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# PUBLIC HEALTH DEPARTMENT.

# REPORT

ON THE HEALTH OF THE

# CITY OF LIVERPOOL

DURING THE YEAR

1945

BY

W. M. FRAZER, O.B.E., M.D., M.Sc., D.P.H., BARRISTER-AT-LAW,

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 herewith my fifteenth Annual Report, relating to the health of the City of Liverpool.

Owing to the war, and in order to comply with the Ministry of Health's circular on the subject, the report has been considerably curtailed. The various modifications suggested by the Minister have been carried out and the text has been limited to matters of special interest. I desire to acknowledge figures and information for inclusion in the Report from the various Heads of Departments and also from the officers of the various voluntary hospitals and charitable institutions.

The total number of births was 14,784, giving a birth-rate of 21.7 per 1,000 as contrasted with a figure of 23.1 for the previous year. The total number of deaths from all causes was 9,523, giving a general death-rate of 14.0, as compared with 13.5 in 1944. The infantile mortality rate of 72 per 1,000 live births is little more than a quarter of those rates recorded at the beginning of the present century, having fallen from 81 in 1943.

The birth-rate of 21.7 per 1,000 is still higher than that of England and Wales, which is 16.1 per 1,000. Seven deaths occurred from puerperal fever as contrasted with thirteen in 1944, and the maternal mortality rate was 1.51 per 1,000 births.

The fall in still-birth rate has been pronounced and this rate is now 28.3 per 1,000 total births. This is the first occasion since still-births have been registered that the rate has fallen below 30 per 1,000, and in 1935 the rate was 41.4.

The number of deaths from infective diseases (including influenza) was 267. The low rate was due to two factors, first the great reduction in the number of cases and deaths from diphtheria, from which 28 persons died as against 31 in the previous year, a result due almost certainly to the extensive campaign of anti-diphtheria inoculation carried out in these two years, and secondly the almost complete absence of typhoid fever, from which two deaths occurred during the year.

I should like to be permitted to express my thanks to the Chairmen and Members of the Corporation Committees concerned with the Public Health Department for the courtesy and kindness with which they have considered the various suggestions and recommendations made to them.

I am,

Your obedient Servant,

W. M. FRAZER, Medical Officer of Health.

# CITY OF LIVERPOOL.

# SUMMARY

OF

# VITAL STATISTICS FOR 1945.

Area (land and inland water)	27,321 Acres (43 sq. miles)
Population (Estimated by Registar Ge	eneral) 681,120
Live Births 14,784	Live Birth rate 21.7 per 1,000 of estimated population.
Deaths (all causes) 9,523	Death rate 14.0 per 1,000 of estimated population.
Deaths (under 1 year of age) 1,068	Infant Mortality 72 per 1,000 live births
Deaths from :-	
Seven principal Zymotic diseases 3 227	Zymotic death rate
Pulmonary Tuberculosis } 605	Pulmonary Tuberculosis death rate  0.88
Other forms of Tuberculosis } 96	Non Pulmonary Tuberculosis death rate  O:14 per 1,000 of the estimated population.
Respiratory diseases 1,551	Respiratory death rate 3 2.27
Cancer 1,230	Cancer death rate 1.80
Maternal Deaths 23	Maternal Mortality rate } 1.51 per 1,000 births.

#### BIRTHS.

The number of live births recorded during the year 1945 was 14,784, equal to a rate of 21.7 per 1,000 of the estimated resident mid-year population. Of the total births, 7,530 were males and 7,254 were females. The number of illegitimate live births was 1,582 or 10.7 per cent. of the total births, 815 being males and 767 females.

The birth-rate in the City of Liverpool was considerably above the average of the great towns, which was 19·1 per 1,000 of the population, as well as of England and Wales taken as a whole, where the rate was 16·1 per 1,000.

The number of still-births registered was 431 as shown in the table below. This represented 28.3 per thousand of the total (live and still) births registered and 0.63 per 1,000 of the estimated population.

	I	IVE BIRTH	S.	1	STILL BIRT	HS.
	Males.	Females.	Total.	Males.	Females.	Total
Legitimate Illegitimate	6,715 815	6,487 767	13,202 1,582	182 32	199 18	381 50
	7,530	7,254	14,784	214	217	431

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

#### STILL-BIRTHS.

The following figures show the reduction in the numbers of still-births which have taken place in the City during the past eleven 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 14,784 in 1945. 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 31 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 in war-time, together with diminished unemployment during this period, have also largely contributed.

The still-birth rate among legitimate babies was 24 per thousand and among illegitimate babies was 31 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

#### DEATHS.

The total deaths registered during the year numbered 9,523 (4,984 males and 4,539 females), equal to a death-rate of 14.0 per 1,000 of the estimated resident population. Since the commencement of the war the deaths of non-civilians are excluded.

The death-rate for England and Wales was 11.4 and that of the great towns was 13.5. The following table shows deaths at various age periods, expressed as a percentage of total deaths, for each year 1915 to 1945:—

Year	Under				AT AG	ES-YE	ARS.		1		110
Tear	years.	5—	10-	20—	30	40-	50-	60—	70—	80—	
Non all	% 33	%	%	% 4	%	%	% 12	%	% 12	%	
915		2	4	4	7	9	12	13		4	10
916	30	3	4	5	6	9	12	14	13	4	10
917	29	3	4	5	7	9	12	14	13	4	10
918	29	5	6	8	8	9	11	12	9	3	10
919	25	4	5	7	8	9	12	13	13	4	10
915-1919	00		eqt jui		-		10	10	10	val Qua	
(average)	29	3	5	6	7	9	12	13	12	4	10
920	33	2	4	5	7	9	11	13	12	4	10
921	33	2	4	5	6	9	11	13	12	5	10
922	28	2	4	5	6	9	12	15	14	5	10
923	30	2 2	4	5	6	9	12	14	13	5	10
924	29	2	4	4	6	8	12	15	15	5	10
920-1924	20	9	4	E	e	9	12	14	13	5	10
(average)	30	2	4	5	6	-		14			10
925	28	2	4	4	5	9	12	15	15	6	10
926	28	2	3	5	6	9	12	15	14	6	10
927	25	2 2 2 3	3	5	5	9	12	16	16	7	10
928	25	2	4	5	5	9	12	16	16	6	10
929	23	3	3	5	5	9	12	16	17	7	10
925-1929							100				
(average)	26	2	3	5	5	9	12	16	16	6	10
930	20	3	4	5	5	9	14	17	16	7	10
931	23	2	3	5	5	8	12	17	18	7	10
932	22	2	3	5	5	8	13	17	17	8	10
933	21	2	3	5	5	. 8	13	17	18	8	10
934	20	2 2	3	5	6	8	12	18	18	8	10
930-1934											
(average)	21	2	3	5	5	8	13	17	18	8	10
935	17	2	3	5	5	8	13	19	20	8	10
936	16	2	3	5	5	7	14	19	21	8	10
937	17	2 2 1	2 3	5	5	7	13	19	21	9	10
938	16	1	3	4	5	7	13	20	22	9	10
939	13	1	3	4	4	7	14	21	23	10	10
935-1939		0		M							
(average)	16	2	3	5	5	7	13	19	21	9	10
940	14	2	3	4	5	8	14	21	20	9	10
941	15	2	4	5	6	8	13	20	19	8	10
942	14	1	2	4	5	7	14	22	22	9	10
943	14	1	2 2	3	5	7	13	22	23	10	10
944	12	1	2	4	4	7	13	23	24	10	10
940-1944					- 133		10 225 11	111117	Mean	100	138
(average)	14	1	3	4	5	7	13	22	22	9	10
945	13	1	2	3	4	7	13	22	23	12	10

# ANALYSIS OF CAUSES OF MORTALITY.

Deaths from	Deaths from certain Groups of Diseases in each decade from 18/1 to 1940, and during 1941, 1942, 1943, 1944 and 1949.	t Diseases in ea	cn decade iron	TOTAL TO TOTAL	did duling aver,		- mind 10 10:
Years.	(a) Infective diseases (less Diarrhœa and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhœa).	Total Deaths from Classes (a), (b),(c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880 1881-1890 1891-1900 1901-1910	01	19,869 17,870 16,714 16,054 14,946	29,763 32,507 32,995 36,480	14,747 13,186 18,491 18,163 12,282	91,584 86,311 84,539 81,179 74,125	2,015 2,820 4,223 6,480 7,603	147,005 146,195 145,522 150,962 137,223
1921-1930 1931-1940 1941 1942 1943 1944 1945	7,831 6,473 623 495 238 200	12,664 9,413 846 777 773 679 679	29,447 18,196 2,226 1,403 1,856 1,344 1,620	8,184 2,987 383 382 435 435	28,126 40,069 4,142 3,058 3,266 2,611 2,956	12,619 1,211 1,279 1,337 1,230	117,720 115,632 13,253 9,388 9,719 9,010
I	Deaths expressed as a	1000	of total death	s from all caus	percentage of total deaths from all causes (Proportionate Mortality).	Mortality).	
1871-1880 1881-1890 1891-1900	19-2 14-1 9-3	13:5 12:7 10:8	20.02 23.22 24.6 25.5	10.0 9.4 12:7	62.9 59.4 57.4	4.2.2.4 4.0.9.6.5	10000
1901-1910 1911-1920 1921-1930 1931-1940 1941	0 0 0 0 4 0 0 0 0 0 1 0 4 0	10.9 10.9 8.1 8.3	27.3 25.0 15.7 16.8 14.9	6.6 6.6 6.5 4.1.4	34.7 31.3 32.6	5.5 8.4 10.9 9.1 13.6	100.0 100.0 100.0 100.0
1943 1944 1945		7.5	19:1 14:9 17:0	4:1 4:0 4:6	33.6 28.9 31·1	13:7 13:5 12:9	100·0 100·0 100·0

Death Rates per 1,000 Population.

Infective diseases (less Diarrhoa	(v) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhea).	Total Deaths from (a), (b),(c) & (d)	(e) Cancer.	Total Deaths from all causes.
5.5	3.6	5.7	20.00	17-3	0.4	28.5
3.6	3.5	6.9	2.4	15.1	0.9	26.1
5.5	2.7	6.9	3.0	13.8	1.0	23.9
1.9	2.5	4.5	2.5	11.1	6-0	20.0
1.3	1.9	4.7	1.6	9.2	1.0	18:1
6-0	1.4	3.3	6-0	6.5	1.1	-13.6
0.7	1.1	2.1	2.0	4.7	1.5	13.7
6.0	1.2	3.2	9.0	6.9	1.8	19-3
2.0	1:1	2.1	9.0	4.5	1.9	14.0
0.3	1.5	5.8	9.0	6.7	2.0	14.7
0.3	1.0	2.0	0.2	3.9	1.8	13.5
0.3	1.0	2.4	9.0	4.3	1.8	14.0
	diseases (less Diarrhœa and Influenza).  5.2 3.6 2.2 1.9 1.9 0.7 0.9 0.3 0.3		Tubercular diseases. I 3:6 3:2 2:7 2:2 1:9 1:1 1:2 1:0 1:0 1:0 1:0 1:0 1:0 1:0 1:0 1:0 1:0	Tubercular diseases (including (including 1.3.2	Tubercular diseases diseases diseases diseases. (including (including 1.2 2.8 2.4 2.7 2.8 2.5 4.5 2.5 1.9 4.5 1.6 1.1 2.1 2.1 0.7 1.2 2.1 0.6 1.0 2.4 0.6 1.0 2.4 0.6 1.0 2.4 0.6 1.0 2.4 0.6 1.0 2.4 0.6 1.0 2.4 0.6 1.0 0.5	Tubercular diseases         diseases (including from Influenza).         diseases (including Diarrhoea).         Total Deaths from Influenza).         (including Diarrhoea).         (a), (b), (c) & (d)           3.6         5.7         2.8         17.3           3.2         5.9         2.4         15.1           2.7         5.9         2.4         15.1           2.7         5.9         3.0         11.1           1.9         4.7         1.6         9.5           1.1         2.1         0.7         4.7           1.2         3.2         0.6         4.5           1.1         2.1         0.6         4.5           1.2         2.8         0.6         4.9           1.0         2.9         0.5         4.9           1.0         2.4         0.6         4.9           1.0         2.4         0.6         4.9           4.9         0.6         4.9         4.9           1.0         2.4         0.6         4.9           4.9         4.9         4.9         4.9

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871-1880	100.0	100.0	100.0	100-0	100.0	100-0	100-0
06	0.69	0.88	104.0	85.7	89.1	125.0	91.0
00	42.0	75.0	104.0	107.2	79-3	175-0	84.0
010	36.0	0.19	0.62	89.3	64.3	225.0	0.04
05	26.0	0.09	83.0	56.7	0.99	250.0	0.49
30	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
	17-3	33.3	56.1	21.4	34.1	450.0	67-7
	13.5	30.6	36.8	21.4	26.0	475.0	49.1
	8.9	33.3	49.4	21.4	28.3	500-0	51.6
	5.8	28.0	35-1	17-9	22.2	450.0	47.4
	5.8	28.0	42.1	21.4	24.8	450.0	49.1

## INFANTILE MORTALITY.

The following table shows the deaths and death-rates of infants under one year of age for the year 1945:—

			Infant Deaths.		Inf	fant Death Rates.
All Infants			 1,068	72 p	er 1,00	00 live births.
Legitimate Infants	***	***	 927	70	,,	legitimate live births.
Illegitimate Infants			 141	89	,,	illegitimate live births

In 1934 the infant death-rate for legitimate live births was 75 and for illegitimate live births 168, i.e. more than double that of the legitimately born infants.

Analysis of causes of Infant Mortality in successive quinquennia 1896-1940, and the years 1941, 1942, 1943, 1944 and 1945. (A.)—Recorded Deaths.

