

**[Report of the Medical Officer of Health for Dagenham].**

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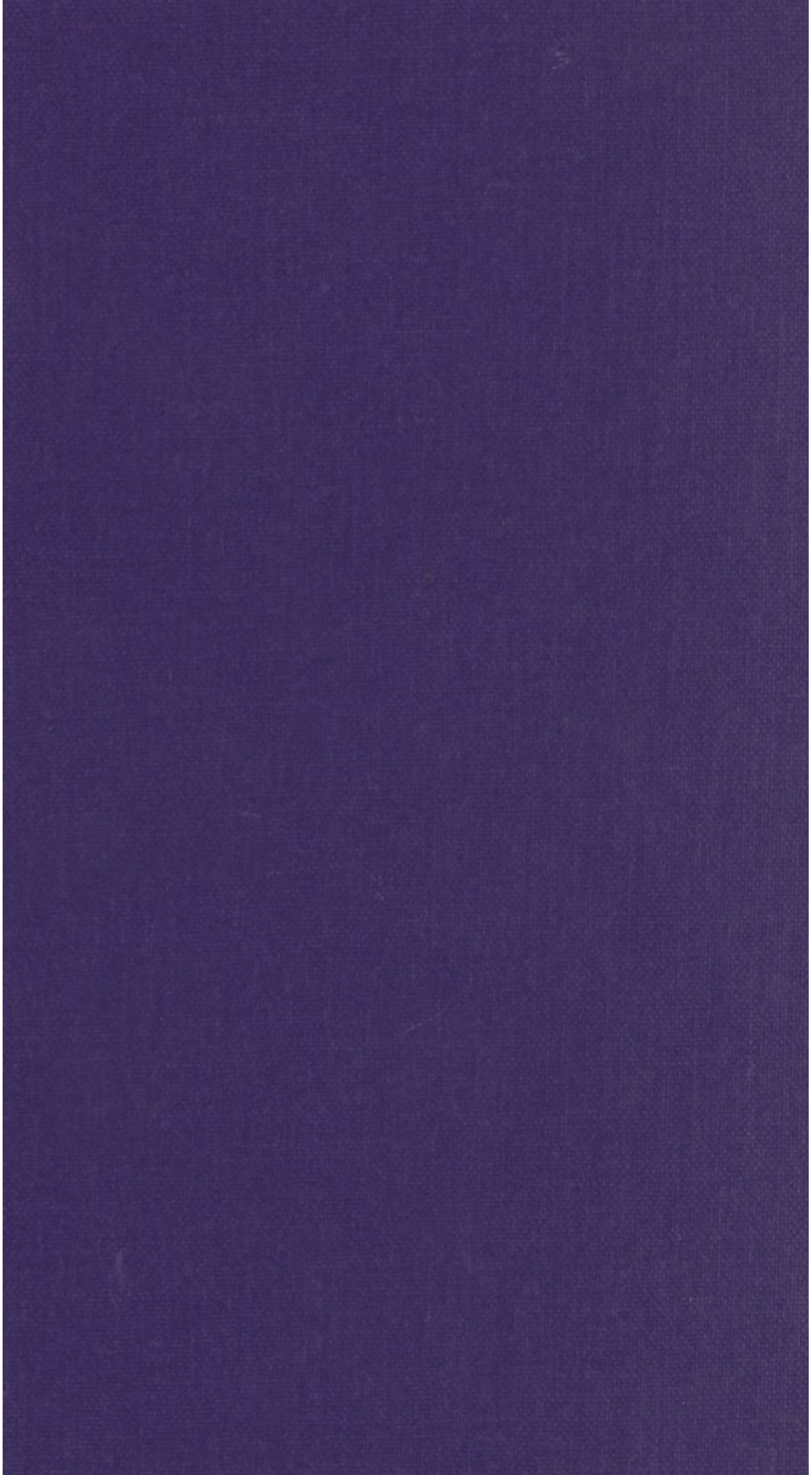
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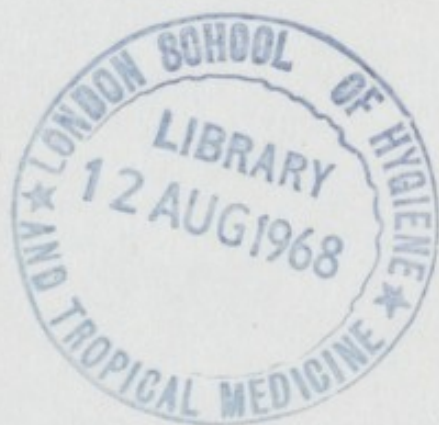
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1927

The Urban District Council of Dagenham



1926

# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

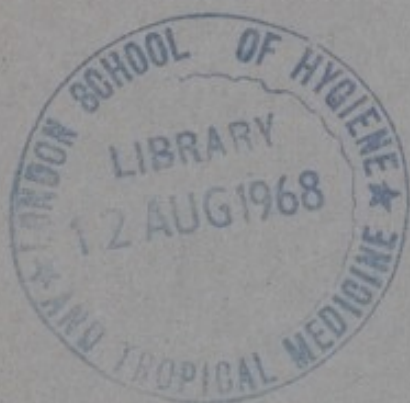
FOR THE YEAR

**1927**

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E. W. CARYL THOMAS, M.D., B.Sc., D.P.H.

68616





The Urban District Council of Dagenham



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# ANNUAL REPORT

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MEDICAL OFFICER OF HEALTH

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E. W. CARYL THOMAS, M.D., B.Sc., D.P.H.



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 351

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**To the Chairman and Members of the Urban District Council  
of Dagenham.**

Mr. Chairman, Madam and Gentlemen,

In presenting my Report on the Health and Sanitary Circumstances of the district for the year 1927, it is my pleasure to be submitting my first Annual Report as your first full-time Medical Officer of Health.

Dr. A. Ball was Acting Medical Officer from April 1st, 1926 (which was the date on which the order constituting the Urban District came into operation) to April 4th, 1927, when I commenced duties.

This district is composed of two elements, the smaller old established community and the large estate erected here by the London County Council. The unprecedented growth which has taken place presents its own particular difficulties, not the least being the fact that an Urban population has been transferred to a place which was, and is still in some ways, rural.

It will be seen in the body of the Report that the estimate for the mid-year population is taken as 50,000. Although greatly exceeding the Registrar General's figure, even this is probably an under-statement, a more accurate figure being nearer 55,000. An increase in this figure would result in the lowering of our incidence rate of infectious disease. It would also similarly affect the birth and death rates, though not, of course, the Infant Mortality Rate.

An attempt has been made in the Report to distribute the population amongst its age groups. Such compilation from Death Returns might be regarded as placing too great a strain on assumption. There are, however, some independent checks which tend to show that these estimates are reasonably accurate. For instance, as regards births, if the population were distributed normally one would expect 850 children under one year of age. With the assumed distribution there are 1,250, while the actual number of births registered in the year was 1,210. Again, of children of school age, with a normal distribution there would be 8,500. The theoretical number



is 12,500. About the middle of the year there were some 10,000 on the school registers, but in addition there were many hundreds on the waiting list for whom there was no accommodation. The L.C.C. census in January 1927, of the persons who had come on the Estate (including the Ilford Section) showed some 40,000 persons, of whom 18,900 were under 15.

Certain portions of the Report have been submitted to an analysis more detailed perhaps, than is customary in reports of this nature. This has been considered necessary as there are some features peculiar to this district, particularly abnormal age distribution of population, which result in unusual statistical effects. Unless due consideration is given to these, erroneous conclusions might be drawn. An instance is the effect of the altered age distribution of population on the death rate. Unless due regard is paid to this the rising of the death rate, which will certainly occur, might be interpreted as due to a progressive deterioration in the health of the district.

