1·27	5·7	1,009

STILL-BIRTHS.

The following figures show the reduction in the numbers of still-births which have taken place in the City during the past twelve years and the corresponding rates per thousand of population and per thousand births. The latter rate is the more valuable as it expresses the proportion of

total births lost, the actual number of live births occurring varying from 17,347 in 1935 down to 13,291 in 1941 and up to 17,691 in 1948. It will be noted that there has been a marked and almost continuous fall in the still-birth rate throughout this period, thus constituting a considerable saving of life additional to that which has resulted from the infant mortality rate. The fall is 39 per cent. of the 1935 figure and the rate is now below 30 per thousand births, and it is probable that a further considerable reduction is still possible.

The causes of this reduction, which has also affected the country generally though not in the same degree, are somewhat obscure. The greater care of expectant mothers in the ante-natal clinics and the better obstetric services have undoubtedly contributed to this reduction, but there is some evidence to show that the better nutrition of expectant mothers of the labouring classes, together with diminished unemployment, have also largely contributed.

The still-birth rate among legitimate babies was 26 per thousand and among illegitimate babies was 33 per thousand births.

Year.	-Registered Live Births.	Registered Still Births.	Total Births.	Still-births Rate per 1,000 population.	Still-births per 1,000 Live and Still Births.
1935.....	17,347	749	18,096	0.9	41.4
1936.....	17,403	708	18,111	0.8	39.1
1937.....	16,728	618	17,346	0.7	35.6
1938.....	16,175	639	16,814	0.7	38.0
1939.....	15,614	631	16,245	0.8	38.9
1940.....	15,016	519	15,535	0.7	33.4
1941.....	13,291	508	13,799	0.7	36.8
1942.....	13,729	552	14,281	0.8	38.6
1943.....	14,432	485	14,917	0.7	32.5
1944.....	15,412	492	15,904	0.7	30.9
1945.....	14,784	431	15,215	0.6	28.3
1946.....	18,528	539	19,067	0.7	28.3
1947.....	19,904	514	20,418	0.7	25.2
1948.....	17,695	479	18,174	0.6	26.3

DEATHS.

The total deaths registered during the year numbered 9,027 (4,795 males and 4,232 females), equal to a death-rate of 11.4 per 1,000 of the estimated resident population. Since 1939 the deaths of non-civilians are excluded.

The death-rate for England and Wales was 10.8 and that of the great towns was 11.6. The following table shows deaths at various age periods, expressed as a percentage of total deaths, for each year 1915 to 1948:—

Year	Under 5 years.	At Ages—Years.									
		5—	10—	20—	30—	40—	50—	60—	70—	80—	
1915 ...	% 33	% 2	% 4	% 4	% 7	% 9	% 12	% 13	% 12	% 4	100
1916 ...	30	3	4	5	6	9	12	14	13	4	100
1917 ...	29	3	4	5	7	9	12	14	13	4	100
1918 ...	29	5	6	8	8	9	11	12	9	3	100
1919 ...	25	4	5	7	8	9	12	13	13	4	100
1915-1919 (average)	29	3	5	6	7	9	12	13	12	4	100
1920 ...	33	2	4	5	7	9	11	13	12	4	100
1921 ...	33	2	4	5	6	9	11	13	12	5	100
1922 ...	28	2	4	5	6	9	12	15	14	5	100
1923 ...	30	2	4	5	6	9	12	14	13	5	100
1924 ...	29	2	4	4	6	8	12	15	15	5	100
1920-1924 (average)	30	2	4	5	6	9	12	14	13	5	100
1925 ...	28	2	4	4	5	9	12	15	15	6	100
1926 ...	28	2	3	5	6	9	12	15	14	6	100
1927 ...	25	2	3	5	5	9	12	16	16	7	100
1928 ...	25	2	4	5	5	9	12	16	16	6	100
1929 ...	23	3	3	5	5	9	12	16	17	7	100
1925-1929 (average)	26	2	3	5	5	9	12	16	16	6	100
1930 ...	20	3	4	5	5	9	14	17	16	7	100
1931 ...	23	2	3	5	5	8	12	17	18	7	100
1932 ...	22	2	3	5	5	8	13	17	17	8	100
1933 ...	21	2	3	5	5	8	13	17	18	8	100
1934 ...	20	2	3	5	6	8	12	18	18	8	100
1930-1934 (average)	21	2	3	5	5	8	13	17	18	8	100
1935 ...	17	2	3	5	5	8	13	19	20	8	100
1936 ...	16	2	3	5	5	7	14	19	21	8	100
1937 ...	17	2	2	5	5	7	13	19	21	9	100
1938 ...	16	1	3	4	5	7	13	20	22	9	100
1939 ...	13	1	3	4	4	7	14	21	23	10	100
1935-1939 (average)	16	2	3	5	5	7	13	19	21	9	100
1940 ...	14	2	3	4	5	8	14	21	20	9	100
1941 ...	15	2	4	5	6	8	13	20	19	8	100
1942 ...	14	1	2	4	5	7	14	22	22	9	100
1943 ...	14	1	2	3	5	7	13	22	23	10	100
1944 ...	12	1	2	4	4	7	13	23	24	10	100
1940-1944 (average)	14	1	3	4	5	7	13	22	22	9	100
1945 ...	13	1	2	3	4	7	13	22	23	12	100
1946 ...	16	1	2	3	3	6	12	21	24	12	100
1947 ...	15	1	2	3	4	6	11	20	25	13	100
1948 ...	12	1	1	3	4	7	12	21	26	13	100

ANALYSIS OF CAUSES OF MORTALITY.

Deaths from certain Groups of Diseases in each decade from 1871 to 1940, and during 1941, 1942, 1943, 1944, 1945, 1946 1947 and 1948

Years.	(a) Infective diseases (less Diarrhoea and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhoea).	Total Deaths from (a), (b), (c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880	27,205	19,869	29,763	14,747	91,584	2,015	147,005
1881-1890	19,748	17,870	32,507	13,186	86,311	2,820	146,195
1891-1900	13,515	16,714	35,819	18,491	84,539	4,223	145,522
1901-1910	13,967	16,054	32,995	18,163	81,179	6,480	150,962
1911-1920	10,417	14,946	36,480	12,282	74,125	7,603	137,223
1921-1930	7,831	12,664	29,447	8,184	58,126	9,852	117,756
1931-1940	6,473	9,413	18,196	5,987	40,069	12,619	115,632
1941	623	846	2,226	447	4,142	1,211	13,253
1942	495	777	1,403	383	3,058	1,279	9,388
1943	238	773	1,856	399	3,266	1,337	9,719
1944	226	679	1,344	362	2,611	1,215	9,010
1945	200	701	1,620	435	2,956	1,230	9,523
1946	206	657	1,462	569	2,894	1,312	9,671
1947	222	684	1,677	599	3,217	1,314	10,122
1948	151	715	1,198	463	2,527	1,429	9,027

Deaths expressed as a percentage of total deaths from all causes (Proportionate Mortality).

Years.	(a)	(b)	(c)	(d)	Total Deaths from all causes	(e)	Total Deaths from all causes
1871-1880	19.2	13.5	20.2	10.0	62.9	1.4	100.0
1881-1890	14.1	12.7	23.2	9.4	59.4	2.0	100.0
1891-1900	9.3	10.8	24.6	12.7	57.4	2.9	100.0
1901-1910	8.6	10.6	21.8	12.0	53.0	4.3	100.0
1911-1920	7.9	10.9	27.3	8.9	55.0	5.5	100.0
1921-1930	6.6	10.7	25.0	6.9	49.4	8.4	100.0
1931-1940	5.6	8.1	15.7	5.2	34.7	10.9	100.0
1941	4.7	6.4	16.8	3.4	31.3	9.1	100.0
1942	5.3	8.3	14.9	4.1	32.6	13.6	100.0
1943	2.4	8.0	19.1	4.1	33.6	13.7	100.0
1944	2.5	7.5	14.9	4.0	28.9	13.5	100.0
1945	2.1	7.4	17.0	4.6	31.1	12.9	100.0
1946	2.1	6.8	15.1	5.9	29.9	13.6	100.0
1947	2.2	6.8	16.6	5.9	31.8	13.0	100.0
1948	1.7	7.9	13.3	5.1	28.0	15.8	100.0

Death Rates per 1,000 Population.

Years.	(a) Infective diseases (less Diarrhoea and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhoea).	Total Deaths from (a), (b), (c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880	5.2	3.6	5.7	2.8	17.3	0.4	28.5
1881-1890	3.6	3.2	5.9	2.4	15.1	0.5	26.1
1891-1900	2.2	2.7	5.9	3.0	13.8	0.7	23.9
1901-1910	1.9	2.2	4.5	2.5	11.1	0.9	20.0
1911-1920	1.3	1.9	4.7	1.6	9.5	1.0	18.1
1921-1930	0.9	1.4	3.3	0.9	6.5	1.1	13.6
1931-1940	0.7	1.1	2.1	0.7	4.7	1.5	13.7
1941	0.9	1.2	3.2	0.6	5.9	1.8	19.3
1942	0.7	1.1	2.1	0.6	4.5	1.9	14.0
1943	0.3	1.2	2.8	0.6	4.9	2.0	14.7
1944	0.3	1.0	2.0	0.5	3.9	1.8	13.5
1945	0.3	1.0	2.4	0.6	4.3	1.8	14.0
1946	0.3	0.9	2.0	0.8	3.9	1.8	13.2
1947	0.3	0.9	2.2	0.8	4.2	1.7	13.5
1948	0.2	0.9	1.5	0.6	3.2	1.8	11.4

Death-Rates expressed as a percentage of the rates experienced in 1871-1880 (Index Numbers).

Years.	(a)	(b)	(c)	(d)	Total Deaths from (a), (b), (c) & (d)	(e)	Total Deaths from all causes.
1871-1880	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1881-1890	69.0	88.0	104.0	85.7	89.1	125.0	91.0
1891-1900	42.0	75.0	104.0	107.2	79.3	175.0	84.0
1901-1910	36.0	61.0	79.0	89.3	64.3	225.0	70.0
1911-1920	26.0	50.0	83.0	56.7	56.0	250.0	67.0
1921-1930	17.1	40.0	58.8	36.8	38.5	280.0	47.7
1931-1940	13.5	30.6	36.8	25.0	27.2	375.0	48.1
1941	17.3	33.3	56.1	21.4	34.1	450.0	67.7
1942	13.5	30.6	36.8	21.4	26.0	475.0	49.1
1943	5.8	33.3	49.4	21.4	28.3	500.0	51.6
1944	5.8	28.0	35.1	17.9	22.5	450.0	47.4
1945	5.8	28.0	42.1	21.4	24.8	450.0	49.1
1946	5.8	25.0	35.1	28.6	22.5	450.0	46.3
1947	5.8	25.0	38.6	28.6	24.3	425.0	47.4
1948	3.9	25.0	26.3	21.4	18.5	450.0	40.0

INFANTILE MORTALITY.

The following table shows the deaths and death-rates of infants under one year of age for the year 1948:—

					Infant Deaths.	Infant Death Rates.
All Infants	...	...	...	...	954	54 per 1,000 live births.
Legitimate Infants	...	...	...	...	885	53 „ legitimate live births.
Illegitimate Infants	...	...	...	...	69	68 „ illegitimate live births.

Analysis of causes of Infant Mortality in successive quinquennia 1896-1945, and the years 1946, 1947 and 1948

(A.)—Recorded Deaths.

Years.	1 Total Births.	2 Total Deaths Under 1 Year of Age.	3 General Diseases (excluding Tubercu- losis).	4 Tubercular Diseases.	5 Nervous Diseases	6 Respira- tory Diseases	7 Digestive Diseases (including Diarrhoea.)	8 Malforma- tions, Premature Birth, Maras- mus, &c.	9 External Causes
1896/1900	111,700	21,160	1,508	698	2,476	3,575	6,376	5,698	819
1901/1905	118,801	20,353	1,546	644	2,516	3,484	5,187	5,732	565
1906/1910	118,313	17,739	1,613	465	2,052	3,146	3,902	5,520	539
1911/1915	111,872	15,458	1,309	345	1,432	2,916	3,635	4,953	426
1916/1920	99,451	11,510	1,116	202	1,083	2,821	1,872	4,107	179
1921/1925	104,217	10,497	1,066	200	573	2,776	1,786	3,764	120
1926/1930	95,701	9,002	978	109	401	2,553	1,670	2,981	81
1931/1935	88,644	7,904	902	82	368	2,050	1,184	3,125	67
1936/1940	80,936	6,226	573	74	519	1,457	698	2,691	84
1941/1945	71,648	5,512	341	71	403	1,704	548	2,193	131
1946	18,528	1,382	77	11	94	272	306	574	27
1947	19,904	1,367	93	19	56	304	315	525	39
1948	17,695	954	48	6	32	214	196	434	17

(B.)—Death Rates per 1,000 Births.

1896/1900	*33.4	189	12.7	6.2	22.1	32.0	57.1	51.0	7.3
1901/1905	33.4	172	13.0	5.5	21.2	29.3	43.7	48.1	4.7
1906/1910	32.2	149	13.6	3.9	17.4	26.6	33.0	46.7	4.6
1911/1915	29.3	137	11.6	3.1	12.8	26.1	32.5	43.1	3.8
1916/1920	24.9	116	11.1	2.0	10.9	28.4	18.8	42.0	1.8
1921/1925	25.1	100	10.2	1.9	5.5	26.6	17.1	36.1	1.2
1926/1930	22.1	94	10.2	1.1	4.2	26.7	17.4	31.1	0.8
1931/1935	20.5	89	10.1	0.9	4.2	23.1	13.4	35.3	0.8
1936/1940	19.4	77	7.0	0.9	6.4	17.9	8.8	32.9	1.0
1941/1945	21.3	78	4.8	1.0	5.6	24.1	7.7	30.7	1.8
1946	25.2	74	4.1	0.6	5.1	14.7	16.5	31.9	1.0
1947	26.4	69	4.7	0.9	2.9	15.3	15.8	26.4	2.0
1948	22.3	54	2.7	0.3	1.8	12.1	11.1	24.5	1.0

*In column 1 the rates indicate the number of births per 1,000 of the population.

(C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.

1896/1900	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1901/1905	100.0	91.0	102.3	89.3	95.9	91.5	76.5	94.0	65.7
1906/1910	93.0	78.6	107.1	62.9	78.6	83.1	57.8	91.0	63.6
1911/1915	87.0	72.5	91.9	50.0	57.9	81.5	56.9	84.0	52.1
1916/1920	76.0	61.4	87.4	32.2	49.3	88.7	32.7	82.0	25.4
1921/1925	75.1	54.9	80.3	30.6	24.9	84.7	29.9	70.8	16.4
1926/1930	66.2	49.7	80.3	17.7	18.9	83.5	30.4	60.9	11.0
1931/1935	61.4	47.2	79.5	14.8	18.9	72.2	23.4	69.2	10.7
1936/1940	58.1	40.7	55.1	14.5	29.0	55.9	15.4	64.5	13.7
1941/1945	63.8	41.3	37.8	16.1	25.3	75.3	13.5	62.0	24.6
1946	75.4	39.1	32.3	9.7	23.1	46.0	28.9	60.8	13.7
1947	79.0	36.5	37.0	14.5	13.1	47.8	27.7	51.8	27.4
1948	66.8	28.6	21.2	4.8	8.1	37.8	19.4	48.0	13.7

CHILD MORTALITY.

TABLE I.

Year.	Deaths under 1 year of age.	DEATHS, 1 YEAR AND UNDER 5 YEARS OF AGE.							
		Total, 1 year and under 5 years of age.	General Diseases (including T.B.).	Respiratory Diseases.	Digestive Diseases.	Measles.	Whooping Cough.	Diphtheria.	Scarlet Fever.
						Included in General Diseases.			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)
920	2,826	1,472	697	536	90	285	129	109	35
921	2,339	1,488	610	474	221	250	135	51	19
922	2,052	1,255	449	577	77	126	98	53	22
923	2,058	1,321	577	478	117	247	85	57	28
924	2,113	1,207	453	498	102	103	98	40	37
925	1,935	1,456	706	480	144	280	139	68	65
926	2,066	1,155	451	456	147	149	107	51	12
927	1,781	1,206	517	481	99	248	75	55	4
928	1,789	1,038	467	369	101	131	161	55	11
929	1,822	1,404	677	518	112	326	110	75	23
930	1,544	756	346	251	65	113	38	78	15
931	1,740	1,062	535	368	67	253	87	74	4
932	1,646	890	486	251	59	227	74	85	3
933	1,655	944	474	287	84	234	53	79	18
934	1,418	799	438	231	40	174	109	77	4
935	1,445	561	269	176	35	110	34	66	2
936	1,311	540	307	148	19	116	65	58	1
937	1,371	579	289	176	43	92	59	61	6
938	1,189	508	264	153	28	77	60	64	3
939	1,098	247	88	82	25	—	14	39	1
940	1,257	522	234	147	25	88	9	63	2
941	1,350	658	279	182	25	15	67	88	4
942	1,039	258	126	50	10	16	9	38	1
943	1,171	208	80	60	15	8	21	21	—
944	884	184	79	33	12	6	11	16	—
945	1,068	185	71	46	16	5	12	13	—
946	1,382	158	66	29	8	13	6	16	—
947	1,367	189	78	41	15	8	32	6	—
948	954	161	67	32	14	8	8	8	—

CANCER.

There were 1,429 deaths recorded from cancer, as compared with 1,314 in 1947, this being equivalent to a death-rate of 1·8 per 1,000 of the population.

DEATHS FROM CANCER AT VARIOUS AGE-PERIODS, 1948.

Organs Affected.	Males.	Females.	Number of Deaths.									All Ages.
			At Ages—Years									
			Under 10	10-	25-	40-	50-	60-	70-	75-	80-	
Buccal Cavity	34	9	—	—	—	1	4	10	7	11	10	43
Stomach ...	193	144	—	—	9	29	58	117	65	43	16	337
Liver ...	12	18	—	—	2	2	4	9	5	4	4	30
Intestines ...	131	144	—	—	10	21	30	87	52	37	38	275
Lungs ...	212	40	—	—	11	33	78	95	22	10	3	252
Female Genital Organs	—	97	—	—	3	9	26	30	16	9	4	97
Breast ...	1	132	—	—	10	31	30	28	17	10	7	133
Skin ...	5	6	—	—	—	—	1	3	2	3	2	11
Other Organs...	161	90	6	6	10	23	49	87	33	20	17	251
	749	680	6	6	55	149	280	466	219	147	101	1,429

INFECTIOUS DISEASE.

The following is a list of the diseases notifiable in Liverpool during 1948:—

Anthrax	Paratyphoid Fever
Acute Poliomyelitis	Plague
Cerebro-spinal Fever	Pneumonia, Acute Influenzal
Cholera	Pneumonia, Acute Primary
Diphtheria	Polio-encephalitis, Acute
Dysentery	Puerperal Pyrexia
Enteric (Typhoid) Fever	(including Puerperal Fever)
Erysipelas	Relapsing Fever
Encephalitis Lethargica, Acute	Scarlet Fever or Scarlatina
Malaria	Smallpox
Measles	Tuberculosis (all forms)
Membranous Croup	Typhus Fever
Ophthalmia Neonatorum	Whooping Cough

TABLE 1.

NUMBERS OF CASES OF INFECTIOUS DISEASE REPORTED DURING 1948,
AND NUMBERS ADMITTED TO HOSPITAL.

	January	February	March	April	May	June	July	August	September	October	November	December	TOTALS	Cases admitted to hospital	Percentage admitted to hospital
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	—	—	—	1	—	1	1	—	1	3	5	1	13	13	100-00
Scarlet Fever ...	217	201	170	103	126	110	116	91	112	139	183	152	1720	659	38-33
Measles and German Measles...	258	545	1433	1886	1598	919	325	167	117	163	194	284	7889	738	9-44
Diphtheria ...	24	31	21	19	25	27	14	15	23	24	19	21	263	256	97-33
Puerperal Pyrexia...	16	16	28	24	21	18	18	23	10	25	36	21	256	248	96-99
Erysipelas ...	15	13	12	17	11	10	14	7	12	12	16	19	158	101	63-99
Cerebro-spinal Fever	3	4	5	5	6	3	4	4	3	2	4	4	47	47	100-00
Poliomyelitis and Polio-encephalitis	1	1	1	—	—	1	3	1	4	1	—	1	14	13	92-85
Ophthalmia Neonatorum ...	18	20	17	29	15	4	16	13	6	18	15	10	181	135	74-66
Pneumonia & Influenza Pneumonia	89	69	106	54	69	45	38	32	51	50	78	77	758	71	9-44
Malaria ...	3	4	2	4	2	4	5	5	—	3	6	7	45	27	60-00
Dysentery ...	29	32	42	40	16	6	4	19	16	39	24	21	288	275	95-55
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough ...	19	21	21	46	52	118	262	383	471	546	673	710	3322	378	11-44
Anthrax ...	—	—	1	1	2	—	—	—	1	—	1	—	6	6	100-00
Chickenpox ...	25	31	38	30	18	24	11	11	4	9	17	13	231	143	61-99
TOTALS ...	717	988	1897	2259	1961	1290	831	771	831	1034	1271	1341	15191	3110	20-53

The numbers of patients admitted to hospital include the cases which occurred while in hospital.

Plague.

No case of plague occurred in the city during the year.

Smallpox.

No case of smallpox occurred in the city during the year.

Primary Vaccinations.

The numbers of primary vaccinations in Liverpool during the year 1947 and six previous years are given below:—

	1941.	1942.	1943.	1944.	1945.	1946.	1947.
1.—Number of children born	12,054	14,084	15,368	16,975	16,315	20,304	21,900
2.—Number of primary vaccinations.	7,227	8,984	10,012	10,901	9,982	11,691	11,934
3.—Number of exemption certificates granted.	1,206	1,237	1,492	1,711	1,450	1,398	1,408
4.—Number of certificates of insusceptibility sent.	56	86	102	53	48	112	112

On 5th July, 1948, vaccination ceased to be compulsory with the coming into operation of the National Health Service Act, and from the beginning of the year until that date the number of vaccinations was 5,651. From 5th July onwards vaccination has been carried out by private practitioners and at vaccination sessions held at a number of welfare centres in the City, the total number of vaccinations to the end of the year from these sources being 4,133.

Typhus Fever.

No case of typhus fever was reported during the year.

Anthrax.

Six cases of anthrax were treated during 1948 at Fazakerley Hospital, and all recovered.

Typhoid and Paratyphoid Fever.

During the year there occurred six cases of typhoid fever, and seven cases of paratyphoid "B" fever. Of the six cases of typhoid fever three were infected outside the City and the infection of one of the Liverpool cases was directly traced to one of these. One case was infected abroad and the remaining case was infected in Liverpool, the source of infection not being traced.

Of the seven cases of paratyphoid "B" fever, three cases were infected outside the City and one abroad, and of the three cases infected in the City the source of infection in two cases was not traced whilst in the third case the infection probably came from the patient's sister who was found on routine investigation to be a "carrier."

Port Cases of Typhoid Fever.

During the year 7 cases of typhoid fever were imported from overseas, one of which died.

Register of Chronic Typhoid and Paratyphoid Excretors.

The following chronic excretors of typhoid or paratyphoid organisms are known and under observation. Bacteriological examination of faeces is carried out every six months.

Case Number.	Sex.	Age.	Disease.	Date of illness.	Date faeces last positive.
4	M.	60	Paratyphoid "B" fever.	July, 1941	Jan. 1949
6	F.	54	"	July, 1941	Jan., 1949
7	F.	47	"	July, 1941	Jan., 1949
8	F.	44	"	Aug., 1941	Jan., 1949
13	M.	38	Typhoid Fever.	Not known.	Jan., 1949

Undulant Fever.

No case of undulant fever was reported during the year.

Diphtheria.

During 1948, 263 cases of diphtheria were reported, a case-rate of 0·3 per 1,000 of the population. Of these cases, 12 proved fatal, making a fatality rate of 4·6 per hundred cases and a mortality rate of 1·5 per 100,000 of the population.

AGES AT DEATH.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
—	1	2	4	1	2	—	—	1	1	—	—	—	12

AGES OF NOTIFIED CASES.

6	9	23	23	26	82	41	28	14	7	3	1	...	263
64%						36%							

PERCENTAGE FATALITY AT EACH AGE.

...	11.1	8.7	17.4	3.9	2.4	7.1	14.3	4.6
-----	------	-----	------	-----	-----	-----	-----	-----	------	-----	-----	-----	-----

Scarlet Fever.

During 1948, 1,720 cases of scarlet fever were reported, a case-rate of 2.2 per 1,000 of the population. Of these cases none proved fatal.

AGES AT DEATH.

[illegible]

AGES OF NOTIFIED CASES.

6	46	87	127	174	745	368	80	54	17	12	3	1	1,720
25.6%					43.3	21.4	9.7%						

PERCENTAGE FATALITY AT EACH AGE.

[illegible]

Immunisation against Diphtheria.

TABLE IV.

NUMBER OF DIPHTHERIA IMMUNISATIONS.

Where or by whom immunised.	1925- 37	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
IMMUNISATION CLINICS :											
Carnegie	2770	196	104	64	452	1503	205	81	32	—	—
Townsend Avenue	1931	197	151	167	1006	2287	688	468	385	559	476
Child Welfare Centres	1769	1792	1096	859	2617	14436	8271	7717	8875	8343	8006
SCHOOLS :											
Public Elementary	27976	6356	2978	1738	2503	7926	12907	5430	6052	8409	5658
Residential	3074	389	137	156	1021	39	378	253	408	209	51
Secondary	—	—	—	—	—	408	1235	154	718	244	—
HOSPITALS :											
Fazakerley	3629	182	124	113	66	111	69	76	68	43	17
Fever Hospitals—North, South and East	1127	185	238	123	50	46	40	44	30	45	38
Alder Hey	846	152	121	76	47	131	120	77	61	42	24
Olive Mount	695	56	29	2	13	74	97	118	175	148	110
Other Hospitals... ..	287	86	84	49	54	121	47	64	80	45	72
Miscellaneous	1235	4	5	8	1	45	19	6	—	11	8
Medical Practitioners	836	71	39	63	257	241	121	133	75	82	40
TOTALS	46175	9666	5106	3418	8087	27368	24197	14621	16959	18180	14500
GRAND TOTAL									204,507		

In addition to the above immunisations, 1,328 previously immunised children received a reinforcing injection either at school or at one of the clinics.