118,313   17,739   1,613   466   2,052   3,146   3,902   5,520     11/1915   111,872   15,458   1,309   345   1,432   2,916   3,635   4,953     14/1925   104,217   10,497   1,066   200   573   2,776   1,786   3,764     26/1930   95,701   9,002   978   109   401   2,553   1,670   2,981     31/1935   88,644   7,904   902   82   368   2,050   1,184   3,125     36/1940   80,936   6,226   573   74   519   1,457   698   2,691     1941   13,291   1,350   112   17   83   468   115   476     1942   13,729   1,039   39   18   82   307   92   455     1943   14,432   1,171   74   17   81   402   126   429     1944   15,412   884   57   11   62   235   63   417     1945   14,784   1,068   59   8   95   292   152   416      (B.)   Death Rates per 1,000 Births.      (B.)   Death Rates per 1,000 Births     (B		and the	years 194	1, 1942, 1943	, 1944 and 1	945.	(A.)-	Recorded	Deaths.
Total Death Death Births.		1	2	3	4	5	6	7	
Total   Deaths   Diseases   Cacluding   Tubercular   Diseases			TD 4-1	C	PROM 8	MITH	D	Diameter	
Births.   Under   Tuberou of Age.   Diseases   Diseas		m . 1			The bosses law	N			
1 Year   Tubercu   Of Age.   Diarrheea   Maras-mus, &c.	Years.								
Of Age.   losis .		Births.			Diseases.	Diseases	Diseases		
111,700							-	Diarrhœa.)	The state of the s
11/1905   118,801   20,353   1,546   644   2,516   3,484   5,187   5,732     106/1910   118,313   17,739   1,613   465   2,052   3,146   3,902   5,520     118,313   17,739   1,613   465   2,052   3,146   3,902   5,520     118/1920   99,451   11,510   1,116   202   1,083   2,821   1,872   4,107     21/1925   104,217   10,497   1,066   200   573   2,776   1,786   3,764     22/1930   95,701   9,002   978   109   401   2,553   1,670   2,981     31/1935   88,644   7,904   902   82   368   2,050   1,184   3,125     36/1940   80,936   6,226   573   74   519   1,457   698   2,691     1941   13,291   1,350   112   17   83   468   115   476     1942   13,729   1,039   39   18   82   307   92   455     1943   14,432   1,171   74   17   81   402   126   429     1944   15,412   884   57   11   62   235   63   417     1945   14,784   1,068   59   8   95   292   152   416			of Age.	10818).					mus, &c.
118,801	96/1900	111,700	21,160	1,508	698		3,575	6,376	5,698
118,313	01/1905	118,801	20,353			2,516		5,187	
11/1915   111,872   15,458   1,309   345   1,432   2,916   3,635   4,953     16/1920   99,451   11,510   1,116   200   1,083   2,821   1,872   4,107     21/1925   104,217   10,497   1,068   200   573   2,776   1,786   3,764     26/1930   95,701   9,002   978   109   401   2,553   1,670   2,981     31/1935   88,644   7,904   902   82   368   2,050   1,184   3,125     36/1940   80,936   6,226   573   74   519   1,457   698   2,691     1941   13,291   1,350   112   17   83   468   115   476     1942   13,729   1,039   39   18   82   307   92   455     1943   14,432   1,171   74   17   81   402   126   429     1944   15,412   884   57   11   62   235   63   417     1945   14,784   1,068   59   8   95   292   152   416	906/1910	118,313	17,739					3,902	
16/1920	11/1915		15,458	1,309		1,432		3,635	
21/1925   104,217   10,497   1,066   200   573   2,776   1,786   3,764   26/1930   95,701   9,002   978   109   401   2,553   1,670   2,981   31/1935   88,644   7,904   902   82   368   2,050   1,184   3,125   36/1940   80,936   6,226   573   74   519   1,457   698   2,691   1941   13,291   1,350   112   17   83   468   115   476   1942   13,729   1,039   39   18   82   307   92   455   1943   14,432   1,171   74   17   81   402   126   429   1944   15,412   884   57   11   62   235   63   417   1945   14,784   1,068   59   8   95   292   152   416	016/1920		11,510					1,872	
26/1930 95.701 9.002 978 109 401 2.553 1.670 2.981 31/1935 88,644 7.904 902 82 368 2.550 1.684 3.125 36/1940 80,936 6.226 573 74 519 1.457 698 2.691 1941 13,291 1.350 112 17 83 468 115 476 1942 13,729 1.039 39 18 82 307 92 455 1943 14,432 1.171 74 17 81 402 126 429 1944 15,412 884 57 11 62 235 63 417 1945 14,784 1.068 59 8 95 292 152 416   (B.)—Death Rates per 1,000 Births.	21/1925	104,217	10.497	1.066		573	2,776	1,786	
31/1935   88,644   7,904   902   82   368   2,050   1,184   3,126   36/1940   80,936   6,226   573   74   519   1,457   698   2,691   1941   13,291   1,350   112   17   83   468   115   476   1942   13,729   1,039   39   18   82   307   92   455   1943   14,432   1,171   74   17   81   402   126   429   1944   15,412   884   57   11   62   235   63   417   1945   14,784   1,068   59   8   95   292   152   416	926/1930	95,701	9,002					1,670	
36/1940   80,936   6,226   573   74   519   1,457   698   2,691   1941   13,291   1,350   112   17   83   468   115   476   1942   13,729   1,039   39   18   82   307   92   455   1943   14,432   1,171   74   17   81   402   126   429   1944   15,412   884   57   11   62   235   63   417   1945   14,784   1,068   59   8   95   292   152   416	931/1935	88,644							
1941   13,291   1,350   112   17   83   468   115   476     1942   13,729   1,039   39   18   82   307   92   455     1943   14,432   1,171   74   17   81   402   126   429     1944   15,412   884   57   11   62   235   63   417     1945   14,784   1,068   59   8   95   292   152   416	936/1940	80,936							2,691
1943	1941	13,291							476
(B.)—Death Rates per 1,000 Births.  (B.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.	1942	13,729							455
(B.)—Death Rates per 1,000 Births.  (B.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.  (C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.  (C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.	1943	14,432							
(B.)—Death Rates per 1,000 Births.    96/1900   *33·4   189   12·7   6·2   22·1   32·0   57·1   51·0     01/1905   33·4   172   13·0   5·5   21·2   29·3   43·7   48·1     06/1910   32·2   149   13·6   3·9   17·4   26·6   33·0   46·7     11/1915   29·3   137   11·6   3·1   12·8   26·1   32·5   43·1     16/1920   24·9   116   11·1   2·0   10·9   28·4   18·8   42·0     21/1925   25·1   100   10·2   1·9   5·5   26·6   17·1   36·1     26/1930   22·1   94   10·2   1·1   4·2   26·7   17·4   31·1     31/1935   20·5   89   10·1   0·9   4·2   23·1   13·4   35·3     36/1940   19·4   77   7·0   0·9   6·4   17·9   8·8   32·9     1941   19·4   10·6   8·4   1·3   6·0   22·4   6·7   33·1     1943   21·8   81   5·1   1·2   5·6   27·8   8·7   29·7     1944   23·1   57   3·7   0·7   4·0   15·2   4·1   27·0     1945   21·7   72   4·0   0·5   6·4   19·8   10·3   28·1    *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.	1944								
96/1900 *33·4 189 12·7 6·2 22·1 32·0 57·1 51·0 01/1905 33·4 172 13·0 5·5 21·2 29·3 43·7 48·1 06/1910 32·2 149 13·6 3·9 17·4 26·6 33·0 46·7 11/1916 29·3 137 11·6 3·1 12·8 26·1 32·5 43·1 16/1920 24·9 116 11·1 2·0 10·9 28·4 18·8 42·0 21/1925 25·1 100 10·2 1·9 5·5 26·6 17·1 36·1 26/1930 22·1 94 10·2 1·1 4·2 26·7 17·4 31·1 31/1935 20·5 89 10·1 0·9 4·2 23·1 13·4 35·3 36/1940 19·4 77 7·0 0·9 4·2 23·1 13·4 35·3 36/1940 19·4 10·6 8·4 1·3 6·2 35·2 8·6 35·8 1942 20·5 76 2·8 1·3 6·0 22·4 6·7 33·1 1943 21·8 81 5·1 1·2 5·6 27·8 8·7 29·7 1944 23·1 57 3·7 0·7 4·0 15·2 4·1 27·0 1945 21·7 72 4·0 0·5 6·4 19·8 10·3 28·1   *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.  96/1900 100·0	1945	14,784	1,068	59	8	95	292	152	416
01/1905   33·4   172   13·0   5·5   21·2   29·3   43·7   48·1   06/1910   32·2   149   13·6   3·9   17·4   26·6   33·0   46·7   11/1915   29·3   137   11·6   3·1   12·8   26·1   32·5   43·1   16/1920   24·9   116   11·1   2·0   10·9   28·4   18·8   42·0   21/1925   25·1   100   10·2   1·9   5·5   26·6   17·1   36·1   26/1930   22·1   94   10·2   1·1   4·2   26·7   17·4   31·1   31/1935   20·5   89   10·1   0·9   4·2   23·1   13·4   35·3   33/1935   20·5   89   10·1   0·9   4·2   23·1   13·4   35·3   36/1940   19·4   77   7·0   0·9   6·4   17·9   8·8   32·9   1941   19·4   106   8·4   1·3   6·2   35·2   8·6   35·8   1942   20·5   76   2·8   1·3   6·0   22·4   6·7   33·1   1943   21·8   81   5·1   1·2   5·6   27·8   8·7   29·7   1944   23·1   57   3·7   0·7   4·0   15·2   4·1   27·0   1945   21·7   72   4·0   0·5   6·4   19·8   10·3   28:1     *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.  96/1900   100·0   100			101110	(B.)—De	ath Rates p	per 1,000	Births.		
106/1910   32·2   149   13·6   3·9   17·4   26·6   33·0   46·7	896/1900								
11/1915									
16/1920       24·9       116       11·1       2·0       10·9       28·4       18·8       42·0         21/1925       25·1       100       10·2       1·9       5·5       26·6       17·1       36·1         26/1930       22·1       94       10·2       1·1       4·2       26·7       17·4       31·1         31/1935       20·5       89       10·1       0·9       4·2       23·1       13·4       35·3         36/1940       19·4       77       7·0       0·9       6·4       17·9       8·8       32·9         1941       19·4       106       8·4       1·3       6·2       35·2       8·6       35·8         1942       20·5       76       2·8       1·3       6·0       22·4       6·7       33·1         1943       21·8       81       5·1       1·2       5·6       27·8       8·7       29·7         1944       23·1       57       3·7       0·7       4·0       15·2       4·1       27·0         1943       21·7       72       4·0       0·5       6·4       19·8       10·3       28:1     *In column 1 the rates indicate the number of births pe	906/1910								
21/1925									
26/1930									
31/1935									
36/1940         19·4         77         7·0         0·9         6·4         17·9         8·8         32·9           1941         19·4         106         8·4         1·3         6·2         35·2         8·6         35·8           1942         20·5         76         2·8         1·3         6·0         22·4         6·7         33·1           1943         21·8         81         5·1         1·2         5·6         27·8         8·7         29·7           1944         23·1         57         3·7         0·7         4·0         15·2         4·1         27·0           1945         21·7         72         4·0         0·5         6·4         19·8         10·3         28:1           *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.           96/1900         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         100·0         91·5         76·5         94·0									
1941						The second second			
1942         20·5         76         2·8         1·3         6·0         22·4         6·7         33·1           1943         21·8         81         5·1         1·2         5·6         27·8         8·7         29·7           1944         23·1         57         3·7         0·7         4·0         15·2         4·1         27·0           1945         21·7         72         4·0         0·5         6·4         19·8         10·3         28·1           *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.           96/1900         100·0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
1943   21·8   81   5·1   1·2   5·6   27·8   8·7   29·7   1944   23·1   57   3·7   0·7   4·0   15·2   4·1   27·0   1945   21·7   72   4·0   0·5   6·4   19·8   10·3   28:1  *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.  96/1900   100·0   100·0   100·0   100·0   100·0   100·0   100·0   01/1905   100·0   91·0   102·3   89·3   95·9   91·5   76·5   94·0   06/1910   93·0   78·6   107·1   62·9   78·6   83·1   57·8   91·0									
1944   23·1   57   3·7   0·7   4·0   15·2   4·1   27·0   1945   21·7   72   4·0   0·5   6·4   19·8   10·3   28·1   28·1   28·1   21·7									
*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.    Ohi									
*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.    96/1900   100·0									
(C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.  96/1900	1945	21.7	12	4.0	0.5	0.4	19.8	10.3	28:1
96/1900 100·									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(C.)—Deat	h Rates	expressed as	a percenta	age of the	e rates re	ecorded in	1896-1900.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	896/1900	100.0	100.0						100.0
06/1910 93.0 78.6 107.1 62.9 78.6 83.1 57.8 91.0	901/1905		91.0						94.0
	906/1910	93.0							91.0
11/10/10 010	911/1915	87.0	72.5	91.9	50.0	57.9	81.5	56.9	84.0

1896/1900	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
901/1905	100.0	91.0	102.3	89.3	95.0	91.5	76.5	94.0
1906/1910	93.0	78.6	107-1	62.9	78.6	83.1	57.8	91.0
911/1915	87.0	72.5	91.9	50.0	57-9	81.5	56.9	84.0
916/1920	76.0	61.4	87.4	32.2	49.3	88.7	32.7	82.0
1921/1925	75.1	54.9	80.3	30.6	24.9	84.7	29.9	70.8
1926/1930	66.2	49.7	80.3	17.7	18.9	83.5	30.4	60.9
1931/1935	61.4	47.2	79.5	14.8	18.9	72.2	23.4	69.2
1936/1940	58.1	40.7	55.1	14.5	29.0	55.9	15.4	64.5
1941	58.1	56.1	66.1	20.9	28.1	110.0	15.1	70.2
1942	61.4	40.2	22.0	20.9	27.1	70.0	11.7	64.9
1943	65.3	42.8	40.2	19.4	25.3	86.9	15.2	58.2
1944	69.1	30.2	29.1	11.3	18.1	47.5	7.2	53.0
1945	65.0	38.1	31.5	8.1	28.9	61.9	18.0	55.1

#### CANCER.

There was a slight increase in the number of deaths recorded from cancer, namely, 1,230, as compared with 1,215 in 1944, this being equivalent to a death-rate of 1.8 per 1,000 of the population.

Progress continued to be made during the year with a view to implementing the terms of the interim arrangements made under the Cancer Act of 1939 and which had received the approval of the Ministry of Health in 1943. The Liverpool Cancer Control Organisation, to which the City Council has delegated the administration of these arrangements, and on which it is represented, extended to other areas in the neighbourhood its scheme for the co-ordination of facilities for the examination of persons suspected to be suffering from cancer and for the treatment of cases where the diagnosis of the disease is confirmed. It is hoped that eventually the scheme will serve a population of nearly two million persons.

DEATHS FROM CANCER AT VARIOUS AGE-PERIODS, 1945.

		zogli	anti-		Num	ber o	of De	aths.				
Organs Affected.	Males.	Females.	W.			At A	lges-	-Yea	rs	860	(in)	All
Anecteu.		er'i and	Under 10	10-	25-	40-	50-	60-	70-	75-	80-	Ages
Buccal Cavity	32	8	_		_	1	4	11	10	8	6	40
Stomach	166	127	-		8	33	67	106	40	27	12	29:
Liver	10	17	-	-	_	2	9	9	5		2	27
Intestines	152	187	_	_	7	30	61	102	65	48	26	339
Lungs Female Genital	132	28	-	-	10	30	47	51	13	8	1	160
Organs	-	102	-	_	9	22	26	23	9	4	9	109
Breast	1	118	-	_	7	19	31	32	9	10	11	119
Skin	7	6	-	_	1	_	1	-	5	2	4	1:
Other Organs	98	39	6	4	6	11	25	50	13	16	6	137
With the second	598	632	6	4	48	148	271	384	169	123	77	1,230

# NOTIFICATION OF INFECTIOUS DISEASE.

The following is a list of the diseases notifiable in Liverpool during 1945:—

Anthrax

Acute Poliomyelitis

Cerebro-spinal Fever

Cholera

Diphtheria

Dysentery

Enteric (Typhoid) Fever

Erysipelas

Encephalitis Lethargica, Acute

Malaria

Measles

Membranous Croup

Ophthalmia Neonatorum

Paratyphoid Fever

Plague

Pneumonia, Acute Influenzal

Pneumonia, Acute Primary

Polio-encephalitis, Acute

Puerperal Pyrexia

(including Puerperal Fever)

Relapsing Fever

Scarlet Fever or Scarlatina

Smallpox

Tuberculosis (all forms)

Typhus Fever

Whooping Cough

TABLE I.

NUMBERS OF CASES OF INFECTIOUS DISEASES COMING TO NOTICE DURING 1945
AND NUMBERS ADMITTED TO HOSPITAL.

	January	February	Maroh	April	May	June	July	August	September	October	November	December	TOTALS	Cases admitted to hospital	Per centage admitted to hospital
Smallpox	-	-	-	-	_	-	-	-	_	-	_	_	-	_	_
Plague	-	-	-	-	-	-	-	-	-	-	_	_	_	-	_
Enteric Fever	-	1	1	-	-	-	-	1	3	2	-	-	8	8	100.0
Scarlet Fever	181	201	207	166	163	196	118	143	231	245	375	256	2482	1017	41.0
Measles and German Measles	958	750	701	471	370	292	142	109	57	106	119	193	4288	401	9.4
Diphtheria	50	48	60	41	38	42	38	60	87	75	83	70	692	673	97.2
Puerperal Pyrexia	22	23	16	28	20	19	23	20	38	20	22	21	272	258	94.8
Erysipelas	22	25	26	15	29	20	27	22	29	30	39	24	308	150	48.7
lerebro-spinal Fever	8	7	8	4	1	1	1	2	3	4	3	5	47	41	87.2
Polio-encephalitis Ophthalmia	-	-	-	-	-	-	-	-	-	2	2	-	4	3	75.0
Neonatorum	18	21	20	13	19	23	14	23	20	16	18	17	222	143	64.4
enzal Pneumonia	127	90	63	61	67	60	49	65	74	102	111	147	1016	153	15.0
falaria	3	3	7	3	3	4	8	1	5	4	3	6	50	25	50.0
Dysentery	25	46	70	43	34	27	21	35	58	74	46	36	515	451	87.6
Incephalitis Lethargica	-	-	-	_	-	2.00	-	-	_	_	_	_	_	_	_
Vhooping Cough	187	170	191	81	112	69	68	80	41	30	39	25	1093	140	12.8
nthrax	-	-	-	_	-	-	-	2	-	-	-	-	2	2	100.0
hickenpox	6	9	8	3	8	6	6	7	8	8	8	12	89	47	52.8
TOTALS	1607	1394	1378	929	864	759	515	570	654	718	868	812	11068	3512	31.7

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

# INFECTIOUS SICKNESS.

#### 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 1944 and six previous years are given below:—

sar san lain her of our	1938.	1939.	1940.	1941.	1942.	1943.	199
1.—Number of children born	16,801	16,543	15,762	12,054	14,084	15,368	16,4,
2.—Number of primary vaccinations.	11,124	10,447	9,466	7,227	8,984	10,012	10,0
3'—Number of exemption certifi- cates granted.	2,586	2,362	1,889	1,206	1,237	1,492	1,
4.—Number of certificates of insus- ceptibility sent.	52	70	119	56	86	102	

# Typhus Fever.

One case of typhus fever was reported during the year. The disease was contracted in Germany.

#### Anthrax.

Five cases of anthrax were treated during 1945 at the City Hospital, Fazakerley, and all recovered. Two of these cases contracted the disease in Liverpool.

Twenty-four persons attended the hospital as suspected cases for investigation, of which two were found to be suffering from anthrax and were admitted. Five persons exposed to infection through the handling of carcases of animals infected with anthrax were given a prophylactic dose of serum and none of them developed the disease subsequently.

### Typhoid and Paratyphoid Fever.

During the year there occurred eight cases of typhoid fever. The infection in one case probably arose from contact with a Liverpool carrier; in two cases the source of the infection could not be ascertained but was probably in Liverpool, and in five cases the disease was contracted outside Liverpool.

No case of paratyphoid fever was reported during the year.

Port Cases of Typhoid Fever.

During the year 12 cases of typhoid fever were imported from overseas.

# 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 three months.

Case Number.	Sex.	Age.	Disease.	Date of illness.	Date fæces last positive
2	F.	56	Paratyphoid "B" fever.	July, 1941	Jan., 1946
4	M.	57	iever.	July, 1941	Dec., 1945
6	F.	51	"	July, 1941	Dec., 1945
7	F.	44	27	July, 1941	Jan., 1946
8	F.	41	,,	Aug. 1941	Jan., 1946
12	F.	68	Typhoid Fever	Not known	Jan., 1946

Since last year, cases numbered 1 and 11, both paratyphoid "B" carriers, have been removed from the register, having ceased to excrete the organism.