I desire to thank the members of the Council and the administrative staff for the help they have given me in the past year.

I have the honour to be,

Mr. Chairman, Madam and Gentlemen,

Your obedient servant,

E. W. CARYL THOMAS.

657, Becontree Avenue,

Chadwell Heath.

10th May, 1928.



## GENERAL STATISTICS.

Area (exclusive of tidal water and foreshore), 6,556 acres.

Population Census 1921	...	...	...	9,127
Estimated 1926—local figures	...	...	...	38,275
Registrar General's Estimate 1927	...	...	...	37,500
June 1927—local figures	...	...	...	50,000
No. of structurally separate dwellings (Census 1921)	...	...	...	1,871
No. of families (Census 1921)	...	...	...	1,957
Rateable value	...	...	...	£198,000
Sum represented by a penny rate	...	...	...	£803

### Occupations of Inhabitants.

Up to recent years Dagenham was part of a rural community, the chief occupations of the inhabitants being farming and market gardening, and employment in the factories in the southern part of the District.

In 1920 the London County Council obtained powers to buy some 2,768 acres of land, most of it lying in Dagenham, for the development of a housing estate. These houses are now being handed over at an average rate of about 70 per week, resulting in the transfer of some 15,000 persons per annum. The district therefore has now largely become a dormitory for persons occupied in London.

### Extracts from Vital Statistics for the Year.

#### Births.

	Total.	Male.	Female.
Legitimate	1,182	574	608
Illegitimate	28	18	10
Total	1,210	592	618

Birth rate 24.2

#### Deaths.

349                      194                      155

Death rate 7.0

Number of women dying in, or in consequence of, childbirth

from Sepsis	...	...	...	...	4
other causes	...	...	...	...	2

Deaths of Infants under one year of age per 1,000 births:—

Legitimate	61	Illegitimate	107	Total	62.
------------	----	--------------	-----	-------	-----

Deaths from Measles (all ages)	...	...	...	...	1
„ „ Whooping Cough (all ages)	...	...	...	...	5
„ „ Diarrhoea (under 2 years of age)	...	...	...	...	13



## Population.

This figure being the basis on which most of the statistics are worked out, it is necessary to attempt to arrive at the most reliable estimate for the total population and also if possible to differentiate that population to show where, if any, divergence occurs as compared with the population of the Country taken as a whole.

The 1921 figure of 9,127 persons in 1,871 houses represented the old established community living roughly, 5 persons to a house. This population now fringes the L.C.C. Housing Estate. These houses being intended for the relief of overcrowding in London, selection was made in favour of persons living in overcrowded circumstances. The transferred population one would expect therefore to consist of adults aged 25 to 45 and their children aged 0 to say, 15. It is probable that the children above that age would have obtained work in London and so would continue to reside there. As it would be the more seriously overcrowded that would have first claim, one would expect, too, that the number of children per house and therefore the number of occupants of the house, would be greater than that usually accepted for the Country generally.

No Census has yet been taken of the district, so reliance has to be placed on figures obtained during routine visits.

The average population per house of those infected by primary cases of Diphtheria (over 100 houses) was 2.4 persons over 15, and 2.88 persons under 15, or 5.28 altogether. The corresponding figures for over 200 houses attacked by Scarlet Fever were 2.47, 2.87 and 5.34. In each case the Estate houses accounted for some 80% of the total.

In the records of some 2,000 cases visited under the Notification of Births Act, the corresponding figures were 2.16, 3.3 and 5.4

The presumption therefore is that the average population per house is well over 5. At the end of June, 1927 the number of inhabited houses in the district was 10,520. The figure of 50,000 taken as the estimated mid-year population is therefore seen to be a conservative one, a more accurate estimate being probably nearer 55,000.

*1000*  
*Figure*  
*Number*  
*Definite*  
*Factor*  
*Ex. 10*  
*Ex. 10*  
*Ex. 10*  
*Ex. 10*

TABLE I.

	1	2	3	4	5	6	7	8	9	10	11	12
0/1	70.5	18.5	75	52	56.5	—	665	665	1000	250	1250	850
1/4	33.5	9.0	42	24.5	33	—	2758	2758	4000	1000	5000	3450
5/9	11	3.0	16	8	13	—	3195	3195	4800	1200	6000	4050
10/14	7	2.0	6	5	4	—	3468	3468	5200	1300	6500	4400
15/19	12.5	3.5	5	9	1.5	} 1/8 {	3600	450	700	1350	2050	4600
20/24	15	4.0	5	11	1.0		3420	425	650	1300	1950	4300
25/29	15	4.0	12	11	8.0		3060	3060	4600	1150	5750	3850
30/34	15	4.0	18	11	14	—	2878	2878	4300	1100	5400	3600
35/39	18.5	5.0	28	13.5	23	—	2720	2720	4000	1050	5050	3450
40/44	23	6.0	16	17	10	—	2654	2654	4000	1000	5000	3350
45/49	30	8.0	17	22	11	$\frac{1}{2}$	2496	1250	1850	950	2800	2150
50/54	37	10.0	10	27	—	—	2282	—	—	850	850	3000
55/59	44	11.5	12	32.5	0.5	—	1870	—	—	700	700	2350
60/64	53.5	14.0	14	39.5	—	—	1460	—	—	550	550	1850
65/69	63.5	17.0	18	46.5	1	—	1079	—	—	400	400	1400
70/74	69	18.5	15	50.5	—	—	759	—	—	300	300	950
75/79	63.5	17.0	21	46.5	4	—	428	—	—	150	150	550
80/84	45.5	12.0	15	33.5	3	—	208	—	—	100	100	300
85/89	24	6.0	3	18	—	—	} 82	—	—	50	50	100
90/94	6.5	2.0	1	4.5	—	—		—	—			
95/99	1.0	0.5	—	0.5	—	—		—	—			
								23,818	35,100	15,050	48,850	49,400



## Construction of Table I.

### Column 1.

In 1926 in England and Wales, 34% of the total deaths occurred below the age of 45. The actual number of deaths (corrected) in this district below 45 in 1927 was 223. Given a similar distribution of population as for the country as a whole, this would represent a total of 650 deaths.

The deaths occurring in the age group 25—44 formed 10.9% of the total for the Country. In this area 74 deaths occurred at these ages. This would give a total number of deaths, if the age distribution were normal, of 680. This figure is probably the more accurate, as the age group 15—25 is probably not normally represented in this district.

Column 1 is made up by taking the total of 660 deaths and dividing the figure into the various age groups to show the ages at which the deaths occur, the distribution amongst these age groups being that holding for the entire country in 1926.

This column therefore represents the number of deaths which would have occurred at each age group had each age group been represented in the district in the same ratio as the group 25—44 is represented; with the proviso, of course, that the rate of dying in each group is the same as that holding for England and Wales.

### Column 2.

15,000 is taken as that portion of the population which has a normal age group distribution. This number dying at the same rate as holds for England and Wales (death rate in 1926, 11.6 per 1,000 living) would yield 175 deaths. The column shows the manner of distribution of these deaths in age groups if the deaths occurred in those groups at the same rate as for the country as a whole.

### Column 3.

\* This is the actual number of deaths recorded as occurring at each of the age groups.

### Column 4.

This shows the distribution of deaths of the theoretical population which would have supplied 660 deaths, after deduction of those deaths occurring in the 15,000 population, i.e., column 1 minus column 2.



**Column 5.**

This is the distribution of actual deaths occurring in the district after deduction of those of the 15,000 population, i.e., it represents the distribution of deaths amongst the tenants of the L.C.C. houses. It is obtained by deducting column 2 from column 3.