PERCENTAGE OF IMMUNISED CHILDREN AT VARIOUS AGE GROUPS.

Age at date of immunisation:	1925	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Under 1 year	117	1	1	5	8	1	2	2	4	42	33	572	2030	3413	4535	5614
1 +	559	213	106	359	595	908	671	207	1096	2632	3846	4373	1776	2581	2222	2875
2 +	554	157	232	170	461	524	304	282	429	2551	1181	1123	1302	458	529	744
3 +	589	164	222	259	183	433	248	193	799	1246	1094	659	732	635	190	376
4 +	896	301	489	513	698	355	453	204	726	2490	362	589	609	573	420	197
5 +	2798	1637	1541	2297	1658	2286	567	797	1254	2273	1874	616	1284	2089	1742	1760
6 +	3185	1997	1563	2497	1820	2722	1042	386	1213	2868	1742	1020	657	2019	1164	1293
7 +	2587	1222	872	1211	823	1110	587	284	343	2032	1514	800	978	667	662	720
8 +	1261	489	216	304	320	212	138	74	241	734	1495	643	774	1052	403	769
9 +	771	157	100	75	110	99	26	32	168	1054	775	593	684	994	561	287
10 +	523	132	100	103	96	95	75	63	154	1061	1585	297	621	948	543	503
11 +	621	158	120	124	115	113	90	77	182	1187	1876	550	301	667	465	293
12 +	694	176	133	137	128	126	100	85	216	1385	2265	509	630	182	162	64
13 +	629	159	122	125	117	114	90	78	183	1236	2086	419	583	314	53	32
14 +	138	35	27	27	25	25	20	17	40	213	1278	46	73	44	22	19
15 +	867	220	167	172	160	158	124	106	260	433	424	328	290	238	180	182
Totals.	16789	7221	6116	8548	7501	9666	5106	3413	5087	2736	82497	1462	16959	18180	14500	16230

Total under 5 years of age
29012, being 38.4% of the
population of this age.

Total 5-9 years of age
46296, being 69.3% of the
population of this age.

Total 10-14 years of age
49617, being 80.4% of the
population of this age.

TABLE VI.

DIPHTHERIA—COMPARATIVE INCIDENCE AMONG IMMUNISED AND NON-IMMUNISED CHILDREN
UNDER FIFTEEN YEARS OF AGE IN LIVERPOOL.

	1946.		1947.		1948.		Aggregate 1942/1948.	
	Immunised.	Not Immunised.	Immunised.	Not Immunised.	Immunised.	Not Immunised.	Immunised.	Not Immunised.
Number of child-years at risk ...	110,824*	83,486	115,311*	86,179	121,338*	80,839	697,179	667,386
Diphtheria cases	33	390	28	266	8	202	339	4,779
Annual rate of incidence per 1,000 child-years	0.30	4.67	0.24	3.08	0.065	2.49	0.48	7.16
Ratio	1 to 15.6		1 to 12.8		1 to 38.3		1 to 14.9	
Diphtheria deaths	0	23	1	11	0	10	3	229
Annual rate of dying per 1,000 child-years	Nil	0.27	0.008	0.12	Nil	0.12	0.0043	0.34
Ratio	—		1 to 15		—		1 to 79	

* Consisting of (a) all children under 13 immunised before the end of the previous year; (b) five-sixths of the children of 13 years and one-sixth of the children of 14 years immunised before the end of the previous year; (c) three-quarters of the children immunised during the first half of the year of risk and (d) one-quarter of the children during the last half of the year of risk.

Measles.

During 1948, 7,855 cases of measles were reported, representing a case-rate of 9.9 per 1,000 of the population. The number of deaths was 12, making a fatality-rate of 0.15 per 100 cases and a mortality-rate of 1.5 per 100,000 of the population.

DEATHS FROM MEASLES.

AGES AT DEATH.													
Per ar.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
	5	2	1	—	—	—	—	—	—	—	—	—	12

AGES OF CASES.										
5	1,401	1,190	1,202	1,126	2,244	59	38			7,855

PERCENTAGE FATALITY AT EACH AGE.										
7	0.4	0.2	0.1	—	—	—	—			0.15

Whooping Cough.

During 1948, 3,322 cases of whooping cough came to the notice of the Health Department, a figure representing a case-rate of 4.2 per 1,000 of the population. Of these cases 31 proved fatal, corresponding to a death-rate of 3.9 per 100,000 of the population.

Number of deaths from Whooping Cough at various age periods during 1948.							Total deaths all ages.	Deaths expressed as a percentage of total deaths.						
Per ar.	1+	2+	3+	4+	5+	10+		under 1 year.	1+	2+	3+	4+	5+	10+
	6	1	1	—	—	—	31	74.3	19.3	3.2	3.2	—	—	—

Cerebro-spinal Fever.

TABLE VII.

CASES AND DEATHS DURING 1948 AND NINE PREVIOUS YEARS.

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Cases	70	468	453	201	83	58	47	48	72	47
Deaths	28	84	79	38	22	21	9	13	13	11
Fatality-rate per 100 cases	40·0	17·9	17·4	18·9	26·5	36·2	19·1	27·1	18·1	23·4

The fall in the fatality rate which has occurred in the last eight years is, in the main, due to the success of treatment with Sulphonamide drugs.

Poliomyelitis and Polioencephalitis.

During the year there occurred thirteen cases of poliomyelitis with one death and one case of polioencephalitis which proved fatal. The following table gives the age distribution of the notified cases:—

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	Total
3	3	—	1	1	—	2	—	1	2	1	14

Deaths from Influenza and other Respiratory Diseases.

TABLE VIII.

	Yearly average number of deaths.	Percentage proportion to all deaths.	Respiratory death-rate per 1,000 population.	Death-rates compared with the 1871-80 death-rate called 100.
1871-80 ...	2,976	20·2	5·7	100
1881-90 ...	3,251	23·2	5·9	104
1891-1900 ...	3,582	24·6	5·9	104
1901-10 ...	3,299	21·8	4·5	79
1911-20 ...	3,648	27·3	4·7	83
1921-30 ...	2,904	24·7	3·5	61·4
1931-40 ...	1,762	15·1	2·1	36·8
1941... ..	2,226	16·8	3·2	56·1
1942... ..	1,403	14·9	2·1	36·8
1943... ..	1,856	19·1	2·8	49·1
1944... ..	1,344	14·9	2·0	35·1
1945... ..	1,620	17·0	2·3	40·3
1946... ..	1,462	15·1	2·0	35·1
1947... ..	1,675	16·5	2·2	38·6
1948... ..	1,198	13·3	1·5	26·3

Dysentery.

During 1948, 285 cases of bacillary dysentery were reported in the city—Newcastle 115, Flexner 104, Sonne 61 and Schmitz 1. In addition, there were 3 cases of amoebic dysentery, one of which was contracted abroad.

CREMATION.

The number of cremations which took place at the Liverpool Crematorium during 1948 was 936, the highest number yet recorded.

Statement of Notifications of Live and Still Births received during the year 1948.

Area	Live Births	Still Births	Total
Mersey (Municipal)	2,717	61	2,778
(Independent)	418	8	426
Medical Students	970	10	980
Liverpool Maternity Hospital	2,288	81	2,369
Municipal Hospitals	9,937	381	10,318
Other Institutions	602	12	614
District House	1,012	19	1,031
Total	18,154	582	18,736

MATERNITY AND CHILD WELFARE.

VITAL STATISTICS.

Live births	...	...	17,695	Live birth rate	...	...	22.3
Still-births	...	...	479	Still-birth rate	...	...	0.6

Total births 18,174

Infant Mortality rate 54

Neo-natal Mortality rate 24.3

Maternal Mortality rate 0.77

THE MIDWIFERY DEPARTMENT.

During the year, 321 midwives gave the required notice under Section 10 of the Midwives Act, 1902, of their intention to practise midwifery in this city. The number of municipal midwives at the end of 1948 was 58. They attended:—

Midwifery cases	...	...	...	3,763
Maternity cases	...	...	...	382
			—	4,145

Statement of Notifications of Live and Still Births received during the year 1948.

	Live Births.	Still Births.	Total.	Still Births per cent. of Total.
Midwives (Municipal)	3,727	61	3,788	1.6
„ (Independent)	418	6	424	1.4
Medical Attendants 	979	19	998	1.9
Liverpool Maternity Hospital ...	2,389	81	2,470	3.3
Municipal Hospitals 	9,937	324	10,261	3.2
Other Institutions 	628	15	643	2.3
District Homes 	1,075	19	1,094	1.7
	19,153	525	19,678	2.7

The number of still-births notified was 525, of which 104 were notified by midwives. Enquiries were made into the circumstances of all still-births.

Visits paid by Midwifery Staff.

Routine and special visits to midwives	...	...	...	...	1,474
Visits regarding claims for fees from medical practitioners for attendance in emergency cases	...	...	...	...	1,776
Visits in respect of ophthalmia neonatorum	...	...	...	...	6,092
Special visits (puerperal pyrexia, venereal diseases, etc.)	...	...	...	...	1,137

Medical Assistance.

Under the rules of the Central Midwives Board, midwives sought medical aid in 2,430 cases—1,763 mothers and 667 children.

Consultant Services.

The total number of occasions on which the services of a consultant obstetrician were requisitioned in connection with cases of puerperal emergencies or complications during pregnancy was 18.

Prevention of Spread of Infection.

Six municipal midwives were suspended from practice in order to prevent the spread of infection.

Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, 1928 and 1939.

The number of cases of puerperal pyrexia notified during the year was 256. Of these, 235 were admitted to or occurred in hospitals, and 21 occurred in the practice of midwives, and in 7 cases nurses were provided.

Maternal Mortality.

The number of live and still births registered in the city, together with maternal deaths and maternal death-rates, are as follows:—

BIRTHS REGISTERED.				MATERNAL MORTALITY.					
Year.	Live Births.	Still Births.	Total Births.	Puerperal Sepsis.		Other Puerperal Causes.		Total.	
				Deaths.	Rate per 1,000 Total Births.	Deaths.	Rate per 1,000 Total Births.	Deaths.	Rate per 1,000 Total Births.
1927	19,020	735	19,755	25	1.26	58	2.94	83	4.20
1928	19,120	816	19,936	19	0.95	45	2.26	64	3.21
1929	18,888	753	19,641	26	1.32	40	2.04	66	3.36
1930	18,881	774	19,655	16	0.81	59	3.00	75	3.81
1931	18,626	722	19,348	20	1.03	35	1.81	55	2.84
1932	18,149	827	18,976	16	0.84	35	1.85	51	2.69
1933	16,929	680	17,609	29	1.65	31	1.76	60	3.41
1934	17,593	685	18,278	25	1.37	26	1.42	51	2.79
1935	17,347	749	18,096	29	1.60	30	1.66	59	3.26
1936	17,403	708	18,111	20	1.10	44	2.43	64	3.52
1937	16,728	618	17,346	10	0.58	30	1.73	40	2.31
1938	16,175	639	16,814	11	0.65	22	1.31	33	1.96
1939	15,614	631	16,245	5	0.32	24	1.54	29	1.86
1940	15,016	519	15,535	7	0.45	24	1.56	31	2.01
1941	13,291	508	13,799	9	0.68	23	1.74	32	2.42
1942	13,729	552	14,281	14	0.98	20	1.40	34	2.38
1943	14,432	485	14,917	12	0.80	22	1.47	34	2.27
1944	15,412	492	15,904	13	0.82	18	1.13	31	1.95
1945	14,784	431	15,215	7	0.46	16	1.05	23	1.51
1946	18,528	539	19,067	2	0.10	17	0.89	19	0.99
1947	19,904	514	20,418	1	0.05	16	0.78	17	0.83
1948	17,695	479	18,174	3	0.16	11	0.60	14	0.77

The table above shows a very remarkable decline in maternal mortality during the past 20 years. It will be seen that this decline has affected both deaths from puerperal sepsis and also those from other causes. The death-rate from puerperal sepsis in Liverpool has normally been lower than in the country as a whole.

The decrease has been particularly rapid during the last three years and unquestionably this is due to the extending use of sulphone drugs and penicillin. The decline in other puerperal causes has been more consistent but has not reached the same degree. It is probable that the table as a whole shows a marked improvement in the care of both the expectant mother and of the patient in labour. This is an achievement of which the City can well be proud. Amongst the causes that are operative in the decline of deaths from other puerperal causes may, not improperly, be mentioned improved nutrition.

Special Investigation of Maternal Deaths.

As a result of inquiries it was found that 21 deaths occurred owing to pregnancy, child birth or concurrent diseases, such as heart disease or lung disease associated with pregnancy:—

Class I—Deaths directly due to childbearing	...	...	14
Class II—Deaths not primarily due to pregnancy	...	...	7

Ophthalmia Neonatorum.

Inflammation of the eyes of the newly-born

The number of cases brought to the notice of the department and treated during the year was 1,015, namely:—

Mild cases	...	...	...	...	...	958
Severe cases	...	...	...	...	...	57
Cases brought forward from previous year	...	...	...	...	...	76
Loss of sight	...	...	...	...	...	—
Total						1091

During the year, 14 babies were admitted to hospital.

Arrangements are made with the City Bacteriologist to examine the discharge from inflamed eyes in the newly-born, namely:—

No. of cases brought to the notice of the department.	Cases from which specimens were examined by the City Bacteriologist and at Hospital.	No. of cases of positive Gonorrhoea.	Percentage to total cases examined.	Percentage to total notifications.
1,015	84	10	12.0	1.0

Nursing Homes.

One registration was cancelled during the year. The nursing homes on the register at the end of the year numbered 17, the approximate number of beds being 178. Babies born in nursing homes numbered 724, including 6 twin births.

THE HEALTH VISITORS' DEPARTMENT.

The ante-natal figures in brackets relate to hospitals prior to July 5th 1948, and are included in our totals.

Ante-Natal and Post-Natal Clinics.

Total number of centres at which ante-natal clinics are held	22
Number of clinic sessions held per week	47
„ „ post-natal sessions held per week, separately	
from ante-natal	(5)
„ „ new cases attending ante-natal clinics (7,321)	18,836
Total attendance at ante-natal clinics (35,009)	96,465
„ „ „ post-natal „ (3,911)	5,665

Child Welfare Clinics.

Total number of centres at which child welfare clinics are held	23
Number of clinic sessions held per week	43
„ „ new cases—Under 1 year of age	11,272
Aged 1-5 years	699
	<hr/> 11,971
Total attendances—Under 1 year of age	108,640
Aged 1-5 years	16,704
	<hr/> 125,344

Statistics relating to Home Visits.

Visits to expectant mothers by health visitors	7,584
Number of births visited during the year	17,439
Re-visits to infants during the 1st year	86,395
„ „ „ aged 1 year to 5 years	126,417
Visits paid to homes of nurse children	623
Visits to children discharged from municipal hospitals	2,300

Visits to cases of Infectious Disease—

Visits to cases of measles	11,196
„ „ „ „ pneumonia	225
„ „ „ „ infantile diarrhoea	412
Enquiries into deaths due to diarrhoea	212

627 children under five years of age were referred for special treatment to the school medical department as follows:—

Defective vision	...	...	...	...	411
Otorrhœa	...	...	...	...	11
Orthopædic defects	...	...	...	...	205

Child Life Protection.

- (a) Number of persons receiving children for reward on the Register at the end of the year 1948 ... 52
- (b) Number of children on the Register:—
- | | | | | |
|---|-----|-----|-----|-----|
| (1) at the end of the year 1948 | ... | ... | ... | 69 |
| (2) who died during the year (in homes) | ... | ... | ... | nil |
| (3) „ „ „ „ „ (in hospitals) | ... | ... | ... | nil |
- (c) Proceedings taken during the year ... nil

Care of Illegitimate Children.

According to information available, the number of illegitimate children born alive in Liverpool during 1948 was 1,146, giving a rate of 1.43.

During the year, the City Council authorised the payment of increased grants to the voluntary organisations undertaking work in connection with unmarried mothers and illegitimate children.

Careful watch is kept over all these children by the Maternity and Child Welfare Department, and co-operation between the staff of that Department and the various voluntary workers is very close. A live register of all illegitimate children enables this surveillance to be continuous.

Neo-natal Mortality.

The number of neo-natal deaths amounted to 431, equal to a rate of 24.3 per thousand live births registered. Special enquiry was made into the deaths of all children who died within 28 days after birth.

Premature Infants.

Special accommodation is provided for 46 premature infants born in Broadgreen, Smithdown Road and Walton Hospitals. They are also admitted to cubicles in Alder Hey Hospital. A further unit is available at Mill Road Infirmary, thus the accommodation in premature baby wards is increased by 12 cots.

In addition to these arrangements, certain equipment is available for midwives in whose practices premature infants are born, in order to facilitate special care of such children at home.

It is hoped that when sufficient hospital accommodation has been provided, premature babies born in the district and requiring institutional treatment will be admitted. This will entail the provision of special transport arrangements.

On discharge from the municipal hospitals, information relating to the condition and feeding of premature children is forwarded to the Medical Officer of Health. This ensures an early visit to the home from a health visitor or midwife, whichever is more appropriate to individual needs, and continued care is given until the mother is able to look after the child herself.

Evidence points to maternal nutrition being an important factor in the causation of prematurity. With this in view, advice is tendered in the ante-natal clinics to expectant mothers on their feeding during pregnancy and every endeavour is made to get them to use the extra rations and vitamin preparations available for them.

Dental Treatment of Expectant and Nursing Mothers and Pre-School Children.

During 1948 the same arrangements for the dental treatment of expectant and nursing mothers and children of pre-school age were in force as in previous years.

Under these arrangements, the part-time dental officer employed by the Department attended for three sessions a week alternately at the Carnegie Welfare Centre and the Great George Square Day Nursery and, in addition, approximately two and a half sessions per week were

devoted to this work by the staff of the School Health Service on behalf of the Maternity and Child Welfare Department. This treatment was carried out at the Everton Road, Norris Green and Dovecot combined centres.

The total time given to this treatment, therefore, was the equivalent only of one-half of the services of one whole time officer but, in addition, the services of a dental anaesthetist were provided on three and a half sessions a week.

The amount of work carried out in the year may be summarised as follows:—

		Total attendances.	Teeth extracted.	Fillings.	Scalings.
Expectant mothers	...	1,655	6,431	2	15
Nursing mothers	...	630	2,681	1	8
Children under 5	...	143	201	—	—

In addition, dentures have been supplied at the Centres. Up to the inauguration of the National Health Service on the 5th July, 1948, dentures were supplied by the part-time dental officers at a charge to the patients (which was usually defrayed by instalments) not exceeding the fees payable under the old National Health Insurance Scheme. Since the commencement of the National Health Service on the 5th of July however, dentures have been supplied free of cost and, from that date until the end of the year, 71 sets of dentures were fitted.

Owing to the shortage of dental staff there was, up to the end of the year, no scheme of systematic dental inspection of these patients by dental officers. All the cases which have been treated, therefore, have been referred by the doctors at the centres and these have, as to the great majority, been patients presenting septic mouth conditions or those who were suffering pain.

This system, whilst ensuring that means of obtaining relief from toothache have been available, and that expectant mothers with gross oral sepsis have had the opportunity of having this condition remedied

before confinement, has given no scope for the preventive methods of treatment which are so desirable.

Although the shortage of staff is still acute it is hoped by re-arrangement of the duties of the existing staff, to introduce early in 1949, a system by which expectant mothers will receive a detailed oral examination by the dental officers in the early period of pregnancy. It will only be possible to introduce this system at a limited number of centres at present but it is hoped as additional staff becomes available, to extend it to all centres and so to provide by means of advice and the early treatment which will be given that the mothers can reach the period of their confinement not only with clean mouths but also without suffering the undue loss of teeth which are particularly susceptible to decay during pregnancy.

Day Nurseries.

The following nurseries were available for the children of women in employment or who, for domestic reasons, could not care for their children themselves:—

						Accommodation for
Banks Road Hut, Garston (19)	...	...	...	...	...	50 children
25, Derwent Road (13)	...	...	...	...	...	67 „
1, The Elms, Dingle (8)	...	...	...	...	...	36 „
18, Great George Square (1)	...	...	...	...	...	73 „
25, Grove Park, Lodge Lane (8)	...	...	...	...	...	58 „
12, Holly Road, Fairfield (7)	...	...	...	...	...	75 „
Mill Road Nurses' Home (6)	...	...	...	...	...	70 „
Orwell Road Hut, Kirkdale (4)	...	...	...	...	...	50 „
Salisbury Street Council School, Everton (3)	...	...	...	...	...	60 „
5/7, Swiss Road, Fairfield (6)	...	...	...	...	...	60 „
97/99, Upper Canning Street (8)	...	...	...	...	...	62 „
Wavertree Playground Hut (15)	...	...	...	...	...	50 „
262/264, Westminster Road, Kirkdale (4)	...	...	...	...	...	45 „

Infestation by Head Lice.

Since the receipt of Circular 2831, health visitors have given increased attention to infestation by head lice of children under the age of five years. Nursery Matrons and school nurses have been asked to refer to the health visitors those families from which lice-infested children have attended nurseries or schools.

It has always been the practice to examine children where the personal cleanliness of the family is in doubt, but it is not always easy to obtain the co-operation of the mother and older members of the family. Quite frequently mothers resent any examination being made of members of the family who are suspected of re-infesting the children who have been cleansed.

Between 1st January and 31st December, 1948, 277 children under the age of five years were found by the health visitors to be verminous. In all cases, advice was given as to cleanliness and 243 of the mothers (or guardians) agreed to carry out instructions as to disinfestation. In 34 cases, however, they preferred to go to a cleansing station. In a few instances, improvement was maintained, but a hard core is still unsatisfactory. This is a problem which has engaged the attention of health visitors and school nurses for many years, and the difficulties in dealing with people who have no desire to be clean are increased by present conditions, such as soap rationing, and to the fact that many women are engaged in work, whilst at the same time endeavouring to carry on their home duties. In such families, the children are frequently not well cared for, especially in regard to personal hygiene.

The heads of 98 mothers were cleansed—84 at home and 14 at cleansing stations.

WELFARE SERVICES.

The National Assistance Act, 1948 came into operation on 5th July, 1948 and the Public Health Department assumed responsibility for the organisation and administration of services provided by the Council under this Act. A Welfare Services Section was formed and the main functions of this department include—

- (a) The provision of residential accommodation for—
 - (i) persons who by reason of age, infirmity or any other circumstances are in need of care and attention which is not otherwise available to them.
 - (ii) temporary accommodation for persons who are in urgent need thereof owing to circumstances which could not reasonably have been foreseen such as fire, flooding or eviction.
- (b) Welfare arrangements for blind, deaf, dumb and crippled persons.
- (c) Assistance to voluntary organisations which provide recreation and meals for old people.
- (d) Registration and inspection of disabled persons and old person's homes.
- (e) Registration of charities for disabled persons.
- (f) Removal to suitable premises of persons in need of care and attention.
- (g) Protection of movable property of persons admitted to hospital or to accommodation provided under Part III of the Act.
- (h) The burial or cremation of the dead where no other person is making suitable arrangements.

Residential accommodation on 5th July, 1948 was provided in the following establishments:—

Kirkdale Homes	Number of persons in residence ...	1078
Grafton House	„ „ „ „ ...	36
*Belmont Road Hospital	„ „ „ „ ...	153

* Serviced accommodation provided by Regional Hospital Board.

The department also accepted responsibility for the maintenance of 100 persons residing in establishments provided by other authorities and voluntary organisations.

Efforts were made to acquire houses suitable for adaptation for use as small homes for old people and negotiations were proceeding in respect of five premises, and Moreno House, Mossley Hill, was prepared for opening on 1st January, 1949.

Schemes for the exercise of the Council's functions under Section 21 (Provision of Accommodation) and Sections 29 and 30 (Provision of Welfare Services) of the Act were prepared for the approval of the City Council and submission to the Minister of Health.

RESIDENTIAL ESTABLISHMENTS.
STATEMENT OF ADMISSIONS, DISCHARGES AND DEATHS.

Establishment.	Remaining 4/7/48.	Admitted.	Discharged.	Died.	Remaining 31/12/48.
Kirkdale Homes.	1,078	518	423	55	1,118
Grafton House ...	36	1	—	1	36
Belmont Road Hospital ...	153	298	362	—	89
TOTAL ...	1,267	817	785	56	1,243

PERSONS MAINTAINED IN ESTABLISHMENTS PROVIDED BY OTHER AUTHORITIES
AND VOLUNTARY ORGANISATIONS.

STATEMENT OF ADMISSIONS, DISCHARGES AND DEATHS.

Authority or Organisation.	Remaining 4/7/48.	Admitted.*	Discharged.	Died.	Remaining 31/12/48
North Regional Association for the Blind	1	—	—	—	1
Shropshire County Associa- tion for the Blind	1	—	—	—	1
Manchester and Salford Society for the Blind	1	—	—	—	1
Catholic Blind Asylum, Liverpool	23	—	—	—	23

Authority or Organisation.	Remaining 4/7/48.	Admitted.*	Discharged.	Died.	Remainin 31/12/48
Home for Epileptics, Maghull...	40	3	2	1	40
Flintshire County Council ...	1	—	—	—	1
Langho Epileptic Colony ...	16	1	—	—	17
St. Vincents Hospice, L'pool ...	—	47	1	9	37
Cotebrook Home for Cripples, Lymm	1	—	—	—	1
David Lewis Manchester Colony	2	—	—	—	2
House of Providence, Aigburth, Liverpool	1	—	1	—	—
Turner Memorial Home, Dingle, Liverpool	5	7	—	—	12
Mary Fowler Home, Liverpool...	—	12	—	—	12
Methodist Home for the Aged, Liverpool	—	4	—	—	4
St. Elizabeth Home, Much Hadham	1	—	1	—	—
Corporation of Bristol, Fishponds Road	1	—	—	—	1
Northern County Homes for Deaf Women, Barrowford ...	1	—	—	—	1
Limes Hostel, Standish, Wigan	1	—	—	—	1
Dowesfield Home, Liverpool ...	—	5	—	—	5
Bootle County Borough— Connolly House	—	1	1	—	—
Poolemead Home for Deaf Women, Bath	1	—	—	—	1
Lancashire County Council— Whiston Institution	1	—	—	—	1
West Ham County Borough ...	1	—	—	—	1
Southport County Borough— Leyland Road Hostel ...	1	—	—	—	1

* Includes a number of residents, now the financial responsibility of the local authority, whose pensions had formerly been supplemented by the National Assistance Board.