#### Undulant Fever.

No case of undulant fever was reported during the year.

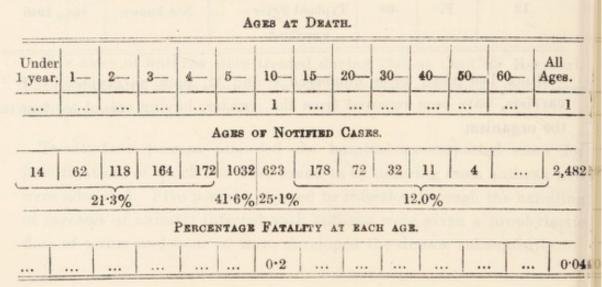
#### Diphtheria.

During 1945, 692 cases of diphtheria were reported, a case-rate of 1.0 per 1,000 of the population. Of these cases, 28 proved fatal, making a fatality rate of 4.0 per 100 cases and a mortality rate of 4.1 per 100,000 of the population.

AGES AT DEATH. 5- | 10- | 15- | 20- | 30- | 40- | 50-Under 3-60-All 1 year. Ages. 7 3 10 28 ... AGES OF NOTIFIED CASES. 29 29 48 58 279 122 55 43 2 692 65% 35% PERCENTAGE FATALITY AT EACH AGE. 14.6 5.2 10.3 3.6 111 3.6 4.0

#### Scarlet Fever.

During 1945, 2,482 cases of scarlet fever were reported, a case-rate of 3.6 per 1,000 of the population. Of these cases, 1 proved fatal, making a fatality-rate of 0.04 per 100 cases, and a mortality-rate of 0.1 per 100,000 of the population.



# Inoculation against Diphtheria.

## TABLE IV.

# NUMBER OF COMPLETED DIPHTHERIA INOCULATIONS.

Where or by whom inoculate	d.	1925- 34	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
NOCULATION CLINICS:				1 1 8									
Carnegie		1761	405	367	237	196	104	64	452	1,503	205	81	
Townsend Avenue		1075		305	183	197	151		1,006		688	468	
Child Welfare Centres			198	452	1119	1792	1096		2,617	14436		7717	38 887
Public Elementary		12869	1001	6251	4855	6356	2978	1 700	0 -00	7.000	1200=		
Dest. 1		1938		431	382	389			2,503		12907		
0 1	***	1000	040	401	302	999	137	190	1,021	39		253	
Secondary					-	-	-	-	-	408	1235	154	71
ENICIPAL HOSPITALS:				100									
Fazakerley		2973	239	267	150	182	124	113	66	111	69	76	6
Fever Hospitals-North, So	uth				7.5				- 00	***	00	10	,
and East		554	258	113	202	185	238	123	50	46	40	44	3
Alder Hey		437	98	163	148	152	121	76	47	131	120	77	6
Olive Mount		581	49	24	41	56	29	2	13	74	97	118	
Other Municipal Hospitals		81	34	92	80	86	84	49	54	121	47	64	8
				100			10000					0.1	
liscellaneous		1196	15	5	19	4	5	8	1	45	19	6	
ledical Practitioners		545	128	78	85	71	39	63	257	241	121	133	7
TOTALS		24010	6116	8548	7501	9666	5106	3.418	8.087	27368	94197	14691	1605

Grand Total ... 155,597

Patio of inventated to total		Total under 5 years of age	. 22,150, being 34.1% of the	population of this age.	MARIO	JOSE STATE OF THE PROPERTY OF	Total 5-9 years of age	38,208, being 54.3 % of the	population of this age.	AT INC.	COT I	Total 10-14-years of age	45,822, being 54,3% of the	population of this age.		a de la selection de la select	
stibi	2930	3552	1302	732	301/305	1281	1315	816	444	35 35	894 621	550 602	630	583	36/37	290	16,959
उने। त्या हिन	33 IIHH 2930	413 1096 1816 3876 4373 3552	282 85Y 2551 590 1123 1302		513 698 y10 H53 102 y26 2490 1124 589	1658 2286 1133 434 627 2243 1844 1231 1284	2497 900 2722 1042 771 1218 HIST 1942 1020 1315	284 689 2032 454 800 978	44 241 meg 1495 321 474	the cpe 0381 Had 801 801	Hbs		216 1385 1192 509 630	210/200	746	106 260 433 424 328	6594 1594 Horita 8764 2108 3.418 805 3396 1054 8458
stibit 3		3846	5/85	259 367 H33 124 193 499 2492 1094 330	1124	#51	1742	4	36411	1550	63 47 1061 1585	77 182 569 1876	132	y8 183 1236 2086 210	14 40 213 478	H2H	Lbitiz
пдиг	42	18/18/	2557	2442	2440	3273	ない	2032	11169	1054	1901	560/268	1385	1236	213	433	24368
1461	2/2	1001	85%	boh	426	62/627	1218	689	244	168	2/2	182	216	183	140	260	1.80'8
04/61	65		282	193	102/102	437	1/1/	432	林	1/2	63		85	4.00	17	901	3,418
1939	٢٥.	641	304	#a!	1453	1133	1042	587	3/3	26	3/2	06	100	90	20	124	301'5
866	1	806	262 262	1433	3/10	2286	2722	1211 823 555 587	304 320 242 69	86	sh 36	113	126	1111	25	158	3,998
Lebi	00	308	340 461 262	367	869	1658	910/010	823	320	y5 110	103 96	124 115	137 128 126	125 117	25	142 160	1,501
1936	0/0	359 298	340	259	5/3	Sall day	2497	1211	304	- 5/2	103	124	137	125	27	172	8,548
1935	-	211	232	222	SH2/275	Ittg/	1563	2/2	216	00/	100	120	133	122	27	167	6.116
1934 1935	64	213	154	82/82	30/	1637	1999	1222	6817	157	132	158	176	159	in.	220	1,221
1933	19	184	8/0	346	7971	1345	1583	1357	519	266	170	203	227	205	54	284	ikek
1932	27	0/0	681	681	253	1224	1405	8401	585	351	149	2114	239	216	4.4	298	1,64x7
1631	2/2	0	68	220	103	112	46	66	18	98	89	901	611	801	24	8411	543
1935-	80	39	24	72	the	128	103	83	3%	89	50	86	601	001	22	137	1,228 1,543 6,647 4,341 4,221
Mocat, date of	Under 1 year.	+ /	+ 22	3 +	+ +	+ 5	+ 9	+ %	+ 8	+ 6	+ 0/	+ //	12 +	/3 +	+ 4/	+ 51	Total

TABLE VI.

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

4-4-2 1-4-2	19	1943.	19	1944.	1945.	65.	Aggr 1942	Aggregate 1942/1945.
+2	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.
Number of child-years at risk	*110.18	98,245	97,315*	94,805	102,723*	90,337	349,706	416,882
Diphtheria cases	09	905	48	579	64	510	270	3,921
Annual rate of incidence per 1,000 child-years	69-0	9.18	0.49	6.10	0.62	5.64	0.77	9-40
Ratio	1 to	1 to 13·3	1 to 12.4	12.4	1 to 9-1	9-1	1 to 12:2	2-2
Diphtheria deaths	0	35	57	27	0	26	61	185
Annual rate of dying per 1,000 child-years	Nil	0.35	0.05	0.28	Nil	0.29	0.0057	0.44
Ratio	oitaling	0,01003	1 to 14	14			11	1 to 77

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

#### Measles.

During 1945, 4,215 cases of measles were reported, representing a case-rate of 6·1 per 1,000 of the population. The number of deaths was 13, making a fatality-rate of 0·3 per 100 cases and a mortality-rate of 2·0 per 100,000 of the population.

#### DEATHS FROM MEASLES.

					AGE	S AT	DEATE	1.					
Under 1 year.		2—	3—	4—	5	10—	15—	20—	30-	40	50-	60	All Ages.
8	1	3	1	-	-	-	-	-	-	-	_	-	13
					Age	s of (	CASES						
327	667	775	670	608	1,036	95	1		3	7		7	4.215
			PEI	RCENTA	GE FAT	ALITY	ат Е	EACH A	AGE.				
2.4	0.2	0.4	0.2			_	1					1	0.3

### Whooping Cough.

During 1945, 1,093 cases of whooping cough came to the notice of the Health Department, a figure representing a case-rate of 1.6 per 1,000 of the population. Of these cases 38 proved fatal, corresponding to a death-rate of 5.6 per 100,000 of the population.

Numbe at v	r of D arious	Age I	Period	s duri	ng 194	5.	Total Deaths	D	eaths		tal D	eaths.	centa	ge
nder 1 year.	1+	2+	3+	4+	5+	10+	all ages.	under 1 year.	1+	2+	3+	4+	5+	10+
25	7	3	1	1 1	1	_	38	65.8	18.4	7.9	2.6	2.6	2.6	-

#### Cerebro-spinal Fever.

#### TABLE VII.

CASES AND DEATHS DURING 1945 AND NINE PREVIOUS YEARS.

		1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Cases		 94	94	76	70	468	453	201	83	58	47
Deaths		 55	47	37	28	84	79	38	22	21	9
Fatality-rate 100 cases	per 	 58.5	50-0	48.7	40.0	17.9	17.4	18.9	26.5	36.2	19.1

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

# Deaths from Influenza and other Respiratory Diseases.

#### TABLE VIII.

	yla	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
891-1900		3,582	24.6	5.9	104
901-10		3,299	21.8	4.5	79
911-20		3,648	27.3	4-7	83
921-30		2,904	24.7	3.5	61.4
931-40		1,762	15.1	2.1	36.8
941		2,226	16.8	3.2	56.1
942		1,403	14.9	2.1	37.0
943		1,856	19.1	2.8	49.1
944		1,344	14.9	2.0	35.1
945		1,620	17.0	2.3	40.3

#### Dysentery.

During 1945, 511 cases of bacillary dysentery were reported in the city—173 Flexner, 334 Sonne, 1 Schmitz and 3 in which no organism was found. In addition, there were 4 cases of amoebic dysentery contracted abroad.

# MATERNITY and CHILD WELFARE.

#### Vital Statistics

Live births		14,784		Live	birth	rate		21.7
Still-births		431		Still	l-birth	rate		0.8
		Total birth	IS	15,	215			
Infani	t Mort	ality rate					72	
Neo-n	atal M	ortality rate		****			29-8	
Mater	nal Me	ortality rate					1.51	

#### THE MIDWIFERY DEPARTMENT.

During the year, 255 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 1945 was 49 and 1 temporary, and they attended—

Midwifery	cases	 	 3,294	
Maternity	cases	 	 326	
				3,620

# Statement of Notifications of Live and Still Births received during the year 1945.

T		Cum Discha		
PIO CO	Live Births.	Still Births.	Total.	Still Births per cent of total.
Midwives (Municipal)	3,274	69	3,343	2.0
Do. (Independent)	720	17	737	2.3
Medical Attendants	1,127	31	1,158	2.7
Liverpool Maternity Hospital	2,025	92	2,117	4.3
Municipal Hospitals	7,397	239	7,636	3.0
Other Institutions	579	23	602	3.6
District Homes	1,071	15	1,086	1.4
metric dysenless contracted	16,193	486	16,679	2.9

The number of still-births notified was 486, of which 101 were notified by midwives. Enquiries were made into the circumstances of all stillbirths.

# Visits paid by Staff of the Midwifery Department. Routine and special visits to midwives ... 2,097

Visits regarding claims for fees from medical practitioners for

Visits in respect of ophthalmia neonatorum ... ... 5,162

Special visits (puerperal pyrexia, venereal diseases, etc.) ... 1,583

## Medical Assistance.

Under the rules of the Central Midwives Board, midwives sought medical aid in 2,293 cases—1,647 mothers and 646 children.

#### Consultant Services.

The total number of occasions on which the services of a consultant obstetrician were requisitioned in connection with cases of puerperal pyrexia or complications during pregnancy was 2.

# Prevention of Spread of Infection.

Two 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 272. Of these, 258 were admitted to or occurred in hospitals, and 32 occurred in the practice of midwives, and in 11 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:—

			MATERNAL MORTALITY.							
BIRTHS REGISTERED.			Puerpe	eral Fever.		uerperal	Total.			
Live Births.	Still Births.	Total Births.	Deaths.	Rate per 1,000 total births.	Deaths.	Rate per 1,000 total births.	Deaths.	Rate per 1,000 total (live and still) births.		
14,784	431	15,215	7	0.46	16	1.05	23	1.5		

## Special Investigation of Maternal Deaths.

As a result of inquiries it was found that 35 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 chil	dbearing	 23
Class II-Deaths not primarily due t	o pregnancy	 12

### 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 707, namely:—

Mild cases					 	 659
Severe cases					 	 48
Cases brought	forward	from	previous	s year	 	 22
Loss of sight					 	 TOTAL I
				estissi	Total	 729

During the year, 42 babies were admitted to the City Hospitals.

Arrangements are made with the City Bacteriologist to examine the discharge from inflamed eyes in the newly-born.

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
707	93	37	40.0	5.2

#### Nursing Homes.

Two registrations were cancelled during the year. The nursing homes on the register at the end of the year numbered 15, the approximate number of beds being 150. Babies born in nursing homes numbered 806, including 8 twin births.

# THE HEALTH VISITORS' DEPARTMENT.

#### Ante-Natal and Post-Natal Clinics.

Total number of centres at which ante-natal clini	cs are	held	27
Number of clinic sessions held per week			55
" ,, post-natal sessions held per week,	separa	ately	
from ante-natal			4
", ", new cases attending ante-natal clinics			21,675
Total attendances at ante-natal clinics			95,260
" " " post-natal " …			5,114
Child Welfare Clinics.			
Total number of centres at which child welfare	elinies	are	
held			23
Number of clinic sessions held per week			42
,, ,, new cases—Under 1 year of age			8,598
Aged 1-5 years			736
			9,334
Total attendances-under 1 year of age	***		76,455
Aged 1-5 years			16,554
			93,009

The attendances amounted to 63 per cent. of the births notified.

# Statistics relating to Home Visits.

Visits to expectant mothers by health visitor	s		 4,961
Number of births visited during the year			 15,270
Re-visits to infants during the 1st year			 72,003
", " " aged 1 year to 5 years			 96,171
Visits paid to homes of nurse children .			 555
Visits to children discharged from municipal	al he	ospitals	1.975

Visits to cases of Infectious Disease-	
Visits to cases of measles (first visits, 4,492)	6,541
" " " " whooping cough (first visits, 19)	27
", ", ", ", pneumonia	841
" " " " infantile diarrhœa	429
Enquiries into deaths due to diarrhea	141
607 children under five years of age were referred for speci	al treat
ment to the school medical department as follows:-	
Defective vision 349	
Otorrhœa 29	
Orthopædic defects 229	
	Number
Child Life Protection.	
(a) Number of persons receiving children for reward on the	
Register at the end of the year 1945	42
(b) Number of children on the Register:—	
(1) at the end of the year 1945	52
(2) who died during the year (in homes)	2
(3) ,, ,, ,, ,, (in hospitals)	n lami
(c) Proceedings taken during the year	Nil

t-

# Care of Illegitimate Children.

According to information available, the number of illegitimate children born alive in Liverpool during 1945 was 1,582, giving a rate of 2.32.

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 illegitimate 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 441, equal to a rate of 29.8 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 34 premature infants born in Broadgreen, Smithdown Road and Walton Hospitals. They are also admitted to cubicles in Alder Hey Hospital. A further unit is in course of preparation at Mill Road Infirmary, and when this is ready for use, the accommodation in premature baby wards will be 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 Clinics.

Total attendance	ces at	the 6	6 clinics	 2,457
New cases				 1,143
Ante-natal and	post-r	natal	mothers	 1,082
Children				 61

#### War-Time Nurseries.

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

## (1) Full-time Nurseries for children aged 0-5 years-

	Accom	modation for
Banks Road Hut, Garston (19)	1	50 children
"The Bridge," Ibbotson's Lane, Sefton Park (17)		36 ,,
25, Derwent Road (13)	***	67 ,,
1, The Elms, Dingle (8)		36 ,,
Formosa Drive School, Fazakerley (10)	(	30 ,,
18, Great George Square (1)	7	73 ,,
25, Grove Park, Lodge Lane (8)	" (	58 ,,
12, Holly Road, Fairfield (7)		75 ,,
Mill Road Nurses' Home (6)	7	70 ,,
Monksdown Road Council School, Norris Green (11)	(	30 ,,
Orwell Road Hut, Kirkdale (4)	!	50 ,,
Salisbury Street Council School, Everton (3)	(	30 ,,
5/7, Swiss Road, Fairfield (6)		60 ,,
97/99, Upper Canning Street (8)		62 ,,
Wavertree Playground Hut (15)		50 ,,
Wellesbourne Road Council School, Norris Green (1	1) 6	50 ,,
262/264, Westminster Road, Kirkdale (4)	4	45 ,,

## (2) Residential Nurseries for Children aged 2-5 years-

Accommodation for Unit, 5, Gwydrin Road, 7, Montclair Drive, 22, Sinclair

Drive (18) ... ... ... ... ... ... 25 children Kilrea Road Hut, West Derby (11)... ... ... ... ... ... ... 36 ,,

# 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, 1945, 56s 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 465 of the mothers (or guardians) agreed to carry out instructions as to disinfestation. In 103 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 war conditions, such as soap rationing, inability to renew clothing owing to shortage of coupons, 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 78 mothers were cleansed—69 at home and 9 at cleansing stations.