**Column 6.**

On comparing columns 4 and 5, it is seen that for age groups 0 to 14 and 25 to 44, although there are discrepancies when each age group is considered separately, the totals agree fairly closely, viz., groups 0—14 89.5 compared with 106.5, and groups 25/44, 52.5 as compared with 55. When, however, the other age groups are considered, it is seen that there is a wide divergence—group 15/24 is only 1/8th represented, group 45/49 only one half and over 50 only fractionally represented. In fact, over age 50 the total number of deaths which actually occurred (109) can be accounted for by assuming their occurrence in the 15,000 population (108.5).

If then the Death Rate for age groups 0 to 14 and 25 to 44 is the same as that for England and Wales, it is reasonable to assume that the same rate holds here for the other age groups as in the country as a whole; and that the paucity of deaths at those ages is not due to any alteration in the death rate of those groups, but only to an alteration in the number of lives at risk at those ages. These figures therefore lend support to the theoretical consideration, as to the distribution of population, viz., amongst the people moving into the new houses, persons over 50 are only fractionally represented, and that the group 15/24 is only partially represented.

**Column 7.**

This in thousands shows the ordinary distribution of the population in England and Wales.

**Column 8.**

This shows what column 7 would be, making allowance for the fractional distribution calculated in column 6.

**Column 9.**

Column 8 gives a total of 24,000. Column 9 shows these figures increased in a ratio to bring the total to 35,000 which is the population assumed to be occupying the L.C.C. Estate.

**Column 10.**

This shows a population of 15,000 distributed in age groups assuming they are spaced similarly to the population of the country as a whole.



**Column 11** is the addition of columns 9 and 10 and represents the age distribution of the population of the inhabitants of Dagenham as a whole.

**Column 12** is merely the distribution of a population of 50,000 if each age group were represented in the same proportion as for England and Wales.

### Births.

1,210 births were registered during the year grouped as follows in respect of sex and legitimacy.

	Males.	Females.	Total.
Legitimate	574	608	1,182
Illegitimate	18	10	28
Total	592	618	1,210

The birth rate per 1,000 of population was thus 24.2.

For England and Wales in 1927 the figure was 16.7. Dagenham has therefore a birth rate apparently 50% in excess of that of the country.

A more useful figure in general for comparative purposes is the number of births occurring not per 1,000 of population but per 1,000 women of ages 15 to 45, a figure known as the Fertility rate. For this district however owing to the group 15 to 24 being poorly represented it would probably be more accurate to compare the rate per 1,000 women of ages 25 to 45. Instead of allowing for the normal slight excess of females over males at this age, it is assumed that they are present in equal numbers. The figure taken therefore is half the population at ages 25 to 45, which is half of 21,200 or 10,600. Worked out per 1,000 of this population the proportion of births is 114.

In 1926 there were at ages 25 to 45 in England and Wales 6,133,672 women and the number of births 694,563. Per 1,000 of this population the birth rate was 113.

From this it would seem that the women in this district of child-bearing age are having babies at just the same rate as those in the rest of the country.

It will be noticed that, rather unusually, the number of female births exceeds that of the males.

Illegitimate births formed 2.1% of the total number, the corresponding figure for England and Wales being in 1925 4.07%. The cause for this difference is probably to be found in the age distribution of the population rather than in a higher ethical standard.



### Death Rate.

Total deaths in district	...	...	...	248
Transfers out of district	...	...	...	75
Inward transfers	...	...	...	176
Deaths of residents	...	...	...	349

349 deaths in a population of 50,000 represents a death rate of 7.0 per 1,000. The death rate for England and Wales for 1927 was 12.3. The crude death rate is the actual number of deaths occurring in the district per 1,000 population. For comparative purposes it is not used as it is too much affected by the questions of institutions, e.g., hospitals and sanatoria in the area. For this area for instance, there is the Dagenham Sanatorium for West Ham. The deaths occurring at this institution should not be included in the local returns. Conversely many deaths occur amongst Dagenham residents in various institutions outside the area.

The recorded death rate allows for these deaths of non-parishioners occurring in this area and for the deaths of local residents occurring outside the district. This death rate gives, for a stationary population, a rough index for comparison of one district with another. It is however affected by:—

1. The Sex Distribution of the Population:—At most ages the death rate for males exceeds that of females. If therefore the normal distribution of males and females is disturbed there will be some corresponding alteration in these figures.

2. The Age Distribution:—If for any reason the distribution of age groups is abnormal this change will be reflected in the death rate, e.g., if in a given population there is some undue preponderance of aged people there will be more deaths per 1,000 of the general population; that is, the death rate will be higher.

The age distribution is subject to the control of two factors; firstly the rate of increase of population and secondly the mode of such increase. If the birth rate exceeds the death rate it means a preponderance of distribution in the lower age groups, i.e., at those age groups which have the lowest death rate. In such a case therefore the death rate would be lower than the average. Similarly the immigration of children and young adults would have a like effect.

In stable communities these alterations in age and sex distribution can be allowed for by means of a Correction Factor and the Corrected Death Rate can be obtained. This figure is used as the index of healthiness for comparison of one district with another. To obtain this however for the area, would require



a knowledge of the actual distribution of the population in their respective age and sex groups, a piece of information which will not be available until a census is taken.

The very low figure of the Recorded Death Rate is of course due to the unusual distribution of age and possibly to some extent of sex. Ordinarily 60% of total deaths occur in persons over the age of 50. In this district this age group is poorly represented as yet and this accounts for the deficiency of deaths per 1,000 population.

It is recognised that the mortality of a population where there is a large excess of births over deaths will be lower than that of a stationary population, unless emigration causes any great changes. Also that newly settled communities and particularly rapidly growing towns have a low death rate.

As long as the estate continues to grow the death rate will favour the district owing to preponderance at these favourable ages. Against this of course, is the effect of a high birth rate which, because of the heavy death rate in the first year of life, will add to the number of deaths. But this same birth rate if continued, results in the production of a population containing a large number of persons who are at a period having a very low death rate.

Each year, however, will see a number passing over the age of 50; that is, an increasing number passing into the age group with a higher-than-average mortality instead of being in the group with a lower-than-average mortality. This will mean a slowly rising death rate. This influence will probably not be apparent until the influx into the growing estate ceases, as until then, the effect will be over-balanced by the other factors making more strongly for a low death rate.

On cessation of expansion, however, the death rate for this district will probably slowly rise until the age distribution of the area becomes normal. This, theoretically, will not be until some 40 years after the cessation of influx into the district, by which time the deficiency in the age group 15 to 24 has been removed by those particular persons passing through their successive age groups until removed by their death.

Before this time, there will be other disturbing factors to alter the age distribution, even to such an extent as to adversely affect the death rate. At some future date it is probable there will not be sufficient accommodation for the present children when they reach the age of adolescence. They might therefore leave the district. The loss of these people at ages which normally have a low death rate would raise the Recorded Death Rate, even possibly to a figure above that of the country as a whole.



TABLE II.