Welfare of the Blind.

The arrangements for promoting the welfare of blind persons, previously a duty of the local authority under the Blind Persons Acts, have been continued under the new legislation with the necessary adjustments.

During 1948, 172 applicants for admission to the register of blind persons were examined by ophthalmic surgeons. Of these 150 were found to be blind and 22 not blind. In accordance with the wishes of the Minister of Health, an observation register is being compiled of partially sighted persons to whom are being extended those parts of the welfare services for the blind as may be appropriate.

The following table shows the number of registered blind persons in Liverpool:—

Age.			Males.	Females.	Total.
0—1	...	...	—	—	—
1—5	...	...	4	4	8
5—16	...	...	16	18	34
16—21	...	...	18	15	33
21—40	...	...	99	83	182
40—50	...	...	99	72	171
50—65	...	...	219	228	447
65—70	...	...	75	136	211
Over 70	...	...	226	375	601
TOTALS			756	931	1,687

There are facilities in Liverpool for the employment of suitable blind persons in workshops and over 100 employees are engaged in the trades of brush-making, basket-making, mat-making, etc. The valuable co-operation of the Ministry of Labour and National Service is appreciated in all matters affecting the employment of blind persons.

At the present time 3 blind persons are employed as Home Workers in the following occupations:—

1 Braille Copyist ...	...	Male
1 Chair Seater ...	...	Female
1 Music Teacher ...	...	Female

Welfare of the Deaf and Dumb.

With a view to promoting the welfare of the deaf and dumb, consultations have been held with the various voluntary agencies concerned and it is hoped in due course to draw up a scheme embodying the welfare services to be provided.

MENTAL HEALTH.

Prior to 5th July, when the National Health Service Act came into operation, that part of mental health administration in which the Health Committee was interested was institutional care and treatment.

The Act transferred the facilities possessed by the Committee to the Regional Hospital Board but, in their place, gave to the Health Authority important new functions which may be summarised as follows :—

- (a) initial action in cases of mental disorder and mental deficiency,
- (b) obtaining detention orders for admission to mental hospitals and mental deficiency institutions.
- (c) supervision, guardianship and training of mental defectives living in the community.
- (d) prevention and after-care.

Consideration was given before 5th July, 1948, to the administration problems raised by the accession of these new duties and a Mental Health Sub-Committee was formed in January, thereafter holding monthly meetings.

Preliminary Organisation.

- (a) *Ascertainment and initial action in cases of mental disorder.*

Action in these cases is taken in accordance with the Lunacy and Mental Treatment Acts. The National Health Service Act did not change these provisions in essentials but transferred them from Relieving Officers of the former Public Assistance Committee to Duly Authorised Officers of the Health Department. 10 such officers were appointed before 5th July from the staff of Relieving Officers and continuity in this part of the new service was thus assured.

- (b) *Ascertainment, supervision, guardianship and training of mental defectives.*

Liverpool had, for the purpose of mental deficiency administration, been part of the Lancashire County area and though day to day work

was performed from a Liverpool office, policy was directed from Preston. The officers of the Mental Hospitals Board in Liverpool were offered appointments under the Health Committee in April and all except one accepted.

Three aspects of the organisation occupied the Mental Health Sub-Committee's attention. The 2 female visitors transferred were responsible for visiting over 1,000 defectives, a task beyond their power to perform effectively and, pending a consideration of the staffing needs for the service as a whole, it was decided that Duly Authorised Officers should regard mental deficiency work as part of their duties. Secondly, the one Occupation Centre in existence, which had an average daily attendance of 50, was not considered to be sufficient for the training of all suitable defectives in the city and it was decided to try and open other centres. Thirdly, 80 cases under guardianship were reviewed. (Guardianship is the only form of statutory control under the Mental Deficiency Act which enables a Health Authority to pay an allowance to the guardian of a defective.) The allowances hitherto paid were considered to be inadequate and were increased in nearly all cases.

(c) Prevention and after-care.

Before 5th July, this was largely undertaken by a voluntary organisation, the National Association for Mental Health, which had an office in Liverpool. This Association had been providing in the war years an after-care service for ex-service personnel which had latterly been extended to civilians but which was of limited application.

Section 28 of the Act, dealing with prevention, care and after-care, gives wide powers to the Local Health Authority and it was decided to develop the service by gradual stages and improve it as experience after the "appointed day" might indicate. It was agreed that Duly Authorised Officers should be prepared to take part in this branch of the work.

(d) The specialist staff.

The appointment of a full-time medical officer to take charge of the service was early decided upon, and the need for one or more Psychiatric Social Workers was evident. Active steps are being taken to obtain suitable candidates for these posts.

Administration: 5th July to 31st December.

(a) *Constitution of Mental Health Sub-Committee.*

A sub-committee of the Health Committee consisting of a Chairman, Deputy Chairman and seven members has been set up.

Meetings are held on the second Monday in each month.

(b) *Staffing.*

The following was the staff of the Mental Health Section at the end of the year:—

Designation.	No. Employed.	Qualifications.
Senior Administrative Assistant ...	1	D.P.A.
Senior Authorised Officer ...	1	R.O's certificate.
Duly Authorised Officers ...	12	7 with R.O's certificate.
Female M. H. Visitor ...	2	1 S.E.A.N.
Supervisor (Senior), Occupation Centre	1	Dip. of M.H. Assn, and A.L.C.M.
Supervisors and Assistants, Occupational Centre ...	3	—
Domestics, Occupational Centre ...	4	—
Clerks and Typists ...	5	—
Telephone Attendants, (Night) ...	2	—

An establishment for the service has not yet been fixed owing to uncertainty as to developing needs and the probability that national scales of salary will soon be promulgated for certain posts.

(c) *Co-ordination with Regional Hospital Board and Hospital Management Committees.*

Much work has been performed on behalf of Hospital Management Committees. Many visits were paid to the homes of patients on licence or seeking licence from mental hospitals and institutions for mental defectives. After-care visits have also been paid in a large number of cases. At the end of the year a scheme had been worked out for co-operation between this department and the Psychiatrists at Walton Hospital by which an officer of the Mental Health Section will obtain histories of patients attending Psychiatric Clinics, himself attend the clinics, and perform after-care work on the completion of treatment.

The Medical Officer of Health's membership of the Regional Hospital Board is a useful contribution to co-ordination—it has been possible to present the Health Committee's views to the Board and vice versa without difficulty.

(d) *Voluntary Associations.*

The West Lancashire Association for Mental Welfare—a voluntary association which formerly undertook mental deficiency administration for South-West Lancashire, including Liverpool—remains in existence and at the end of the year was apparently considering the question of its future activities.

The National Association for Mental Health continued after-care in respect of cases which were already its responsibility at 5th July but new cases have been dealt with by the after-care section of the Health Department.

(e) *Training of mental health workers.*

A two month's course of practical and theoretical training, organised by Liverpool University in conjunction with the National Association for Mental Health was attended by Duly Authorised Officers and Visitors in April and May and provided an excellent introduction to the work. It is understood that the University is giving consideration to the possible provision of full courses for specialised workers.

(f) *Accommodation.*

In November the offices occupied by the technical staff at Brougham Terrace were decorated and in December the mental deficiency work was transferred there from 38 Princes Road, leaving the latter premises to be used solely as an Occupation Centre.

Work Undertaken: 5th July—31st December.

(a) *Under Section 28 of the National Service Act—prevention, care and after-care.*

The number of references to the mental health section under this heading steadily grew after the "appointed day" and made the constitution of a special sub-section for the work essential. From 1st November, when this section was started, until the end of the year the following work was done:—

Persons referred	172
Visits made	254
Interviews at office	50
Persons referred to Psychiatric clinics	38
Persons found employment	6

Every effort has been made to persuade people in the early stages of mental disorder to undertake clinical treatment and liaison is maintained with the hospital psychiatric clinics. In the case of those who will not accept treatment Duly Authorised Officers offer helpful advice on the social and domestic problems which so often underlie mental disorder. The preparation of case histories by those officers is also an important aid to the Psychiatrist's investigations.

Rehabilitation of individuals on return to normal life after treatment has been assisted by visits, advice and aid on such matters as pensions, allowances, insurance, etc., and in a small number of cases, the finding of employment. The latter presents a rather formidable difficulty in Liverpool where there are 1,400 names on the Register of Disabled Persons as well as the able-bodied unemployed.

(b) *Under the Lunacy and Mental Treatment Acts.*

Persons alleged to be mentally disordered reported	
to the department	266

Action taken:—

Admitted to hospital (Section 20)	163
(including 99 later certified under Sec. 16)	
Admitted to hospital as voluntary patients	3
„ „ „ (Sec. 16)	2
„ to hospitals other than mental hospitals	18
Referred to Psychiatric clinics	25
„ „ Prevention and After-care	30
No further action after visit to home	25
Visits and attendances	2,449

At 5th July there were 2,545 Liverpool people receiving treatment in mental hospitals. Accommodation at all the mental hospitals in the Region has been fully taxed throughout the year and difficulty has been experienced in obtaining the admission of Section 20 cases.

(c) *Under Mental Deficiency Acts, 1913-28.*(i) *Ascertainment.*

Cases notified under Sec. 57(3) Education Act ...	50
" " " Sec 57 (5) " " ...	63
Action taken re above cases.	
Statutory supervision	62
Guardianship	3
Institutional care	12
Awaiting decision	36

The acute shortage of institutional accommodation for mental defectives is a source of anxiety. At 31st December, 50 defectives recommended for institutional care were awaiting admission. In a few cases admission has been gained to places of safety but here again accommodation difficulties exist. There were 1,350 Liverpool defectives in institutions at the end of the year.

(ii) *Guardianship and Supervision.*

The position at 31st December was as follows:—

	Males	Females	Total
Under guardianship:—			
Under 16	—	3	3
Over 16	28	53	81
Under statutory supervision:			
Under 16	147	128	275
Over 16	748	570	1,318
Under voluntary supervision:			
Under 16	8	4	12
Over 16	30	33	63

It has not been found possible to undertake a complete review as yet and it is probable that in a few of the above cases supervision is no longer necessary, where the defectives are employed and leading useful lives.

During the year, 2 defectives have married and 8 children (7 of them illegitimate) have been born to defectives. 16 persons have been discharged from Order.

(iii) *Training.*

The only Occupation Centre transferred to the Health Committee, situated at 38 Princes Road, has continued its work and by the end of the year the average daily attendance had increased from 50 to 60. Since 23rd November the children have been supplied with hot mid-day meals through the School Meals Service. Arrangements have been made for a Health Visitor to inspect the children periodically.

The classes consist of an Industrial class for older boys and young men and three other classes of children roughly graded according to mental age but also with some regard to their physical characteristics. Basket work, rug-making, simple carpentry, etc., are taught in the Industrial class by a male instructor and among the activities in the other classes are handwork, simple sewing, singing and dancing, games and a percussion band. Emphasis is placed on inculcating hygienic habits designed to improve the children's behaviour in their own homes.

It is expected that transport to and from the Centre will be arranged in the near future but in the meantime 14 children living in the Dovecot and Norris Green areas are continuing to attend a Centre in Roby administered by the Lancashire County Council in view of the inaccessibility of the present Centre. The Committee's project of opening new Centres on the outskirts of the city has not yet been achieved owing to the lack of suitable premises.

The City ambulance service has dealt with all demands made upon it by the mental health section with speed and efficiency.

TUBERCULOSIS.

Notification.

Public Health (Tuberculosis) Regulations, 1930.

SUMMARY OF NOTIFICATIONS DURING THE PERIOD 1ST JANUARY
TO 31ST DECEMBER, 1948.

TABLE I.

Age-periods.	Notifications on Schedule A.												
	Number of Primary Notifications of New Cases of Tuberculosis.												
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total Primary Notifica- tions.
Respiratory-													
Males ...	1	26	16	20	73	103	174	155	134	120	45	6	873
Females ...	5	19	18	25	128	166	189	90	58	33	12	2	745
Non Respiratory-													
Males ...	1	25	18	15	24	7	14	10	4	3	1	—	122
Females ...	3	20	10	6	18	12	16	11	6	2	2	—	106

Out of a total of 1,618 primary notifications of respiratory tuberculosis 1,257 were received from private and 361 from hospital practitioners, whilst in the case of non-respiratory tuberculosis these figures are 90 and 138 respectively, forming a total of 228.

The Notification and Dispensary Registers.

In Table II is shown the number of cases on the notification and dispensary registers at the end of the year, the difference (1,362) between the figures for the respective registers representing the number of patients who, for various reasons, discontinued public treatment under this authority before reaching the "cured" stage. A few notified cases are also included in which the patients have refused to make use of the treatment facilities available.

TABLE II

	Respiratory Tuberculosis.		Non-Respiratory Tuberculosis.		Totals.
	Males.	Females.	Males.	Females.	
Number of cases on the Notification Register ...	3,155	2,802	561	625	7,143
Number of established cases on the Dispensary Register	2,619	2,297	415	450	5,781
Difference	536	505	146	175	1,362

In Table III is given an analysis of the 1,362 persons whose names are on the notification register but are not on the dispensary register, according to the latest information concerning them.

TABLE III

	Respiratory Tuberculosis.						Non-Respiratory Tuberculosis.						Totals.
	Males.			Females.			Males.			Females.			
	State of the Disease.						State of the Disease.						
	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	
Totals	6	160	370	11	141	353	11	70	65	13	76	86	1,362

Tuberculosis Clinics and Dispensary System.

A statistical summary of the work of the Tuberculosis Clinics, so far as all cases on the dispensary registers are concerned, is given in Table IV, and in addition there are included a few statistics of a general nature.

TABLE IV.

DIAGNOSIS.	RESPIRATORY				NON-RESPIRATORY				TOTAL				GRAND TOTAL
	Adults.		Children		Adults.		Children		Adults.		Children.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A.—NEW CASES examined during the year (excluding contacts):													
(a) Definitely tuberculous ...	648	540	47	50	44	55	39	37	692	595	86	87	1,460
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	26	30	49	37	142
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	308	268	161	200	937
B.—CONTACTS examined during the year :—													
(a) Definitely tuberculous ...	1	6	7	11	—	—	—	—	1	6	7	11	25
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	69	183	295	269	816
C.—CASES written off the Dispensary Register as :—													
(a) Recovered ...	43	42	10	7	13	14	12	13	56	56	22	20	154
(b) Non-tuberculous (including any such cases previously diagnosed and entered on Dispensary Register as tuberculous) ...	—	—	—	—	—	—	—	—	377	451	456	469	1,753
D.—NUMBER OF CASES on Dispensary Register on Dec. 31st 1948 :—													
(a) Definitely tuberculous ...	2,437	2,136	182	161	243	299	172	151	2,680	2,435	354	312	5,781
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	26	30	49	37	142
1. Number of cases on Dispensary Register on January 1st, 1948 ...				5,225	2. Number of cases transferred from other areas and cases returned after discharge under Heading 3 in previous years ...				353				
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ...				492	4. Cases written off during the year as Dead (all causes) ...				636				
5. Number of attendances at the Clinics (including Contacts) ...				11,047	6. Number of Persons under Domiciliary Treatment on the 31st December, 1948				1,583				
7. Number of consultations with medical practitioners :— (a) Personal ... (b) Other ...				9 3,843*	8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ...				838				
9. Number of visits by Tuberculosis Visitors to homes of patients ...				20,808	10. Number of :— (a) Specimens of sputum etc., examined (b) X-ray examinations made in connection with Dispensary work ...				2,826 3,619				
11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above ...				8	12. Number of "T.B. plus" cases on Dispensary Register on 31st December, 1948 ...				1,620				

* In addition to 3,843 consultations, 2,239 reports concerning patients were sent to medical practitioners.

TABLE V.

PATIENTS UNDER DISPENSARY TREATMENT AT THE END OF THE YEAR.

	Respiratory	Non-respiratory.	Totals.
Males	7	1	8
Females	10	4	14
Male Children*	3	4	7
Female Children*	4	7	11
TOTALS	24	16	40

* Under 15 years of age.

TABLE VI.

PATIENTS NOT NEEDING TREATMENT WHO WERE UNDER DISPENSARY
SUPERVISION AT THE END OF THE YEAR.

	Respiratory	Non-respiratory	Totals
Males	1191	174	1365
Females	1074	246	1320
Male Children*	130	130	260
Female Children*	124	107	231
TOTALS	2519	657	3176

* Under 15 years of age.

Home Nursing.

The domiciliary nursing of both respiratory and non-respiratory cases continues to be carried out by the Liverpool Queen Victoria District Nursing Association. During the year, 107 respiratory and 20 non-respiratory cases were nursed in their homes, and to these cases 6,679 visits were paid. The Garston and Grassendale Nursing Association and the Woolton and District Society have previously dealt with cases outside the area supplied by the District Nursing Association, but recent amalgamation has resulted in these districts being brought within the province of the last-named association.

General Remarks.

The National Health Service Act, 1946, having become operative as from July 5th, 1948, the Local Health Authority will, in future, only be concerned with the prevention, care and after-care of tuberculosis cases. The Sanatoria, Tuberculosis Clinics and Hospitals having been transferred to the control of the Liverpool Regional Hospital Board, that part of the report dealing with some aspects of the work of these institutions is divided into periods before and after July 5th.

The City death rates for the year 1948 for respiratory and non-respiratory tuberculosis are 0.79 and 0.11 per 1,000 respectively, making a total of 0.90 per 1,000 for all forms of the disease. An analysis of unnotified cases of tuberculosis is given in Table VIII.

In accordance with the requirements of the National Service (Armed Forces) Act, 1939, the Tuberculosis Officers have submitted 102 reports to the Ministry of Labour whilst a further 27 reports have been rendered under the Public Health (Tuberculosis) Regulations, 1940. (Men).

Ex-Service pensioners, about to undergo, or completing courses of residential treatment have been the subject of 346 reports to the Ministry of Pensions, and 551 reports were rendered in respect of cases due to appear before Medical Boards.

MILK. It was not found necessary during the year to take any action under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or Public Health Act, 1936, Section 172.

CONTACTS. The Tuberculosis Officers have examined 841 persons who were known to have been in contact with infectious cases of respiratory tuberculosis and found evidence of disease in 25 or 2.97 per cent.

Tuberculosis Welfare

With the advent of the National Insurance Act, 1946, the work hitherto performed by this Department in relation to the assessment and allocation of allowances under Memorandum 266T. has been taken over by the National Assistance Board.

From 5th July, 1948, to 31st December, 1948, 277 cases have been the subject of reports to the National Assistance Board with a view to determining their eligibility for the special rates applicable to cases of tuberculosis.

Liaison is maintained with the Ministry of Labour with a view to assisting in the rehabilitation of suitable cases.

REHABILITATION.

Summary of cases dealt with during the year 1948:—

Total cases referred by Ministry of Labour to Tuberculosis

Officers	...	...	...	...	...	...	...	489
(a) Examined and found fit for light, part-time or full-time employment	...	...	...	...	...	...	...	392
(b) Not fit for employment	...	...	...	...	...	...	...	62
(c) Failed to attend for examination	...	...	...	...	...	...	...	18
(d) Certified as non-tuberculous	...	...	...	...	...	...	...	13

Letters sent by Tuberculosis Welfare Section to patients offering advice and assistance to obtain suitable employment ... 367

Number availing themselves of this assistance and referred to Ministry of Labour ... 196

Actual number of patients reported by Ministry of Labour as placed in employment ... 224

Total number of cases dealt with under Rehabilitation

Scheme by Tuberculosis Welfare Section ... 611

Mass Radiography Centre.

The Mass Radiography Centre continues to be employed in "health survey" work in industry in addition to which it also deals with cases sent by medical practitioners and with intending emigrants to Canada, Australia and U.S.A. As from July 5th, 1948, this Department has been transferred to the Liverpool Regional Hospital Board and as a "static" unit it will deal mainly with the Merseyside area.

ANALYSIS OF WORK OF MASS RADIOGRAPHY CENTRE FOR THE YEAR 1948.

	Routine Cases		Doctors' cases		Totals		Grand Totals
	Male	Female	Male	Female	Routine Cases	Doctors' Cases	
Number of Miniature films taken ...	4,677	4,322	5,313	7,171	8,999	12,484	21,483
Abnormalities found :—							
Tuberculosis Active ...	15	13	201	255	28	456	484
Tuberculosis Inactive	83	76	205	229	159	434	593
Cardio vascular ...	8	13	28	57	21	85	106
Miscellaneous ...	110	57	568	399	167	967	1,134

TABLE VII.

PATIENTS UNDER DOMICILIARY TREATMENT AT THE END OF THE YEAR.

	Respiratory	Non-respiratory	Totals.
Males ...	801	32	833
Females ...	676	34	710
Male Children* ...	18	5	23
Female Children* ...	14	3	17
TOTALS ...	1509	74	1583

* Under 15 years of age.

Co-operation.

During the year, 2,012 reports were rendered by the Tuberculosis Officers in respect of school children. Many cases have also been examined at the request of organisations such as the Liverpool Personal Service Society; Child Welfare Association; Maternity and Child Welfare Department, etc.

Summary of Treatment, etc., carried out in Sanatoria in connection with the working of the Tuberculosis Scheme.

TREATMENT, ETC.	January 1st, 1948 to July 4th, 1948.	July 5th, 1948 to December 31st, 1948
Operations (Thoracic and Other)	640	505
Artificial Pneumothorax (inductions) ...	133	175
" " (refills)	1,655	2,578
Pneumoperitoneum (inductions)	80	89
" (refills)... ..	5,975	6,271
Light Therapy (Exposures)	307	204
*X-ray Examinations (Films)	7,661	8,276
" (Screenings)	14,945	16,771
Dental Treatment (Extractions)	223	354
" (Fillings)	206	444
" (Miscellaneous)	128	115

* Includes cases referred by the Tuberculosis Clinics.

Notification and Deaths.

During the year 86 persons within the city died from tuberculosis without notification having been effected prior to death. The result of enquiry into the reasons for such failure to notify are summarised in Table VIII.

TABLE VIII.

DISEASE.	Reasons for Non-notification of Persons who died within the City.						
	No. of Persons who died within the City.	No. of Cases not notified before death.	Diagnosis made at a Post- mortem Examina- tion. (Includes Coroner's Cases.)	Diagnosis delayed owing to Clinical difficulties.	Doctor thought case had been notified by another Practi- tioner.	Notifica- tion forgotten.	Patient died before notifica- tion could be effected.
Primary Tuberculosis	630	49 7.77%	16 2.54%	5 0.79%	9 1.42%	8 1.27%	11 1.75%
Respiratory Tuberculosis ...	85	37 43.52%	13 15.30%	20 23.53%	2 2.35%	1 1.17%	1 1.17%

Deaths from Tuberculosis.

The number of deaths from respiratory and non-respiratory tuberculosis in Liverpool from 1934 to 1948, together with the number of new cases notified and the death rates which prevailed in England and Wales are given in Tables IX and X where case rates for Liverpool are also shown.

TABLE IX.

DEATHS FROM RESPIRATORY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1934	1,903	2.20	867	1.03	0.63
1935	1,697	1.96	812	0.97	0.60
1936	1,645	1.90	713	0.85	0.58
1937	1,555	1.79	684	0.82	0.58
1938	1,378	1.59	666	0.81	0.53
1939	1,213	1.47	647	0.81	0.54
1940	1,311	1.73	761	1.01	0.59
1941	1,302	1.90	699	1.02	0.60
1942	1,370	2.04	653	0.97	0.54
1943	1,479	2.23	670	1.01	0.56
1944	1,441	2.16	597	0.90	0.52
1945	1,455	2.13	605	0.88	0.52
1946	1,478	2.01	579	0.79	0.46
1947	1,479	1.96	599	0.79	0.59
1948	1,618	2.04	630	0.79	0.44

TABLE X.

DEATHS FROM NON-RESPIRATORY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1934	585	0.67	129	0.15	0.13
1935	502	0.58	123	0.15	0.11
1936	445	0.51	126	0.15	0.11
1937	388	0.45	112	0.13	0.11
1938	386	0.45	103	0.12	0.10
1939	317	0.38	99	0.12	0.09
1940	274	0.36	122	0.16	0.11
1941	305	0.44	147	0.21	0.13
1942	348	0.52	124	0.18	0.11
1943	335	0.51	103	0.15	0.11
1944	250	0.37	82	0.12	0.10
1945	248	0.36	96	0.14	0.10
1946	237	0.32	79	0.10	0.08
1947	234	0.31	85	0.11	0.09
1948	228	0.29	85	0.11	0.07

TABLE XI.

AGE PERIODS OF DEATHS FROM TUBERCULOSIS DURING 1948.

Age Periods.	RESPIRATORY		NON-RESPIRATORY	
	Males.	Females.	Males.	Females.
0—	1	3	1	1
1—	1	3	21	10
5—	2	—	7	5
10—	—	2	2	2
15—	11	27	4	6
20—	22	40	2	4
25—	69	98	3	5
35—	56	33	2	1
45—	87	16	1	3
55—	78	19	2	—
65—	52	10	—	3
TOTALS	379	251	45	40

VENEREAL DISEASES WELFARE.