# TUBERCULOSIS.

#### Notification.

Public Health (Tuberculosis) Regulations, 1930.

SUMMARY OF NOTIFCATIONS DURING THE PERIOD FROM THE 1ST JANUARY, 1945,

TO 31ST DECEMBER, 1945:—

#### TABLE I.

Age-periods.	Notifications on Schedule A.  Number of Primary Notifications of New Cases of Tuberculosis.												Total Notifica tions on Form A
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Total Primary Notifica- tions.	(includ- ing dupli- cates.)
Pulmonary— Males Females	2 2	22 9	17 18	11 14	61 105	113 143	182 139	191 93	133 38	105 22	24 11	861 594	1,088
Non-Pulmonary— Males Females	4 1	21 19	18 16	18 18	20 16	11 20	15 15	8 10	2 4	- 8	3 1	120 128	156 161

Out of a toal of 1,455 primary notifications of pulmonary tuberculosis 1,018 were received from private and 437 from hospital practitioners, whilst in the case of non-pulmonary tuberculosis these figures are 79 and 169 respectively, forming a total of 248.

# The Notification and Dispensary Registers.

In To II is shown the number of cases on the notification and dispensar, gisters at the end of the year, the difference (2,184) between the figures—r the respective registers representing the number of patients who, or 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

Therefore the property		onary culosis.	Non-Pu Tuber	Totale		
	Males.	Females.	Males.	Females.	100015	
Number of cases on the Notification Register	2,777	2,501	694	850	6,822	
Number of established cases on the Dispensary Register	1,988	1,700	424	526	4,638	
Difference	789	801	270	324	2,184	

In Table III is given an analysis of the 2,184 persons whose names are on the notification register but are not on the dispensary register, according to the latest information concerning them.

TABLE III

The state of the s	Pulmonary Tuberculosis.							Non-Pulmonary Tuberculosis.					
	Males.			Females.			Males.			Females.			a stacked
	State of the Disease.							State of the Disease.					
Whereabouts Known.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	see lo tes
Totals	31	220	538	52	182	567	32	132	106	43	157	124	2,184

## 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.

										===			
himonity :	P	ULMC	NARY.	NARY.		Non-Pulmonary				TOTAL.			
Diagnosis.	Adı	ults.	Children		Adults.		Children		Adults.		Children.		G
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Te
A.—New Cases examined during the year (excluding contacts):  (a) Definitely tuberculous  (b) Diagnosis not completed  (c) Non-tuberculous	639	431	34	28	54	62	58	43	693 44 513	493 31 397	92 13 155	71 21 145	1,:
<ul> <li>β.—Contacts examined during the year:—</li> <li>(a) Definitely tuberculous</li> <li>(b) Diagnosis not completed</li> <li>(c) Non-tuberculous</li> </ul>		2	3 =	5 _	=		=	=	_  45	2 94	3 166	5 155	44
C.—Cases written off the Dispensary Register as:—  (a) Recovered  (b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous)	46	48	5	8	18	18	14	12	64 558	66	19	20	1,(
D.—Number of Cases on Dispensary Register on Dec. 31st 1945:—  (a) Definitely tuberculous  (b) Diagnosis not completed	1,839	1,57	1 149	129	207	330	217	196	2,046 44	1,901	366 13	325 21	4,0
1. Number of cases on Dispensar on January 1st, 1945	ister		4,342 2. Number of cases transferred from areas and cases returned after discunder Head 3 in previous years								//		
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"				4. Cases written off during the ye (all causes)						ear as	Dead		
5. Number of attendances at the Dispensary (including Contacts)				5	6. Number of Insured Persons under Domi- ciliary Treatment on the 31st December 1,								
7. Number of consultations with medical practitioners:—  (a) Personal  (b) Other				0	8. Ni	Number of visits by Tuberculosis Officers to homes (including personal consultations)							
9. Number of visits by Tuberculosis Visitors to homes of patients				10. Number of:—  (a) Specimens of sputum, etc., exami (b) X-ray examinations made in nection with Dispensary work.							2;		
11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above				6	2. N					s" ca Decen			1,

<sup>\*</sup> In addition to 3,260 consultations, 2,320 reports concerning patients were sent to medical practition

#### General Remarks.

The city death rates for the year 1945 for pulmonary and non-pulmonary tuberculosis are 0.88 and 0.14 per 1,000 respectively, making a total of 1.02 per 1,000 for all forms of the disease. The comparable rate for 1939 was 0.93 for all forms of tuberculosis. An analysis of unnotified cases of tuberculosis is given in Table VIII.

The Tuberculosis Officers continue to carry out the examination of certain recruits to the Forces in accordance with the requirements of the National Service (Armed Forces) Act, 1939, and 289 reports have been submitted to the Ministry of Labour. A further 384 reports have been rendered in accordance with the requirements of the Public Health (Tuberculosis) Regulations, 1940 (Men), and 51 reports under the Public Health (Tuberculosis) Regulations, 1942 (Women).

The Ministry of Pensions was supplied with 338 reports in respect of pensioners about to undergo or completing courses of residential treatment and 181 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 470 persons who were known to have been in contact with infectious cases of pulmonary tuberculosis and found evidence of disease in 10 or 2:12 per cent.

# Tuberculosis Welfare Department.

This Department has been administering the recommendations of the Minister of Health's Memorandum 266/T, since 3rd August, 1943, and is responsible for the assessment and distribution of financial allowances to patients suffering from Pulmonary Tuberculosis, whose cases fulfil the requirements laid down in the Memorandum. A summary of cases dealt with is given below:—

Total number of applications from 1st January to 31st

December, 1945 ... ... ... ... ... 607

Number of above eligible for and granted allowances ... 393

Number of above ineligible for and not granted allowances-

- (a) on medical grounds ... ... ... 50
- (b) on grounds other than medical ... 164-214

Total amount of allowances paid in the above period-£20,231 9s. 11d.

REHABILITATION. With regard to this part of the scheme, the number of cases dealt with by the Tuberculosis Welfare Department has considerably increased during the past year and close co-operation between this department and the Rehabilitation Department of the Ministry of Labour has been maintained.

Summary of cases dealt with during the year ending 31st December, 1945:—

Cases referred by Ministry of Labour to Tuberculosis Officer	235
(a) Examined and found fit for light, part-time or full-	
time employment	177
(b) Not fit for employment	38
(c) Failed to attend for examination	9
(d) Certified as non-tuberculous	11
Letters sent by Tuberculosis Welfare Officer to patients	
offering advice and assistance to obtain suitable	
employment	510
Number availing themselves of this assistance and referred	
to Ministry of Labour	118
* Actual number of patients reported by Ministry of Labour	
as placed in employment	37
* Number of cases who obtained employment themselves	26
Total number of cases dealt with under Rehabilitation	
Scheme by Welfare Department	745

<sup>\*</sup>These figures do not give an accurate or full return of patients already employed, or of those who were placed in employment, because of a considerable number of them failing to reply to letters or inform the Welfare Officer as to their position. Furthermore, it is apparent that the Ministry of Labour has not notified this department of all the cases referred to it who were actually found employment through the Scheme.

The Disabled Persons (Employment) Act, 1944. So far the improvement anticipated in the number of tuberculous persons who would be placed in suitable employment after the passing of this Act has, unfortunately, not materialised. This is due mainly to the fact that the majority of employers are already employing more disabled persons than the quota of 2 per cent. decided upon by the Minister of Labour and also because the classes of employment to be officially "designated" under the provisions of Section VI of the Act, have not yet been announced.

## Mass Radiography Department.

As a full-time medical staff is not yet available the Mass Radiography Unit has not so far attained full output.

It was decided to invite the medical practitioners in the city to make use of mass radiography as an aid to diagnosis in any suspicious chest cases which they might encounter. This service has considerably increased the positive findings but has proved most acceptable to the doctors and has resulted in the detection of many cases of pulmonary tuberculosis which might otherwise have remained undiscovered.

The appended table gives a brief analysis of the work of the unit for the period from November 22nd, 1944 to December 31st, 1945.

					Male.	Female.	Total.
Miniature examinatio	ons		344	 ***	8,945	10,862	19,807
Abnormalities :					And In	0.3	
Tuberculosis—Acti		***		 ***	55 236	62 186	117
Inace	ive			 	200	100	422
Cardio vascular				 	38	50	88
Miscellaneous				 	397	223	623

TABLE V.

PATIENTS UNDER DISPENSARY TREATMENT AT THE END OF THE YEAR.

	the China and a	Pulmonary.	Non-pulmonary.	Totals.
	Males	2	a soy <del>-</del> jos jo	2]
Insured Persons	Females	2	Heart 22 (19.88	2
1000 ARGUM	Male Adults	1		1)
Yan Tanan	Female Adults	22	3	25
Non-Insured Persons	Male Children*	1	3	4
	Female Children*	-	5	5
TOTALS		28	11	39

<sup>\*</sup> Under 15 years of age.

TABLE VI.

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

	and the discount of the last	Pulmonary.	Non-pulmonary.	Totals.
,	Males	578	126	704
Insured Persons	Females	490	146	${636}$ $^{134}$
gunarion (sp),	Male Adults	74	18	92]
Non-Insured	Female Adults .	189	110	299
PERSONS	Male Children* .	96	170	266 88
	Female Children* .	77	148	225
TOTALS		1504	718	2222

<sup>\*</sup> Under 15 years of age.

## Home Nursing.

The domiciliary nursing of both pulmonary and non-pulmonary cases continues to be carried out by the Liverpool Queen Victoria District Nursing Association. During the year, 81 pulmonary and 30 non-pulmonary cases were nursed in their homes, and to these cases 5,204 visits were paid. The Garston and Grassendale Nursing Association and the Woolton and District Society have dealt with cases outside the area supplied by the District Nursing Association.

#### Domiciliary Treatment.

At the end of the year, 1,425 patients remained under domiciliary treatment of whom 1,076 were persons insured under the National Health Insurance Act, and in receipt of treatment from their panel doctors and 349 were not insured and were under the treatment of District Medical Officers or doctors of their own choice. The domiciliary reports received relating to insured persons numbered 389. Table VII shows the position at the end of the year.

TABLE VII.

PATIENTS UNDER DOMICILIARY TREATMENT AT THE END OF THE YEAR.

		Pulmonary.	Non-pulmonary.	Totals.
INSURED	Males	697	27	724
Persons	Females	319	33	${352}$ $^{107}$
Non-insubed	Male Adults	i11	8	119)
	Female Adults	179	15	194
PERSONS	Male Children*	10	10	20 34
	Female Children*	9	7	16
TOTALS		1325	100	1425

#### \* Under 15 years of age.

#### Co-operation.

During the year, 1,240 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.

Operations (Thoracic and other) 412				
Gold and other treatments 169		Examinatio	ns (Films) (Screenings).	
Light Therapy (Exposures) 11,435		,,	(boroumgs),	10,200
Artificial Pneumothorax (New In-	Dental	Treatment	(Extractions)	801
ductions) 215	15	,,	(Fillings)	139
Artificial Pneumothorax (Refills) 16,297	,,		(Miscellaneous).	308

<sup>\*</sup> Includes cases referred by the Tuberculosis Clinics.

#### Notification and Deaths.

During the year 54 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.

Disease.	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.	Patie died be notification could effect
Pulmonary Tuberculosis Non-Pulmonary	605	27 4·4%	5 0·9%	9	7 1·1%	3 0.4%	0.44
Tuberculosis	96	27 28·1%	7.2%	12 12·5%	=	3.1%	5-7:

## Deaths from Tuberculosis.

The number of deaths from pulmonary and non-pulmonary tuberculosis in Liverpool from 1933 to 1945, 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 PULMONARY 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.
1933	2,279	2.63	1,009	1.19	0.69
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

TABLE X.

DEATHS FROM NON-PULMONARY 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.
1933	654	0.75	148	0:17	0.13
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	0.21	103	0.15	0.11
1944	250	0.37	82	0.12	0.10
1945	248	0:36	96	0.14	0.10

TABLE XI.

AGE PERIODS OF DEATHS FROM TUBERCULOSIS DURING 1945.

1 5 1 1	PULM	IONARY.	Non-Pulmonary.			
Age Periods.	Males.	Females.	Males.	Females.		
0-	_	2	2	4 (		
1-	5	2	16	10 11		
5—	-	2 2 3 5	8	4		
1— 5— 10—	1	5	3	6		
1/4	5	29	4	10		
20—	32	48	3	5		
25—	74	. 70	3	4		
35	68	40	6	2		
45	78	23	-	1		
85	78 75	6	_	3		
20 25 35 45 55 65	32	7	2	Miles Tarres		
TOTALS	370	235	47	49		

## VENEREAL DISEASES.

The Clinics operated by the Corporation during 1945 were: -

Seamen's Dispensary-Males only.

Mill Road Infirmary-Females only.

Royal Infirmary-Males and Females.

Edge Lane Hospital-Females only.

The Seamen's Dispensary and the Royal Infirmary are open all day for treatment of these diseases in the male. At Mill Road Infirmary, the Royal Infirmary and Edge Lane Hospital treatment for females is provided each day at hours convenient to the greatest number of patients.

All cases of venereal diseases requiring in-patient treatment are now concentrated in the special wards at Belmont Road Hospital. Periodic examinations of the children born and apparently free from disease are arranged. Infected parents are encouraged to attend the clinics until cure is accomplished. Further pregnancies are supervised and prophylactic treatment for congenital syphilis is given throughout.

It is becoming increasingly realised that the infected unit is not the individual but the family and thus whole families are examined, and, if need be, treated as the result of one diagnosed case. The maternity wards in particular of the various hospitals have referred numerous cases to the clinics for treatment, while the ante-natal centres throughout the city have sent many patients for diagnosis and treatment.

An unadvertised clinic at the Royal Infirmary deals with many late cases and their families. The sources of supply are the general wards, the ophthalmic and aural departments of general hospitals and the special hospitals for diseases of the eye, ear and throat.

The employment of a nurse almoner and contact tracer has proved of great value in connexion with the operation of Regulation 33B and with the defaulting female. Form I 33B was responsible for the notification of 186 females and 3 males on one occasion only and of 13 females on

two occasions. Of these, 90 females and no males were brought under observation.

The issue of contact slips to patients attending and whose contacts were known to them resulted in 140 females and 9 males being examined.

During the year research on the treatment of syphilis by penicillin has been in progress and this drug has been used in the treatment of cases of gonorrhea resistant to other methods.

The following table summarises the work of the Clinics for the year 1945:-

Martin State of the State of th	Seamen's Dispensary.		oyal mary.	Infirm †Belmo	Road ary and nt Road spital.	†Edge Lane Medical Home. Females	TOTAL. Males and Females
To some	Males only.	Males.	Females.	Males.	Females.		Temaics
New cases	5,307	1,238	946	7	822	95	8,415
Old and new patients Total attendances In-patient days	35,075 —	12,413 68	13,347 130	235 8,743	16,763 8,501	95 4,351	77,928 19,793

†Beds for In-patients are reserved at these Institutions.

There was an increase in the number of new cases (6,819 in 1944 compared with 8,415 in 1945), but a decrease in the number of attendances (82,022 and 77,928 in 1944 and 1945), and in in-patient days of treatment (22,029 and 19,793 respectively).

During the war, early syphilis has increased in both sexes but most strikingly in the female population:—

19	39.	19	40.	19	41.	194	12.	19	43.	19	44.	194	5.
M.	F.	M.	F.	М.	F.	М.	F.	M.	F.	М.	F.	М.	F.
187	25	354	59	584	139	567	260	507	279	417	278	509	315

## SCABIES.

The Scabies Order, 1941, under the Emergency Powers (Defence) Regulations gives the Medical Officer of Health, where he is satisfied, upon information given, that a person is in a verminous condition, power to cause such a person to be medically examined in suitable premises and further give him or her notice that he must present himself at a place where suitable arrangements have been made for him or her to be disinfected.

The treatment of scabies consists in giving the patient a hot bath, applying a suitable remedy, such as a 25 per cent. emulsion of benzyl benzoate and disinfection of clothing.

At the close of 1941 scabies was becoming widely prevalent. There were then 4 cleansing stations available for the treatment of scabies. A further unit was opened in Belmont Road Emergency Hospital in 1941. During 1942 7 further centres were opened and 2 more in 1943. Of these six have since been closed following the decline of the epidemic. The existing units are:—

(1)	Stalisfield Avenue, Norra	is Gre	en		 2	Baths
(2)	Carnegie Welfare Centre				 2	,,
(3)	Alder Hey Hospital				 3	,,
(4)	50, Eldon Place				 1	Bath
(5)	South Tuberculosis Disp	ensary	Park	Road	 3	Baths
(6)	Belmont Road Hospital				 7	,,
(7)	71, Everton Road				 4	,,
(8)	Clifton Street, Garston				 2	

The total number of baths thus provided is 24, against 31 in 1944.