CAUSES OF DEATH.	Under 1 year	Over 1 and un- der 2	Over 2 and un- der 5	Over 5 and un- der 15	Over 15 and un- der 25	Over 25 and un- der 35	Over 35 and un- der 45	Over 45 and un- der 55	Over 55 and un- der 65	Over 65	Male	Female	TOTAL
1. Enteric Fever ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Smallpox ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Measles ... ..	—	—	1	—	—	—	—	—	—	—	1	—	1
4. Scarlet Fever ... ..	—	—	3	—	—	—	—	—	—	—	3	—	3
5. Whooping Cough ... ..	—	3	2	—	—	—	—	—	—	—	2	3	5
6. Diphtheria ... ..	—	2	10	8	—	—	—	—	—	—	12	8	20
7. Influenza ... ..	—	—	—	—	—	1	1	—	—	5	3	4	7
8. Encephalitis Lethargica ... ..	—	—	1	—	—	—	—	—	—	—	1	—	1
9. Meningococcal Meningitis ... ..	—	—	—	1	—	—	—	—	—	—	1	—	1
10. Tuberculosis, respiratory ... ..	—	—	—	3	4	11	7	5	—	—	17	13	30
11. Other Tuberculous diseases ... ..	1	—	1	—	1	—	—	2	—	—	3	2	5
12. Cancer, malignant disease ... ..	—	—	—	—	—	—	8	3	8	13	12	20	32
13. Rheumatic Fever ... ..	—	—	1	—	—	1	—	1	—	—	2	1	3
14. Diabetes ... ..	—	—	—	—	—	—	—	1	1	1	1	2	3
15. Cerebral Hæmorrhage ... ..	—	—	—	—	—	—	—	3	8	8	2	9	11
16. Heart disease ... ..	—	—	1	—	2	2	3	2	3	7	9	11	20
17. Arterio-sclerosis ... ..	—	—	—	—	—	—	—	—	—	1	—	1	1
18. Bronchitis ... ..	2	—	—	—	—	1	1	—	1	14	10	9	19
19. Pneumonia ... ..	26	5	5	4	—	1	4	3	1	2	29	22	51
20. Other respiratory diseases ... ..	1	—	—	—	—	—	1	—	1	2	4	1	5
21. Ulcer of Stomach or Duodenum ... ..	—	—	—	—	—	—	—	2	—	—	2	—	2
22. Diarrhœa (under 2 years) ... ..	13	—	—	—	—	—	—	—	—	—	9	4	13
23. Appendicitis ... ..	—	—	—	1	—	—	—	—	—	1	1	1	2
24. Cirrhosis of Liver ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
25. Acute and chronic Nephritis... ..	—	—	—	—	—	—	5	2	2	2	9	2	11
26. Puerperal Sepsis ... ..	—	—	—	—	—	3	1	—	—	—	—	4	4
27. Other accidents and diseases of Pregnancy and Parturition... ..	—	—	—	—	—	1	1	—	—	—	—	2	2
28. Congenital Debility and Mal- formation, Premature Birth... ..	25	—	—	—	—	—	—	—	—	—	18	7	25
29. Suicide ... ..	—	—	—	—	—	—	4	2	—	—	6	—	6
30. Other Violence ... ..	—	1	3	2	1	7	6	1	2	—	15	8	23
31. Other defined diseases ... ..	7	—	3	3	2	2	2	3	4	17	22	21	43
32. Causes ill-defined or unknown ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—

## GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

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### Hospitals provided or subsidised by the Local Authority or by the County Council.

#### a. (1) **Fever.**

Rush Green Isolation Hospital maintained by the Romford Joint Hospital Board which consists of representatives from the Urban District Councils of Dagenham, Hornchurch and Romford and the Rural District Council of Romford.

Ordinarily, cases of Scarlet Fever, Diphtheria and Enteric Fever are admitted. The 52 beds at the hospital are now insufficient for the population of this combined district. During a school outbreak of diphtheria in June, cases had to be admitted to the hospital of a neighbouring authority. The autumnal increased prevalence of both scarlet fever and diphtheria demonstrated the insufficiency of accommodation with the result that, of the scarlet fever cases occurring from the middle of October to the end of the year over half had to be nursed at home; and the one notified case of enteric fever was not admitted.

In spite of the shortage, however, it was possible to get all cases of diphtheria admitted and also all cases of scarlet fever manifesting any of the more serious complications.

Steps are being taken which it is hoped will result in a material extension to the existing premises.

#### (2) **Smallpox.**

The Romford Joint Hospital Board has an arrangement with the West Ham Corporation for the reception of smallpox cases. Orsett Smallpox Hospital is available for sporadic cases, but in the event of a large number occurring, Dagenham Hospital would be available for their admission.

#### b. (1) **Tuberculosis.**

The Essex County Council, the local authority dealing with tuberculosis, provides beds for all forms of this disease in various sanatoria and hospitals.



## (2) Maternity.

Maternity cases have been admitted from this area to Oldchurch Hospital, Romford and also a number of cases to the various London hospitals. The Council have not, up to the present, made any provision for such cases.

## (3) Children.

The only hospital provision made up to the present is for operative treatment of tonsils and adenoids. An agreement has been entered into with Queen Mary's Hospital, Stratford, by which the Council guarantees the operating fee of 11/- in necessitous cases.

### **Institutional provision for unmarried mothers, illegitimate infants and homeless children.**

The only provision of this nature is that made by the Romford Guardians at their Institution.

### **Ambulance Facilities.**

#### (a) For Infectious Cases.

A motor ambulance provided by the Joint Hospital Board is stationed at the Isolation Hospital at Rush Green.

#### (b) For Non-infectious Cases and Accidents.

The Council have provided and maintain a Morris ambulance stationed at the Fire Station, Beacontree Heath. From the date of commission in February 1927 to the end of the year the ambulance had been called out for 64 accident cases and was used for the transport of 133 other cases.

### **Clinics and Treatment Centres.**

The following Infant Welfare Centres are maintained by the Council:—

CENTRE.	Held	Day	Average Attendance.	New Cases.
Congregational Church Hall, Mill Lane, Chadwell Heath (opened June, 1927)	Weekly	Monday, p.m.	24	3
St. Thomas's Hall, Haydon Road, Beacontree	Weekly	Friday, p.m.	67	9
Church Hall, Station Road. Transferred in August to Wesleyan Chapel, Heathway	Weekly	Wednesday, p.m.	71	10



The following Ante-natal clinics are held:—

Church Hall, Station Road. Transferred in August to Wesleyan Chapel, Heathway	Fortnightly to October; since when weekly	Wednesday, a.m.	11	6
St. Thomas's Hall, Haydon Road, Becontree (opened Nov., 1927)	Fortnightly	Tuesday, a.m.	6	6

A school clinic is maintained at Finnymore Road, Dagenham by the Essex Education Committee. It is open on Monday, Tuesday and Wednesday mornings.

A Visiting Station for Tuberculous patients is held at the same address and is maintained by the County Council. Sessions are held on Thursday mornings and afternoons. For the northern part of the estate the Ilford Tuberculosis Dispensary, also maintained by the County Council, is more conveniently placed.

There are no Treatment Centres for Venereal Diseases in the area.

### Public Health Officers of the Local Authority.

#### Medical Staff.

\* The Medical Officer of Health is a part-time officer of the Council, the remainder of his time being taken up as Assistant County Medical Officer for the same area.

The following are part-time medical officers in charge of the Maternity and Child Welfare clinics.

\* Sybil Pratt, M.R.C.S., L.R.C.P.

\* Violet Reade, M.R.C.S., L.R.C.P., D.P.H. On her resignation during the year, her duties were taken over by

\* Eleanor Henderson, M.B., Ch.B., D.P.H.

#### Health Visitors.

\* † M. A. S. Batty, General trained: Cert. C.M.B., H.V.'s Certif.

\* † I. Richardson, General trained: Cert. C.M.B.

\* Proportion of salary contributed under Public Health Acts, or by Exchequer grants.

† These were the first permanently appointed Health Visitors for the area. Prior to their appointment the work had been carried out by temporary Health Visitors.