On July 5th, 1948, under the National Health Service Act, 1946, the treatment of venereal diseases became the responsibility of the Liverpool Regional Hospital Board and the Board of Governors of the United Liverpool Hospitals, but the welfare work associated with these diseases continues in the hands of the local health authority.

Two male and two female clinics which are open for most of the day continue to function as do the hospital wards for in-patients. Laurel House, a local institution for the moral rehabilitation of young girls, receives financial support from the local health authority.

From the subjoined table it will be seen that since 1946 there has been a welcome decline in the incidence of early infections amounting overall to more than 40 per cent., and that the number of infections in women has fallen most rapidly.

ACUTE GONORRHOEA

	1945	1946	1947	1948
Males	2,136	3,112	2,575	1,933
Females	416	422	272	174

EARLY SYPHILIS

	1945	1946	1947	1948
Males	509	655	481	370
Females	315	331	248	155

The following table shows the total number of patients and attendances during the year :—

	Seamen's Dis- pensary Males only	* Royal Infirmary		* Mill Road Infirmary and Belmont Road Hospital		* Laurel House Females only	Total Males and Females
		M.	F.	M.	F.		
New cases	4,940	1,979	627	9	738	16	8,309
Old and new cases— Total attendances	25,157	15,608	9,718	394	12,145	92	63,114
In-patient days ...	—	983	357	7,650	6,852	1,560	17,402

* Beds reserved for in-patients.

During the year under review, the Staff of the V.D. Welfare Section was reorganised and from 1st January, 1949, will consist of a Senior Male Welfare Visitor, a Male Welfare Visitor and a Female Welfare Visitor. In addition, the services of an Almoner attached to the Royal Infirmary V.D. Clinic are available to deal with female defaulters from that clinic.

The work entails the interviewing of patients, the tracing of contacts and persuading them to attend for examination, writing and visiting defaulters from treatment and assisting patients to attend in the light of the knowledge of the circumstances of the individual patient. Close co-operation with the medical officers of the various treatment centres is maintained.

CONTACT TRACING.

As from 31st December, 1947, Defence Regulation 33B, concerning the compulsory treatment of certain cases of venereal disease, ceased to operate, and in its place a scheme of contact tracing was suggested in Ministry of Health Circular 5/48. The circular refers to the practice, carried out with success in Liverpool for some time past, of issuing to a patient a slip or card bearing the patient's clinic number and coded

designation of disease, and asking that it should be passed to the contact for presentation at a clinic. The issue of "contact slips" to patients for the use of their potentially infected partners has brought under observation 97 males and 233 females. From no other single source has a greater number of female patients come for examination.

Since publication of the above-mentioned circular, a number of contact notifications from outside areas have been received and followed up. Unfortunately in many instances the information has been so scanty as to afford little hope of success in tracing the contacts.

The following action was taken in respect of notifications from all areas including Liverpool:—

	Males	Females	Total
Number of notifications received	6	42	48
Number of contacts traced	2	12	14
Number reporting at clinics after interview	1	11	12
Number not interviewed, but information passed to appropriate Local Authority	1	1	2
Number already registered at Liverpool clinics ...	—	5	5
Number untraced, due to insufficient information ...	4	30	34

FOLLOW-UP OF DEFAULTERS.

The following tables A and B indicate respectively the response of defaulting patients to letters or to home visiting:—

TABLE A.

	Male	Female	Total
Number of cases written to	949	1,296	2,245
Number of letters despatched	1,017	1,788	2,805
Cases reporting after receipt of letter	412	662	1,074
Number of letters returned from Dead Letter Office ...	114	62	176

TABLE B.

	Male	Female	Congenital	Total
Number of cases visited	289	583	23	895
Number of visits made	624	1,549	65	2,238
Cases attending following visits	124	284	22	430
Cases promising to attend but failing to do so ...	45	84	—	129
Cases removed, or not known at address given ...	52	110	—	162
Cases not contacted, i.e., No access, away from home, etc.	68	95	1	164
Cases refusing to attend	—	2	—	2
Cases removed to other districts and transferred for follow-up	12	8	—	20

INSPECTION OF FOOD.

TABLE I.

NUMBER OF VISITS PAID TO PREMISES BY FOOD INSPECTORS.

Slaughter-houses.	Butchers' shops.	Fruit shops.	Fish and Fruit shops.	Food Hawkers' premises.	Jam factories.	Pickle factories.	Ice Cream premises.	Food factories.	Knackers' yards.	Total visits.
—	10,305	10,043	12,847	994	31	24	4,478	388	6	39,116

Private Slaughter-houses.

There are 4 private slaughter-houses in the city at which, during the year, no animals were slaughtered.

The City Abattoir.

282,523 animals were slaughtered for human food, details of which are given in Table II.

TABLE II.

NUMBER OF ANIMALS SLAUGHTERED IN LIVERPOOL FOR HUMAN FOOD.

	Bulls.	Bullocks.	Cows.	Heifers.	Calves.	Sheep and Lambs.	Swine.	Horses.	Goats.
City Abattoir	503	20,631	25,640	7,330	53,975	170,316	2,824	1,296	8
TOTALS ...	503	20,631	25,640	7,330	53,975	170,316	2,824	1,296	8

TABLE III.

CARCASES OF ANIMALS (HOME-KILLED) BROUGHT INTO THE CITY MEAT MARKET
FROM OTHER DISTRICTS.

Beef.	Veal.	Mutton.	Lamb.	Pork.
2,491	2,230	21	799	1,840

In addition to the above, 1,840 boxes or packages of home-killed offal were dealt with in the meat market.

TABLE IV.

CARCASES OF IMPORTED (FROZEN AND CHILLED) MEAT DEALT WITH AT THE
CITY MEAT MARKET.

Beef.	Veal.	Mutton.	Lamb.	Pork.	Goats.
19,333	246	101,199	389,958	2,716	340

In addition to the above, 165,421 boxes and packages of imported meat and offal were dealt with in the meat market.

2,163 lbs. of imported beef were destroyed for unsoundness, such as bone taint, mould and brine damage, and 772 lbs. of imported offal were destroyed because of decomposition.

Diseased Conditions.

The carcasses of 72,516 animals showed abnormal conditions, and a detailed examination was made in each case, 2,604 carcasses being rejected as unfit for human food. Of these, 2,090 were destroyed at the abattoir and 514 were destroyed at knacker's yards. A description of the diseased conditions found during 1948 which led to the total or partial destruction of carcasses is given in Table V.

TABLE V.

Disease.	No.	Disease.	No.
Abscess (total)	5	Malignant Neoplasms	6
„ (partial)	127	Mastitis (partial)	1
Anaemia (total)	—	Melanosis (total)	1
Arthritis, Septic (total)	14	„ (partial)	4
„ Simple (partial)	76	Moribund	2
Asphyxia	315	Nephritis Septic (total)	18
Caseous Lymphadenitis	—	Nephritis (partial)	21
Contamination (total)	1	Parturient Fever	—
„ (partial)	3	Pyæmia	5
Decomposition (total)	1	Peritonitis Septic	22
„ (partial)	1	Peritonitis (partial)	18
Distomatosis	67	Pneumonia	15
Dropsy	133	Pleurisy	3
„ (partial)	2	Pleurisy (partial)	30
Emaciation	7	Presternal Calcification (partial)	6
Enteritis	86	Sarcoma	1
Foot and Mouth Disease (total)	—	Septicæmia	17
Gangrene (total)	1	Septic Mastitis	1
Gastritis total)	—	„ Metritis	4
Immaturity	30	„ Pericarditis	8
Injury (total)	9	Swine Fever	—
„ (partial)	202	Swine Erysipelas	5
Jaundice	65	Tuberculosis (total)	1,212
Johnes Disease	2	„ (partial)	1,350
Joint Ill	31	Uræmia (total)	2
Lymphadenoma (total)	1	Urticaria (partial)	2

In addition to the carcasses totally destroyed because diseased conditions made them unfit for human food, a number of organs with localised disease were condemned.

TABLE VI.

QUANTITIES OF FOOD MATERIALS CONDEMNED AS BEING UNFIT FOR HUMAN FOOD.

Beef, Veal, Mutton, Pork.	Offal.	Fish.		Crabs, Lobsters, Oysters, Crayfish, Shrimps, Prawns, Scallops.	Cockles, Mussels, and Winkles.	Poultry.	Game.	Rabbits, and Hares.	Fruit.	Vegetables.	Nuts, Coconuts, Almonds, etc.	Canned Food- stuffs.	Dried Fruit.
		Wet.	Dry.										
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Bags.	Head.	Head.	Head.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
825,638	1,408,300	372,751	110,408	7,258	274	1,029	130	3,053	98,309	209,431	3,535	248,801	10,923

TABLE VII.

CARCASSES INSPECTED AND CONDEMNED.

	Cattle excluding Cows.	Cows.	Calves.	Sheep and Lambs.	Pigs.	Goats.	Horses.
Number killed (if known)	28,464	25,640	53,975	170,316	2,824	8	1,296
Number inspected	28,464	25,640	53,975	170,316	2,824	8	1,296
All Diseases except Tuberculosis.							
Whole carcasses condemned	12	132	461	241	25	—	7
Carcasses of which some part or organ was condemned	16,440	14,320	53	29,824	910	—	7
Percentage of the number inspected affected with disease other than tuberculosis	57·80%	56·36%	0·95%	17·65%	33·11%	—	1·08%
Tuberculosis only.							
Whole carcasses condemned	62	1,105	23	—	20	—	2
Carcasses of which some part or organ was condemned	1,509	7,090	3	—	270	—	—
Percentage of the number inspected affected with tuberculosis	5·52%	31·96%	0·05%	—	10·27%	—	0·15%

The Tuberculosis Order, 1938.

This Order aims at the elimination of cows suffering from tuberculosis which may be a source of infection to human beings and to other animals. During 1948, 51 cows were slaughtered under this Order at the City Abattoir.

Slaughter of Animals Act, 1933.

Applications for licences as slaughtermen were received as follows:—
4 new licences, 98 renewals of existing licences, and 169 temporary licences for the slaughter of animals for the food of Mohammedans. In each case the licence was granted.

Salvage of Foodstuffs.

In addition to the ordinary examination and classification of foodstuffs submitted for inspection, many requests have been received from the Ministry of Food Salvage organisation, to examine and classify large and varied consignments of doubtful foodstuffs, a report being issued to the Ministry on each consignment. The origin of this type of foodstuffs being damaged ships, Army, Navy and Air Force Depots, surplus Ship's Stores, damaged goods in warehouses, etc. For this purpose each consignment is on examination divided and classified as follows:—

- (a) Fit for retail trade.
- (b) Made fit for human food by reconditioning, and used for catering or manufacturing purposes.
- (c) Made fit for animal feeding by reconditioning.
- (d) Suitable for industrial purposes only.

THE CLEANLINESS OF MILK.

During the year, the standard of cleanliness of milk has been very satisfactory. Regular routine samples are taken from the herds of producers within the City, and also from the milk brought into Liverpool daily by road and rail from the County areas of Lancashire, Cheshire, Denbighshire, Shropshire and Cumberland.

The total number of milk samples submitted to the City Bacteriologist for examination was 2,444, comprised as follows:—262 Tuberculin-tested milks; 657 Accredited milks; 352 Ungraded milks; and 1,173 heat-tested milks.

The Tuberculin-tested, Accredited, and ungraded milk were examined for the presence or absence of coliform bacilli; the methylene blue reduction test, and subjected to guinea pig inoculation for the detection of tubercle bacilli. Heat-treated milk was tested by the phosphatase and methylene blue tests. The detailed results of bacteriological examinations of milk are given in Tables VIII/XIV.

TABLE VIII.
EXAMINATION OF SAMPLES OF TUBERCULIN TESTED MILK.

Supplied by	Number of Samples	Where taken	METHYLENE BLUE REDUCTION TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.	
			Satisfactory.	Unsatisfactory.	Absent in $\frac{1}{100}$ ml.	Present in $\frac{1}{100}$ ml.
A	35	Hospitals (Milk Produced outside City).	34	1	31	4
B	19	"	18	1	16	3
C	14	"	13	1	4	10
D	9	"	9	0	9	0
E	5	"	4	1	2	3
F	5	"	5	0	5	0
G	12	(Produced in City)	10	2	10	2
H	12	"	12	0	8	4
I	11	"	10	1	10	1
J	12	"	11	1	11	1
Various	128	Wholesale Depots (Country Milk)	112	16	95	33
TOTALS	262		238	24	201	61
			90.8%	9.2%	76.7%	23.3%

TABLE IX

THE EXAMINATION OF ACCREDITED MILK PRODUCED IN LIVERPOOL.

Total Number of Samples.	METHYLENE BLUE TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.	
			Absent in	Present in
	Satisfactory.	Unsatisfactory.	— ml.	— ml.
657	615	42	522	135
	93·6%	6·4%	79·5%	20·5%

It is interesting to note that the Accredited milk produced in city cow-sheds, which are subject to supervision by the Health Department, was cleaner than Tuberculin-tested milk produced mainly by herds in areas outside the City.

TABLE X

EXAMINATION OF SAMPLES OF UNGRADED AND UNTREATED MILK
PRODUCED IN LIVERPOOL.

Month.	Number of Samples	METHYLENE BLUE REDUCTION TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.	
		Satis- factory.	Unsatis- factory.	Absent in $\frac{1}{100}$ ml.	Present in $\frac{1}{100}$ ml.
January ...	31	26	5	22	9
February ...	31	25	6	21	10
March ...	31	27	4	20	11
April ...	29	27	2	17	12
May ...	29	27	2	19	10
June ...	29	24	5	14	15
July ...	29	26	3	17	12
August ...	29	26	3	15	14
September ...	29	27	2	20	9
October ...	28	25	3	19	9
November ...	29	27	2	20	9
December ...	28	28	0	21	7
TOTAL ...	352	315	37	225	127
		89·5%	10·5%	63·9%	36·1%

TABLE XI.

EXAMINATION OF HEAT TREATED MILK FROM PLANTS IN THE CITY.

Class of Milk.	Number Tested.	Appropriate Test.	Number of Samples.	
			Passed.	Failed.
Pasteurised... ..	636	Phosphatase ... Methylene Blue	635 636	1 —
Heat Treated	212	Phosphatase ... Methylene Blue	206 207	6 5
Sterilised	154	Phosphatase ... Methylene Blue	154 153	— 1
Tuberculin Tested (Pasteurised)...	171	Phosphatase ... Methylene Blue	171 171	— —
TOTAL	1,173	Phosphatase ...	1,166	7
		Methylene Blue	1,167	6

Since February, 1948, by the operation of the Public Health Laboratory Service under the Ministry of Health, the examination of heat-treated milk for the purpose of testing the efficiency of the heat treatment by means of the phosphatase test, and for keeping quality by the methylene blue reduction test, has been carried out by the City Bacteriologist.

The total number of 1,173 samples of heat-treated milk submitted included 43 samples which were taken at Speke Airport on arrival from Northern Ireland. Five of these samples were insufficiently heat-treated and four failed to satisfy the methylene blue test.

The efficiency of heat-treatment plants in the City (which are amongst the most up-to-date in the country) has been maintained at a high level and reflects credit on the firms concerned, who have co-operated with the Health Department by accepting suggestions and criticisms, in achieving most satisfactory results.

TUBERCULOUS MILK.

The Examination for Tuberculosis, of Milk produced within the City.

TABLE XII.

Kind of Milk.	Number of samples.	Tubercle bacilli present.	Percentage tuberculous.
Graded milk 	693	13	1·8%
Ungraded raw milk 	323	12	3·7%

The Examination for Tuberculosis, of Milk produced in Areas outside the City.

TABLE XIII.

Kind of Milk.	Number of samples.	Tubercle bacilli present.	Percentage tuberculous.
Graded milk 	164	—	—
Ungraded raw milk 	20	1	5·0%

It will be noted that the incidence of tubercle bacilli in raw ungraded milk produced by cows kept in City cowsheds was found to be lower than from country herds.

TABLE XIV.

THE SITUATION OF AREAS OUTSIDE THE CITY FROM WHICH MILK SAMPLED
FOR TUBERCULOSIS WAS DERIVED.

County.	Description of Milk.		Number of Tuberculous samples.		Tubercle bacilli present.	Percentage tuberculous.
	Ungraded.	Graded.	Ungraded.	Graded.	Totals.	
Lancashire ...	—	80	—	—	—	—
Cheshire ...	20	70	1	—	1	5·0%
Denbighshire ...	—	3	—	—	—	—
Shropshire ...	—	2	—	—	—	—
Cumberland ...	—	9	—	—	—	—
	20	164	1	—	1	0·54%

Milk for School Children.

Pasteurised milk only is supplied to school children under the Milk Marketing Board's Scheme. During the year some 107,161 children were each supplied with a third of a pint daily. This number is approximately 96 per cent. of the children attending school. During the year, 115 samples were examined bacteriologically and chemically, and the results as a whole were highly satisfactory. All samples satisfied the methylene blue and phosphatase tests and none was found to be tuberculous.

THE ADULTERATION OF FOOD AND DRUGS.

During the years 1939-1947, this section of the Annual Report has been somewhat restricted, and it is now opportune to give a more detailed account of this work.

The importance of a pure food supply cannot be over-estimated especially in view of the limited amount of rationed commodities available, and, therefore, low quality or adulterated foods cannot be tolerated.

The Medical Officer of Health is, of course, responsible for ensuring that the foodstuffs offered for sale for human consumption in his area are pure and wholesome. This entails the constant vigilance of the Food and Drugs Inspectors who purchase samples of foodstuffs of every description, and after analysis by the Public Analyst (whose duty is to test for adulteration) appropriate action is taken. In some cases, legal proceedings are instituted; in others, advice is given to the vendor—particularly in regard to milk which proves to be of abnormal composition although genuine—and in other instances the packer or manufacturer is advised of the irregular or technical offence. The laying of informations, service of summonses and the preparation of evidence is carried out by the Food and Drug Staff.

It is satisfactory to note that during the year 1948, out of a total number of 6,140 samples taken or purchased, only 6.5 per cent. were found to be not genuine or otherwise giving rise to irregularity. This comparatively low figure is a tribute to food suppliers and shopkeepers as well as to constant inspection and sampling.

Of the total number of 6,140 samples detailed in Table XV, 1,213 were formal and 4,927 informal. An "informal" sample is one purchased without intimation to the vendor that it is to be analysed. Valuable information as to irregularities may sometimes be obtained in this way. Prosecution for adulteration cannot be undertaken, however, until a "formal" sample has been taken subsequently in accordance with the procedure described in the Food and Drugs Act, 1938. 162 formal samples and 235 informal samples were reported as not being genuine or other-

wise giving rise to irregularity. Legal proceedings were instituted in 85 cases where formal samples were found not to be genuine and, in the remaining instances, appropriate action was taken. The results are summarised in Table XVI.

TABLE XV.

SUMMARY OF SAMPLES TAKEN OR PURCHASED DURING THE YEAR 1948 UNDER
THE FOOD AND DRUGS ACT, 1938.

Nature of Sample.	Number of Samples.		Samples found not to be genuine or otherwise giving rise to irregularity.		Manu- facturers or Vendors cau- tioned.	Prosecu- tions.	Remarks on Sample where Caution was given.
	In- formal.	Formal.	In- formal.	Formal.			
Arrowroot	2	1	—	—	—	—	—
Baking Powder	10	1	—	—	—	—	—
Barley	6	9	1	2	3	—	Contained dead Acas
Bread	6	—	—	—	—	—	—
Beef Suet	5	—	—	—	—	—	—
Beans, Lentils, Peas	2	8	1	1	2	—	Contained dead Acas
Butter	—	20	—	—	—	—	—
Cake and Flour Mixtures	24	1	4	—	—	—	Slightly deficient available carbon oxide.
Candied Peel	1	1	—	—	—	—	—
Cake and Biscuits	19	—	—	—	—	—	—
Cereal foods	4	—	—	—	—	—	—
Cheese	5	—	—	—	—	—	—
Cocoa and Chocolate Mixtures... ..	13	4	—	—	—	—	—
Cooked Meats	4	—	—	—	—	—	—
Coffee, Extracts and Mixtures	30	7	2	—	2	—	Incorrectly labelled
Condensed Milk	7	—	—	—	—	—	—
Confectionery and Sweets	16	—	2	—	2	—	Incorrectly labelled
Condiments and Spices	61	7	3	—	3	—	Contained dead Acas

Nature of Sample.	Number of Samples.		Samples found not to be genuine or otherwise giving rise to irregularity.		Manu- facturers or Vendors cau- tioned.	Prosecu- tions.	Remarks on Sample where Caution was given.
	In- formal.	Formal.	In- formal.	Formal.			
Cornflour	1	—	—	—	—	—	—
Mustard, Blancmange, Junket....	5	—	—	—	—	—	—
Dripping, Lard and Compounds	1	4	—	—	—	—	—
Dried Egg	5	—	—	—	—	—	—
Dried Fruits	6	17	—	—	—	—	—
Dried Herbs	11	1	3	1	4	—	Contained slight excess of sand.
Drugs and Medicines	114	3	7	—	7	—	Did not comply with printed formula.
Flavourings	29	—	2	—	2	—	Incorrectly labelled.
Flour	2	3	—	—	—	—	—
Fruit Pectin	3	—	1	—	1	—	Contained a trace of copper.
Golden Raising Powder ...	7	—	—	—	—	—	—
Gravy Salts and Browning ...	18	1	1	—	1	—	Contained dead Acari.
Gelatine	10	—	—	—	—	—	—
Honey and Mixtures	4	—	—	—	—	—	—
Jam, Marmalade, Mincemeat ...	32	—	2	—	2	—	Slightly deficient in fruit content.
Margarine	1	3	—	—	—	—	—
Mineral Waters	11	—	1	—	—	—	—
Milk	4,160	997	187	148	25	74	Milks mainly slightly deficient in milk fat.
Malted Foods	15	—	1	—	1	—	Incorrectly labelled.
Meat Extracts	4	—	—	—	—	—	—
Oatmeal and Oat Preparations	1	14	—	—	—	—	—
Olive Oil and Salad Oil	11	2	3	1	3	1	Incorrectly labelled.
Preservative	1	1	1	1	—	1	—
Prepared Puddings	14	1	1	—	—	—	—

Nature of Sample.	Number of Samples.		Samples found not to be genuine or otherwise giving rise to irregularity.		Manu- facturers or Vendors cau- tioned.	Prosecu- tions.	Remarks on Sample where Caution was given.
	In- formal.	Formal.	In- formal.	Formal.			
Pickles, Sauces, Chutneys ...	53	—	3	—	—	—	Contained undeclared preservative.
Sago, Semolina, Rice ...	11	29	—	—	—	—	—
Self-raising Flour ...	1	3	—	—	—	—	—
Sugar ...	3	17	—	—	—	—	—
Sausages and Sausage Meat ...	4	12	1	7	1	7	Liver Sausage slightly deficient in Liver.
Syrup and Treacle ...	3	—	—	—	—	—	—
Tea ...	3	28	—	—	—	—	—
Tinned Beans and Soups ...	23	—	—	—	—	—	—
Tinned Fruits ...	17	—	1	—	—	—	Slight metallic contamination.
Tinned Vegetables ...	26	—	2	—	—	—	Slight metallic contamination.
Tinned and Potted Meats ...	14	—	—	—	—	—	—
Tinned and Potted Fish ...	60	—	2	—	—	—	1 contained Soya flour, 1 metallic contamination.
Vinegar ...	23	—	3	—	3	—	Slightly deficient in acetic acid.
Wines and Spirits ...	1	18	—	1	—	1	—
Whalemeat ...	4	—	—	—	—	—	—
TOTAL ...	4,927	1,213	235	162	62	84	

TABLE XVI.

OFFENCES UNDER THE FOOD AND DRUGS ACT, 1938.

Number of Informations laid.	Nature of Sample.	Nature of Offence.	Result of Legal Proceedings.		
			Number of convictions.	Fines.	Costs.
74	Milk	Contained added water...	74	£ s. d. 94 15 0	£ s. d. 84 17 0
6	Beef Sausages ...	Deficient in meat ...	6	19 0 0	6 6 0
1	Pork Sausages ...	Deficient in meat—26%	—	Warranty Summons	Proved. Dismissed
1	Pork Sausages ...	Giving a false warranty in writing in respect of Pork Sausages deficient in meat to the extent of 26% (<i>See sample above</i>). ...	1	10 0 0	1 1 0
1	Liquid Preservative.	Liquid sold as a Milk Preservative which contained 0·92% of Formaldehyde ...	1	2 0 0	1 1 0
1	Olive Oil ...	Contained 30% of Liquid Paraffin ...	1	2 0 0	1 1 0
1	Rum	Contained 40% excess of added water ...	1	5 0 0	1 1 0
85	—		84	132 15 0	95 7 0
				£228 2 0	

Fertilisers and Feeding Stuffs Act, 1926.

During 1948, 63 samples of fertilisers and feeding stuffs were submitted for analysis. It was not necessary to take any legal proceedings. All samples with minor exceptions were found on analysis to conform with the manufacturers' statutory statement.

Pharmacy and Poisons Act, 1933.

The Pharmacy and Poisons Act, 1933, regulates the sale of poisons. It is the duty of the Local Authority to carry out Part II of the Act, which deals with the registration of persons selling poisons mentioned in the Poisons List Confirmation Order, 1935. The number of names entered in the register is 872. It was not necessary to institute any legal proceedings.

Ice Cream.

There is not at present any legal standard for the chemical quality of ice cream and different makes vary considerably in the amount of fat and sugar which they contain.

On May 1st, 1947, the Ice Cream (Heat Treatment, etc.) Regulations became operative. The regulations require *inter alia* that the ingredients of ice cream, other than a complete cold mix, shall be heat treated after being mixed and cooled until the freezing process is begun. A complete cold mix, that is a mixture capable of being manufactured into ice cream with no addition except that of water, need not be heat treated. All other mixtures must be raised to a temperature of not less than 150°F. for 30 minutes or 160°F. for not less than 10 minutes. The mixture must then be cooled to not more than 45°F. with 1½ hours and kept at that temperature until frozen for sale.