The total number of cases of scabies thus dealt with in 1945 was 4,686, as against 10,090 in 1944 and 15,845 in 1943. The new cases now average 90 per week as against 104 per week in 1944 and 260 in 1943. The contacts of school children are followed up and adult or pre-school cases brought to light received treatment. It will be seen that these methods have been successful in combating the epidemic which seemed so formidable in 1942. The number of sessions held in the remaining clinics have been reduced proportionally to the reduced incidence.

## INFECTIOUS HOSPITALS and SANATORIA.

During 1945 the hospital accommodation for infectious cases was as follows:-

City Hospitals North (182 beds), South (96 beds), East (178 beds), Fazakerley (118 beds), Fazakerley Annexe (149 beds), total 732 beds. Fazakerley Sanatorium and Annexe (447 beds), Cleaver Sanatorium 225 beds, total, 672 beds.

The following tables, prepared by the medical staff of each of the city hospitals, show the number of patients admitted, the nature of the illness in each case and the results of treatment, during the year 1945:—

												-
Disea	SES	Soi	Remaining Dec. 31st, 1944.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.
		Ci	ty H	ospital	Nort	h, Net	herfie	d Roa	d.		altedra	lgid.
icarlet Fever			51	350	3	404	-	6	369	29	-	_
Diphtheria			42	184	5	231	_	6	170	50	-	5
Other Diseases		***	22	310	5	337	_	5	309	22	_	1
Totals			115	844	13	972	6.50	17	- 848	101		6
			City I	Hospit	al Sou	th, Gr	afton	Street				
Scarlet fever			23	258	3	284	_	-	248	36	-	_
feasles			2	6 -	-	8	-	2	6	-	-	_
Cropical Diseases	3		22	375	-	397	-/	-	383	-	-	2
Other Diseases			1	18	-	19	_	_	19	_	-	-
Totals		10111	48	657	3	708		14	656	36	_	2

DISEASES.	Remaining Dec. 31st, 1944.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged	Remaining at end of year.	Died within	Admission
0	ity Ho	spital	East,	Mill L	ane, O	ld Sw	an.			
Scarlet Fever	. 29	290	10	329	-	5	266	58	_	
Measles	. 16	119	34	169	-	10	156	2	-	1
Diphtheria	. 60	229	16	305	-	8	238	48	4	1
Other Diseases	. 36	406	26	468	-	11	428	24	1	
Totals	. i41	1044	86	1271	-	34	1088	132	5	1
	C	ity H	ospital	s, Faz	akerle	у.				-
Scarlet fever	39	287	31	357	-	18	299	39	1	
Enteric fever group .	3	16	5	24		1	18	4	1	
Diphtheria	52	223	27	302	al <u>a</u> go	19	231	45	4	
Measles	9	110	12	131	-	14	104	13	-	
Whooping Cough	24	79	8	111	-	8	94	2	2	
Other diseases	87	934	263	1284	-	93	1061	105	12	
Totals	214	1651	346	2211	<u> </u>	155	1807	208	20	
	deudâ	Fazak	erley	Sanato	rium.					
Tuberculosis	399	348	82	829	-	35	310	380	-	
		Clea	ver S	anatori	ium.					1
Tuberculosis	203	185	61	449	-	52	153	207	-	-
Totals—All Isolation Hospitals and Sanatoria.										
	IN ALLE	ADDIE	01011 -							

General and Children's Hospitals and other Institutions. Statement of Admissions, Discharges, Births, Deaths, and Transfers.

Hospital or Establishment.	Remaining 31/12/44	Admitted.	Trans- ferred to	Born.	Dis-	Trans- ferred from	Died.	Remaining 29/12/45
Administered under the Poor Law					mos H I			ST
Belmont Road Institution	1,590	8,614	645	1	6,488	190	1,976	1,595
Kirkdale Homes	1,309	223	422	1	336	118	226	1,274
Olive Mount Children's Hospital .	375	1,438	601	1	1,560	394	40	420
Cottage Homes, Fazakerley	389	101	171	I	200	7.0	H	386
· Shaw Street Boys' Home · · ·	35	13	12	1	23	1	1	37
Seafield House (Greaves Hall)		20	64	1	6	4	1	93
Administrated under the Dublic	alas edin	100			ind Imp			0.5
Health Act :— Walton Hospital	1,160	14,870	153	3,069	16,816	246	1,059	1,131
Alder Hey Hospital	1,121	8,409	66	1	8 126	251	434	818
Smithdown Road Hospital	630	9,725	136	2,190	10,799	469	637	776
Broadgreen Emergency Hospital	560	9,425	72	2,031	10,926	160	384	819
TOTAL	7,253	52,838	2,313	7,290	55,283	2,507	4,756	7,130

NOTE.—Emergency Medical Service cases are included in above Return.

## MUNICIPAL HOSPITALS and INSTITUTIONS.

## General Review of Hospital Services.

The Liverpool Municipal Hospitals have continued to carry a heavy burden of work during the year 1945, as in earlier war years, and this work was considerably increased from the date of the Normandy invasion. Large numbers of casualties among the forces were treated and several special centres under the Emergency Medical Services were developed. In addition to the Skin Unit at Belmont Road Emergency Hospital and the Orthopaedic Unit at Alder Hey Hospital which have been in operation since early in the war, other important units were developed, mainly in 1944, namely, (a) a thoracic surgery unit at Broadgreen Hospital, (b) a facio-maxillary surgical unit at Broadgreen Hospital, (c) a peripheral nerve injury unit at Alder Hey Hospital, and (d) a tropical diseases unit at Smithdown Road and Grafton Street Hospitals. The work done in these units, being highly specialised, has been of corresponding value in the war effort.

The development of these special units was only made possible by the appointment of a number of specialists—medical, surgical and dental—under the E.M.S., to the hospitals concerned. I would like again to pay tribute to the extremely valuable work that has been carried out by them in these centres. It is only by the existence of a strong Medical School and Tropical Diseases School in Liverpool that it has been possible to develop these units; on the other hand, the provision of wards, laboratory, operative and other facilities and medical and nursing staff by the municipal hospitals has been equally essential. It is the combination of these two services that has produced such admirable results, a combination which is of good augury for the future.

The special three-month periods of training in Tropical Diseases for trained nurses in association with the staff of the School of Tropical Medicine were continued. This secured an adequate supply of nurses at the unit and from it a steady stream of well-trained nurses has gone out to the forces and colonies.

#### DETAILS OF ADMISSIONS, DISCHARGES, ETC., AND WORK UNDERTAKEN AT THE FIVE MUNICIPAL HOSPITALS FOR PERIOD 1941 to 1945.

		WAI	LTON Hos	PITAL		8	MITHDOW	N ROAD	HOSPITAL			Mille I	ROAD IN	TRMARY			ALDER	HRY He	OSPITAL		Вво	ADGREEN	EMERGES	or Hospi	TAL	Вилм	ONT BOAT	ENERGI	NCY Hos	PITAL.
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
*Admissions	16,200	17,090	16,390	16,406	14,870	7,276	7,907	8,223	8,292	9,725	3,081	-	-	-	_	7,981	8,251	8,371	9,139	8,409	1,986	3,482	7,368	9,652	9,425	9,533	8,643	7,371	8,411	8,614
*Transferred to	205	181	84	206	153	152	68	78	101	136	66	-	-	-	-	83	91	77	96	99	-	48	148	74	72	633	493	649	765	645
*Born	2,409	3,258	3,602	3,486	3,069	1,211	1,892	2,046	2,068	2,190	482	-	-	-	-	-	-	-	-	-	-	-	267	1,736	2,031					-
*Discharged	16,745	18,588	18,399	18,698	16,816	7,417	8,473	8,775	9,181	10,799	3,211	-	-	-	-	7,173	7,475	7,651	8,182	8,126	1,913	3,108	7,158	10,756	10,926	7,702	7,179	5,839	6,291	6,488
*Transferred from	300	334	286	275	246	506	541	614	603	460	102	-	-	-	-	230	242	344	431	251	-	20	95	221	160	769	643	638	927	790
*Died	1,773	1,540	1,477	1,165	1,059	868	835	934	660	637	278	-	-	-	-	637	463	487	347	434	58	231	383	364	384	1,812	1,467	1,446	1,902	1,976
Surgical Operations	5,580	6,432	6,119	6,476	6,175	2,810	2,991	3,019	2,736	2,965	1,277	-	-	-	-	2,375	2,520	2,239	3,075	3,005	-	2,242	3,406	4,177	4,627	-				-
Out-Patient Attendances	67,412	79,991	82,070	84,474	77,784	41,713	42,022	48,248	48,664	49,962	58,071	41,344	76,338	77,514	73,379	15,215	41,081	47,593	45,265	50,182	3,772	8,290	20,991	33,262	39,488	25,216	27,871	28,612	31,083	37,193
Pathological Examinations	27,742	30,697	28,895	26,191	25,513	38,769	52,639	53,225	57,290	45,631	8,219	-		-	-	19,767	21,643	19,861	17,274	19,703	-	10,203	14,677	19,132	16,482					7,306
Post-mortema	962	930	890	708	735	137	195	215	210	122	51	-		-	-	118	107	130	131	151	-	42	95	89	98	-	-	-		25
X-Ray Examinations (Radiographs)	23,441	22,463	23,528	26,752	28,231	9,343	11,455	14,823	16,126	17,110	7,829	-	-	-	-	13,150	13,361	15,382	17,220	18,452	-	8,124	19,694	27,467	32,241	-	-	-	7	

<sup>\*</sup>These figures correspond with the returns to the Ministry of Health and are made up to the last week end of each year. This accounts for the slight variation between the figures returned by the respective Hospitals which are for the actual Calendar year. Norm.—Mill Road Infirmary statistics compiled to date of evacuation, viz.:—4,5,41, with the exception of O.P. attendances which are for the full year 1945.

The building up of these units has involved certain structural alterations which have been carried out at the cost of the Ministry of Health under the E.M.S. Scheme. The latest provision by the Ministry was for a rehabilitation unit in a prefabricated hut at Broadgreen Hospital mainly for the thoracic surgery unit.

#### STRUCTURAL WORK

(a) Sanatoria. Apart from the above alterations sanction was obtained for carrying out certain additions to the two Sanatoria.

At Cleaver Sanatorium the alteration in the character of the sanatorium required additional Nurses' Home accommodation and the provision of a lecture theatre and artificial pneumothorax room. The two latter were housed by enclosing a verandah and a three-storey extension of the Nurses' Home providing 12 bedrooms was built and occupied early in 1945.

At Fazakerley Sanatorium the need for provision for the surgical treatment of pulmonary tuberculosis became pressing. Sanction was obtained from the Ministry of Health for the construction of two single-storey wards, each of 24 beds, together with a dining and recreation room and a heating chamber, united by a corridor which also connected with the building used for radiographic and operative work. This work was put in hand in the autumn of 1944, but owing to the inclemency of the weather in the autumn and winter the difficulty in obtaining certain materials, and shortage of labour, this construction is still in hand at the time of writing as is the addition to the Nurses' Home of 24 bedrooms.

- (b) Provision was made for the formation of a considerable maternity unit at Mill Road Infirmary in "B" and "D" Blocks. This provision includes:—
  - (1) An admission and reception unit.
  - (2) Seven labour cubicles with sterilizer room.
  - (3) Ante-natal ward with six isolation cubicles.
  - (4) Unit for premature babies.
  - (5) Rehabilitation of operating theatre suite.
  - (6) Equipment of two wards as lying-in wards; this will be extended to four after reparation of war damage.

The Administrative Block including accommodation for resident medical and nursing staff, kitchen, offices, etc., was also put into repair and decorated. This work is still in progress but it is hoped that it will be completed by the middle of 1946.

The total cost of this work to date is estimated at £11,000 of which £4,350 is attributed to war damages.

- (c) A deep X-ray therapy unit with mould and preparation rooms and a diagnostic X-ray set was built in "Y" Block at Walton. The Westinghouse deep therapy set has not yet been delivered.
- (d) Accommodation was provided for the Child Health teaching unit in Ward A3 at Alder Hey Hospital, provision including (1) Lecture Room, (2) Museum, (3) Offices.
- (e) Certain re-arrangements of wards, etc., at Broadgreen Hospital provided better out-patient and reception facilities. The kitchen was greatly improved by the removal of the central chimney stack and the extension of the kitchen and offices. The dining-hall, temporarily occupied as an out-patient department, was restored to its original function.

MATERNITY CASES. Post-natal patients from Walton and Smithdown Road Hospitals continued to be transferred to the Hydropathic Hospital, Southport, and to Rosefield Hall, Southport. This arrangement relieved the pressure on the lying-in accommodation at Walton. The units at Southport were staffed by Walton Hospital. The number of births at Walton was 3,612 in 1943, 3,459 in 1944, and 3,197 in 1945, and those at Smithdown Road, 2,098, 2,061 and 2,205 in the same three years. The new maternity unit, approved for the training of pupil midwives, which was opened in Broadgreen Hospital, late in 1943, recorded a total of 1,722 births for the year 1944 and 2,073 in 1945. The total rise in the number of births occurring in Municipal Hospitals was from 5,710 in 1943 to 7.475 in 1945.

Tuberculosis. Adult cases of tuberculosis were admitted mainly to the Sanatoria at Fazakerley and Heswall and to the tuberculosis unit at Walton Hospital. Cases of tuberculosis in children were admitted to the William and John Jones Convalescent Home, Rhyl. Two wards at Broadgreen Hospital were available for the reception of cases of tuberculosis, and temporary accommodation was occasionally provided at Belmont Road Emergency Hospital. Nevertheless the loss of beds by the change of user of Broadgreen Sanatorium exercised a cumulative effect and two wards at Sparrow Hall were converted to Sanatorium use and came into occupation early in 1944 and a third in 1945. Some cases for thoracic surgery were admitted to Broadgreen Thoracic Surgery Unit, most of the remainder receiving such treatment in Fazakerley Sanatorium and the remainder in Cleaver Sanatorium.

INFECTIOUS DISEASES. Diphtheria continued to be the most pressing problem although the numbers of cases again showed an additional decline in comparison with 1943. Measles were becoming prevalent in the fourth quarter of the year. Provision was made for the admission of cases of minor infections such a mumps, chickenpox and rubella among service units and from on shipboard.

## SANITARY ADMINISTRATION.

During the year, sanitary inspectors made 161,160 inspections and visits for the investigation and abatement of nuisances. 28,318 complaints of nuisances were received as compared with 24,687 the previous year. The total number of nuisances reported was 46,651. The number of notices served for the abatement of nuisances was 23,163 informal, and 16,624 statutory, 2,495 of these being served for the provision of dustbins. In 529 cases legal proceedings were instituted for failure to comply with notices served under the Public Health Act, 1936, etc.

## Departmental References.

The co-operation which the Public Health Department receives from other Corporation departments is fully appreciated, as many sanitary defects are brought to notice and dealt with immediately. The number of references so received was 4,082, whilst the number of references to other departments was 5,887.

#### Infected Houses.

The sanitary inspectors made 8,314 investigations relating to cases of infectious disease, involving 9,084 visits to infected houses, and 1,146 visits to phthisis cases, also 585 inquiries relating to suspected smallpox contacts.

#### Closet Accommodation.

There still remain 95 privies and 75 pails on farms and outlying houses in the city where sewers are not reasonably available.

## Drain Testing.

1,262 drainage systems were tested, 97 by colour test, of which 52 were positive and 45 negative; 308 by smoke rocket test, of which 157 were positive and 151 negative; 857 by smoke machine test, of which 368 were positive and 489 negative. In some cases the assistance of the City Engineer's Department has been utilised. Where defects have been revealed by these tests, repairs were carried out.

# 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.

## Register of Factories, Section 8 (3).

The total number of factories (including bakehouses) on the register was 4,883, viz.:—

With mechanical power ... 2,553
Without mechanical power ... 2,330

7,199 visits were made to factories, 469 in consequence of complaints to the department, 6,730 in the course of ordinary routine inspection. During these visits 847 defects were found, in respect of which 80 informal notices and 176 statutory notices were issued on owners or occupiers, the defects not remedied at the end of the year being 29.

## Register of Workplaces (including Offices).

The number of workplaces on the register was 3,250. 2,407 visits were made to workplaces, and 1,497 in respect of offices. There were 138 defects, 42 of which were unsuitable or defective sanitary conveniences, 7 inadequate ventilation, and the remainder want of cleanliness, the defects not remedied at the end of the year being 29.

## Outworkers. Factories Act, 1937, Sections 110 and 111.

124 visits were made to premises and no instance of employment in unwholesome premises was found.

## Rag Flock Acts, 1911 and 1928.

Ten visits to two factories in which rag flock is manufactured and 31 visits to premises where rag flock was used, were made, 28 samples of rag flock being taken and were in accordance with the standard of cleanliness required by the rag flock regulations.

#### Bakehouses.

The number of bakehouses in use at the end of the year was 336, of which 113 were without mechanical power, 13 of these being basement, and 235 with mechanical power, of which 28 were basement bakehouses. 1,289 visits were made to bakehouses. 56 informal notices and 39 statutory notices were issued in respect of want of cleanliness, all of which were complied with.

#### Restaurants and Café Kitchens.

All kitchens in connection with cafés and restaurants are regularly visited, particular attention being paid to the cleanliness of the premises and of the workers employed in the kitchens. There were 376 in use at the end of the year, 2,730 visits were made to restaurant and café kitchens, 56 informal and 233 statutory notices being issued in respect of want of cleanliness, unsuitable or defective sanitary conveniences, accumulation or deposit of refuse in rooms, the defects not remedied at the end of the year being 135.