## **Sanitary Inspectors.**

- \* G. T. Carter, Senior Sanitary Inspector.  
Certificate of Royal Sanitary Institute; Meat Inspector's Certif.
- \* J. A. Dawson, Second Sanitary Inspector.  
Certif. of Royal Sanitary Institute; Meat Inspector's Certif.

## **Clerical Staff.**

One full-time clerk.

\* One full-time clerk dealing with foodstuffs at Infant Welfare Centres.

## **Professional Nursing in the Home.**

### **(a) General.**

Two nurse-midwives are maintained by the Essex County Nursing Association. Grants are paid to the Association by the Essex Education Committee for school nursing and by the County Council for tuberculosis nursing.

### **(b) For Infectious Diseases.**

No assistance is provided by the Council for the nursing of cases of measles, etc., in their homes. During the home treatment of cases of scarlet fever, the Health Visitors pay regular visits to the houses.

## **Midwives.**

There are no midwives in the district employed by the Local Authority. 13 midwives practice in the district.

## **Chemical Work.**

The chemical analysis of water effluents, etc., is carried out in the County Laboratory, Queen Victoria Street, London.

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\* Proportion of salary contributed under Public Health Acts, or by Exchequer grants.



## Legislation in Force.

The following bye-laws were made by the Romford Rural District Council and have been taken over by the Dagenham Urban District Council:—

### Date of Confirmation.

Cleansing of footpaths .....	January 1885
Removal of house refuse .....	January 1885
Cleansing of earth closets, etc. ....	January 1885
Common Lodging houses .....	December 1901
Slaughter houses .....	May 1902
Nuisances .....	May 1902
Houses let in lodgings .....	June 1902
Tents, vans, sheds, etc. ....	March 1908
Regulation of certain Offensive Trades ...	August 1912
New Streets and Buildings .....	July 1925
Regulations with respect to Dairies, Cow-sheds, etc. ....	February 1908
Offensive Trades Confirming Order .....	July 1911
Offensive Trades Confirming Order (Rag and Bone Dealer; Fish-frier) .....	March 1927

### Adoptive Acts.

Public Health Acts (Amendment) Act,  
1890, Part 3 .....December 1927

Public Health Acts (Amendment) Act, 1907

In force before 1927,

S.S. 15-18, 20-33, 34-38, 43-46, 49-51, 52-60, 62-68  
(inclusive).

Added in 1927,

Part 3, S.S. 39-42, 47 and 48 (sanitary provisions).

Part 5 (Common lodging houses).

Part 6 (Recreation grounds).

Part 7, S.S. 80 and 81.

Part 8, S.S. 87 to 90.

Part 9, S. 91.

Part 10, S. 95.

Public Health Act, 1925.

In force before 1927: Parts 2, 3, 4 and 5.

Added in 1927: Part 6 (Recreation grounds).



## SANITARY CIRCUMSTANCES OF THE AREA.

### Water.

Most of the district is supplied with water by the South Essex Water Works Co. The area north-west of Hog Hill is supplied by the Metropolitan Water Board and in some parts of the district shallow wells are still in existence.

### Drainage and Sewerage.

The district is sewered in the following manner:—

- (1) A sewer starting in Chadwell Heath passes southwards and is joined by one from Wood Lane running to the Beacontree section. It follows the Gores Brook to Gores Bridge and proceeds east.
- (2) A second sewer from Chadwell Heath passes through Beacontree Heath to Dagenham village and joins the first in Broad Street.
- (3) Another sewer draining the central section of the new estate passes down Heathway to join the others.
- (4) The Chequers Lane or Dagenham Dock section passes via ejectors joining the other at Chequers Lane.

The combined sewer then proceeds in the line of New Road to the Riverside Outfall Works in South Hornchurch.

All new streets on the L.C.C. Estate are sewered.

The northern part of the district possesses no sewer. There is a small colony in the Hog Hill area of about 40 houses, draining partly into cesspools and partly by an ancient combined drain (about 400 yards in length) which discharges into a ditch adjoining a main road. It does not seem practicable to connect this colony to any of the main sewers—but a small sewerage system would appear to be possible, and desirable.

### Closest Accommodation.

The houses of the district are in the main connected to sewers but in some of the outlying parts cesspools are in existence. These are emptied now into the sewers instead of as formerly the contents being deposited on fields. The Merryweather motor vacuum cesspool emptier has now been replaced by a Garratt gully and cesspool emptier.

The night-soil from the few earth-closets in the northern part of the district and Eastbrook End Lane is collected by a tumbler cart and deposited on to fields.

## Scavenging.

A weekly service of collection is maintained by the Council, the collection being made by 4 motor tractors each working to a pair of trailers. The refuse is removed to a tip in the northern part of the district.

No satisfactory provision has yet been made for the disposal of trade refuse. It would seem that this could best be dealt with by the erection of an incinerator which, besides disposing of trade refuse, would be available for the destruction of condemned carcasses and infected bedding.

## Sanitary Inspection of the District.

### Report of Sanitary Inspectors.

#### (a) Nature and number of inspections.

Houses	...	...	...	...	...	781
Bakehouses	...	...	...	...	...	48
Slaughter-houses	...	...	...	...	...	310
Cowsheds, Dairies	...	...	...	...	...	160
Infectious diseases enquiries	...	...	...	...	...	730
Houses disinfected	...	...	...	...	...	452

#### (b) Notices served.

#### Complied with.

Statutory, 43	...	...	...	...	...	43
Informal, 17	...	...	...	...	...	13

## Smoke Abatement.

No action has been necessary during the year for the abatement of smoke.

## Offensive Trades.

The trades or businesses of a rag and bone dealer and of a fish frier were declared, by a confirming order of the Ministry of Health which came into operation March 28th, 1927, to be Offensive Trades.

## Rats and Mice Destruction Act, 1919.

The powers under this act have been delegated to the Local Authority by the County Council. Under these powers the public were informed by public notice that suitable rat poison was obtainable at the Sanitary Department. A steadily increasing advantage is being taken of this offer.



### Schools.

The majority of schools in the district being of recent construction are satisfactory as regards sanitary condition and water supply, but owing to the large numbers of applicants for admission their accommodation is being strained to the utmost.

Head Teachers furnish the names and addresses of all children absent from school suffering from, or as contacts of cases of, infectious diseases, including the non-notifiable diseases.

On the occurrence of a case of a notifiable disease in a house, the Head Teacher of the school attended by the patient, or by his house contacts, is informed and advised as to the period of exclusion.

### On the Administration of the Factory and Workshop Act, 1901.

In this district there are 15 factories, 15 workshops and 15 workplaces.

#### 1. Inspection.

PREMISES.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ... ..	18	—	—
Workshops ... ..	15	1	—
Workplaces ... ..	325	—	—
Total ... ..	358	1	—

#### 2. Defects.

Nuisances under Public Health Acts:

	Found.	Remedied.
" Other nuisances "	3	3
	—	—
Total	3	3

#### 3. Outwork in Unwholesome Premises. Section 108.

There was no outwork conducted in unwholesome premises.



## HOUSING STATISTICS FOR THE YEAR 1927.

The following is the table required by the Ministry of Health :—

### Number of houses erected during 1927

(a) Total [including (b)]	...	...	...	...	3,333
(b) With State assistance under the Housing Acts					
(1) By the Local Authority	...	...	...	...	0
(2) By other bodies or persons	...	...	...	...	3,164

### 1. Unfit Dwelling Houses.

#### Inspection.

(1) Total number of houses inspected for housing defects (under Public Health or Housing Acts)	781
(2) Number of houses which were inspected and recorded under Housing (Consolidated) Regulations 1925	533
(3) Number of houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	0
(4) Number of houses (exclusive of 3) found not to be in all respects reasonably fit for human habitation	152

### 2. Remedy of defects without service of formal notices.

Number of defective houses rendered fit in consequence of informal action by the Local Authority or their officers	40
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### 3. Action under Statutory Powers.