Ice cream must be protected from contamination by dust or dirt at all times, and not offered for sale unless it has been kept at or below a temperature of 28° F. If the temperature of the ice cream exceeds 28°F. at any time after it has been heat treated and frozen, then it may not be offered for sale until it has been subjected again to heat treatment.

The premises, plant and utensils of all makers and vendors of ice cream, are regularly inspected and during the year, 4,478 visits were made to ensure cleanliness of methods of manufacture.

In March, 1947, the Medical Research Council in conjunction with the Ministry of Health recommended that the methylene blue test could be adapted for the purpose of defining 4 grades of bacterial cleanliness of ice cream, in the relative degrees of cleanliness, No. 1 being highest standard. Grade 1 is specified where the time taken for complete decolorization of methylene blue takes 4½ hours or more; Grade 2 where time is between 2½-4 hours; Grade 3—½-2 hours; Grade 4—0 hours, i.e., reduction takes place at the end of the pre-incubation period.

During the year, 125 samples of ice cream were taken. The results of examination were as follows:—45 samples qualified for Grade 1; 35 for Grade 2; 22 for Grade 3; 21 for Grade 4.

THE SUPERVISION OF COWSHEDS, DAIRIES AND MILKSHOPS.

Registration of Dairies.

TABLE XVII.
(*Milk and Dairies Order, 1926.*)

Number of registered dairies at the end of 1947.	New applications for registration.	Registration refused.	Dairies removed from the register.	Number of registered dairies at the end of 1948.
509	1	—	21	489

(17 dairies were transferred from one owner to another.)

Inspection of Dairies.

2,620 visits of inspection were paid to dairies. In 9 instances infringements of the Milk and Dairies Order, 1926, were found. In every case the notice of requirements was complied with at once.

Registration of Dairymen.

TABLE XVIII.

Number of registered dairymen at the end of 1947.	Applications for transfer of registration.	Applications refused.	Ceased to be dairymen.	Remaining on the register, Dec. 31st, 1948.
515	17	—	21	495

Of the 495 dairymen on the register at the end of the year, 6 were milk-hawkers who, having no premises of their own, are registered at the dairy from which they obtain their supplies and store their utensils.

Cleanliness of Milk Churns and Bottles.

Observations were made at railway stations and other distributing centres to ensure that Sections 28 and 29 of the Milk and Dairies Order, 1926, relating to the marking, construction and cleanliness of milk churns, were complied with. 3 notices were sent to farmers outside the city drawing their attention to defects in milk churns. In each case the defects were remedied.

It is satisfactory to record that during the past year, only 3 complaints have been received from consumers, of milk being delivered in dirty bottles. In each case, the matter was investigated and effective steps taken to prevent a recurrence.

Licensing of Places for Keeping Cattle.

Under Sections 475 to 483 of the Liverpool Corporation Act, 1921, every person who keeps cattle is required to hold a licence from the Corporation both in respect of himself and also in respect of the premises. In Table XIX is a summary of the register of licences in respect of milch cows and pigs.

TABLE XIX.

LICENSING OF PREMISES ON WHICH MILCH COWS ARE KEPT.

	End of 1947.	End of 1948.
Number of licensed cowsheds	129	123
Number of cows specified on the licences	2,579	2,448
Approximate average number of cows kept ...	1,798	1,749

(3 licences were transferred from one person to another.)

767 visits of inspection were paid to cowsheds. 12 of the cowsheds visited were the subject of notices drawing the attention of the occupiers to contraventions of the Liverpool Corporation Act, 1921. All the notices were complied with, and no prosecutions were necessary nor was any licence forfeited because premises were not properly kept.

TABLE XX.

LICENSING OF PREMISES ON WHICH PIGS ARE KEPT.

	End of 1948.
Number of licensed piggeries	92
Number of pigs specified on the licences	3,514
Approximate average number of pigs kept	1,250

Ten new licences to keep pigs were applied for, involving the keeping of 93 pigs. These applications were granted. 6 licences were surrendered. 277 visits of inspection to piggeries were made, 10 piggeries visited were the subject of notices drawing the attention of the occupiers to contraventions of the Liverpool Corporation Act, 1921, and in every case the notice was complied with. In farms situated in the outer districts of the city, premises licensed for the keeping of milch cows may be also used for keeping store cattle. At the end of 1948 456 store cattle were kept on licensed premises.

Daily Supply of Milk to Liverpool.

TABLE XXI.

DAILY CONSUMPTION OF MILK DURING 1948.

Grade of Milk.	Quantity in Gallons.
Tuberculin-tested (Certified)	153
Tuberculin-tested	1,092
Tuberculin-tested (Pasteurised)	12,230
Accredited	4,226
Raw ungraded	1,021
Pasteurised under licence	43,047
Heat-treated to pasteurisation standard	330
Sterilized	13,379
TOTAL ...	75,478

The relative quantities of milk produced within the city or brought into the city by road or by rail are as follows:—

TABLE XXII

DAILY SOURCE OF MILK DURING 1948.

Produced from cows kept within the City.	Brought into the City by road.	Brought into the City by rail.
5,247 gallons	69,791 gallons	440 gallons

TOTAL, 75,478 gallons.

TABLE XXIII

NUMBER OF PRODUCERS AND VENDORS OF MILK LICENSED UNDER THE MILK
(SPECIAL DESIGNATIONS) REGULATIONS 1936/46.

Nature of licence	Tuberculin Tested (Certified) Milk.	Tuberculin Tested Milk	Tuberculin Tested (Pasteurised) Milk.	Accredited Milk.	Pasteurised Milk.
Producer only ...	0	4	0	34	0
Producer and retail vendor ...	1	0	5	25	10
Retail vendor only ...	1	13	181	0	0

The following changes in licence-holders took place, namely: 3 new licenses were granted to bottlers of Tuberculin Tested milk. 14 new licences were granted to vendors of Tuberculin Tested (Pasteurised) Milk. The licence of one produce-retailer of "Accredited" milk was not renewed. 1 new licence was granted to a producer-retailer of "Accredited" milk.

During 1948 64 visits were made to Pasteurising establishments during the pasteurisation of milk. Temperatures on recording instruments were checked and in 6 instances the instruments required adjustment. In each case this was done and upon re-examination the plant was found to be operating correctly.

AMBULANCE SERVICE.

The introduction of the National Health Service Act on the 5th July, 1948, brought several changes into the control and operation of the City Ambulance Service when all forms of ambulance transport became the responsibility of the Public Health Department.

Prior to this date, the Department was responsible for General and Infectious Ambulance work, whilst the City Police carried out all Accident removals.

On the appointed day, the ambulances and staff were taken over from the Police Department and have since been operated by the Health Department. The ambulances are, as yet, housed at Police Stations but will eventually be moved to other premises.

Prior to the 5th July very few requests were made for transport outside the City boundary and it is interesting to record that for the remainder of the year 308 such cases were dealt with by the Ambulance Service.

303 cases were conveyed on behalf of the Emergency Medical Service from the 1st January to the 4th July, 1948. The vehicles travelled 19,552 miles and consumed 1,365 gallons of petrol.

The ambulances belonging to the Merseyside Hospitals Council have rendered valuable service to the City and since the appointed day they have been operating on behalf of the Corporation on an agency basis.

It is noteworthy that Liverpool being a large hospital centre, together with the fact that it is also a great seaport, has resulted in extremely heavy demands being made on the Ambulance Service.

AMBULANCE STATISTICAL REPORT.

1st January, 1948 to 31st December, 1948.

Non-infectious cases removed from :—					
Home to Hospital	}	...	...	...	35,410
Hospital to Home					
Infectious cases removed from :—					
Home to Hospital	...	...	...	...	4,706
Mental cases removed from :—					
Home to Hospital	...	...	...	...	211
Accident cases removed from :—					
Home, Streets, etc. to Hospital	...	...	...	...	3,217
					2,942
					1/1/48 to 4/7/48, by City Police.
					5/7/48 to 31/12/48, by City Ambulance Service.
Inter-Hospital Transfers	...	...	...	...	7,169
Removals to places outside the City	...	...	...	...	308
TOTAL	...	...	...	...	53,963

CASES REQUIRING THE SERVICE OF AMBULANCE SISTERS—:8,148.

VEHICLES

Ambulances.	Number in Service.	Mileage covered.	Petrol used (gallons).
Non-infectious	25	370,846	27,039
Infectious	8	51,955	4,870
Accident	9	19,460	2,455
Sitting case cars	8	55,217	3,266
Brakes... ..	3	25,449	1,586
TOTALS	43	522,927	39,216

These totals are exclusive of Police mileage.

DISINFECTION AND DISINFESTATION.

The staff of the Disinfection and Disinfestation Section is engaged primarily on duties concerned with the prevention of disease, and the disinfestation of verminous premises, but a number of other duties for which the section is responsible are detailed below :—

INSPECTIONS FOR VERMIN.

During the year the Disinfecting Inspectors made 8,402 visits to dwelling-houses to inspect for vermin. The reasons for their visits and the results of their inspections are given in the following table :—

Reason.							Verminous	Not Verminous
Transfer	...	...	...	...	...	...	116	1,150
Exchange	...	...	...	...	...	...	81	1,740
Re-housing	...	...	...	...	...	...	2,069	2,322
Other Inspections	...	...	...	...	...	...	231	693
TOTALS							2,497	5,905

TREATMENT OF VERMINOUS PREMISES.

In consequence of the Disinfecting Inspectors' visits, 1,570 dwelling-houses were disinfested. Of this number 168 were treated with a D.D.T. solution and 1,402 with GAMMEXANE solution.

In 50 cases, where re-housing was intended, the furniture which it was proposed to remove was treated with D.D.T. solution. This system has now superseded the method whereby free removal of furniture for cyanide treatment was arranged for new tenants of Corporation properties.

TREATMENT OF VERMINOUS BEDDING.

In connection with the disinfestation of verminous premises it was found necessary to remove verminous bedding from 1,692 dwelling-houses for steam disinfestation. 25,843 articles from these premises were treated at the disinfecting stations.

In addition, the disinfecting stations carry out precautionary disinfection of various articles for local firms, who defray the cost of such disinfection. The number of articles dealt with in this manner was 277,102.

DISINFECTION.

3,020 infectious premises were disinfected during the year and 31,812 infectious articles removed for steam disinfection.

FLY PREVENTION.

Fly prevention measures were continued by 5,979 treatments of manure middensteads and dumps.

CITY MORTUARY.

The City Mortuary received 385 bodies during the year, 18 from the river and 367 from the City. Post-mortem examinations were held on 351 of these bodies.

BURIAL OF POOR PERSONS.

The burial or cremation of the bodies of poor persons who died in the City, is a duty which has been undertaken since the 5th July, 1948. Since that date the burials of 158 adults and children and 126 still-born babies have been carried out.

GIFT FOOD PARCELS.

The storage, transport and distribution of gift food parcels are undertaken by this section, and since 5th July, 1948, approximately 45 tons of foodstuffs have been distributed from the main depot at Gascoyne Street.

OTHER DUTIES.

The transport of stores and equipment for the Midwifery and Child Welfare Centres is carried out by this section. In addition, the following work is undertaken on behalf of the Welfare Service Section:—The collection and transport of furniture and household effects of distressed persons, and the services associated with the transport and feeding of repatriated persons coming into Liverpool.

SMOKE ABATEMENT.

Industrial Smoke.

The work of smoke abatement in this connection was discontinued during the war as a national policy and, owing to fuel supply problems and the recruitment of new staff, this section of the department has been operating under difficulties. The staff problem has now been overcome and there is some improvement in the supply of suitable fuel to industry, in consequence of which systematic observations of chimneys have been resumed.

Visits to premises revealed that the causes of excessive smoke were chiefly due to careless firing or lack of knowledge on the part of the furnace operator; re-conversion from mechanical stoking to hand firing because of unsuitable fuel supplies; insufficient supply of suitable fuel; and structural defects. There were also a number of cases of overloaded boiler plant.

It is to be expected that with the trend towards normal conditions in commerce and industry there will be a certain amount of plant alteration and improvement. Some of this is suggested by the following statistics:—

Number of visits to works, etc. ...	...	...	...	...	584
„ „ complaints dealt with ...	...	...	...	...	40
„ „ chimneys increased in height ...	...	...	...	...	13
„ „ other improvements to plant ...	...	...	...	...	6

No statutory action was taken during 1948 in connection with excessive smoke from steamers or from industrial premises.

Domestic Smoke.

This is estimated to cause approximately 50 per cent. of the total amount of atmospheric pollution. One of the most offensive and unpleasant of smoke nuisances arises from the wilful or neglectful firing of dirty chimney flues. Coal-fired domestic chimneys should be swept regu-

larly one or twice a year in order to prevent the soot from being set on fire. Prosecutions for this class of offence are carried out by the Police. The number of such prosecutions for the year was 401.

The increased use of gas and electricity and the provision of smokeless firegrates and appliances in new houses now recommended by the Ministry of Health is reducing the smoke nuisance from domestic chimneys to some extent, but the problem cannot satisfactorily be solved so long as existing bituminous coal-burning fireplaces are maintained in use and the supply of solid smokeless fuel is restricted.

If there is to be an appreciable reduction of domestic smoke pollution, there must be an abundant supply of smokeless fuels at reasonable cost, and the public will have to be educated in the use and advantages of such fuels. An example of the manner in which atmospheric pollution is caused is to be seen at any "pre-fab" bungalow estate where the smokeless fuel heating stoves which have been fitted are burning soft bituminous coal and creating a smoke cloud as low as fourteen feet.

Rationing of house coal has reduced the pre-war consumption in Liverpool of approximately 19,000 tons per week in winter by one half. During the year some 9,700 tons of bituminous coal was used per week in Liverpool and because of this there was a considerable reduction in the amount of pollution, particularly in built-up areas, compared with pre-war figures. It is to be expected, however, that when unrestricted fuel supplies are once more available, there will be a considerable increase of atmospheric pollution.

Another factor in the reduction of pollution was the increased use of gas and electricity for domestic purposes, some 6,749 million cubic feet of gas being consumed in 1948 compared with 4,253 million cubic feet in 1938, and of a total of 194,075 houses in the City, approximately 40,000 are using electricity for cooking, whilst many others employ this form of power for heating.

Smokeless Zones.

The possibility of the formation of a small smokeless zone in the centre of the City, with the object of forming a clean atmospheric core which ultimately may be developed into a completely smokeless city has not been overlooked.

Lectures on Smoke Abatement and Fuel Economy.

Lectures designed for works managers, engineers, boiler operatives and others, in the scientific use of fuels contribute materially to the solution of the industrial smoke problem. A course of evening lectures was arranged for the winter session and some 20 students enrolled.

West Lancashire and Cheshire Regional Smoke Abatement Committee.

The activities of this Committee during the year have been maintained and an Executive Committee meeting and the Annual Conference were held. The Executive Committee were guests of the Institute of Fuel when a paper on District Heating was read.

The Committee is composed of representatives of the following Authorities:—Liverpool, Birkenhead, Bootle, Wallasey, St. Helens, Widnes, Preston, Bebington, Crosby, Lancashire County, the Urban District Councils of Huyton with Roby, Neston, Ormskirk, Prescot and the Rural District Councils of West Lancashire and Whiston.

Atmospheric Pollution.

Measurements of suspended and deposited impurities in the atmosphere have been carried out as formerly by means of three standard deposit gauges which are maintained by the Corporation. These gauges are situated at Netherfield Road, Oxford Street, and Aigburth Vale, and record the amount of suspended impurities which are either deposited or carried down by the rainfall.

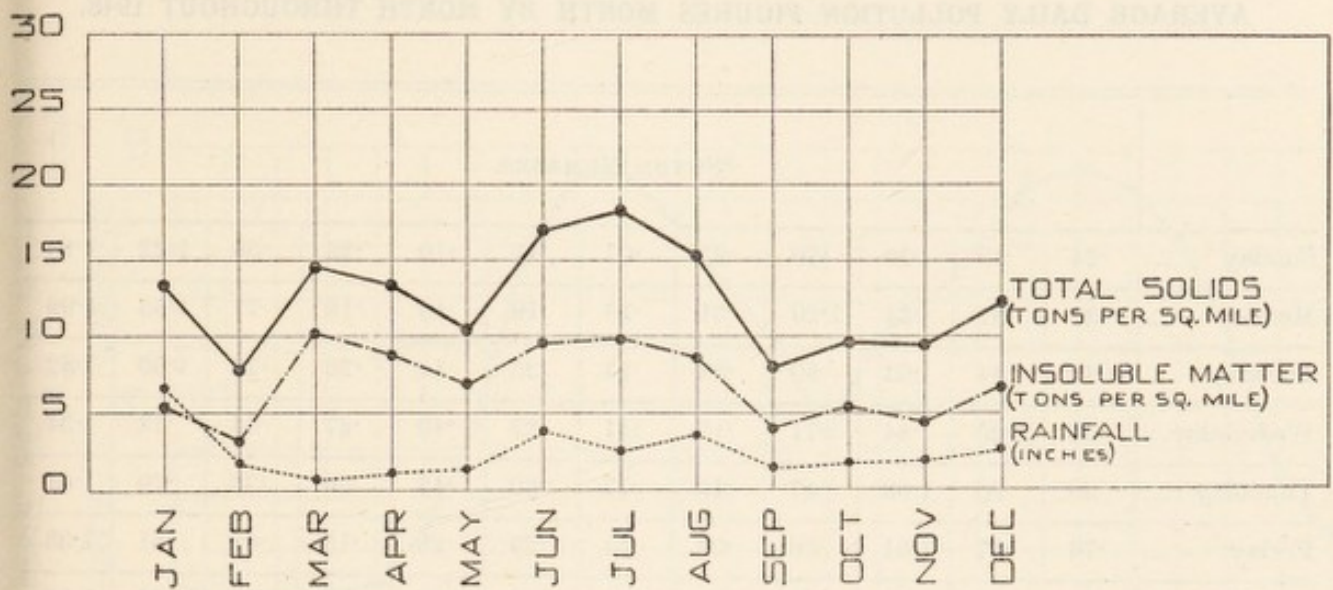
Netherfield Road gauge gives a general indication of conditions in a thickly populated and industrial area; the Oxford Street gauge indicates average City Centre conditions, and the Aigburth Vale gauge shows conditions in a residential area with large open spaces, subject to drifting pollution from other areas.

The extent of atmospheric pollution as recorded by these gauges is indicated by figures of total solids deposited on the surface and the amount of undissolved mineral matter such as grit from chimneys etc., and is shown in the following table and graphs:—

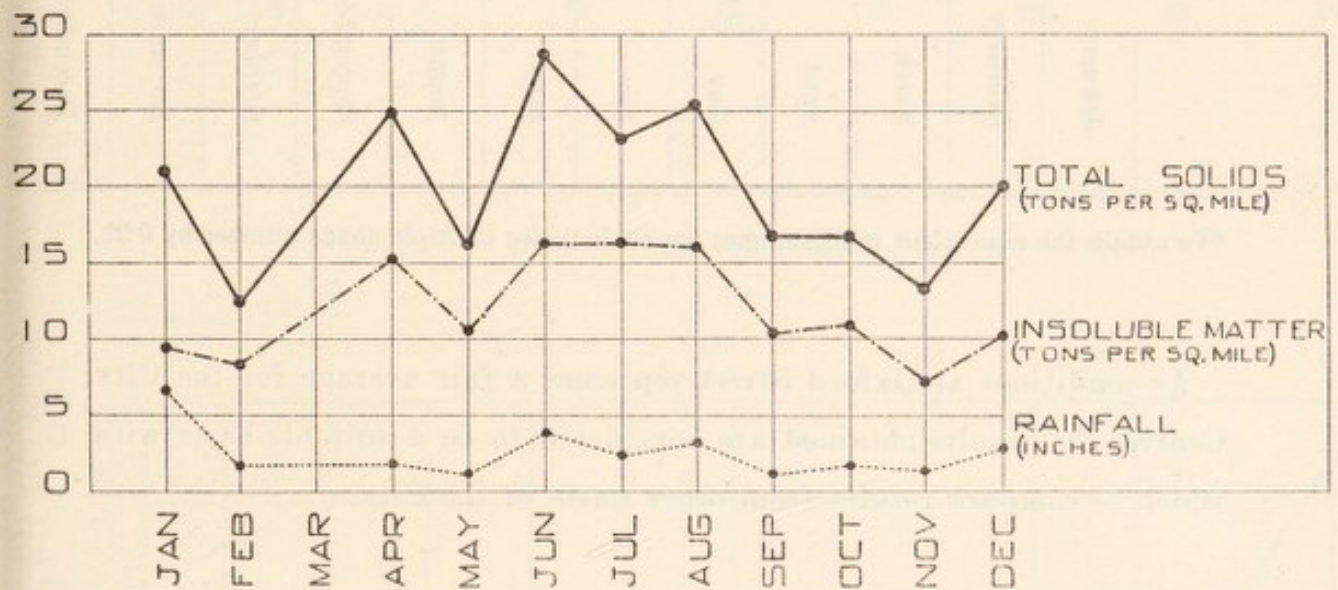
RESULTS FOR STANDARD DEPOSIT GAUGES.

	AIGBURTH VALE.				OXFORD STREET.				NETHERFIELD ROAD.			
	Rainfall in ins.	Insoluble matter in tons/sq. mi.	Total Solids tons/sq. mi.	Rainfall in ins.	Insoluble matter in tons/sq. mi.	Total Solids tons/sq. mi.	Rainfall in ins.	Insoluble matter in tons/sq. mi.	Total Solids tons/sq. mi.	Rainfall in ins.	Insoluble matter in tons/sq. mi.	Total Solids tons/sq. mi.
1948												
January ...	6.52	5.33	13.35	6.7	9.61	21.03	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
February ...	1.85	3.38	7.98	1.85	8.62	12.64	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
March ...	0.71	10.13	14.69	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
April ...	1.18	8.75	13.61	1.85	15.30	24.91	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
May ...	1.26	6.94	10.29	1.30	10.65	16.10	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
June ...	3.90	9.69	17.13	3.97	16.56	27.95	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
July ...	2.67	9.99	18.50	2.44	16.56	23.58	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
August ...	3.62	8.69	15.45	3.38	16.21	25.46	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
September ...	1.48	3.99	8.18	1.48	10.38	16.91	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
October ...	1.85	5.63	9.79	1.94	10.96	16.69	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
November ...	1.94	4.39	9.55	1.65	7.26	13.58	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
December ...	2.79	6.94	12.57	2.95	10.17	20.16	3.27	18.05	31.65	3.27	18.05	31.65
TOTAL	29.77	83.85	151.09	29.51	132.28	219.01	—	—	—	—	—	—
Average Monthly ...	2.48	6.99	12.59	2.68	12.02	19.9	—	—	—	—	—	—

AIGBURTH VALE



OXFORD STREET



Suspended impurities are measured by means of an Owen's Automatic Air Filter which operates by drawing two litres of air at regular intervals through a disc of white filter paper. The impurities thereby trapped form a smudge on the filter paper and the intensity of the smudges is checked against readings from a shade standard known as shade numbers, and the amount of suspended impurities is then calculated. During 1948, readings were taken by this Automatic Air Filter near the Oxford Street deposit gauge and are as follows:—

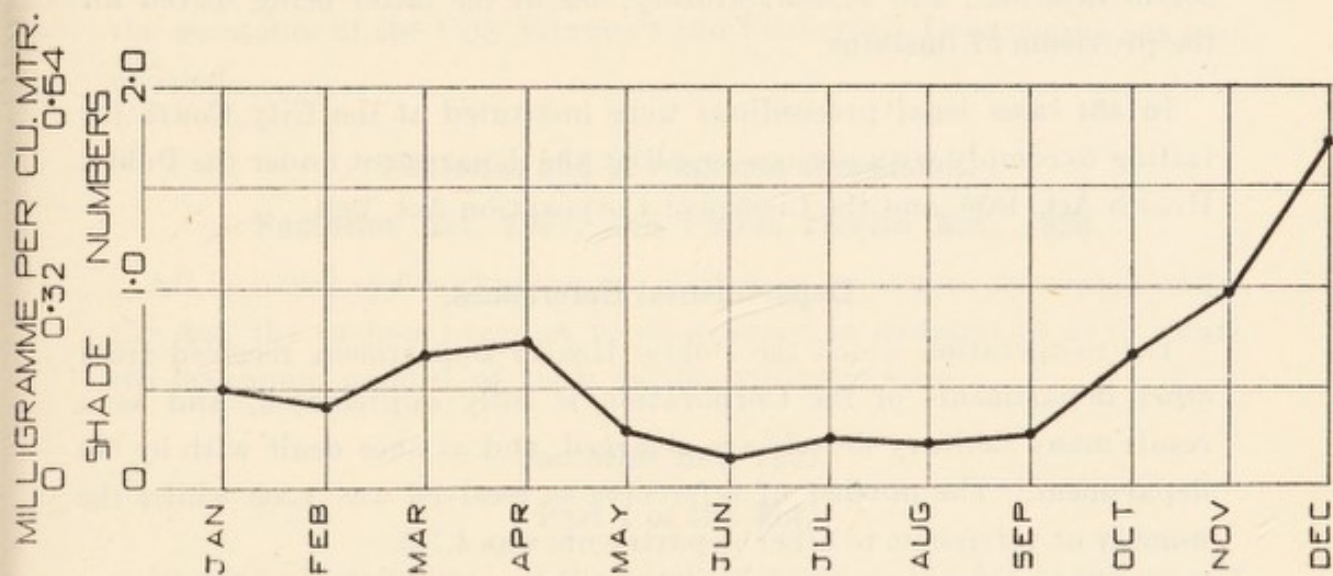
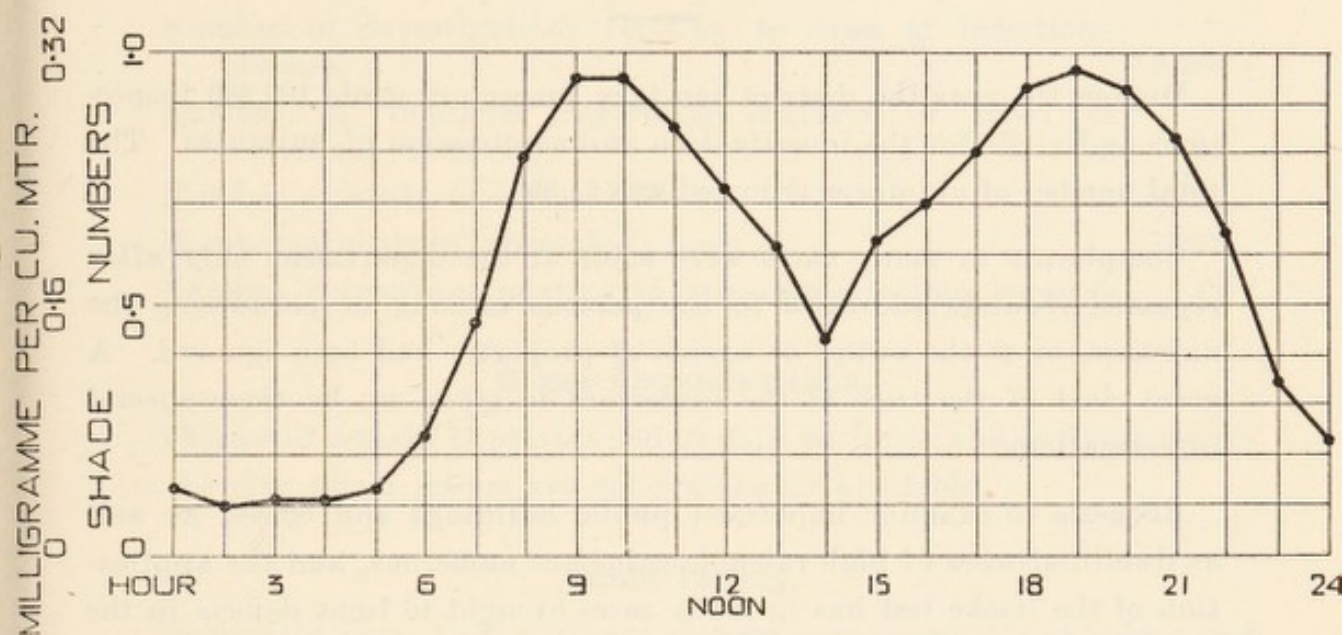
AVERAGE DAILY POLLUTION FIGURES MONTH BY MONTH THROUGHOUT 1948.