#### Licensed Premises.

1,969 visits were made to licensed premises. Measures have been taken to maintain a good standard of cleanliness. 355 statutory notices were issued, and with the exception of premises requiring structural alteration, the carrying out of which has been retarded owing to the shortage of labour and materials, the remaining defects were remedied.

#### Offensive Trades.

There were on the register of offensive trades at the end of the year 76 businesses, and 493 visits were made to these premises.

#### Fish Friers' Premises.

At the end of the year there were 404 fish friers' premises within the city, and 1,424 visits were made.

#### Furniture Removers.

106 visits were made to the premises of furniture removers and 136 vans were inspected and found 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 26 licensed employment agencies on the register.

## Railway Carriages and Fish Arrivals.

During the year 332 visits were made to the main line railway stations within the city to ascertain if the railway carriages and fish arrival platforms were in a clean condition. All were found to be clean.

## Shops Acts, 1912 to 1938, and Young Persons (Employment) Act, 1938, Part I.

Inspection of shops and other premises throughout the City, affected by the provisions of the above Acts, has been carried out by Shops Inspectors, who have also applied to shops the appropriate provisions of the Public Health Act, 1936, the Food and Drugs Act, 1938, and the Rats and Mice (Destruction) Act, 1919.

During the course of the year, Shops Inspectors relinquished the duties undertaken by them as Enforcement Inspectors under the Ministry of Food, and were thereby enabled to devote more attention to the work of this department.

Routine inspection of shops has been carried out as far as possible, and despite restrictions on the use of labour and materials, good progress has been made in the work of remedying defects and unfavourable conditions, unavoidably delayed by war-time emergency, particularly in relation to matters affecting the welfare of shop workers, and the cleansing of shops.

Shopkeepers generally, have co-operated in the measures taken to secure improvement in compliance with the above Acts. Hours of employment of Shop Assistants and Young Persons have been improved as a result of the voluntary closing of shops at hours much earlier than those fixed by the Shops Acts.

Shopkeepers favour the continuance of earlier closing, which has been encouraged by compulsory early closing during the winter period under Defence Regulation 60AB, and customers have co-operated without being deprived of facilities for obtaining essential requirements.

In accordance with the requirements of the Public Health Act, 1936, Section 205, enquiries have been made by a female shops inspector, with reference to the employment of women after child-birth, and in this connection 276 visits were made to factories within the city to ensure that the appropriate requirements of the Act are complied with. The total number of visits to shops was 58,313, and 86 special complaints were investigated under the various enactments. The number of shops registered was 2,401.

In connection with the closing of shops on the weekly half-holiday, 40,052 visits were made, whilst the visits on Sunday amounted to 1,681. Re-visits in connection with contraventions numbered 2,625, calls incidental to the Shops Acts were 3,539, including premises visited respecting nuisances dealt with under the Public Health Act. Fourteen informations for contraventions of the Shops Acts were laid and the defendants convicted; the fines amounted to £5 and £1 4s. 0d. costs. Warning letters were sent in 311 instances regarding minor offences. For the purpose of the Young Persons (Employment) Act, 1938, 84 visits were made to premises other than shops, revisits being required in 2 cases in connection with the provision of prescribed notices.

#### Food Control.

The total number of visits made by Enforcement Inspectors was 1,258, and the complaints investigated included 20 cases in which informations were laid. The fines totalled £33 10s. 0d., and costs allowed amounted to £3 6s. 0d. Eight cases were withdrawn.

## Theatres, Cinemas, etc.

722 visits were made by the Shops Inspectors, and in 5 cases minor defects observed, these being remedied on the attention of the managers being called thereto.

## Common Lodging Houses.

At the commencement of the year 1945, there were on the register 20 Lodging Houses providing accommodation for 1,214 lodgers. During the year one house ceased to be used as a Common Lodging House when the Keeper who had appealed in pursuance of Section 239 of the Public Health Act, withdrew his appeal.

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

At the end of the year, there were on the register 19 lodging houses providing accommodation for 1,177 lodgers, 15 houses with accommodation for 1,023 males and four houses with accommodation for 154 females. The number of inspections of these houses was 581. In 40 cases informal action was taken for infringements of the byelaws, and in 35 cases the requirements were complied with. 386 statutory nuisances were found upon inspection of the lodging houses, and of this number 379 were abated.

## Houses Let-in-Lodgings.

During the year, 3,565 inspections were made of houses occupied by members of more than one family. Offences were observed in 50 houses due to dirty floors, walls and ceilings, yards and water-closets, stairs and passages not washed, and beds, bedclothes and bedding dirty or verminous. Informal action was taken in 40 cases, and of this number all cases were abated. Formal action was taken in 10 cases and these were later complied with.

## Seamen's Lodging Houses.

At the commencement of the year there were 108 Seamen's Lodging Houses on the register, and 28 applications were received from persons for Licences to keep a Seamen's Lodging House, and schedules of work necessary to be carried out in order to comply with the byelaws have been sent to the keepers concerned. The keepers of 17 Seamen's Lodging Houses have been licenced, and applications were received for renewal of these licences, which were granted.

The number of contraventions of the byelaws totalled 7,326. Of this number 4,409 were remedied, and in the majority of the other cases the works are in progress or are about to be commenced. The number of inspections of these houses was 2,395. 54 houses have ceased to be used as seamen's lodging houses, and at the end of the year there were 82 Seamen's Lodging Houses on the register.

## The Scabies Order, 1941.

Common Longing Houses.—581 inspections of 19 Common Lodging Houses were made under the above Order. Body lice were found in 31 beds and bedding from 10 houses. 27 beds and bedding were disinfested by the Department, 3 by the keepers concerned, and 1 bed was

destroyed. 30 persons said to have occupied the verminous beds were advised to attend hospital for treatment and cleansing, 7 of whom attended. The bed bug was found in one lodging house and in 47 beds, and the premises and beds were disinfested.

SEAMEN'S LODGING HOUSES. 2,395 inspections were made of 136 Seamen's Lodging Houses under the above Order. Bed bugs were found in 10 lodging houses, and in 10 beds. 10 beds were disinfested by the keepers concerned. All beds inspected were found to be free from body lice.

PRIVATE DWELLING-HOUSES.—There were also three instances where bedding was found to be infested with lice and one case where a dwelling-house was infested, the necessary disinfestation being carried out by the department.

#### Canal Boats.

Three new boats were registered, making a total of 398 canal boats on the register at the end of the year, with a population of 281 males and 11 females. The number of inspections of these boats was 1,580, 27 contraventions were found on 19 boats, and of this number 21 contraventions were remedied. 19 notices were issued to owners.

## The Hydrogen Cyanide (Fumigation) Act, 1937.

Official notice has been received in respect of 26 fumigations under the Hydrogen Cyanide (Fumigation) Act, 1937. 5 dwelling-houses and 21 warehouses were satisfactorily fumigated under the supervision of the sanitary inspectors.

#### Miscellaneous.

Stables within the city are systematically visited by the district 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 3,282, the number occupied was 439, and the number disused was 949. 34 visits were made to manure depots.

MARINE STORES. During the year 49 visits were paid to 10 marine stores, and in 8 cases nuisances were found and the necessary steps taken for their abatement.

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. 311 visits were paid and in 12 instances they were found to be incorrect. The necessary action was taken to remedy the defects.

POULTRY DEPOTS. 12 poultry depots were visited fortnightly and no nuisances were found.

Schools. 1,902 visits were made to all schools, and in 25 instances defects were found. The necessary steps were immediately taken to have the defects remedied.

## Court and Alley Inspections.

973 inspections were made of courts and alleys, and 1,605 inspections of water-closets, the visits being made weekly by sanitary inspectors to ascertain whether these common water-closets are kept in a clean condition.

## Prohibition of Sale of Verminous Furniture, etc.

242 visits have been paid to premises, and no infringements were observed.

#### Removal of Remains.

Under the terms of licences issued from the Home Office, sanitary inspectors supervised the exhumation and re-interment of 6 bodies during the year.

## Rats and Mice (Destruction) Act, 1919. The Infestation Order, 1943, S.R. & O. 680.

During the year the Sanitary Inspectors and rodent exterminators made 116,810 visits to buildings and lands to ascertain if they were infested by rodents; 1,920 buildings and lands were found to be infested by rats or mice, and 614 notices were served upon the persons responsible under the above-mentioned Act and Order.

15,463 rats were collected; of this number 10,078 were caught in traps and 5,385 dead rats were collected as the result of poisoning operations. 12,826 rats were brown and 2,637 black. 1,168 rats were examined by the City Bacteriologist and found to be free from plague, and the remainder were burnt. 3,793 mice were caught and of this number 16 were examined by the City Bacteriologist and the remainder were burnt.

Disinfestation of rodent-infested lands and buildings by the use of poisons, in accordance with the recommendation of the Infestation Division of the Ministry of Food, was commenced by this department on the 4th October, 1943, and is proceeding with satisfactory results. It is estimated, using the formula employed by the Ministry of Food for calculating the "kill", that a total of 35,159 rats were destroyed by the use of poisons within buildings and lands.

The total number of rats destroyed by trapping and poisoning during the year is calculated to be 45,237. This total does not include rats destroyed in sewers as the result of poisoning operations carried out by the City Engineer and Surveyor's Department.

Table No. 1 indicates the number and species of rats and mice collected as the result of trapping and poisoning, and the number examined during the year 1945. Table No. 2 indicates the number of buildings and lands disinfested from rats and mice during the year. Table No. 3 indicates the total poison baits, in ounces, consumed by rodents within infested buildings and lands and the estimated number of rats destroyed by poisoning, and Table No. 4 incidates the total rats destroyed by trapping and poisoning during the year 1945.

## TABLE No. 1.

### TABLE I.

NUMBER AND SPECIES OF RATS AND MICE DESTROYED AND EXAMINED IN THE CITY OF LIVERPOOL DURING THE YEAR 1945.

	Buildi	ngs and	Land.	Sew	ers.		otal	To		Total	То
	Rats Black.	Rats Brown.	Mice.	Rats Black.	Rats Brown.		Mice.	Rats.	Mice.	Rats.	Mi
nuary	91	433	366		501	132		893	366	1,025	-
bruary	0.11	233	217		375	91	_	728	217	819	
rch	158	510	306	/-	539	112		1,095	306	1,207	1
ril	103	475	274	_	529	128	-	979	274	1,107	
у	163	446	258	_	582	100	_	1,091	258	1,191	20 00 00 00
ne	164	411	310	_	617	110		1,082	310	1,192	:
ly	280	505	342		684	76	-	1,393	342	1,469	:
gust	345	853	279	-	426	59	-	1,565	279	1,624	2
ptember	246	426	362	-	693	95	-	1,270	362	1,365	2
tober	338	619	294	-	764	98	-	1,623	294	1,721	2
vember	348	536	413	-	700	99	_	1,485	413	1,584	4
cember	190	421	372		548	68	_	1,091	372	1,159	1
Grand Total	2,637	5,868	3,793	_	6,958	1,168	_	14,295	3,793	15,463	3,

TABLE No. 2.

TOTALS OF BUILDINGS AND LANDS DISINFESTED.

	Dwelling- houses.	Business Premises.	Bombed Sites.	Other Lands.	Total.
From Rats	863	833	62	88	1,846
From Mice	166	58	_	13	237

## TABLE No. 3.

TYPE AND QUANTITY (OUNCES) OF POISON BAIT TAKEN BY RATS IN LANDS AND BUILDINGS WHICH HAVE BEEN DISINFESTED AND THE ESTIMATED NUMBER OF RATS DESTROYED.

Arsenic.	Zine Phosphide.	Barium Carbonate.	Red Squill.	Dead Rats found.	Estimated Rats destroyed.
4,686	6,660	1,399	3,403	5,385	35,159

## TABLE No. 4.

TOTAL RATS DESTROYED BY TRAPPING AND POISONING DURING 1945.

Traj	pping.	Poisoning.	Total Rats
Rats caught.	Dead Rats Found.	Estimated Rats destroyed: Not Found.	Destroyed.
10,078	5,385	29,774	45,237

## AMBULANCE AND DISINFECTING DEPARTMENT.

The staff of the Ambulance and Disinfecting Department is engaged in (1) the removal of cases of infectious disease to hospital by ambulance, (2) the disinfection of premises and articles exposed to infection, (3) the disinfestation of verminous houses and articles, (4) the supervision of the City mortuary. The number of cases of infectious disease removed to hospital was 4,552. The number of houses disinfected after infectious disease was 4,678, whilst the number of articles of bedding, clothing, etc., disinfected by steam after exposure to infectious disease was 83,086.

#### DISINFESTATION OF PREMISES AND HOUSEHOLD EFFECTS.

Premises. 1,622 Corporation houses and 655 Corporation tenements were inspected for vermin. 608 houses and 502 tenements were infested with bugs, and the table below describes the action taken in these cases.

	101	Corporatio	n Houses.	Non-
		Houses.	Tenements.	Corporation Houses.
Number treated		452	377	0
Awaiting treatment at the end of the year		65	85	0
War damaged and requisitioned houses treated		178	0	72

## City Mortuary.

The number of bodies removed to the mortuary was:-

From	the river	 	 	8
From	the city			320

#### Cremation.

The number of cremations which took place at the Liverpool Crematorium during 1945 was 624, the highest number yet recorded.

#### Smoke Abatement.

In accordance with national policy, industrial smoke abatement practice has been discontinued. The West Lancashire and Cheshire Regional Smoke Abatement Committee have suspended their operations for the duration of the war.

## Water Supply.

The following particulars have been kindly 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 Prescot Storage Reservoirs—the results of the chemical analyses have all been satisfactory.

The waters are not liable to plumbo-solvent action.

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

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

## INSPECTION OF FOOD.

A numerical summary of the visits paid to premises by the food inspectors is given in Table I.

TABLE I.

VISITS PAID TO PREMISES BY FOOD INSPECTORS.

Slaughter- houses.	Butchers' shops.	Fruit shops.	Fruit	Food Hawkers' premises.	factor-	Pickle factor- ies.	Ice Cream premises	Food factories	Knackers' yards.	Total visits paid.
1	11,230	12,614	15,557	1,622	28	22	375	445	8	41,902

## Private Slaughter-houses.

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

## The City Abattoir.

239,278 animals of different kinds were slaughtered in Liverpool for human food. An analysis of this figure is 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.
Public Abattoir	461	23,329	20,749	8,039	28,011	154,639	4,000	Laire	50
TOTALS	461	23,329	20,749	8,039	28,011	154,639	4,000	maze pol	50

#### TABLE III.

CARCASES OF ANIMALS (HOME-KILLED) BROUGHT INTO LIVERPOOL FROM OTHER
DISTRICTS.

Brought into the	Beef.	Veal.	Mutton.	Lamb.	Pork.	
Meat Market	8,554	1,057	48	1,780	127	
TOTALS	8,554	1,057	48	1,780	127	

In addition to the above, 3,240 boxes or packages of home-killed offal were dealt with in the meat market.

#### TABLE IV.

CARCASES OF IMPORTED (FROZEN AND CHILLED) MEAT PASSING THROUH THE
CITY MEAT MARKET.

Beef.	Veal.	Mutton.	Lamb.	Pork. 31,917	
2,525	1,216	120,942	396,653		

In addition to the above, 171,777 boxes and packages of imported meat and offal were dealt with in the meat market.

1,387 lbs. imported beef were destroyed for unsoundness, chiefly mould and brine damage.

#### Diseased Conditions.

The carcases of 45,948 animals showed abnormal conditions, and a detailed examination was made in each case, 2,656 carcases being rejected as unfit for human food. Of these, 1,955 were destroyed at the abattoir and 701 were destroyed at knackers' yards. A description of the diseased conditions found during 1945 which led to the total or partial destruction of carcases is given in Table V.

TABLE V.

Disease.		No.	Disease.		No.
Abscess (total)		4	Malignant Neoplasm		2
,, (partial)		86	Melanosis (total)		2 2
Arthritis, Septic (total)		8	,, (partial)		1
,, Simple (partial)		37	Moribund		10
Asphyxia		175	Nephritis Septic		25
Caseous Lymphadenitis			Parturient Fever		
,, (partiai)		-	Pyæmia		4
Contamination (partial)		7	Peritonitis Septic		14
Decomposition (total)		5	Peritonitis (partial)		10
,, (partial)		3	Pneumonia		33
Distomatosis		16	Pleurisy		11
Dropsy	***	205	Pleurisy (partial)		36
,, (partial)		1	Presternal Calcification (partial	)	5
Emaciation		994	Sarcoma		1
Enteritis	***	224	Septicæmia	***	6
Foot and Mouth Disease (total)		31	Septic Mastitis		2
Gangrene (total)	***	4	,, Metritis		5
Gastritis (total) Immaturity		1	Claritana Tilamana	***	.,
Indiana (hotal)		8	6 1 7 1 1	***	3
(man42-1)		263	(Pubanaulagia (tatal)		1,071
Jaundice		49	,, (partial)		841
Johnes Disease		5	Uræmia (total)		0.21
Joint Ill		24	Urticaria (partial)		14

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

Quantities of Food Materials Condemned as being unfit for Human Food.