#### A. Proceedings under S. 3 Housing Act, 1925.

(1) Number of houses in respect of which notices were served requiring repairs	112
(2) Number of houses which were rendered fit	
(a) By owners	112
(b) By Local Authority in default of owners	0
(3) Number of houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	0

## B. Proceedings under Public Health Act.

(1) Number of houses in respect of which notices were served requiring defects to be remedied	...	...	...	...	...	110
(2) Number of dwelling houses in which defects were remedied						
(a) By owners	...	...	...	...	...	98
(b) By Local Authority in default of owners	...	...	...	...	...	0

## C. Proceedings under S.S. 11, 14 and 15 of Housing Act, 1925

(1) Number of representations made with a view to the making of Closing Orders	...	...	...	...	1
(2) Number of houses in respect of which Closing Orders were made	...	...	...	...	1
(3) Number of houses in respect of which Closing Orders were determined, the houses having been rendered fit	...	...	...	...	1
(4) Number of houses in respect of which Demolition Orders were made	...	...	...	...	0
(5) Number of houses demolished by owners					1

**Housing.**

The houses of the district fall into the following groups:

1. The new L.C.C. Estate forming the bulk of the district.
2. Two small estates, the Marsh Green of 196, and the Mill Park of 162 houses erected by the Romford Rural District Council and taken over by this Council.
3. The older houses forming the original district.
4. A certain number of new houses erected by private enterprise.

The houses of the Local Authority were erected primarily to relieve the overcrowding occurring in the third group. For this purpose that number to-day is most inadequate. In many of the older houses, now that the younger family is growing up, there is deplorable overcrowding. There is an urgent need for further accommodation to relieve these conditions. Besides, many of these older houses are reaching the end of their utility. To attempt to repair or renovate them is not an economical proposition. Were alternative accommodation available for the tenants, there are numbers of these houses for which Closing Orders should become operative. To remedy both these conditions would necessitate the provision of some 500 new houses.



With regard to the L.C.C. houses, although to-day there are few cases of crowding in them, it is feared that a serious position must arise in the course of a few years. It was seen above that the average population of these houses was 2.16 adults and 3.3 children under 15. Most of these children are to-day small, and can be habited in one room at night. The difficulty will arise when these same children have reached the age of adolescence and will need separate sleeping accommodation.

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## INSPECTION AND SUPERVISION OF FOOD.

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### (a) Milk Supply.

There are in the district 31 Milk retailers, 17 Dairies and Milkshops and 5 Cowsheds. The latter figure does not include two cowsheds the use of which was discontinued during the year. One licence for "Grade A," one supplementary licence for "Grade A," and one supplementary licence for "Pasteurised" milk are at present in operation in the area.

Only a relatively small amount of the milk distributed here is produced in the district, though much of it is bottled in the locality. While bottling has certain hygienic advantages in that the milk is subjected to less exposure, and there is the possibility of less contamination in transit and in the home, it does seem that the practice might in certain circumstances, result in increased risk through contamination of the bottles and residual milk, before return to the retailer. This danger is the more real when home nursing of infectious diseases has to be carried out. While this risk is remote in the case of firms employing an elaborate plant providing for steam sterilisation of the bottles, it seems not unreal in the case of less efficient methods of cleansing. It would be eliminated should the trade discover some satisfactory non-returnable container.

### Milk Analysis.

99 samples of milk were submitted during the year for an analysis which included not only bacteria but extraneous matter. It was thought that it would be advantageous to let the retailers know the result of the test to make them aware of the quality of their samples. Summaries of the analyst's report were accordingly given to the dairymen, with the result that in several instances the retailers, on becoming aware of the unsatisfactory quality of the milk, have changed to other producers. In some



cases it has even led to the retailer voluntarily sending for analysis samples taken from his various producers. Other instances have occurred of the retailer welcoming an analysis after changing a producer.

The earlier samples were taken routine of each of the dealers. Afterwards, however, efforts were concentrated more on those firms where previous results had been poor. The following results therefore are really more satisfactory than appears, in that the earlier ones were general samples and the latter, those who earlier in the year had proved unsatisfactory.

			samples taken	satisfactory	not satisfactory
June, 1927	...	...	16	9	7
July, 1927	...	...	16	8	8
November, 1927	...	...	16	13	3

In only one sample was the tubercle bacillus found. This milk was traced to a cow in the district of another Authority and it transpired that the cow was killed within two weeks.

Another sample of local production suggested mastitis. This cow also was killed.

### **"Grade A" Milk.**

Not all samples of "Grade A" Milk submitted for analysis came up to the required standard, whilst the "Pasteurised" milk samples were less satisfactory. To encourage the sale of "Grade A" milk one would like to recommend that all the milk granted under the Maternity and Child Welfare Service should be of this quality. Until all parts of the district can be served with a reliable supply, however, the suggestion does not seem practicable.

The local results of "Pasteurised" milk do not support the claims made by many as to its being the only safe mode of dealing with the beverage. The essential factor in the production of clean milk is the practice of clean methods. In many cases the results of local producers not working with any elaborate apparatus or in very modern premises were extremely satisfactory, even on occasion bettering the requirements for "Grade A" milk. The vast importance of cleanliness in this connection cannot be too strongly emphasised.

No action has been necessary under the Public Health (Prevention of Tuberculosis) Regulations 1925, as regards any persons employed in the milk trade.



**(b) Meat.**

In this district there are four Slaughterhouses of which one is licenced and three registered, and to which a total of 310 visits were paid during the year.

Notice of slaughtering at times other than the regular ones are received from the butchers and as far as practicable additional visits are paid.

The class of meat dealt with at these premises is, on the whole good.

There is no system of meat marking in operation in the district. There are no public slaughter-houses in this district.

Some of the owners of meat shops construe the requirements of the Meat Regulations 1924, as necessitating the installation of glass shop fronts. These, however, are mostly local branches of dealers on a large scale.

It is difficult to control the large traffic in meat by hawkers. The actual specifications relating to the structure of their vans which can be legally enforced, are very limited, and the class of meat sold is often not above suspicion.

**Bakehouses.**

There are 4 bakehouses in the district, 2 factory and 2 retail. 48 visits were paid to these in the course of the year.

**Sale of Food and Drugs Acts.**

These Acts are administered by the Essex County Council.

**Public Health (Preservatives, etc. in Food) Regulations 1925.**

Part of these regulations came into operation on January 1st, 1927.

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## INFECTIOUS DISEASES.

	Cases Notified.	Admitted to Isolation Hospital.	Admitted to Other Isol. Hosp.	Admitted to Other Hospitals.	Deaths.
Scarlet Fever ... ..	262	207	—	—	3
Diphtheria ... ..	181	162	11	—	20
Enteric Fever ... ..	1	—	—	1	—
Puerperal Fever ... ..	6	—	—	3	4
Puerperal Pyrexia ... ..	2	—	—	—	—
Pneumonia					
Primary ... ..	52	—	—	?	51 (includes secondary)
Influenzal ... ..	8				
Erysipelas... ..	14	—	—	—	—
Encephalitis Lethargica	3	—	—	2	1
Ophthalmia Neonatorum	15	—	—	—	—
Cerebro Spinal Meningitis	—	—	—	1	1
Poliomyelitis ... ..	2	—	—	—	—

In addition there were admitted to hospital, 6 cases sent in as diphtheria but proved to be tonsillitis, etc.