	*SHADE NUMBERS.											
Sunday ...	·24	·40	·29	·70	·25	·07	·17	·10	·29	·58	1·22	1·84
Monday ...	·38	·37	·34	1·20	·31	·15	·19	·15	·19	·77	1·55	1·99
Tuesday ...	·30	·44	·63	·80	·23	·13	·35	·14	·26	·76	1·09	1·82
Wednesday...	·54	·25	·84	·71	·15	·17	·27	·49	·27	·64	·73	1·31
Thursday ...	·69	·60	1·08	·47	·15	·17	·20	·13	·29	·70	·79	1·61
Friday ...	·76	·57	1·01	·58	·32	·14	·29	·28	·15	·61	·81	1·93
Saturday ...	·57	·62	·78	·67	·55	·06	·19	·22	·35	·65	·63	1·56
	January	February	March	April	May	June	July	August	September	October	November	December

*To obtain the equivalent milligrammes per cubic metre multiply shade number by 0·32.

As conditions at Oxford Street represent a fair average for the City Centre, the results obtained are considered to be a suitable basis with which to compare results from other parts of the City.

The following graphs show the average variation of suspended pollution hour by hour throughout the day and the average variation month by month throughout the year. They indicate clearly the daily increase and decrease as domestic and other fires are stoked up for mid-day and evening meals as well as the increase in pollution during the colder months when domestic and other heating is put on.



SANITARY ADMINISTRATION.

During the year the district sanitary inspectors made 189,280 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 71,896.

Complaints in many cases were made at the department only after repeated requests addressed to the persons causing or permitting the nuisance, or to the owner or agents of property, had been ignored. A great deal of the time of the inspectors is taken up by these special investigations.

Requests to examine important public buildings and offices, as well as dwellinghouses of high rateable value are numerous, and the application of the smoke test has in many cases brought to light defects in the drainage system of such premises.

During the year 36,188 complaints of nuisances were received as compared with 47,731 the previous year.

The number of notices served for the abatement of nuisances was 28,916 informal, and 24,885 statutory, 482 of the latter being served for the provision of dustbins.

In 434 cases legal proceedings were instituted at the City Court for failing to comply with notices served by the department under the Public Health Act, 1936, and the Liverpool Corporation Act, 1921.

Departmental References.

The co-operation which the Public Health Department received from other departments of the Corporation is fully appreciated, and as a result many sanitary defects are observed, and at once dealt with by the department. The number of references so received was 5,303 whilst the number of references to other departments was 4,745.

Infected Houses.

The following table shows the number of houses visited where notifiable infectious diseases have occurred, with the number of visits

made by sanitary inspectors to these houses, and to houses where cases of non-notifiable infectious diseases have been reported to the Health Department by the Education Department:—

Number of investigations relating to cases of infectious disease	...	...	...	...	...	...	...	8,208
Number of inquiries regarding contacts of cases of infectious disease	...	...	...	...	...	...	...	66
Number of visits to infected houses	...	...	...	...	...	...	...	8,859
Number of visits to tuberculosis cases	...	...	...	...	...	...	...	1,271
Number of inquiries relating to suspected smallpox contacts								43

Closet Accommodation.

There still remain 87 privies and 69 pails on farms and outlying houses in the city where sewers are not reasonably available.

Drain Testing.

During the year, 1,430 drainage systems were tested, 174 by colour test of which 62 were positive and 112 negative, 388 by smoke rocket test, 187 were positive and 201 negative, 868 by smoke machine test of which 412 were positive and 456 negative. Where defects have been revealed by these tests, repairs have been carried out. In the case of tests of large buildings and offices, as well as dwellinghouses of higher rateable value, the assistance of the City Engineer and Surveyor's Department has been utilised.

Factories and Workplaces Inspection.

Factories Act, 1937, and Public Health Act, 1936.

All factories and workplaces are visited by inspectors appointed under the Act, the various premises being grouped in districts so as to secure the maximum number of visits in the minimum time.

Factories Act, 1937.

Part 1 of the Act.

Prescribed particulars on the administration of the Act at the request of the Ministry of Labour and National Service. (Form 572 revised.)

1. INSPECTIONS for purposes of provisions as to health (including inspections made by Sanitary Inspectors).

Premises. (1)	M/c. Line No. (2)	Number on Register. (3)	Inspection. (4)	Written Notices. (5)	Occupiers prosecuted. (6)	M/c. Line No. (7)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	1	2,644	1,870	172	—	1
(ii) Factories not included in (i) in which Section 7 is enforced by Local Authority	2	2,493	5,077	282	—	2
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers premises) ...	3	18	63	2	—	3
TOTAL ...		5,155	7,010	456	—	

2. Cases in which DEFECTS were found.

Particulars. (1)	M/c. Line No. (2)	Number of Cases in which Defects were found.				Number of Cases in which Prosecu- tions were instituted. (7)	M/c. Line No. (8)
		Found. (3)	Remedied. (4)	To H.M. Inspector. (5)	Referred By H.M. Inspector. (6)		
Want of cleanliness (S.1)	4	39	36	7	17	—	4
Overcrowding (S.2) ...	5	3	3	4	—	—	5
Unreasonable temperature (S.3)	6	11	11	7	3	—	6
Inadequate ventilation (S.4)	7	2	2	—	1	—	7
Ineffective drainage of floors (S.6)	8	1	1	—	—	—	8
Sanitary Conveniences (S.7)—							
(a) Insufficient ...	9	29	26	—	8	—	9
(b) Unsuitable or defective ...	10	267	252	—	29	—	10
(c) Not separate for sexes	11	13	12	—	3	—	11
Other offences against the Act (not including offences relating to outwork)	12	232	230	35	9	—	12
TOTAL ...	60	597	573	53	70	—	60

Part VIII of the Act.

Outwork.

(Sections 110 and 111)

Nature of Work.	M/c. Line No.	No. of out- workers in August list required by Section 110(1)(c).	No. of cases of default in sending lists to the Council.	No. of prosecu- tions for failure to supply lists.	Section III.		Prosecu- tions.	M/c. Line No.
					No. of instances of work in unwhole- some premises.	Notices served.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Wearing apparel—								
Making, etc.	13	134	—	—	—	—	—	13
Cleaning and washing	14	—	—	—	—	—	—	14
Household linen	15	—	—	—	—	—	—	15
Lace, lace curtains and nets	16	—	—	—	—	—	—	16
Curtains and furniture hangings	17	—	—	—	—	—	—	17
Furniture and upholstery	18	—	—	—	—	—	—	18
Electro-plate	19	—	—	—	—	—	—	19
File making	20	—	—	—	—	—	—	20
Brass and brass articles	21	—	—	—	—	—	—	21
Fur pulling	22	—	—	—	—	—	—	22
Iron and steel cables and chains	23	—	—	—	—	—	—	23
Iron and steel anchors and grapnels	24	—	—	—	—	—	—	24
Cart gear	25	—	—	—	—	—	—	25
Locks, latches and keys	26	—	—	—	—	—	—	26
Umbrellas, etc.	27	—	—	—	—	—	—	27
Artificial flowers	28	—	—	—	—	—	—	28
Nets, other than wire nets	29	—	—	—	—	—	—	29
Tents	30	—	—	—	—	—	—	30
Sacks	31	—	—	—	—	—	—	31
Racquet and tennis balls	32	—	—	—	—	—	—	32
Paper bags	33	—	—	—	—	—	—	33
The making of boxes or other re- ceptacles or parts thereof made wholly or partially of paper	34	—	—	—	—	—	—	34
Brush making	35	—	—	—	—	—	—	35
Pea picking	36	—	—	—	—	—	—	36
Feather sorting	37	—	—	—	—	—	—	37
Carding, etc., of buttons, etc.	38	—	—	—	—	—	—	38
Stuffed toys	39	—	—	—	—	—	—	39
Basket making	40	—	—	—	—	—	—	40
Chocolates and sweetmeats	41	—	—	—	—	—	—	41
Cosaques, Christmas crackers, Christmas stockings, etc.	42	—	—	—	—	—	—	42
Textile weaving	43	—	—	—	—	—	—	43
Lampshades	44	—	—	—	—	—	—	44
TOTAL ...	70	134	—	—	—	—	—	70

Outworkers, Sections 110 and 111.

In accordance with the provisions of the Act, outworkers returns are received twice yearly, and the premises referred to in the returns are visited to ascertain whether work is carried on in any place which is in the opinion of the Local Authority injurious or dangerous to the health of the persons employed therein:—

The following statement shows the work undertaken during the year:—

Employers failing to keep list	Nil
Notices served for failing to keep or send list	Nil
Prosecutions for failing to send in list	Nil
Number of outworkers returns received	134
Number of returns referred to M.O.H. of districts outside City	70
Number of visits to premises	179
Number of instances of employment in unwholesome premises...	Nil
Number of notices served	Nil

Register of Workplaces (including Offices).

The number of workplaces on the register was 3,345. 1,705 visits were made to workplaces, and 2,643 in respect of offices. There were 332 defects, 292 of which were unsuitable or defective sanitary conveniences, 38 inadequate ventilation, and the remainder want of cleanliness, the defects not remedied at the end of the year being 38.

Rag Flock Acts, 1911 and 1928.

There is one factory in which rag flock is manufactured in this City, three visits have been made and four samples of rag flock have been taken, which were in accordance with the standard of cleanliness required by the rag flock regulations.

Sixteen visits have been made to premises where rag flock was used, 27 samples were taken.

The reports of the City Analyst on the 27 samples of rag flock submitted for analysis used in upholstery and bedding were as follows:—

2 contained under 5 parts of chlorine per 100,000 parts of flock.					
8	„	5 and under 10 parts of chlorine per 100,000 of flock.			
10	„	10	„	15	„
4	„	15	„	20	„
1	„	20	„	24	„
1	„	65 parts of chlorine per 100,000 parts of flock.			
1	„	102	„	„	„

In two cases the offenders were cautioned for using rag flock not in accordance with the requirements of the Act.

Bakehouses.

The number of bakehouses in use at the end of the year was 321 of which 32 were basement bakehouses.

In accordance with the provisions of the Factories Act, 1937, Section 54, which requires each district council to carry out a quinquennial examination of basement bakehouses in respect of which Certificates of Suitability had been issued by the Council on examination of all such bakehouses, a Report was submitted to the Health Committee in December.

During the year 1,249 visits were made and 94 statutory notices issued.*

Food and Drugs Act, 1938. Section 13, (1).

Bakehouses.	Defects.	
	Reported.	Remedied.
(a) Sanitary conveniences, dustbin, etc., within or communicating direct	2	2
(b) Drain inlet within the room	1	1
(c) Preparation rooms	36	28
(Walls, ceilings, floors, windows and doors in disrepair).		
Store rooms	8	6
(Walls, ceilings, floors, windows and doors in disrepair).		
(d) Preparation rooms	50	50
(Walls, ceilings, doors, windows require cleansing).		
Store rooms	31	31
(Walls, ceilings, doors, windows require cleansing).		
(e) Room used as sleeping apartment, etc.	—	—
(f) Preparation rooms	2	2
(Ventilation inadequate or not maintained).		
Store rooms	1	1
(Ventilation inadequate or not maintained.)		
(g) Accumulation of filth or refuse in the room	4	4
Floor not kept in a clean condition	1	1
(h) Cleanliness of persons employed in rooms not observed	5	5
Cleanliness of articles, utensils and apparatus not observed	2	2
(i) Supply of soap and towels insufficient or not provided... ..	11	11
Suitable washing basins not provided	2	2
<i>Sub-Section 2.</i>		
(b) Failure to prevent risk of contamination of food	8	8
TOTAL ...	164	154

Bread Vans.

Vehicles in which bread is conveyed are inspected with regard to cleanliness, at bakehouses, unloading at retail shops, and during the course of delivery to customers, resulting in a marked improvement in the standard of cleanliness due to the action of the Inspectors and the co-operation of manufacturers, but the desired standard with regard to the transport of bread is attained with difficulty owing to the number of worn out vehicles in use.

The delivery of new bread vans to bakers and bread distributors from the manufacturers is still unequal to the demand for these vehicles. A large number of vans however have been rebuilt and many have been lined throughout with non-corrodible metal so as to facilitate thorough and easy cleansing.

No. of bread vans inspected	...	...	...	...	...	345
No. of bread vans found dirty	...	...	...	...	...	9
No. of dirty vans reinspected and found clean	...	...	...	...	...	9

Catering Establishments.

During the year 3,068 visits were made to 438 catering establishments which include, cafes restaurants, snack bars, and industrial canteens. The rate of progress made during the previous year in improving the structural and hygienic standard of this class of premises has been maintained. Particular attention was paid by the Inspectors to the standard of personal cleanliness practised by food handlers and to the effectiveness of the methods of cleansing, eating and drinking utensils, and appropriate advice was given to the persons concerned in cases where it was considered necessary.

Number of occasions in which restaurants and cafes were found						
incorrect	...	...	...	...	...	159
Notices issued—Public Health Act, 1936: To owner						73
To occupier...						114
Notices issued—Food and Drugs Act, 1938: To owner						74
To occupier...						94
						168

Restaurants and Cafes.	Defects.	
	Reported.	Remedied.
<i>Food and Drugs Act, 1938, Section 13.</i>		
(a) Sanitary conveniences, dustbin, etc., within or communicating direct	7	4
(b) Drain inlet within or communicating direct	4	4
(c) Dining rooms	33	15
(Walls, ceilings, floors, etc., in disrepair).		
Kitchen	145	105
(Walls, ceilings, floors, etc., in disrepair).		
Food store	64	55
(Walls, ceilings, floors, etc., in disrepair.)		
(d) Dining rooms	57	42
(Walls, ceilings, windows, etc., require cleansing.)		
Kitchen	149	95
(Walls, ceilings, windows, etc., require cleansing.)		
Food store	51	45
(Walls, ceilings, windows, etc., require cleansing.)		
(e) Room used as a sleeping apartment or communicating direct...	1	1
(f) Dining room	9	8
(Ventilation not provided and maintained.)		
Kitchen	27	17
(Ventilation not provided and maintained.)		
Food store	23	9
(Ventilation not provided and maintained.)		
(g) Accumulation of refuse or filth within the rooms	17	12
Floors not kept in a clean condition	17	12
(h) Cleanliness of persons employed in rooms not observed	—	—
Cleanliness of articles, utensils and apparatus not observed	8	4
(i) Suitable and sufficient washing facilities not provided... ..	27	25
Supply of soap and towels insufficient or not provided... ..	2	1
Supply of hot and cold water insufficient or not provided	44	40
<i>Sub-Section 2 (b).</i>		
Failure to prevent risk of contamination of food	25	21
Cutlery, crockery and other accessories, cleanliness not observed... ..	4	4
Equipment defective, worn, requiring repair or renewal	55	38
Swill bin accommodation unsatisfactory	9	7
Storage of food ; inadequate, unsatisfactory accommodation	21	18
Handling of food ; unsatisfactory methods used	7	7
<i>Public Health Act, 1936, Section 89.</i>		
(Sanitary accommodation.)		
Not provided for males	6	2
Insufficient for males	2	2
Not provided for females	6	5
Insufficient for females	1	1
Separate means of approach not provided	2	1
Screens, doors, fasteners, etc., defective or not provided	13	10
Lighting inadequate	3	—
Ventilation—		
Inadequate	8	6
Absence of intervening space	9	5
Floors, basins, seats, walls, etc., dirty or defective... ..	56	46
Flush to water closets defective or inadequate	8	6
Urinals—		
Defective, insanitary	2	1
Absence of or insufficient flush thereto	3	3
TOTAL	825	677

Licensed Premises.

2,671 visits were made to 696 licensed premises during the year, and it was found that a good standard of cleanliness had been maintained both with regard to the storage and sale of intoxicating liquor and the personnel employed.

The current restriction of building labour and materials has delayed many necessary improvements and repairs of a structural character in these premises, particularly with respect to inadequate sanitary accommodation for persons frequenting, which is unsatisfactory in 313 cases, as follows:—

Insufficient for males	...	...	...	2
Not provided for females	...	...	...	311

Appropriate notices were issued in cases where the undermentioned defects were observed:—

Licensed Premises.	Defects.	
	Reported.	Remedied.
<i>Food and Drugs Act, 1938. Section 13 (1).</i>		
(a) Sanitary conveniences, dustbin, etc., within or communicating direct	5	5
(b) Drain inlet within or communicating direct	3	1
(c) Bars and Parlours	29	28
(Walls, ceilings, floors, etc., in disrepair.)		
Beer cellars...	58	43
(Walls, ceilings, floors, etc., in disrepair.)		
(d) Bars and parlours	105	86
(Walls, ceilings, windows, etc., require cleansing.)		
Beer cellars...	125	106
(Walls, ceilings, windows, etc., require cleansing.)		
(e) Room used as a sleeping apartment or communicating direct...	—	—
(f) Bars and parlours	2	1
(Ventilation not provided and maintained.)		
Beer cellars...	8	8
(Ventilation not provided and maintained.)		
(g) Accumulation of refuse or filth within the rooms	13	13
Floors not kept in a clean condition	5	5
(h) Cleanliness of persons employed in rooms not observed	—	—
(i) Cleanliness of articles, utensils and apparatus not observed	4	4
(i) Suitable and sufficient washing facilities not provided	—	—
Supply of soap and towels insufficient or not provided	—	—
Supply of hot and cold water insufficient or not provided	16	16
<i>Sub-Section 2 (b).</i>		
Failure to prevent risk of contamination of food	5	5
Beer pipes	1	1
(Defective, worn, or cleanliness not maintained.)		
Stillage	1	1
(Defective, worn, or cleanliness not maintained.)		
Beer engine	—	—
(Defective, worn, or cleanliness not maintained.)		
Drip trays	—	—
(Defective, worn, or cleanliness not maintained.)		
Drainers, trays, sinks	—	1
(Defective, worn, or cleanliness not maintained.)		
Waste beer vessels uncovered or in an unsatisfactory condition	4	4

Licensed Premises (continued).	Defects.	
	Reported.	Remedied.
Filters and funnels in an unsatisfactory condition... ..	1	1
Glasses—		
Not served in a clean condition	—	—
Unsatisfactory method of cleansing	1	1
<i>Public Health Act, 1936, Section 89.</i> (Sanitary Accommodation.)		
Not provided for males	1	1
Insufficient for males	6	4
Not provided for females	10	4
Insufficient for females	—	—
Separate means of approach not provided	3	—
Screens, doors, fasteners, etc., defective or not provided	17	15
Lighting inadequate	5	3
Ventilation—		
Inadequate	18	10
Absence of intervening space	41	27
Floors, basins, seats, walls, etc., dirty or defective	169	161
Flush to water closets defective or inadequate	17	15
Urinals—		
Defective, insanitary	42	30
Absence of or insufficient flush thereto	19	11
TOTAL	734	611

Offensive Trades.

There were on the register of offensive trades in the city at the end of the year 73 businesses which is four more than at the end of the preceding year. During the year consent to establish the following offensive trades was granted:—

Fat melter	...	...	...	1
Fat extractor	...	...	...	2
Tripe boiler	...	...	...	1

Nature of Business.						Trade.
Blood boilers	...	...	...	...	...	—
Blood driers	...	...	...	...	...	—
Bone boilers	...	...	...	...	...	2
Fat extractors	...	...	...	...	...	10
Fat melters	...	...	...	...	...	7
Fellmongers	...	...	...	...	...	5
Glue makers	...	...	...	...	...	—
Gut scrapers	...	...	...	...	...	5
Rag and bone dealers	...	...	...	...	...	30
Size makers	...	...	...	...	...	—
Soap boilers	...	...	...	...	...	7
Tallow melters	...	...	...	...	...	—
Tripe boilers	...	...	...	...	...	7
TOTAL						73

The number of inspections during the year	...	...	...	...	778
Number of special visits	...	...	...	...	22
Number of ordinary visits	...	...	...	...	218
Number of revisits	...	...	...	...	538
Number of applications to establish	...	...	...	...	4
Number of applications granted	...	...	...	...	4
Number of applications for renewal of consent	...	...	...	...	10
Number of applications for renewal granted	...	...	...	...	10
Number of offensive trades discontinued and removed from the register	...	...	...	...	nil
Number of nuisances found	...	...	...	...	43
Number of nuisances abated	...	...	...	...	41
Number of premises rat infested	...	...	...	...	—
Number of premises fly infested	...	...	...	...	—
Number of notices issued (informal)	...	...	...	...	—
Number of notices issued (statutory)	...	...	...	...	25

Fish Frying Establishments.

There are 405 fish friers operating in the city, and 1,595 visits were made during the year. With the object of securing a satisfactory

Furniture Removers.

107 visits were made to the premises of furniture removers, and 132 vans were inspected, and found to be in a clean condition.

Employment Agencies.

These premises are controlled by byelaws made under the Liverpool Corporation Act, 1927, and visits are made from time to time to ascertain that the requirements of the byelaws are being carried out. There are at present 24 licensed employment agencies on the register.

Railway Carriages and Fish Arrivals.

Complaints are occasionally received from passengers directing attention to the dirty condition of railway carriages. These carriages are from time to time inspected, and if they are found in an unclean condition the railway is informed, and the matter receives prompt attention. During the year 63 visits were made to railway stations, 207 inspections made of railway carriages, and 234 inspections of fish arrival platforms.

Shops Acts, 1912 to 1938, and Young Persons Employment Act, 1938.

Part 1.

ENFORCEMENT.

Enforcement of the provisions of these enactments has been maintained daily by visitation of shops and other premises to which the Acts relate, by Inspectors employed full time in carrying out duties in connection with the closing hours of shops, the employment of shop assistants and young persons, and the arrangements for maintaining the health and comfort of shop workers, together with the employment of young persons in certain occupations not regulated by the Shops or Factories Acts.

ROUTINE INSPECTION.

Every opportunity has been taken during the year to continue routine inspection under the above Acts and this work, together with duties undertaken by the inspectorate under other legislation affecting shops, including the Public Health Act, 1936, the Food and Drugs Act, 1938, and the Rats and Mice (Destruction) Act, 1919, has secured improvements in the general conditions affecting shops and persons employed therein.

WELFARE ARRANGEMENTS.

Among the statutory provisions affecting shops, those dealing with the arrangements for the health and comfort of shop workers, laid down in the Shops Act, 1934, are of first importance, and particular care has been taken to secure improvements in many shops where for various reasons a satisfactory standard has not been maintained. Statutory notices have been served on owners and occupiers of shops in all such cases reported by the Inspectors, but considerable delay in compliance therewith is occasioned where structural work is involved by reason of necessary procedure in connection with the issue of building licences and permits for materials which are subject to control and in short supply. This delay involves additional visits by Inspectors, when otherwise the time could be devoted to routine inspection.

FOOD SHOPS.

Strict attention has been given to the cleansing of shop premises, particularly in the case of food shops, and as a result a general improvement in the standard of cleanliness has been secured. Occupiers of the larger shops require little encouragement to maintain their premises and equipment in a satisfactory condition, but there is room for further improvement in the large number of small general shops, in many of which a single room serves as both shop and storeroom for a wide variety of food and other goods.

The need for systematic routine visitation is emphasised in the case of food shops, in order to ensure that adequate measures are taken and maintained to prevent risk of contamination of food in accordance with the provisions of Section 13, of the Food and Drugs Act, 1938. Interviews with shopkeepers including the Directors and Managers of larger firms, dealing in food have taken place to secure their co-operation for improving, where necessary, the methods taken for the protection and handling of food in their shops, with satisfactory results.

Active steps have also been taken with regard to the provision of an adequate supply of hot water in food shops for the use of persons employed therein, with the result that in many shops not previously provided with this facility, suitable gas or electric heaters, fixed above a conveniently placed washing basin or sink, have been installed for this purpose; and with the present improvement in the delivery of water heaters at comparatively low cost, and designed to

provide a constant supply of hot water, the unsatisfactory arrangements found in some shops, of heating water in a bucket or other vessel on a gas ring, is not accepted.