# TABLE VI.

	Foos	600	1	Liquid - lbs	Dried — lbe In shell 367
	Canned Food.			Lbs.	97,284
	g	Sundries		Lbs.	569,495
	Nuts,	Almonds, Sundries		Lbs.	
Fruit. Vegetables.	otatoes,	Sprouts, Onions, Curnips, etc.		Lbs.	521,869
Fruit.	Apples,	Bananas Oranges, Lemons, etc.		Lbs.	58,269
79114	Dabbita	and Hares.		Head.	1,010
2	Game.  Game.  Partridges, Rabbits Pears, Grouse, and Bananas Setc.  Hares. Oranges, 1 Lemons, 7 etc.			Head.	308
D. He	Poultry. Fowls, Ducks, Geese, Turkeys, etc.			Head.	1,406
	Cookles,	Mussels, and Winkles.		Bags.	316
Crabs,	Oysters,	Craynsh, Shrimps, Prawns, Scallops.		Lbe.	9,856
	Fish.	Wet. Dry.		Lbs.	52,102
	Fi	Wet.		Lbs.	406,076
		OHE		Lbe.	935,711 1,080,220 406,076 52,102
	Veel,	Mutton, Pork.		Lbe.	935,711

#### The Tuberculosis Order, 1938.

This Order aims at the destruction of cows suffering from tuberculosis in a form that is a source of danger to human beings and to other animals. During 1945, 74 cows were slaughtered under this Order at the City Abattoir.

## Slaughter of Animals Act, 1933.

The following applications for licences as slaughtermen were received, namely: 5 for new licences, 85 for renewal of existing licences and 211 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 very 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 Ships' 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 SUPERVISION OF COWSHEDS, DAIRIES AND MILKSHOPS.

### Registration of Dairies.

#### TABLE VII.

(Milk and Dairies Order, 1926.)

Number of registered dairies at the end of 1944.	New applications for registration.	Registration refused.	Dairies removed from the register.	Number of registered dairies at the end of 1945.
522	5	Jahoo — Jo ali	10	517

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

## Inspection of Dairies.

2,626 visits of inspection were paid to dairies. In 21 instances infringements of the Milk and Dairies Order, 1926, were found. In every case the notice of requirements was complied with at once. The corresponding visits for 1944 were 2,792.

# Registration of Dairymen.

#### TABLE VIII.

Number of registered dairymen on Jan. 1st, 1945.	Applications for transer of registration.	Applications refused.	Ceased to be dairymen.	Remaining on the register, Dec. 31st, 1945.
529	13	e Faultari	5	524

Of the 524 dairymen on the register at the end of the year, 7 were milk-hawkers who, having no premises of their own, are registered at the dairy from which they obtain their supplies and where they store their utensils.

#### Conveyance and Distribution of Milk Churns.

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. 5 notices were sent to farmers outside the city drawing their attention to defects in milk churns. In each case the defects were remedied.

## The Licensing of Places for Keeping Cattle.

(Liverpool Corporation Act, 1921.)

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 IX is a summary of the register of licences in respect of milch cows and pigs.

TABLE IX.

LICENSING OF PREMISES ON WHICH MILCH COWS ARE KEPT.

	End of 1944.	End of 1945
Number of licensed cowsheds	157	148
Number of cows specified on the licences	3,046	2,920
Approximate average number of cows kept	2,480	2,378

#### (5 licences were transferred from one person to another.)

877 visits of inspection were paid to cowsheds. Ten 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.

LICENSING OF PREMISES ON WHICH PIGS ARE KEPT.

		End of 1945.
Number of licensed piggeries	 	97
Number of pigs specified on the licences	 	3,660
Approximate average number of pigs kept	 	1,028

Five new licences to keep pigs were applied for, involving the keeping of sixty pigs. These applications were granted. One licence was surrendered. 382 visits of inspection to piggeries were made, seven 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 1945 504 store cattle were kept on licensed premises.

## The Daily Supply of Milk to Liverpool.

The quantity of milk consumed in Liverpool daily is as follows:-

TABLE X.

DAILY CONSUMPTION OF MILK DURING 1945.

	6	rade o	f Milk.	HOM			Quantity in Gallons.
Tuberculin-tested (	Certified				 		 10
Tuberculin-tested					 		 525
Tuberculin-tested (	Pasteuris	sed) .			 		 5,000
Accredited					 		 5,585
Raw ungraded					 		 3,546
Pasteurised under l	icence .				 		 39,125
Heat-treated to pa	steurisati	on star	ndard .		 		 7,644
Sterilized					 		 8,318
the North Control of the Control of	and and				To	tal	 69,753

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

TABLE XI.

DAILY SOURCE OF MILK DURING 1945.

Produced from cows kept	Brought into the City	Brought into the City
within the City.	by road.	by rail.
7,134 gallons	54,399 gallons	8,220 gallons

#### Graded Milk.

The daily quantity of graded milk consumed is given in Table X.

#### TABLE XII.

PRODUCERS AND VENDORS OF GRADED MILK IN LIVERPOOL.

Nature of licence or licences.	Tuberculin Tested (Certified) Milk	Tuberculin Tested Milk	Tuberculin Tested (Pasteurised) Milk	Accredited Milk	Pasteurised Milk.
Producer only	0	1	0	36	0
Producer and retail vendor	0	0	1	29	5
Retail vendor only	0	1	47	5	0

The following changes in licence-holders took place, namely: Five new licences were granted to producers of "Accredited" milk. Eleven new licences were granted to vendors of Tuberculin Tested (Pasteurised) Milk. The licences of three producer-retailers of "Accredited" milk were not renewed.

#### The Provision of Milk for School Children.

Pasteurised milk only is supplied to school children under the Milk Marketing Board's Scheme. During March some 91,300 children were each supplied with a third of a pint daily. This number is approximately 85 per cent. of the children attending school. During the year, 102 samples were examined bacteriologically and chemically, and the results as a whole were highly satisfactory. None of the samples was found to be tuberculous.

#### ICE-CREAM.

In 1942 the Ministry of Food prohibited the manufacture of ice-cream, but in November, 1944, the resumption of manufacture was permitted.

During the year 375 visits of inspection were made to ice-cream premises and 43 samples taken. The results of examination were satisfactory. In 76 per cent. of the samples the total count was under 10,000 organisms per c.c., and in 53 per cent. coliform bacilli were absent in 1 c.c.

# THE CLEANLINESS OF MILK.

#### TABLE XIII.

EXAMINATION OF SAMPLES OF TUBERCULIN TESTED MILK.

Supplied	Number	Where taken		ON TEST.		OLIFORM		
Supplied by	Samples	where taken	Satis- factory.	Unsatis- factory.	Absent in 1 ml.	Present in 1 ml.	Present in in ml.	Present in
A	10	Hospitals and Institutions.	9	1	4	3	1	2
В	21	Do.	16	5	7	3	2	9
C	12	Do.	12	0	10	2	0	0
D	228	Wholesale depot	155	73	84	38	41	65
TOTALS	271		192	79	105	46	44	76

During the year there has been an intensive effort to encourage cowkeepers to produce cleaner milk, and the results summarised in Tables XIV and XV show that this effort met with success. Accredited milk produced within the City is considerably cleaner than that sent in from outside areas.

The bacteriological quality of Tuberculin-tested milk produced in areas outside and sent into the City was low (Table XIII). Approximately 29 per cent. of the samples failed to pass the methylene blue test, and 28 per cent. failed in the B. Coli test. Fortunately most of this milk is pasteurised in the City before reaching consumers.

TABLE XIV.

THE EXAMINATION OF ACCREDITED MILKS PRODUCED IN LIVERPOOL.

Tatal Number		E BLUE TEST.	PRESEN	NCE OR ABS	SENCE OF C	OLIFORM BA	CILLI
Total Number of Samples.	195.4625.03	pagnitumin, te	Absent in	gy odd ,i	Present	in	
ment	Satisfactory.	Unsatisfactory.	1 ml.	1 ml.	1 ml.	100 ml.	100
747	581	166	311	94	125	103	1
2010	77.7%	22.2%	41.7%	12.6%	16.7%	13.8%	15

#### THE EXAMINATION OF ACCREDITED MILKS PRODUCED OUTSIDE LIVERPOOL.

13: 1	METHYLEN	E BLUE TEST.	PRESE	NCE OR AB	SENCE OF C	OLIFORM BA	BACILLI.	
al Number Samples.	beaubor	all III to m	Absent in	tion for	Presen	it in		
	Satisfactory.	Unsatisfactory.	1 ml.	1 ml.	₁ ml.	100 ml.	1000 ml.	
43	27	16	16	10	8	4	5	
	62.8%	37.2%	37.2%	23.3%	18.6%	9.3%	11.6%	

TABLE XV.

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

*ansı.A	Number		ENE BLUE		PRESENCE Colif	OR ABS		
Month.	of				9	Presen	t in	
	Samples	Satis- factory.	Unsatis- factory.	Absent in 1 ml.	1 ml.	10 ml.	100 ml.	1000 ml.
January	44	39	5	29	5	3	6	1
February	47	33	14	28	4	7	4	4
March	42	30	12	12	8	6	12	4
April	44	28	16	16	5	8	8	7
May	44	35	9	20	3	8	9	4
June	43	26	17	11	3	10	8	11
July	44	17	27	8	3	9	7	17
August E	44	19	25	3	1	4	13	23
September	43	28	15	4	5	11	6	17
October	44	38	6	17	3	13	6	5
November	51	49	2	20	6	9	13	3
December	37	36	1	16	3	10	6	2
TOTAL	. 527	378	149	184	49	98	98	98
		71.7%	28.3%	34.9%	9.3%	18.6%	18.6%	18.6%

# TUBERCULOUS MILK.

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

#### TABLE XVI.

Kind of Milk.	Number of samples.	Tubercle bacilli present.	Percentage tuberculous.
Graded milk	744	21	2.8%
Ungraded raw milk	525	8	1.5%

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

## TABLE XVII.

Kind of Milk.	Number of samples	Tubercle bacilli present.	Percentage tuberculous.
Graded milk	343	6	1.8%
Ungraded raw milk	48	1	2.1%

#### TABLE XVIII.

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

County.	Description	n of Milk.	Numb Tuberc samp	ulous	Tubercle bacilli present.	Percentage tuberculous
	Ungraded.	Graded.	Ungraded.	Graded.	Totals.	ALCO SERVICES
Lancashire	 7	61	_	1	1	1.5%
Cheshire	 34	204	1	5	6	2.5%
Denbighshire	 7	3	-	_	-	-
Shropshire	 -	33	-	876	_	
Cumberland	 100 TO 1	12	-00 -000	-	-	-
	48	343	1	6	7	1.8%

# THE ADULTERATION OF FOOD AND DRUGS.

During 1945, 4,989 samples of food and drugs were purchased or taken and submitted for examination. Of these samples, 613 were formal samples and 4,376 were informal samples.

#### TABLE XIX.

OFFENCES UNDER THE FOOD AND DRUGS ACT, 1938, PHARMACY AND POISONS ACT, 1933.

			RESULT	of L	EGA	L P	ROCE	EDI
Number of formations laid.	Nature of Sample.	Nature of Offence.	Number of convic- tions.	F	ines	3.	C	osts
11	Milk	Contained added water	11		s. 0			s. 3
5	Milk	Deprived of Milk fat	5	6	0	0	6	10
4		Wilful obstruction of Inspector	4	17	0	0		-
1	Cod Liver Oil Emulsion	Giving a Label which falsely described the Emulsion	1		_		1	1
1	Pork Sausages	Contained an excess of Preservative	1	3	0	0	1	1
1	. —	Keeping Poultry in a room where Milk Utensils were kept	1	5	0	0	1	5
1	<u> </u>	Keeping appliances for bottling Milk where they were liable to contamina- tion	1	5	0	0		_
1	_	Closing Bottles of Milk in street	1	2	0	0		-
1	Strong Ammonia	Unlawfully selling strong Ammonia	1	2	0	0	2	2
26			26	57	0	0	24	2
	A.D.		atter beign		1	81	2 (	)

### Fertilisers and Feeding Stuffs Act,

During 1945, 72 samples of fertilisers and feeding stuffs were submitted for analysis. It was not necessary to take any legal proceedings.

# 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 486. Legal proceedings were taken against one unregistered vendor. See Table XIX.

# REPORT OF THE CITY BACTERIOLOGIST.

In 1945 the number of specimens examined amounted to 83,988, of which 6,815 were outside authorities and 5,939 for the Armed Forces.

PLAGUE. None of the 2,877 rats examined were found infected with plague.

ANTHRAX. The Government Wool Disinfecting Station submitted 214 specimens of hair and wool for examination. Of these 107 were untreated and 58 contained anthrax bacilli; 107 were treated and of these none was infected with anthrax.

# Examinations made in the Bacteriological Department for the City of Liverpool during the year 1945.

Milk (fresh—liquid)				 		2,370
Foodstuffs				 		64
Water				 		1,003
Rats for plague				 		1,164
Swabs from throat and nose infec	etions			 		35,985
Specimens for intestinal infection	ıs			 		4,536
Cerebro-spinal fluid, etc. for path	ogenie	e organ	isms	 		58
Sputum, etc. for tubercle bacilli				 		1,132
Exudates for anthrax bacilli				 		88
Miscellaneous specimens				 		36
					-	46,436
					-	40,430
Venereal Diseases:						
Serological tests	.,.			 		21,526
Other tests				 		1,345
					-	
						22,871
					MIL S	HOTH LE
Port Health Authority:						
Wool and hair for anthrax bac	illi			 		214
Rats for plague bacilli				 		1,713
Miscellaneous specimens				 		1
		100	IA Tay		GILIB _	1.00=
					GILIB _	€£_1,927

Examinations made for Outside	Auth	orities (	specim	ens c	harged):	
Bacteriological						3,235
Venereal Diseases						3,580
						6,815
						Name and Address of the Owner, where the Owner, which is the
Examinations made for the Ar	med F	orces (n	o char	ge):		
Bacteriological						891
Venereal Diseases						5,048
						5,939
SI SI	JMMA	DV				
LIVERPOOL:	Jillian					
Specimens of water, milk,	foodst	uffs and	d infec	tious		
material					46,436	
Venereal Diseases					22,871	
Port Health Authority					1,927	71,234
OUTSIDE AUTHORITIES:						11,204
Bacteriological					3,235	
Venereal Diseases					3,580	
				W 15		6,815
ARMED FORCES:						
Bacteriological					891	
Venereal Diseases					5,048	5,939
					Total	83,988
					Total	00,000

# HOUSING.

Owing to the War, and the terms of the Ministry of Health Circular No. 1,866, dated September 8th, 1939, normal progress in regard to slum clearance has ceased. During the year 190 houses were demolished and 89 persons re-housed.

# Landlord and Tenant (War Damage) Amendment Act, 1941.

10 houses were inspected during the year under the above enactment.
9 applications for examination under the Act were made by landlords,
and 6 certificates of fitness were issued. One application for examination under the Act was made by a tenant, and it was found on
examination that the dwelling-house had not been repaired so as to be
deemed reasonably capable of being used for housing purposes.

# Defence (General) Regulations, 1939. (Regulation 66AA).

48 applications were received for the renewal of licences, and these were granted.

Two applications were received for a licence to re-open a house in a clearance area under the above regulations. Repairs and cleansing were carried out, and the licence issued.

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

Certificates have been issued under the above Acts in respect of 124 dwelling-houses which were not in a reasonable state of repair.

Houses Erected on Suburban Estates at 31st December, 1945.
(Including houses erected on the outskirts for slum clearance purposes.)

Estates.	Non-Parlour.	Parlour.	TOTAL.
	 . 2,331	686	3,017
	 100000000000000000000000000000000000000	311	871
			252
		410	1,440
	 . 54		54
		618	618
			76
		263	652
· ·	 470	1 024	874
(T21-4-)		1,834 120	2,310
Mamie Caren Batata			210
Discharget Dond Pototo		2,965 395	7,695 682
D 1.1 Ct	 70	390	78
O II. II T. 4 - 4	 *#91	63	594
(Tilata)	 9.0	-03	36
Chales (Panka Lana) Estata	 900		286
Chalco	 051	667	1,618
(Elata)		†13	13
Chales Dond (Flata)	 210	110	312
Opringmond Potato	 950	1,249	1,499
(Flota)		49	49
Walton Clubmoon Potato	 1 505	1,671	3,196
Washan	 416	73	489
Double developed Pateton		554	554
Total within the area of the City	 . 15,534	11,941	27,475
Huyton Farm Estate	 . 937	79	1,016
Knowsley Estate	 . 3,631	710	4,341
/IZlatal	 . 108		108
Total outside the City boundary	 . 4,676	789	5,465
GRAND TOTAL	 . 20,210	12,730	32,940

\*Including 20 experimental non-timber houses.

†Includes 4 maisonettes.

The number of houses inspected for housing defects under Public Health or Housing Acts was 172, and the number of inspections made for the purpose was 254.

Notices were served requiring defects to be remedied under the Public Health Act in respect of 26,167 houses. The number of dwelling-houses in which defects were remedied after service of formal notices was 14,619, and 9,183 defective dwelling-houses were rendered fit in consequence of informal action.