## Age distribution.

	Under 1 year.	1	2	3	4	5	10	15	20	25	35	45	55	65	Total.
Smallpox ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ... ..	2	8	8	19	17	69	26	11	2	6	11	—	2	—	181
Scarlet Fever ... ..	1	10	17	23	23	128	28	13	5	5	4	—	—	—	257
Enteric Fever ... ..	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
Puerperal Fever ... ..	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1
Puerperal Pyrexia... ..	—	—	—	—	—	—	—	—	1	4	2	—	—	—	7
Pneumonia															
Primary ... ..	2	6	8	6	3	10	4	1	—	2	7	3	—	—	52
Influenzal ... ..	—	—	—	—	—	2	1	1	—	2	—	—	1	1	8
Erysipelas ... ..	1	—	—	—	—	—	—	1	—	7	2	1	2	—	14
Encephalitis															
Lethargica ... ..	—	—	—	—	1	—	—	—	1	1	—	—	—	—	3
Poliomyelitis ... ..	—	—	1	—	—	1	—	—	—	—	—	—	—	—	2

## Infectious Diseases.

The incidence of Scarlet Fever and Diphtheria is very largely confined to ages below 15. It was seen earlier in the Report that, had the 50,000 population been normally distributed in each age group, the number of children below 15 would have been 12,750. Instead of that it is calculated that there are some 18,750. When comparison is made per 1,000 of the total population one would expect a 50% increased incidence of disease because of the 50% increase at the susceptible ages.



Further, is the question as to whether the altered proportion of susceptible to immune in the population does not influence the incidence. If each case is considered as a focus of infection in a larger susceptible community, the additional cases might be expected to mount up not by arithmetical, but by geometrical progression. While this might be expected however, it is difficult to see where the factor comes into operation. It is equivalent to saying that a child population of 18,750 is having more cases because it is distributed amongst a general population of 50,000 instead of a population of 75,000. If, therefore, this effect is apparent the cause must be looked for not in the fact that there is this aggregation of susceptible population, but rather to the fact that there is a diminution in proportion of the insusceptible population.

The spread of Infectious Disease is dependent upon a number of factors which include the host (his susceptibility or resistance) the infecting virus (its virulence and pathogenicity) and the rate of infection. If the interaction between virus and susceptible host results in the suppression of the virus, no disease appears in the host, and further than that, the degree of immunity established is such that after successfully overcoming an attack, the host is left in a position that he is less susceptible to infection than he was before the attack. It is due to his successfully resisting repeated small sublethal doses of infection that man develops his acquired immunity to disease. Should, however, the velocity of infection of the early invasive dose be greater than can be dealt with by the defensive mechanism, the host develops an attack of that particular infection. It can be seen therefore that while a case of infectious disease is a possible source of other cases, it is also acting as an immunising agent to other susceptibles and so producing an insusceptible population.

In addition to the spread of infection by actual cases of disease, to some extent they are spread by carriers, who may be convalescent or contact carriers, and are persons who are immune to the disease. These carriers in the same way, besides being potential sources of infection are also, through their disseminating small doses of infecting agent, acting as immunising agents through the community. In an ordinary population it is unknown how far this immunising effect on the population is produced by actual cases of disease and how much by immune carriers. If the latter, then where these immune are poorly represented one would expect that those susceptible would have fewer opportunities of being immunised and therefore more likelihood of being attacked by the massive dose by close contact with a case before immunity is established.

A further effect of the relative absence of immunes would be on the organism. Bacteria passing from one to another sus-



ceptible host might acquire greater pathogenicity or virulence than if passed in stages through an immune intermediate host.

As compared with more stable districts, this one with its rapid growth is possibly influenced in another manner. Each week sees the addition to the population of some hundreds of inhabitants, these additions on the whole being, because of their age distribution, more susceptible to infectious disease than a normal population. This fact becomes important in view of the conclusions reached by Topley as a result of his work on the spread of disease amongst mice.

"... continuous immigration of susceptibles appears to be the most important single factor in maintaining the level of epidemic prevalence of an infective disease," and the suggestion that "it would appear to be an unfortunate occurrence for individuals forming part of an infected herd to be subjected to immigration from without that herd, of other healthy individuals of their own species."

### Diphtheria.

181 cases per 50,000 is at the rate of 3.62 per thousand living, the corresponding figure for England and Wales for 1927 being 1.33, i.e., Diphtheria is apparently 2.7 times as prevalent in this area as in the country as a whole. The incidence rate for the country per thousand children under 15 is 5.32. For this district, assuming that there are 18,750 children under 15, the corresponding figure is 9.1, i.e., when allowance is made for the increased proportion of susceptibles in the population and comparison is made, not per thousand population, but per thousand susceptible population, Diphtheria is seen to be 1.7 times as prevalent as in the country as a whole.

Of these 181 all but three were removed to hospital, these three remaining at home at the parents' request in favourable home circumstances.

In the earlier months of the year there were but few cases of Diphtheria in the district. From April 1st to June 4th there were only 14. The Table appended below shows the incidence each week per 10,000 population.

Week ending			Week ending			Week ending		
June 11	...	0.2	Aug. 20	...	0.6	Oct. 29	...	1.45
18	...	0	27	...	0.6	Nov. 5	...	0.85
25	...	1	Sept. 3	...	0.4	12	...	0.85
July 2	...	2	10	...	0.75	19	...	0.65
9	...	1.4	17	...	1.1	26	...	0.5
16	...	1.4	24	...	0.2	Dec. 3	...	2.0
23	...	1.0	Oct. 1	...	0.4	10	...	0.85
30	...	0.6	8	...	1.1	17	...	0.85
Aug. 6	...	0.8	15	...	0.9	24	...	1.0
13	...	0.6	22	...	1.6	31	...	1.0



When expressed graphically it can be seen that there is throughout the year, a curve on which is super-imposed some peaks. This curve is on a consistently higher level than that showing the incidence for England and Wales (about double the incidence) and like it, rises to its maximum in the Autumn months.

These peaks are divided out into:—

1. Rising from June 18th to a maximum on July 9th and falling to normal by July 30th. This represents the outbreak occurring at Ford's School.
2. The peak in the weeks ending September 10th and 17th is due to a family of 5 all contracting the disease. In this instance the primary case was spreading infection for some days before a Doctor was called in.
3. The increased incidence in the weeks ending October 8th to the 29th appears as two peaks, and was due to three carriers, who in each case, infected, not only persons in the house, but also the inhabitants next door. One case on enquiry gave a history of symptoms of Diphtheria some days before the onset of the other cases in the house. The nose seemed normal but gave a positive result. The second case with no history of illness had the typical excoriation on the nares and a positive swab result. The third case also with no history of illness, but giving a positive swab result, presented only a slightly overmoist nasal mucosa.
4. The last rise occurring early in December was due to a house of 12 occupants of whom 11 succumbed to Diphtheria. The illness started in two children, who were diagnosed by their mother as suffering from Mumps and were treated as such for five days. Both subsequently died. In the week following their removal, nine of the family were attacked.

### **Ford's School Outbreak.**

In the second half of June and during July, an outbreak occurred at Ford's School. This is one of the older schools of the district and is fed very largely by the children of Dagenham Village, approximately half the scholars coming from the L.C.C. houses and half from other. The new housing estate is built up to this area and therefore was partly involved in the outbreak.

It is probable that the disease was first introduced into the school by a convalescent carrier, who had suffered from an unrecognised attack. This child, one of a large family, lives in one of the old houses of the district.