The restoration of war-damaged shops and the re-opening of shops long closed has continued during the year, and the additional shopping facilities thus provided for the convenience of the general public, has also further improved the appearance of the public thoroughfares in the city.

ADMINISTRATION IN PRACTICE.

Whilst it is the practice for Inspectors to insist on strict observance of the various provisions of the Shops Acts, it is appreciated that legislation of such complex nature in its application to the widely varied and changing conditions affecting shop life, is not always fully understood by shopkeepers. On this account Shops Inspectors consider it an important part of their duty to assist shopkeepers where necessary to clearly understand the law and advise them as to the proper method to give effect to statutory requirements. This practice, together with the willing co-operation of the great majority of shopkeepers, has contributed to the maintenance of satisfactory administration of the Shops Acts in this city.

Where contraventions or any failure to comply with the provisions of the Shops Acts are reported, other than contraventions for which action by statutory notice is prescribed, it is the custom to issue a warning letter in the first case, requesting the offender to avoid a repetition of the offence in order to obviate the necessity for further proceedings, and this course in most cases obtains the desired result.

CLOSING HOURS.

There has been a striking change in the hours of business in the retail distributive trades. The earlier general closing hours in operation under Defence Regulations for the winter period each year since 1939 (6 p.m. each day in Liverpool), resulted in voluntary earlier closing of shops during the remainder of the year, when shops could lawfully remain open until 9 p.m. on Saturday and 8 p.m. on other evenings. Voluntary closing of shops at an hour much earlier than those fixed by existing law has continued and is now generally accepted as a permanent practice and many shops close at 5 p.m. or 5.30 each day, with benefit to persons employed therein.

There has also been a change in the hours of business in mixed shops which are entitled to keep open for certain transactions on the weekly half-holiday and on Sunday. Such shops used to remain open all day on the weekly half-holiday and on Sunday, whereas many are now entirely closed on the weekly half holiday, or only open for a short period in the late afternoon, and are closed after 1 p.m. on Sunday. Shopkeepers and assistants alike appreciate the greater opportunities for relaxation from business.

VISITATION ON WEEKLY HALF-HOLIDAY, ETC.

Systematic visitation of shops throughout the city is carried out on the weekly half-holiday with respect to the closing of shops and the weekly half-holiday for shop assistants and young persons, and in the evening with regard to general closing hours. Regular inspections are also carried out on Sunday in connection with closing hours and the employment of persons.

The voluntary earlier closing hours previously referred to have a direct relation to the reduction in the number of offences reported for trading after the closing hour and the employment of shop assistants. The actual weekly hours of employment of young persons are also thereby reduced and in the great majority of shops, are well below the permitted normal maximum of 44 hours in the 14-16 years age group, and 48 hours in the 16-18 years age group, prescribed by the Shops Act, 1934.

The offences reported during the year have therefore related chiefly to failure to exhibit various prescribed notices in shops, and to keep records of the employment of young persons; and records of the employment of persons in shops on Sunday and the compensatory holidays to which they are thereby entitled. Such offences have been due to carelessness only and have been quickly rectified and seldom repeated.

YOUNG PERSONS (EMPLOYMENT) ACT, 1938. PART 1.

For reasons previously given it has not been possible to complete the survey of the city to ascertain the extent of employment of young persons in occupations regulated by the Part 1 of the Young Persons (Employment) Act, 1938. In addition to the number of young persons engaged as messengers and lift attendants at buildings in the Central Area of the city, which has been surveyed for this purpose, there are various places

of employment scattered throughout the city, including small businesses concerned in the collection, transport and delivery of goods, where young persons may be employed, which unlike shops, are not readily distinguished by signs or appearance. Inspection of districts street by street will eventually permit a complete record to be compiled of all premises and employments affected by this Act.

The employment of young persons in places of public entertainment is regulated either by the Shops Acts or by Part I of the Young Persons (Employment) Act, 1938, according to the nature of their work, and the employer is entitled to adopt the provisions of either of these Acts; the large majority of employers have elected to apply the provisions of the Shops Acts to all young persons.

In connection with the administration of the various Acts to shop premises 1,578 notices have been issued, and 4,872 inspections made in respect of these notices, as follows:—

Act.	Notices issued.		Re-inspections after service of notice.
	Preliminary.	Statutory.	
Public Health Act, 1936	827	151	3,355
Food and Drugs Act, 1938	—	306	985
Shops Act, 1934, Section 10	—	281	491
Rats and Mice (Destruction) Act, 1919	—	13	41

THEATRES, CINEMAS, ETC.

At the request of the Licensing Justices, Inspectors systematically visit all picturedromes and theatres to see that the means provided for the ventilation of the auditorium are in use, attention also being directed to the condition of the sanitary conveniences, provision of seats for the attendants, the general cleanliness of the premises, and the water supply.

During the year 742 evening visits were paid, and a day inspection is also made so that closer attention may be given to the examination of sanitary conveniences. In 64 cases minor defects were observed, and these were remedied on the attention of the managers being called thereto.

PARTICULARS OF VISITS AND RE-INSPECTIONS.

Approximate number of shops in the city—19,200.

Registration.				Contraventions.		
				Acts.	Reported.	Remedied.
Retail shops inspected ...	...	...	3,418	1912 and 1913 Acts.		
Assistants employed.				Half-holiday closing ...	19	19
Young persons—Male ...	...	...	316	Mixed trades notice ...	17	17
Female ...	...	...	755	Closing notice		
Adults—Male ...	...	...	1,476	(Alt. W.H.H.) ...	5	5
Female ...	...	...	3,372	Assistants' Half-holiday	28	28
Wholesale shops inspected ...	...	...	26	Intervals for meals ...	3	3
Young persons employed—Male ...	...	...	24	Seats for female assistants	30	30
Female ...	...	...	43	Assistants' half-holiday		
Adults employed—Male ...	...	...	55	notice ...	161	161
Female ...	...	...	83			
Half-holiday Closing.				1928 Act.		
Visits to shops after 1 p.m. ...	...	...	47,826	Evening closing ...	22	22
Evening Closing.				Mixed trades notice		
Visits to shops—				(C.O.) ...	3	3
After 7 p.m. ...	...	...	21,723	1934 Act.		
After 8 p.m. ...	...	...	9,676	Hours of employment of		
After 9 p.m. ...	...	...	6,029	young persons ...	1	1
After 9.30 p.m. ...	...	...	2,030	Night employment of		
After 10 p.m. ...	...	...	75	young persons ...	—	—
Sunday Closing.				Record of hours of em-		
Visits to shops on Sunday ...	...	...	2,859	ployment of young		
Re-visits (General).				persons ...	35	35
Closing hours and notices ...	...	...	31	Abstract of provisions of		
Sunday closing and notices ...	...	...	116	1934 Act (Forms H		
Sunday employment of persons ...	...	...	84	and J) ...	33	33
Assistants' statutory half-holiday and				Notices as to seats for		
notice ...	...	...	94	female assistants		
Compensatory holidays ...	...	...	1	(Form K) ...	87	87
Intervals for meals ...	...	...	1	Other notices (A-Z) ...	19	19
Seats for female assistants ...	...	...	6	Section 10.		
Employment of young persons ...	...	...	56	Ventilation ...	—	—
Notices—Shops Act, 1934 ...	...	...	265	Temperature ...	2	2
Welfare arrangements ...	...	...	1,948	Sanitary conveniences ...	121	121
Public Health Acts.				Lighting ...	2	2
No. of nuisances reported ...	...	...	1,929	Washing facilities ...	42	42
No. of nuisances abated ...	...	...	1,851	Facilities for taking meals	4	4
No. of conveniences limewashed ...	...	...	—	1936 Acts.		
No. of nuisances outstanding ...	...	...	78	Closing of shops on		
				Sunday ...	20	20
				Mixed Shops' Notice		
				(Form I) ...	102	102
				Record of Sunday		
				employment ...	51	51
				TOTALS ...	807	807

Common Lodging Houses.

At the commencement of the year there were on the register 19 Lodging Houses providing accommodation for 1,200 lodgers.

19 applications were received from persons for the renewal of registration as keepers, which were granted for a further period of twelve months.

40 verbal notices for infringements of the byelaws were given to registered keepers during the year.

17 notices were served under the Byelaws relating to Common Lodging Houses in respect of choked drains, verminous bedding and beds, floors unswept and not washed, windows requiring cleaning, and dirty condition of ceilings and walls, rooms, staircases and landings.

Inspection of Common Lodging Houses.

Number of houses on register at 31st December, 1948 (males only)	16
Number of houses on register at 31st December, 1947 (females only)	3
Number of lodgers allowed (males)	1,066
Number of lodgers allowed (females)	134
Number of day visits	732
Number of nocturnal visits	18

Seamen's Lodging Houses.

At the commencement of the year there were 24 Seamen's Lodging Houses on the register. 2 applications were received from persons for licences to keep a Seamen's Lodging House, and schedules of works necessary to be carried out in order to comply with the byelaws have been sent to the keepers concerned.

The keepers of 11 Seamen's Lodging Houses have been licensed, and applications were received for renewal of 10 licences, which were granted.

2 houses have ceased to be used as Seamen's Lodging Houses.

At the end of the year there were 22 Seamen's Lodging Houses on the register.

Number of Houses.	Nationality of Seamen.	Number of Seamen allowed.
5	British	447
3	Chinese	306
7	Arab	148
1	Somalis	10
1	European	84
2	Indian	173
1	South American	14
1	Norwegian	50
1	West Indian	90
22		1,322

Number of inspections	952
Number of nocturnal inspections	19
Number of houses in which contraventions of byelaws were found	51
Number of contraventions of the byelaws	1,214
Number of contraventions abated	1,110
Number of verbal notices	36
Number of statutory notices issued	15

Houses Let-in-Lodgings.

Number of houses visited	3,064
Number of inspections	3,378
Number of houses found dirty	23
Number of houses found cleansed on revisit	23
Number of verbal notices... ..	13
Number of preliminary notices issued	1,566
Number of statutory notices issued	736
Number of nuisances found	5,818
Number of nuisances abated	5,094

Canal Boats.

Public Health Act, 1936. Part X. Sections 249 to 258.

The Leeds and Liverpool Canal is the only canal having direct communication with Liverpool, and the length of the waterway within the city, exclusive of the locks which lead to the docks, is about three miles.

The number of inspections of canal boats during the year was 2,333, and the condition of the boats and their occupants as regards matters dealt with in the Act and Regulations is indicated in the following table:—

TABLE I.

Boats on register, 1st January, 1948	...	...	...	411
New boats registered	...	...	...	—
Boats removed from register	...	...	...	11
Boats on register, 31st December, 1948	...	...	...	400

Contraventions occurred on 37 boats, of which 10 were registered by other Authorities.

TABLE II.

Nature of Contraventions.	Reported.	Remedied.
Unregistered boats used as dwellings	1	1
No certificate on board or certificate of registration not legible...	13	13
Leaky decks	14	14
Defective stove or stove pipes	5	5
Cabins requiring re-painting	4	4
Registration authority and number not painted on boat	—	—
Registering, lettering, etc., not legible	4	4
Defective wooden floorboards	1	1
TOTAL	42	42

TABLE III.

NUMBER AND TYPES OF BOATS REGISTERED, 31ST DECEMBER, 1948.

Motor-propelled boats	...	...	...	...	82
Motor-towed boats	...	...	...	...	42
Steam-propelled boats	...	...	...	...	62
Steam-towed boats	...	...	...	...	121
Horse-drawn boats	...	...	...	...	93
Total	...	...	...	...	400

Written notices were issued to owners in 37 instances, of these notices 37 have been complied with. No informations were laid during the year against owners or masters for infringement of the Acts or Regulations. No case of infectious sickness was reported as having occurred during the year on any canal boat visiting the district.

The Inspectors of the Port Health Authority made 444 inspections during the year, and 16 contraventions were discovered, which were subsequently dealt with. These figures are included in the foregoing table.

TABLE IV.

DETAILS OF VISITS TO CANAL BOATS.

The boats visited were registered as follows:—

Liverpool	...	...	...	...	105
Leeds	...	...	...	...	1
Manchester	...	...	...	...	14
Runcorn	...	...	...	...	14
Chester	...	...	...	...	1
Not registered and not used as dwellings					61

All were "wide" boats, 50 being steam-towed, 66 motor-propelled, 6 steam-propelled, 56 motor-towed, and 18 horse-drawn.

The number of inspections of these 196 boats was 1,889, and the population comprised 271 men, no women or children, the sexes and ages being as follows:—

TABLE V.

POPULATION OF CANAL BOATS.

Men	...	...	...	...	...	271
Women	...	...	...	...	...	—
Children	...	...	...	...	...	—

distributed as under:—

Males over 14 years of age	...	...	271
Males over 5 years and under 14 years	...		—
Males under 5 years	...	...	—
Females over 12 years of age	...	...	—
Females over 5 years and under 12 years			—
Females under 5 years	...	...	—

NOTE.—Males on attaining the age of 14 years, and females 12 years, living on canal boats, become adults, and are recorded as such in the above table.

No children of school age were found on canal boats during the year, and no families were found on a boat on the canal who had not a home ashore in addition to that on board.

The Hydrogen Cyanide (Fumigation) Act, 1937.

Official notice has been received in respect of 6 fumigations under the Hydrogen Cyanide (Fumigation) Act, 1937, 5 dwelling-houses and one factory were satisfactorily fumigated under the supervision of the sanitary inspectors.

Court and Alley Inspections.

1,139 inspections were made of courts and alleys, and 1,722 inspections of water-closets used in common, visits being made by sanitary inspectors to ascertain whether these common water-closets are kept in a clean condition.

Prohibition of Sale of Verminous Furniture, Etc.

Under Section 83 of the Liverpool Corporation Act, 1936, no dealer shall sell or expose for sale any second-hand furniture, mattress, bed

linen or similar articles if these are to his knowledge infested with bed bugs, or if by taking reasonable precautions he could have known them to be infested. 1,417 visits have been paid to premises by the sanitary inspectors, and no infringements were observed.

Removal of Remains.

Under the terms of licences issued from the Home Office the sanitary inspectors supervised the exhumation and reinterment of 809 bodies during the year.

Miscellaneous.

STABLES.—Stables within the city are systematically inspected by the sanitary inspectors, constant attention being paid to the frequent removal of manure and to general sanitation. The total number of visits to stables during the year was 4,935 the number found occupied was 327, and the number disused was 494.

The manure depots are situated in close proximity to the North Corporation destructor, and visits are made to them to see that the manure which has been received from the stables in the centre of the city is frequently removed so as to avoid the possibility of breeding places for flies. During the year 63 visits were made to manure depots.

MARINE STORES.—During the year 107 visits were paid to 11 marine stores, and in no cases were nuisances found.

PARKS.—Fortnightly visits are paid to all public sanitary conveniences within parks and gardens throughout the city to ascertain if they are kept in a clean condition and in good repair. 462 visits were made and in 20 instances they were found to be incorrect, the necessary action being taken to remedy defects.

POULTRY DEPOTS.—24 poultry depots were visited fortnightly, and in three instances they were found to be in an unclean condition. The necessary steps were immediately taken by the occupiers to cleanse the premises.

SCHOOLS.—2,097 visits were made to schools, and in 167 instances defects were found. The necessary steps were immediately taken to have the defects remedied.

SUMMARY OF PROSECUTIONS.

Act.	Section.	No. of Informations.	Penalties.	Costs.	Magistrate's Orders.
			£ s. d.	£ s. d.	
Public Health Act, 1936 ...	75	41	19 5 0	—	—
Public Health Act, 1936 ...	94	282	388 0 0	4 16 0	139
Public Health Act, 1936 ...	95	22	49 0 0	—	—
Public Health Act, 1936 ...	154	4	0 12 6	0 5 0	—
Liverpool Corporation Act, 1921... ..	468	55	78 5 0	0 8 0	—
Shops Act, 1912	—	4	5 15 0	—	—
Shops Act, 1928	—	2	1 10 0	—	—
Shops Act, 1934	—	3	3 0 0	0 10 0	—
Shops (Sunday Trading Restriction) Act, 1936 ...	—	11	17 0 0	—	—
Liverpool Corporation Act, 1921... ..	451	—	—	—	—
TOTALS	—	421	£558 12 6	£5 9 0	139

Cases withdrawn 14

Cases dismissed 6

Summonses not served 4

RODENT CONTROL.

Rats and Mice (Destruction) Act, 1919.

The Infestation Order, 1943, S.R. & O. 680, as amended by

S.R. & O. 847.

The work of maintaining adequate rodent control and the drive towards the eradication of the rat and mouse population in the City was continued throughout the year with good effect.

There are special reasons for the constant attack against rodents in Liverpool, one being the possibility of the spread of plague, a disease

which may be brought in to the port on ships arriving from foreign countries, and the department is ever watchful in this direction.

The destruction and damage to essential food, especially during the present food shortage, to other valuable goods and to buildings by rats and mice are other important factors to be taken into account. In addition, the department is also mindful that where rats and mice associate with our food supplies, the potential danger of food contamination is always present. Therefore, for these reasons, it is considered essential for the most stringent measures to be taken against these pests.

Systematic Survey.

During the year, the rodent exterminators made 63,479 visits to buildings and lands, in connection with systematic survey and operational work, and sanitary inspectors also made, in conjunction with other matters, 96,363 inspections under this Act and Order. Complaints relating to rats or mice to the total of 3,541 were received and all were duly investigated by the rodent control staff.

Infestations.

During the year, routine block survey of lands and buildings within the areas vulnerable to rat infestation, such as the dockside and central wards, revealed 517 infestations. This shows a substantial decrease in the number of infested sites compared with 3,925 infestations found in these areas during the Preliminary Survey of 1943/44, and is a further indication of the effectiveness of the intensified campaign carried out in recent years.

Initial infestations in buildings and lands during the year totalled 1,998, and 845 sites previously disinfested since the commencement of the special campaign were found reinfested. The total sites infested or reinfested with rats or mice to varying degrees was 2,843, of which 167 sites were subject to reinfestation. The total infestations and reinfestations on the 2,843 sites was 3,028.

Disinfestation.

The practice of providing free assistance to occupiers of private dwelling houses has been continued. The occupiers of premises and lands

other than private dwellings who desire the department's assistance for the actual destruction of rats and mice are required to reimburse the local authority for the expenditure incurred. The demand for such assistance is appreciable and 824 requests were received from occupiers during the year.

The treatment to remedy infestations was prescribed and applied by the rodent control staff in accordance with the scientific methods of rodent destruction now recommended. Therefore all infested lands and buildings within each area of infestation were dealt with at one and the same time to pre-arranged timetables under the block system of control. This is considered to be the only sound basis towards securing complete disinfestation.

Generally it is found that occupiers of buildings and lands affected show readiness to participate in block schemes, but in 31 cases recalcitrant persons were served with a notice under the provisions of the Rats and Mice (Destruction) Act, 1919, and the Infestation Order, 1943, to obtain the desired result. It has not been found necessary to institute proceedings for non-compliance with the Act and Order.

3,154 buildings and lands were disinfested and 14,554 rats were collected. Of this number, 12,278 were caught in traps and 2,276 dead rats were collected following poisoning operations.

The species of the rats collected were 12,160 *Rattus Norvegicus* ("brown") and 2,394 *Rattus Rattus* ("black"). The rats collected included those caught in sewers by the rat-catchers employed by the City Engineer and Surveyor's department and received from the several depots used for this purpose. In addition, 3,573 mice were collected following poisoning and trapping operations. A proportion of the total rats collected was sent to the City Bacteriologist for examination and the remainder were burnt. All the rats examined were found to be free from plague.

It is estimated, using the appropriate formula for calculating the kill, that a total of 15,873 rats were destroyed as the result of poisoning operations during the year. The total rats destroyed by trapping and poisoning are calculated to be 28,151. With regard to the destruction of mice by

poisoning, a formula for calculating the kill is not available, but there is no doubt that the number destroyed by this method is appreciable when taking into consideration the amount of poisoned bait consumed by mice as indicated in Table III.

Preventive Measures.

Co-ordinated action by the sanitary inspectors and the rodent control staff is taken when required in relation to preventive measures. Any conditions likely to contribute to infestation, such as food or food waste available to rodents which could reasonably be protected, or any lack of environmental hygiene, were at once brought to the notice of the persons responsible.

Preventive measures and works of proofing were carried out following the process of disinfestation as the occasion warranted. The work comprised, *inter alia*, amending defective drains, protection of external doors, windows, ventilators and other openings in walls and roofs of buildings, elevation of poultry houses and sheds clear of ground, and the abolition of unnecessary harbourages, considered essential to prevent infestation by rats and mice.

The following Tables I to V indicate the type of building or land found infested, the type of poison used, and generally summarise the work of the rodent control.

Table II.

SUMMARY INDICATING THE EXTENT TO WHICH BUILDINGS AND LANDS WERE FOUND INFESTED BY RATS OR MICE AND THE NUMBER DISINFESTED DURING THE YEAR 1948.

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Description of Buildings and Lands	Initial Infestations				Reinfested sites (previously disinfested 1943/1948)				Reinfestations during 1948				Total Premises infested	Category			Species		Buildings and Lands disinfested
	Premises	Rats	Rats and Mice	Mice	Premises	Rats	Rats and Mice	Mice	Premises	Rats	Rats and Mice	Mice		Reservoir	Major Primary	Minor Secondary	Black	Brown	
Bakehouses	1	1	...	...	1	1	...	...	...	...	...	...	2	...	...	2	...	2	4
Churches, Chapels, etc.	4	2	...	2	4	2	...	5	2	1	...	2	2	...	...	11	...	4	14
Clinics	1	...	...	1	5	...	...	7	2	...	...	2	6	...	...	8	...	...	13
Clubs	7	4	...	3	5	4	1	1	1	1	...	...	12	...	...	13	1	11	16
Cowsheds	2	2	...	...	...	...	...	...	...	...	...	...	2	...	...	2	...	2	1
Dairies	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1
Derelict Buildings	3	3	...	...	2	2	...	...	...	...	...	...	5	...	...	5	...	5	3
Dwelling-Houses	1,279	803	3	473	280	290	5	86	89	78	...	23	1,559	...	...	1,660	11	1,090	1,746
Factories—Food	12	8	1	3	26	30	...	...	4	4	...	...	38	...	...	42	16	23	28
Factories—Non-Food	85	75	1	9	99	95	3	13	11	11	...	1	184	...	...	196	59	123	217
Farms	2	2	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	2	...
Garages	4	4	...	...	4	4	...	...	...	...	...	...	8	...	...	8	...	8	13
Gardens—Market ... ..	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	1	...	1	1
Government Buildings	4	3	1	...	4	1	...	3	...	...	...	...	8	...	...	8	...	5	9
Hospitals	3	1	...	2	8	4	...	4	...	...	...	...	11	...	...	11	1	4	11
Hotels—Residential	4	2	...	2	4	2	1	1	...	...	...	...	8	...	...	8	...	5	9
Institutions : Homes	4	1	...	3	4	2	1	2	1	1	...	...	8	...	...	9	...	4	12
Land, Banks, etc.	136	136	...	...	10	10	...	...	...	...	...	...	146	...	...	146	...	146	177
Land, Bombed Sites	6	6	...	...	5	5	...	...	...	...	...	...	11	...	...	11	...	11	9
Marine Stores... ..	...	...	...	...	2	3	...	...	2	3	...	...	2	...	...	3	...	3	3
Offices	72	38	...	34	61	50	...	19	8	7	...	1	133	...	...	141	46	42	134
Parks, Recreation Gardens	1	1	...	...	2	1	1	...	...	...	...	...	3	...	1	2	...	3	3
Piggeries ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Places of Public Entertainment	10	4	...	6	6	3	...	3	...	...	...	...	16	...	...	16	1	6	11
Public Buildings	1	1	...	...	3	3	...	1	1	...	...	1	4	...	...	5	...	4	7
Public Houses	26	20	1	5	12	10	...	2	...	...	...	...	38	...	...	38	5	26	39
Railway Banks	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1
Railway Sidings	2	2	...	...	...	...	...	...	...	...	...	...	2	...	...	2	1	1	1
Railway Stations	3	3	...	...	...	...	...	...	...	...	...	...	3	...	...	3	...	3	2
Refreshment Houses... ..	17	13	...	4	32	28	3	4	3	2	...	1	49	...	1	51	8	36	59
Refuse Destructors ... ..	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	1	...	1	1
Refuse Tips—Public ... ..	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	1	...	1	1
Schools—Public	31	8	...	23	48	13	...	42	5	1	...	6	79	...	...	86	1	20	86
Shops—Food	88	62	...	26	41	37	1	8	5	3	...	2	129	...	...	134	7	93	140
Shops—Non-Food	105	83	1	21	67	68	2	19	20	16	...	6	172	...	...	194	24	130	202
Slaughter-Houses ... ..	...	...	...	...	1	1	...	...	1	1	...	...	1	...	...	1	...	1	...
Sports Grounds	1	1	...	...	...	...	...	...	...	...	...	...	12	...	...	12	4	8	15
Stables	7	7	...	...	5	5	...	...	...	...	...	...	7	...	...	7	...	6	8
Store Sheds	4	4	...	...	3	2	...	1	...	...	...	...	7	...	...	...	...	...	...
Warehouses—Food	31	26	1	4	52	53	...	4	4	5	...	...	83	...	2	86	50	34	76
Warehouses—General	40	31	...	9	46	49	...	6	8	8	...	1	86	...	...	95	49	33	79
TOTAL	1,998	1,359	9	630	845	781	18	231	167	142	...	46	2,843	...	6	3,022	284	1,900	3,154

N.B.—The Buildings and Lands disinfested include 617 infestations remedied which were outstanding at the end of 1947.

Table III
SUMMARY OF OPERATIONAL DETAILS IN CONNECTION WITH THE DESTRUCTION OF RATS AND MICE IN SURFACE INFESTATIONS DURING THE YEAR 1948.