# Housing Act 1936, Part IV. Overcrowding.

65,535 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, 1945 (excluding 20 houses built under the powers of the Housing Acts and subsequently sold).. 42,074

Number of houses built in the last two years under-

1.	Housing	Act,	1936,	Part III	 	 	Nil
2.				Part V			Nil

The following table shows the accommodation which has been provided in the Corporation's housing and rehousing schemes up to 31st December, 1945, including 6 cottages ex-West Lancs. R.D.C., 2 flats at Maintenance Depots and 20 houses sold to occupiers.

No. of rooms	-	Aumber of 1	rouses and	Flats erecte	a.	and lan VI			
per dwelling (exclusive of	On S	uburban Esta	ates.	In Centr	In Central Areas.				
bathroom, sculleries, etc.)	Houses.	Aged persons' cottages.	Flats.	Houses.	Flats.	TOTALS			
1	-	130	18	-	223	371			
2	7 100	220	98	-	1,737	2,055			
3	1,422	-	251	18	3,528	5,219			
4	17,570	-	207	158	3,219	21,154			
5	12,849	-	156	18	235	13,258			
6	18	_	mar me	- 1	18	36			
7	1	-		-	-	1			
Totals	31,860	350	730	194	8,960	42,094			

#### Rentals.

The weekly rentals of flats (including rates), range from 3/10d. for a bed living room flat to 11/5d. for a five bedroom flat. The inclusive weekly rentals of houses vary between 8/6d. to 14/10d. for the non-parlour type, and 16/9d. to 19/6d. for the parlour type, and 23/- to 24/- per week for houses with garages, and for Aged Persons Cottage Flats 4/- and 5/6d. per week.

# General Statistics.

Area of City					•••				27,321 acres
Number of inh	abited	houses	at 31st	Decen	ber,	1945			190,329
Number of stru	cturall	y separa	ate dwe	llings o	ccupi	ed (1931	Census)	)	173,938
Rateable value								£6	,565,590
Sum represente	ed by a	Penny	Rate						£25,544

# House An applicably the mail

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#### Secretaria.

#### APPENDIX A.

#### CITY OF LIVERPOOL.

#### Birth-Rates, Death-Rates, and Analysis of Mortality during the year 1945.

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

	Ra per l Popul	,000		Annu	ial Dea	th-Rate	per 1,0	00 Pop	ulation.		Rate 1,000 Birt	Live
Residence	Live Births.	Still-births.	All Causes.	Typhoid and Paratyphoid Fevers.	Small-pox.	Measles.	Scarlet Fever	Whooping Cough.	Diphtheria.	Influenza.	Diarrhoa and Enteritis (under two years).	Total Deaths under one year.
England and Wales	16.1	0.46	11.4	0.00		0.05	0.00	0.02	0.02	0.08	5.6	46
126 County Boroughs and Great Towns, including London	19.1	0.58	13.5	0.00		0.02	0.00	0.02	0.02	0.07	7.8	54
148 Smaller Towns (Resident Populations 25,000 to 50,000 at Census 1931)	19.2	0.23	12.3	0.00		0.02	0.00	0.01	0.02	0.07	4.5	43
London	15.7	0.40	13.8	0.00		0.01	0.00	0.02	0.01	0.07	7.6	53
Liverpool	21.7	0.63	14.0	0.01		0.05	0.00	0.05	0.04	0.10	9.1	72

The maternal mortality rates (provisional) for England and Wales are as follows: per 1,000 Total Births ... Puerperal Sepsis, Others. Total. 1.30 1.79

ANTERON A.

## CONTROL OF LIVERPOOL

Birth-Rutes, Death-Rates, and Analysis of Mortality during the

			or condition Three (Restaut Enquisitions 28,000 to

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#### CITY OF LIVERPOOL.

Causes of, and ages at, Death during the year 1945.

						AGES, OF	OUT THE	DISTRICT			Total Deaths in Liverpool District,
	Causes of Death.	At				AT AGES	-YEARS				whether of "Residents"
		all ages.	Under 1	1—	3—	5—	15—	25—	45-	65—	or "Non- Residents."
All	Causes { Certified	9512	1064	128	57	176	269	836	2492	4490	10558
	Uncertified	11	4		_		_	2	1	4	11
1.	Typhoid and Paratyphoid Fevers	2	-	-	-	-	-	1	1	-	2
2.	Measles	13	8	4	1	-	-	-	-	-	15
3.	Scarlet Fever	1	-	-	-	1	-	-	-	-	1
4.	Whooping Cough	38	25	10	2	1	-	-	-	-	39
5.	Diphtheria	28	1	3	10	12	2	-	-	-	29
6.	Influenza	69	5	3	-	2	3	7	23	26	69
7.	Encephalitis Lethargica	19	-	-	-	-	-	10	6	3	20
8.	Cerebro-spinal Fever	9	4	2	-	-	1	1	1	-	15
9.	Tuberculosis of Respiratory System	605	2	7	_	9	114	252	182	39	651
0.	Other Tuberculous Diseases	96	6	14	12	21	22	15	4	2	- 116
11.	Syphilis	32	3	-	-	-	1	4	15	9	34
2.	General Paralysis of the Insane	14	-	-	-	-	-	3	9	2	15
3.	Cancer	1230	_	2	2	3	3	108	547	565	1414
4.	Diabetes	58	_	_	_	1	2	8	14	33	69
5.	Cerebral Haemorrhage	653	_	-	_	_	1	26	196	430	708
6.	Heart Disease	2109	_	_	-	9	21	107	518	1454	2292
7.	Aneurysm	_	_	_	_	_	_	_	_	_	_
8.	Other Circulatory Diseases		2	1	_	1	_	12	120	426	614
19.	Bronchitis		37	3	1	5	2	24	260	529	909
20.	Pneumonia (all forms)	573	250	36	6	5	11	29	120	116	625
21.	Other Respiratory Diseases		4	-		2	1	18	49	42	128
22.	Peptic Ulcer	99				2		12	53	34	124
23	Diarrhoes, etc.	164	137	11	-,				5	9	184
24.	Appendicitis	27	101	11	1		-	1		3	30
25.	Cirrhosis of Liver				2	5	4	9	4		
		6	-	-	_	-	1	1	3	1	8
6.	Other Diseases of Liver	30	2	-	-	-	-	4	12	12	41
27.	Other Digestive Diseases	109	13	2	-	5	2	10	28	49	129
28.	Acute and Chronic Nephritis		1	-	-	2	9	24	53	72	189
29.	Puerperal Sepsis		-	-	-	_	1	6	-	-	8
30.	Other Puerperal Causes	16	-	-	-	-	2	14	-	-	20
31.	Congenital Debility, Premature Birth, Malformations, etc.	427	416	2	3	3	2	_	1	-	493
32.	Senility	366	-	-	-	-	-	-	-	366	382
33.	Suicide	57	-	-	-	1	3	16	29	8	58
34.	Other Violence	291	21	11	15	48	15	36	62	83	331
35.	Other Defined Causes	673	131	17	2	40	46	79	177	181	809
36.	Causes Ill-defined or unknown	2	-	-	-	-	-	1	1	-	2
	Totals	9523	1068	128	57	176	269	838	2493	4494	10569

#### DITY OF LIVERPOOL

Corner of and year at Death during the year life

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			and Cheesia Naghrida

#### CITY OF LIVERPOOL.

# Infant Mortality during the year 1945.

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		46	50	46	437	232	214	127	54 —	1,064
Typhoid Fever		-	_	_	_	_		_	_	_
Chicken-pox		-	-	-	-	_	_	_	_	_
Measles		-	-	_	_		1	3	4	8
Scarlet Fever		-	_	-	_	_	_	_	_	_
Whooping Cough		-	_	-	-	5	8	4	8	25
Diphtheria		-	_	-	_	-	-	-	1	1
Cerebro Spinal Fever	_	-	_	-	-	-	2	2	-	4
Influenza		-	_	-	-	-	3	1	1	5
Dysentery		-	_	-	-	2	2	1	-	5
		-	-	-	-	-	_	-	-	-
n. m. 1. 1.		-	_	-	_	-	_	2	-	-
m s s Water-lain		-	-	-	-	-	1	1	2	4
at Ti Disco		-	-	-	-	-	1	1	-	2
Meningitis (not Tuberculous)	-	-	-	-	-	1	_	3	1	5
		1	1	-	2	-	1	1	-	4
Bronchitis	. 2	3	2	_	7	8	15	4	3	37
	. 10	6	10	11	37	81	76	42	14	250
		-	_	_	-	-	_	-	-	-
		3	4	12	19	53	31	23	11	137
		-	-	-	_	-	_	-	-	-
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		-	-	-	-	-	_	-	-	-
		-	1	-	1	3	7	1	1	13
	. 18	2	_	1	21	-	-	-	-	21
	. 40	1	2	-	43	-	2	-	-	45
Malformations	00	7	4	. 3	43	8	10	2	2	65
	. 179	21	19	12	231	18	4	_	-	253
	. 5	_	2	1	8	7	-	-	-	15
	15	2	5	6	28	43	51	36	6	164
	298	46	50	46	440	232	215	127	54	1,068

... 13,202

Net Deaths in the year of

Legitimate Infants

927 141

Net Births in the year

... 1,582 Illegitimate

Legitimate

					Caroping Cough
					shaddags
	1 6				
			- Tanada		control to except the sale

# CITY OF LIVERPOOL. Notifiable Diseases (other than Tuberculosis) during the Year 1945.

1	Number of Cases Notified.															
Disease.	At					At	Ages—	Years						Cases admitted to	TOTAL DEATHS	
	all Ages.	Under 1	1	2—	3—	4-	5—	10	15—	20—	35—	45—	65—	Hospital		
all-pox	-	_	_	-	_	_	_	_	_	_	_	_	_	-		
rlet Fever	2482	14	62	118	164	172	1032	623	178	91	21	7	-	1017	1	
htheria	692	9	29	29	48	58	279	122	55	47	10	4	2	673	28	
teric Fever (including Para- yphoid)	8	_	_	_	_	_	2	_	1	2	2	_	1	8	2	
rperal Pyrexia	272	-	_	-	-	-	-	-	14	209	49	-	-	258	-	
eumonia	1016	121	96	85	66	60	101	28	57	102	72	164	64	153	196	
ebro-spinal Fever	47	8	7	3	-	3	8	4	1	4	3	6	-	41	9	
iomyelitis and Polioencephalitis	4	-	-	-	_	-	-	1	-	2	-	1	-	3	1	
ephalitis Lethargica	_	-	-	-	-		_	-	-	-	-	-	-	-	19	
sentery	515	50	86	85	53	34	89	39	20	31	11	14	3	451	7	
athalmia Neonatorum	222	222	-	-	-	_	-	-	_	_	_	-	-	143	-	
rsipelas	308	4	1	2	2	2	4	6	10	40	55	136	46	150	7	
Jaria	50	-	-	-		1	-	-	1	30	11	6	1	25	2	
shrax	2	-	-	-	-	-	-	-	-	_	1	1	-	2	-	
usles	4215	327	667	775	670	608	1036	95	25	10	1	1	_	401	13	
cooping Cough	1093	162	184	188	152	113	274	16	3	1	-	_	-	140	38	
There are	10000		1100	1005	1155	1057	0005		005	W.00	200			0405	000	
Totals	10926	917	1132	1285	1155	1051	2825	934	365	569	236	340	117	3465	323	

# APPROIDED D.

## CITY OF LIVERPOOL.

# Notifiable Diseases (other than Tuberculosis) disting the

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					williadqueen Slaff, bus sittle
				lent	
		I SEATT			

DEATHS REGISTERED DURING THE YEAR 1946																											
DINEASES	icx.		AGE-BELOW														1	PERATION DESTRUCT.	TRATION DESTRICT (NORTH)	Timan.							
	Males.	Penales	1	1	1		4	20	10	20	20	30	21		40	60	- 60	40	41	10	78-	30	90	Over 90	HIGHTE	andreas S	
ALL CAUSES  L.—Infections and Parasitic Diseases B.—Cancer and other Parasitic B.—Shemmation and other Convent Research W.—Chronic Research VI.—Bysacses of Naryona Systems VIII.—Shemma of Research Systems VIII.—Shemma of Respiratory Systems VIII.—Shemma of Respiratory Systems VIII.—Diseases of Research Systems A.—Bosson of Respiratory Systems A.—Bosson of Perspiratory Systems VIII.—Diseases of Research VIII.—Diseases of Research VIII.—Diseases of Research VIII.—Diseases of Research VIII.—Shemma Shemma VIII.—Shemma	4844 479 629 30 31 1244 1244 123 124 123 125 126 121 121 122 123 124 125 125 125 125 126 127 127 127 127 127 127 127 127 127 127	400 201 401 30 30 30 30 30 30 30 30 30 31 30 30 31 31 31 31 31 31 31 31 31 31	1068 66 1 3 66 7 7 7 8 66 60 121 - 7 7 8 60 121 - 7	I Manifestalialita	A Section in the little lies	Salalitantification	latinililianilas 2	S Sant lunes -	this and investigated	12   In the second season in the last	1 dillumentalufug H	laliliandEbaliage	100 100 100 100 100 100 100 100 100 100	100 100 100 100 100 100 100 100 100 100	200 TI 40 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I MI I named PERMENT township on	400 400 400 400 400 400 400 400 400 400	(1) (1) (1 mm) は日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本	1 N 1 1 and Muddle collection 1	45 45 10 10 10 10 10 10 10 10 10 10 10 10 10	1307 20 21 21 21 21 21 21 21 21 21 21 21 21 21	1963 8 133 8 131 466 163 163 163 163 163 163 163 163 163 1	1000 string stri	1 x 8   111 contact   1 con	2345 250 453 50 277 1004 500 118 118 119 119 119 119 119 119	8075 684 817 77 78 20 1801 1901 1901 123 123 124 125 126 127 126 127 126 127 126 127 126 127 127 128 128 129 129 129 129 129 129 129 129 129 129	9003 920 1390 143 92 92 2071 630 630 194 19 19 19 19 19 19 19 19 19 19 19 19 19
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Class 4, Inserting Lordwords (Albert Diseases of Florid )  Class 2, Mechalism (Other Chemic Personing)	18.00	17 00 11	-11 11-		17- 11	11- 11		1 =	7	7				-11-1-		111 114	1	11	****	4 11	3 mm	11 1=0	11 114	11 11+	11.00	Non-	55 17 10
Class 6.—Encepholitis  Menagatie  Bisman of Spinol Cord - Cordinal Hemorrhage  Equipper  (Spinoper  Charlestonia (Unider & yes),  Other Vitamon of Xarrinas System  Scotted Thomas	6 12 4 300 7 13 3 12 80	2 305 7 103 11 24 63	10 1111 mm 15	ALTERNA	4-11111-a		I TITLLE		last the fee	AL 11 La 11 au	111-14  44	14141411-				[ -1 [ [ 2-1]	+1 -1 E-1	1 (-0) (4) (4-)	11383   1111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11187117	1 100	1118-11-1	11111111111	10 4 4 20 7 16 10 10 10 10 10 10 10 10 10 10 10 10 10	8 12 7 440 6 11 2 90 80	0 00 11 000 14 20 4 00 100 100
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Class X.—Unions of Loryex Percelos parametes Provinces Provinces Provinces Pulsary Pulmanary Congestion Adultas Calest Supposatory Danases	1 204 204 110 6 10 42 21	310 176 86 7 13 13	- 1 1 a 25 50 m	Titte Wal		11111-411	1111	19.111117	last the !	1111 annual	lane in Li	lean less		lanna lan	International	Sec less	IASE INDE	100 M		107 20 14 12 20 20 20 20 20 20 20 20 20 20 20 20 20	141 00 00 00 00 00 00 00	122 20 1 mm m	If all ox \$1	m     m	150 58 3 3 17 10	100 207 207 104 20 20 20 20 20 20 20 20 20 20 20 20 20	1 841 257 196 8 23 03 30
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Clase 18.—Acute Sephetics Charles Suphetics	11 11-2-skits		-121111111					1111111111		1	A1111114	latititital ma		and Ittilians	Sent Intil and		formal little . I		11141143	111 El 40 Eu	111 24442		in ittaliant	1-1111111-1	3 66 14 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 150 50 11 4 60 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Other Parepiral Course  Class II.—Collectric Other Discourse of Skin.	1	16. a. 0		-						-	1	111	7	7	Z	7	7	1	1	2 1	2 4	7			1 3	11	15 13
Class 13. – Discusses of Busines Other Origina of Movement.	1	4	#					17	1		1		7			3	1	1	1	===	7				8 3	3	
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From Right Press Other Issues of Shutches Enot Anytherist Food Proteining Arithmial Promising (Gas)	1 6 6 62 10 2 9 11 20 71	9 [4 ] [2] [ 4 0 [4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4	Harman Land	TITLITICAL I	111111111111111111111111111111111111111	TITLE THE T	11111411141111	111111111111111111111111111111111111111	1 mm	IIIII in III in I I I	Illinglillian I	1 Law Hilliam III	ATTIMITETING 1	Harlandan I -	- beliefullitated	I Tallallallin	I lead to bear 1 .	- les la la li lina I I	Historial all all a	Halla Lallada 1	all I to la la la la l	I the second of the		THE STREET	1	1	3 6 6 5 67 14 4 4 21 22 23 114
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TOTAL PENALES.			431	25					41		90	8.2	112	10	130	150	300	253	337	100	100	1600	1 44	2 10	1,27	1 1,74	4,530

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