Description of Buildings and Lands	Lands disinfested				RODENT DESTRUCTION BY LOCAL AUTHORITY																																									
					Method employed		FREE-BAITING								POISONING								TRAPPING				How disposed		Specimen																	
	Quantities shown in Ounces								Quantities shown in Ounces								Post Bait in Ounces				Break Back Traps		Traps		Rats burnt	Total Rats collected	Total Mice collected	Estimated Rats killed—Poisoning and Trapping																		
	Sawdust Bait		Bread		Sugar Meal		Wheat		Zinc Phosphide		Arsenic		Red Spill		Alpha Naphthyl Thiourea		Barium Carbonate		Total Poison Bait laid	Total Poison Bait taken	Rats caught	Mice caught	Rats caught	Mice caught					Rats caught	Mice caught																
	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken	Laid	Taken												
	Factories	245	179	66	...	107	64	8	11,139	6,791	4,065	2,749	685	452	2,619	3,506	1,115	1,339	422	224	90	90	25	5	2	5,184	1,637	3,621	755	296	124	3,906	307	73	...	46	173	77	532	370	237	372	609	570
Warehouses	155	97	58	...	60	33	4	8,467	4,962	3,949	2,984	512	391	60	28	1,702	2,619	723	1,343	361	156	44	171	48	4,289	1,376	2,416	565	1,562	179	2,402	1,072	25	...	18	18	159	2,063	222	1,310	993	2,332	222	3,562
Shops	942	238	104	...	141	83	14	5,558	3,720	1,201	963	1,309	812	1,883	2,084	599	516	143	180	63	60	15	3	2	2,845	822	1,369	326	250	130	1,607	649	312	2	183	287	137	947	739	484	690	1,084	739	2,491
Dwelling Houses	1,740	1,453	293	...	1,289	96	88	12,037	7,811	1,845	1,197	3,556	2,102	6,344	1,734	647	262	88	4,764	1,881	17	4	60	23	6,837	2,643	2,679	501	270	204	5,137	272	542	2	6	3	96	434	749	14	136	530	749	5,417
Other Premises	666	369	128	178	230	81	29	8,649	5,700	2,783	1,850	2,681	1,583	119	63	3,814	3,035	921	1,146	324	913	336	131	49	10	3	5,349	1,833	2,876	673	338	303	2,941	776	337	1	108	833	136	1,081	1,493	400	817	1,217	1,493	3,960
Total	3,154	2,327	649	178	1,827	357	143	45,870	28,384	13,945	8,783	8,723	5,200	179	91	16,362	12,978	4,065	4,620	1,338	6,237	2,417	489	141	80	30	24,494	7,931	12,361	2,820	2,276	949	15,873	3,070	1,299	5	361	1,334	605	5,107	3,573	2,394	3,318	5,712	3,373	19,399

Table IV

NUMBER AND SPECIES OF RATS AND MICE COLLECTED, EXAMINED AND DESTROYED
DURING THE YEAR 1948.

	Buildings and Lands.			Sewers.		Total Examined.		Total Burnt.		Total Rats.	Total Mice.
	Rats Black.	Rats Brown.	Mice.	Rats Black.	Rats Brown.	Rats.	Mice.	Rats.	Mice.		
January	93	277	358	—	902	138	—	1,134	358	1,272	358
February	115	273	351	—	692	128	—	952	351	1,080	351
March	135	212	264	—	731	119	—	959	264	1,078	264
April	157	264	408	—	806	192	—	1,035	408	1,277	408
May	134	271	317	—	687	129	—	963	317	1,092	317
June	166	321	230	—	714	134	—	1,067	230	1,201	230
July	170	251	231	—	693	106	—	1,008	231	1,114	231
August	138	275	275	—	583	115	—	881	275	996	275
September ...	262	409	195	—	733	135	—	1,269	195	1,404	195
October	426	281	314	—	802	123	—	1,383	314	1,509	314
November	386	263	261	—	821	153	—	1,317	261	1,470	261
December	212	221	369	—	678	103	—	1,008	369	1,111	369
Total	2,394	3,318	3,573	—	8,842	1,578	—	12,976	3,573	14,554	3,573

Table V

TOTAL RATS DESTROYED BY TRAPPING AND POISONING DURING THE YEAR 1948.

Trapping.	Poisoning.		Estimated Total Rats Destroyed.
Rats caught.	Dead Rats Collected.	Estimated Rats destroyed : Not Found.	
12,278	2,276	13,597	28,151

HOUSING.

Under the terms of Ministry of Health Circular 1866 dated 8th September, 1939, normal progress in regard to slum progress has ceased. During the year 260 houses were demolished, and 769 persons rehoused.

Defence (General) Regulations, 1939. (Regulation 68AA).

Four applications were received for licences to re-open houses included in confirmed clearance orders, under the above regulations. 42 applications were received for the renewal of licences for the temporary re-occupation of houses included in confirmed clearance orders. All applications were granted.

Increase of Rent and Mortgage Interest (Restrictions) Acts, 1920-1939.

Certificates have been issued under the above Acts in respect of 71 dwelling-houses which were not in a reasonable state of repair. 25 applications were received from landlords for a report that the premises were deemed to be in a reasonable state of repair, and all these applications were granted.

The Housing (Declaration of Unfitness) Regulations, 1947.

Public Inquiries.

During the year, one Public Inquiry was held in connection with three Declaration of Unfitness Orders, further details of which are set out in the following table.

Location	No. of dwelling-houses	No. of persons to be displaced
Anthony Street 	57	175
Mitylene Street 	5	17
Boyd Street 	3	23
TOTAL 	65	215

During the year, four Confirmation of Unfitness Orders were received in connection with 100 dwelling-houses. One dwelling-house was excluded from the Order by the Minister of Health.

Houses Erected on Suburban Estates at 31st December, 1948.

(Including houses erected on the outskirts for slum clearance purposes.)

Estate	Non-Parlour	Parlour	TOTAL
Cantril Farm	592	—	592
" " (Flats)	36	—	36
Dovecot	2,331	686	3,017
Edge Lane Drive	560	311	871
Elms House	252	—	252
Fazakerley	1,030	410	1,440
Finch Lane	54	—	54
Highfield	—	618	618
Hunts Cross	105	28	133
King Street, etc., Garston	76	—	76
Knotty Ash	389	263	652
Knowsley	874	—	874
Larkhill	476	1,834	2,310
" (Flats)	90	120	210
Norris Green	4,730	2,965	7,695
Pinehurst Road	287	395	682
Ronald Street	78	—	78
Sparrow Hall	539	63	602
" " (Flats)	36	—	36
Speke (Banks Lane)	286	—	286
Speke	1,132	1,001	2,133
" (Aged Persons; Flats)	52	—	52
Speke Road (Flats)	312	—	312
Springwood	250	1,249	1,499
" (Flats)	—	49	49
Walton-Clubmoor	1,525	1,671	3,196
Woolton	474	102	576
Stalmine Road, Fazakerley	—	78	78
Ashes Estate, Clubmoor	—	176	176
Elm Vale, Fairfield	—	31	31
Field House, Wavertree	—	14	14
Park Road, Dingle	—	31	31
Woodlands, Aigburth	—	65	65
Garston	—	159	159
Total within the area of the City ...	16,566	12,319	28,885
Brook House	297	203	500
" " (Flats)	42	—	42
Huyton Farm	937	79	1,016
Knowsley	4,076	768	4,844
" (Flats)	108	—	108
Total outside the City Boundary ...	5,460	1,050	6,510
GRAND TOTAL	22,026	13,369	35,395

In addition there are 137 flats attached to shops and maintenance depots on various estates.

The number of houses inspected for housing defects under Public Health or Housing Acts was 6,148, and the number of inspections made for the purpose was 7,558. Notices were served requiring defects to be remedied under the Public Health Act in respect of 34,038, houses. The number of dwelling-houses in which defects were remedied after service of formal notices was 19,298, and in 12,984 dwelling-houses defects were remedied in consequence of informal action.

Housing Act 1936, Part IV. Overcrowding.

70,974 visits were made to houses in connection with the overcrowding provisions of the Housing Act.

Houses Owned by the Local Authority.

Total number of houses and flats owned by the Local Authority						
at 31st December, 1948 (excluding 19 houses built under						
the Housing Acts and subsequently sold, and 3,502 temporary bungalows) including 254 houses and flats under						
the control of the County Borough of Bootle						
...	...	...	...	...	...	44,622
Number of houses built in the last two years under the Housing						
Act, 1936						
...	...	...	...	...	...	2,189

The following table shows the accommodation which has been provided in the Corporation's housing and rehousing schemes up to 31st December, 1948.

No. of rooms per dwelling (exclusive of bathroom, sculleries, etc.)	Number of Houses and Flats erected.					TOTALS.
	On Suburban Estates.			In Central Areas.		
	Houses.	Aged persons' cottages.	Flats.	Houses.	Flats.	
1	—	130	30	—	222	382
2	—	272	144	—	1,858	2,274
3	1,505	—	269	18	3,116	4,908
4	19,011	—	207	158	3,398	22,774
5	13,618	—	151	18	285	14,072
6	57	—	—	—	18	75
7	1	—	—	—	—	1
TOTALS ...	34,192	402	801	194	8,897	44,486

In addition there are 137 flats over shops or attached to maintenance depots, and 3,502 temporary bungalows.

Rentals.

The weekly rentals of flats (including rates), range from 4s. 7d. for a bed living room flat to 12s. 9d. for a five bedroom flat. The inclusive weekly rental of houses vary between 10s. 7d. for the non-parlour type, and 31s. 6d. per week for houses with four bedrooms, and for Aged Persons' Cottage Flats 4s. and 5s. 6d. per week.

General Statistics.

Area of City	... ..	27,321 acres
Number of inhabited houses at 31st December, 1948	... ..	194,075
Number of structurally separate dwellings occupied (1931 Census)	... ..	173,938
Rateable value	... ..	£6,458,268
Sum represented by a Penny Rate	... ..	£26,693

WATER SUPPLY.

The following particulars have been supplied by the Water Engineer:—

The water supply in the area over the past year has been satisfactory, both in quantity and quality.

Bacteriological examinations are made regularly by the City Bacteriologist, these routine examinations being carried out both in the City and at Prescott Storage Reservoirs—the results of the chemical analyses have all been satisfactory.

The waters are not liable to plumbo-solvent action. Although there has been no reason in the past to regard the waters as unduly plumbo-solvent, the subject is being investigated and steps have been taken to raise the pH value of the Rivington supply.

The supplies both from Rivington and Lake Vyrnwy are treated by slow sand filtration and chlorination, and further chlorination is carried out at Prescott Storage Reservoirs.

There are no parts of the area dependent upon standpipes for a supply.

REPORT OF THE CITY BACTERIOLOGIST.

In 1948 the number of examinations amounted to 95,908.

PLAGUE. 3,991 examinations on rats were made, and none of the rats was found to be infected with plague.

ANTHRAX. The Government Wool Disinfecting Station submitted 392 specimens of hair and wool for examination. Of these 196 were untreated, 65 containing anthrax bacilli; 196 specimens were treated, and of these none was infected with anthrax.

Examinations made in the Bacteriological Department during the year 1948.

Milk (fresh—liquid)	11,098
Churn Rinsings	68
Ice Cream	717
Water	2,282
Shellfish	55
Foodstuffs	314
Wool and Hair for Anthrax	392
Rats for Plague	3,991
Swabs from Throat and Nose Infections	19,830
Specimens for Intestinal Infections	4,953
Cerebro-Spinal Fluid, etc., for Pathogenic Organisms	252
Sputum and other Secretions for Tubercle Bacilli	2,290
Exudates for Anthrax Bacilli	78
Specimens for Culture and Penicillin Sensitivity	151
Cough Plates, etc., for Whooping Cough	624
Secretions for Organisms	588
Miscellaneous Specimens	27
	<hr/> 47,710
Venereal Diseases.	
Serological Tests	41,505
Other Tests	6,693
	<hr/> 48,198
	<hr/> 95,908

APPENDIX A.

CITY OF LIVERPOOL.

Birth-Rates, Death-Rates, and Analysis of Mortality during the year 1948.

England and Wales, London, 126 County Boroughs and Great Towns, and 148 Smaller Towns. (Provisional Figures)

	Rate per 1,000 Population.		Annual Death-Rate per 1,000 Population.						Rate per 1,000 Live Births.	
	Live Births.	Still-births.	All Causes.	Typhoid and Paratyphoid Fevers.	Small-pox.	Whooping Cough.	Diphtheria.	Influenza.	Diarrhoea and Enteritis (under two years).	Total Deaths under one year.
England and Wales	17.9	0.42	10.8	0.00	0.00	0.02	0.00	0.03	3.3	34
126 County Boroughs and Great Towns, including London	20.0	0.52	11.6	0.00	0.00	0.02	0.00	0.03	4.5	39
148 Smaller Towns (Resident Populations 25,000 to 50,000 at Census 1931)	19.2	0.43	10.7	0.00	0.00	0.02	0.00	0.04	2.1	32
London	20.1	0.39	11.6	0.00	0.00	0.01	0.01	0.02	2.4	31
Liverpool	22.3	0.60	11.4	0.00	0.00	0.04	0.01	0.02	4.5	54

The maternal mortality rates (provisional) for England and are Wales as follows : per 1,000 Total Births ...

Puerperal Sepsis,	Others	Total.
0.24	0.78	1.02

A SUMMARY

CITY OF LIVERPOOL

With a view to the better understanding of the

position and the various factors which influence

the city and its development, the following

The City of Liverpool	
1. The City of Liverpool	2. The City of Liverpool
3. The City of Liverpool	4. The City of Liverpool
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99. The City of Liverpool	100. The City of Liverpool

The City of Liverpool is a city of many names.

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CITY OF LIVERPOOL.

Causes of, and ages at, Death during the year 1948.

Causes of Death.	NET DEATHS AT VARIOUS AGES, OF "RESIDENTS," WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									Total Deaths in Liverpool District, whether of "Residents" or "Non-Residents."
	At all ages.	AT AGES—YEARS.								
		Under 1	1—	3—	5—	15—	25—	45—	65—	
All Causes { Certified	9021	954	117	44	97	229	763	2262	4555	10232
{ Uncertified	6	—	—	—	—	—	—	3	3	6
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	—	—
2. Measles	12	4	7	1	—	—	—	—	—	13
3. Scarlet Fever	—	—	—	—	—	—	—	—	—	—
4. Whooping Cough	31	23	7	1	—	—	—	—	—	33
5. Diphtheria	12	—	3	5	2	1	1	—	—	14
6. Influenza	18	3	1	—	—	—	—	2	12	21
7. Encephalitis Lethargica	12	—	—	—	—	—	8	1	3	13
8. Cerebro-spinal Fever	11	5	3	—	—	—	2	1	—	14
9. Tuberculosis of Respiratory System	630	4	3	1	4	100	256	200	62	690
10. Other Tuberculous Diseases	85	2	23	8	16	16	11	6	3	124
11. Syphilis	43	3	—	—	—	—	2	14	24	48
12. General Paralysis of the Insane	6	—	—	—	—	—	1	4	1	9
13. Cancer	1429	—	1	2	3	6	116	575	726	1708
14. Diabetes	45	1	—	—	—	1	2	15	26	50
15. Cerebral Haemorrhage	584	—	—	—	—	4	13	163	404	670
16. Heart Disease	1937	—	—	—	5	26	95	467	1344	2088
17. Aneurysm	1	—	—	—	—	—	1	—	—	1
18. Other Circulatory Diseases	781	—	—	—	1	—	14	157	609	856
19. Bronchitis	605	27	4	1	2	4	24	184	359	643
20. Pneumonia (all forms)	473	183	22	2	2	5	17	69	173	520
21. Other Respiratory Diseases	102	4	3	—	—	2	6	43	44	109
22. Peptic Ulcer	89	—	—	—	—	—	15	45	29	114
23. Diarrhoea, etc.	203	175	5	2	1	—	6	6	8	233
24. Appendicitis	24	—	—	4	3	1	2	5	9	29
25. Cirrhosis of Liver	9	—	—	—	1	—	—	6	2	12
26. Other Diseases of Liver	33	3	—	1	—	2	3	10	14	42
27. Other Digestive Diseases	105	18	2	—	—	4	6	22	53	128
28. Acute and Chronic Nephritis	128	—	—	1	4	8	17	41	57	156
29. Puerperal Sepsis	3	—	—	—	—	1	2	—	—	4
30. Other Puerperal Causes	11	—	—	—	—	2	8	1	—	12
31. Congenital Debility, Premature Birth, Malformations, etc.	452	434	7	—	2	—	5	3	1	542
32. Senility	320	—	—	—	—	—	—	—	320	340
33. Suicide	75	—	—	—	—	4	26	39	15	80
34. Other Violence	284	17	14	11	27	19	38	68	90	318
35. Other Defined Causes	472	47	12	4	24	23	66	127	169	602
36. Causes Ill-defined or unknown.....	2	1	—	—	—	—	—	—	1	2
TOTALS	9027	954	117	44	97	229	763	2265	4558	10238

CITY OF ALBANY

Comptroller of the City of Albany

No.	Name of Person or Corporation	Amount of Bonds or Notes			Total
		1875	1876	1877	
1	Albany City	100	100	100	300
2	Albany City	100	100	100	300
3	Albany City	100	100	100	300
4	Albany City	100	100	100	300
5	Albany City	100	100	100	300
6	Albany City	100	100	100	300
7	Albany City	100	100	100	300
8	Albany City	100	100	100	300
9	Albany City	100	100	100	300
10	Albany City	100	100	100	300
11	Albany City	100	100	100	300
12	Albany City	100	100	100	300
13	Albany City	100	100	100	300
14	Albany City	100	100	100	300
15	Albany City	100	100	100	300
16	Albany City	100	100	100	300
17	Albany City	100	100	100	300
18	Albany City	100	100	100	300
19	Albany City	100	100	100	300
20	Albany City	100	100	100	300
21	Albany City	100	100	100	300
22	Albany City	100	100	100	300
23	Albany City	100	100	100	300
24	Albany City	100	100	100	300
25	Albany City	100	100	100	300
26	Albany City	100	100	100	300
27	Albany City	100	100	100	300
28	Albany City	100	100	100	300
29	Albany City	100	100	100	300
30	Albany City	100	100	100	300
31	Albany City	100	100	100	300
32	Albany City	100	100	100	300
33	Albany City	100	100	100	300
34	Albany City	100	100	100	300
35	Albany City	100	100	100	300
36	Albany City	100	100	100	300
37	Albany City	100	100	100	300
38	Albany City	100	100	100	300
39	Albany City	100	100	100	300
40	Albany City	100	100	100	300
41	Albany City	100	100	100	300
42	Albany City	100	100	100	300
43	Albany City	100	100	100	300
44	Albany City	100	100	100	300
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49	Albany City	100	100	100	300
50	Albany City	100	100	100	300
51	Albany City	100	100	100	300
52	Albany City	100	100	100	300
53	Albany City	100	100	100	300
54	Albany City	100	100	100	300
55	Albany City	100	100	100	300
56	Albany City	100	100	100	300
57	Albany City	100	100	100	300
58	Albany City	100	100	100	300
59	Albany City	100	100	100	300
60	Albany City	100	100	100	300
61	Albany City	100	100	100	300
62	Albany City	100	100	100	300
63	Albany City	100	100	100	300
64	Albany City	100	100	100	300
65	Albany City	100	100	100	300
66	Albany City	100	100	100	300
67	Albany City	100	100	100	300
68	Albany City	100	100	100	300
69	Albany City	100	100	100	300
70	Albany City	100	100	100	300
71	Albany City	100	100	100	300
72	Albany City	100	100	100	300
73	Albany City	100	100	100	300
74	Albany City	100	100	100	300
75	Albany City	100	100	100	300
76	Albany City	100	100	100	300
77	Albany City	100	100	100	300
78	Albany City	100	100	100	300
79	Albany City	100	100	100	300
80	Albany City	100	100	100	300
81	Albany City	100	100	100	300
82	Albany City	100	100	100	300
83	Albany City	100	100	100	300
84	Albany City	100	100	100	300
85	Albany City	100	100	100	300
86	Albany City	100	100	100	300
87	Albany City	100	100	100	300
88	Albany City	100	100	100	300
89	Albany City	100	100	100	300
90	Albany City	100	100	100	300
91	Albany City	100	100	100	300
92	Albany City	100	100	100	300
93	Albany City	100	100	100	300
94	Albany City	100	100	100	300
95	Albany City	100	100	100	300
96	Albany City	100	100	100	300
97	Albany City	100	100	100	300
98	Albany City	100	100	100	300
99	Albany City	100	100	100	300
100	Albany City	100	100	100	300

CITY OF LIVERPOOL.

Infant Mortality during the year 1948.

Net deaths from stated causes at various ages under One Year.

CAUSE OF DEATH.							Under 1 Week.	1 Week and under 2 Weeks.	2 Weeks and under 3 Weeks.	3 Weeks and under 4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under One Year.
All Causes.	Certified	...	...	...	...	...	314	35	40	42	431	184	188	108	43	954
	Uncertified	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Typhoid Fever	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Polio-myelitis	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Measles	...	...	...	...	...	...	—	—	—	—	—	—	—	2	2	4
Scarlet Fever	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Whooping Cough	...	...	...	...	...	...	—	—	—	—	—	4	7	7	5	23
Diphtheria	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Cerebro Spinal Fever	...	...	...	...	...	...	—	—	—	1	1	—	2	1	1	5
Influenza	...	...	...	...	...	...	—	—	—	—	—	—	1	2	—	3
Dysentery	...	...	...	...	...	...	—	—	—	—	—	1	1	—	—	2
Erysipelas	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	...	...	...	...	...	...	—	—	—	—	—	1	—	3	—	4
Tuberculous Meningitis	...	...	...	...	...	...	—	—	—	—	—	—	—	2	—	2
Other Tuberculous Diseases	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Meningitis (not Tuberculous)	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Convulsions	...	...	...	...	...	...	1	—	—	—	1	1	1	1	—	4
Bronchitis	...	...	...	...	...	...	1	—	1	1	3	8	10	5	1	27
Pneumonia (all forms)	...	...	...	...	...	...	3	6	7	10	26	58	61	25	13	183
Diarrhoea	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Enteritis	...	...	...	...	...	...	—	1	7	10	18	43	63	38	13	175
Other Diseases of Stomach	...	...	...	...	...	...	—	—	—	—	—	2	1	—	—	3
Syphilis	...	...	...	...	...	...	—	1	—	—	1	1	1	—	—	3
Rickets	...	...	...	...	...	...	—	—	—	—	—	—	—	—	—	—
Suffocation	...	...	...	...	...	...	—	—	—	—	—	4	5	1	—	10
Injury at Birth	...	...	...	...	...	...	38	2	2	1	43	1	—	—	—	44
Atelectasis	...	...	...	...	...	...	35	2	—	—	37	2	—	—	—	39
Malformations	...	...	...	...	...	...	38	4	5	5	52	16	9	3	3	83
Premature Birth	...	...	...	...	...	...	169	15	14	10	208	19	—	—	—	227
Atrophy, Debility and Marasmus...	...	...	...	...	...	...	3	1	3	1	8	3	1	1	—	13
Other Causes	...	...	...	...	...	...	26	3	1	3	33	20	25	17	5	100
Totals	...	...	...	...	...	...	314	35	40	42	431	184	188	108	43	954

Net Births in the year { Legitimate ... 16,686
 { Illegitimate ... 1,00

Net Deaths in the year of { Legitimate Infants 885
 { Illegitimate Infants 69

APPENDIX D.

CITY OF LIVERPOOL.

Notifiable Diseases (other than Tuberculosis) during the Year 1948.

DISEASE.	NUMBER OF CASES NOTIFIED.														Cases admitted to Hospital	TOTAL DEATHS
	At all Ages.	At Ages—Years														
		Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—			
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Scarlet Fever	1720	6	46	87	127	174	745	368	80	65	12	9	1	659	—	
Diphtheria	263	6	9	23	23	26	82	41	28	16	7	2	—	256	12	
Enteric Fever (including Para- typhoid)	13	—	—	1	—	1	2	3	2	2	—	2	—	13	1	
Puerperal Pyrexia.....	256	—	—	—	—	—	—	—	13	215	27	1	—	248	—	
Pneumonia	758	131	81	73	52	22	58	23	27	71	57	104	59	71	104	
Cerebro-spinal Fever	47	17	5	7	2	4	2	—	—	5	2	3	—	47	11	
Poliomyelitis and Polioencephalitis ..	14	3	3	—	1	1	—	2	—	1	2	1	—	13	2	
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	
Dysentery	288	37	52	52	36	22	32	7	16	25	3	6	—	275	2	
Ophthalmia Neonatorum	181	181	—	—	—	—	—	—	—	—	—	—	—	135	—	
Erysipelas	158	1	—	—	—	—	7	7	4	14	23	77	25	101	2	
Malaria	45	—	—	—	—	—	—	—	2	26	9	8	—	27	—	
Anthrax	6	—	—	—	—	—	—	—	—	3	2	—	1	6	—	
Measles	7855	595	1401	1190	1202	1126	2244	59	22	12	2	2	—	738	12	
Whooping Cough	3322	354	517	528	520	475	889	26	7	3	2	1	—	378	31	
TOTALS	14926	1331	2114	1961	1963	1851	4061	536	201	458	148	216	86	2967	189	

CITY OF ALBANY

Notable Diseases, Other than Tuberculosis

Disease		Age Group		Sex		Race		Occupation		Address		Date of Onset		Date of Discharge		Remarks	
Scarlet Fever	Diphtheria	Epidemic Typhus	Measles	Whooping Cough	Smallpox	Scarlet Fever	Diphtheria	Epidemic Typhus	Measles	Whooping Cough	Smallpox	Scarlet Fever	Diphtheria	Epidemic Typhus	Measles	Whooping Cough	Smallpox
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
83	83	83	83	83	83	83	83	83	83								

DEATHS REGISTERED DURING THE YEAR 1948