Two children of the same class fell ill one day, then followed the teacher of that class, who was ill for a short time before giving up her duties. Her husband being excluded, there was shortage of staff and one of the older girls was put in charge of the class. She also succumbed. The class was then distributed throughout the school. Owing to the alarm of the neighbourhood many children were kept away from school. This added to the difficulty of tracing the cause, as up to that time the absentees had been visited. Cases continued to be notified for the succeeding weeks making a total number for that neighbourhood of 37. Of this number 25 were primary cases and 12 secondary (secondary in this case is taken to include not merely those actually living in the same house but those living elsewhere who had sufficient contact inside the house to be considered to be infected from there).

The actual number of persons attending the school who suffered from Diphtheria during this period was 20, of whom 6 were in the originally infected class. Home contacts of Ford's School pupils were 11, and in addition there were six cases in the immediate neighbourhood who were probably infected by these, though they had not apparently entered the homes of any of the patients.

The outbreak was not one affecting the new Housing Estate to any extent. Of the 37 cases, 31 occurred in the older houses (19 primary and 12 secondary) and only 6 in the new houses.

Below is an extract from the Report presented to the Council at the time of the Outbreak.

"... 6 of these children were in the same class, which was taken by the teacher who was infected. Realising the possibilities of droplet infection the class incidence can be considered to be light. It is regrettable that owing to the shortage of staff the infected class was distributed round the school, as it enormously increased the risk of spread; besides making the tracing of carriers so much more difficult. It also rendered out of the question any system of class closure as means of checking the spread.

The advisability of school closure naturally arose. This is a step to be taken only reluctantly. By keeping open the school, investigating the cases, and following up any children absent for suspicious reasons, one obtains a clearer view of the extent of the outbreak and is more favourably placed in the difficult task of finding carriers. The value of school closure too, undoubted as it is in rural districts where the children meet only at school, is negatived in congested areas where there is so much opportunity of infection out of school. ... shortage of hospital accommodation. Although this can-



not be considered an extensive outbreak, we have already had to admit many of our patients to the hospital of a neighbouring authority, and this too, at a time of the year when ordinarily, infectious disease is not prevalent. It seems inevitable that when the incidence rises as it normally does throughout the country towards the end of the year, that this shortage will again be felt. On this occasion the authority fortunately had accommodation. When our numbers start rising at the end of the year, so will those of other authorities and they might not then be able to admit our cases."

### **Distribution of the Disease in District.**

Since April there have been 157 cases notified. Of these, occurring in the L.C.C. houses, were 81 primary cases (of which 6 were included in the Ford's School outbreak). In the other houses were 30 primary cases (of which 19 were accounted for in this outbreak). In the area there are 15,000 children under 15 living in the Estate houses and 2,500 in the other. Considering all primary cases it is seen that there is a relatively smaller incidence amongst the Estate houses. Deducting those cases of the school outbreak, however, leaves a figure of 75 compared with 11, i.e. a ratio roughly the same as the ratio of the child population in the two sets of houses. If there is any risk of increased incidence of Diphtheria in the L.C.C. houses due to the aggregation of large numbers of children, that same risk must apparently be reflected to the occupants of the other houses.

### **Secondary Cases.**

There were 33 instances of cases secondary to a clinically recognised case, and 8 of cases caused by carriers. Where more than one case occurs in a house it is often impossible to say whether the third was infected from the primary source or from the second case. These secondary cases were divided out as follows:—

1. L.C.C. Estate.—15 cases in 8 houses (1 in three houses, 2 in 4, and 4 in 1 house), and in addition in three houses two cases were infected by a carrier.
2. Other houses.—18 cases in 8 houses (1 in 5 houses, 2 in 2, and 9 in 1) and in addition in 1 house 2 cases were probably infected by a carrier.

Of the possible causes for this large proportion of secondary cases two will be considered.



1. Overcrowding or large numbers of children in the house, particularly in view of the close contact experienced by children during the night. The average numbers of occupants where only primary cases occurred, were adults 2.4, children under 15, 2.88. Where secondary cases occurred, the corresponding figures were 2.36 and 3.9 in the L.C.C. houses and in other houses 3.88 and 4.44.
2. Infecting case not being removed sufficiently early. Excluding cases caused by carriers in 62% of houses in which secondary cases occurred, the primary case was not removed before the fourth day after the alleged onset. In the houses where no secondary cases occurred the primary case was removed in 15% of cases on the first day of illness, in 21% on second day and 25% on the third day, i.e. 61% were removed before the fourth day.

### **Deaths.**

20 deaths per 181 cases is a case mortality rate of 11%. Of these 56% did not come under treatment before the fourth day after the alleged onset of disease.

### **Anti-toxin.**

As at one time it seemed probable that selection of cases would have to be made for admission to Hospital, some having to remain at home, a supply of Anti-toxin was obtained. Its use has been limited however, to those cases staying at home at the parents' request, no diphtheria cases having to be denied hospital treatment.

### **Schick testing and Toxin Anti-toxin immunisation.**

No Schick testing has been practised and no steps taken towards any scheme for immunising the population. This is a departure, which in many places, is proving its worth and no doubt before long will be much more generally practised than at present. To carry out effectively however, it needs an intense propaganda campaign and necessitates an ample staffing of the Public Health Department.

### **Bacteriological Examination.**

334 swabs were examined from this district at the Essex County Public Health Laboratories.

### **School.**

The Ford's School outbreak was the only one in which schools played any appreciable part in disseminating the disease. No schools were closed during the year on account of Diphtheria.



## Scarlet Fever.

The 262 cases notified during the year represents a rate of 5.24 per thousand living, compared with a figure of 2.16 in 1927 for England and Wales. The prevalence was therefore 2.4 of that of the Country. For children under 15 these figures were 13.9 and 8.64, representing a prevalence of 1.6 times that obtaining in the Country for children of these ages.

Of the primary cases 151 occurred in the L.C.C. houses and 36 in other houses. The incidence in proportion to the children occupying the two classes of houses was therefore slightly less in the estate houses.

In the earlier part of the year almost all cases were removed to the Isolation Hospital, the only ones remaining at home being those whose home circumstances were particularly favourable. With the Autumn increase however, cases had to be selected for admission. The grounds on which selection was made were:

1. Severity of the illness and complications
2. Home nursing unsatisfactory, for example:—Mother ill or father out of work.
3. Homes where the father would have to be excluded from work were the patient to remain at home. A number of the inhabitants on the Estate are engaged on Bus, Tram or Railway service.
4. Homes where there are large numbers of susceptible persons.

As the pressure on the Hospital beds became more acute, the standards of selection became more stringent, cases being selected more on clinical grounds. Where other occupants would have been excluded from work, they had to make arrangements for sleeping elsewhere, while the risk of spread amongst the other susceptible occupants had to be run.

Isolation Hospitals were provided originally in the hope that the removal of the infectious patient would limit the spread of infection. In this it has failed almost completely, the reason being, in most cases, that the infection was conveyed to another before the diagnosis of the primary case was made. Once recognised as a case of disease however, the child was generally removed to hospital or confined to its bed at home. In the latter case apart from home infection, the disease is unlikely to spread as the vast majority of cases cease to be infectious long before the usual period of isolation practised.



Removal to hospital therefore would not be expected to limit to any extent the number of primary cases occurring in the district, though of course, one would expect more cases of secondary infection amongst the home treated than amongst the hospital treated cases. A comparison follows of the extent of the spread of further infection in these methods of practise.

Of the 227 cases notified since April 1st, 174 were admitted to hospital in the first place. 49 were treated entirely at home, while 4 commenced treatment at home, but were subsequently admitted—of the 49, 6 occurred in the earlier part of the year when there were vacant beds at the hospital. The remaining 43, however, occurred in the latter part of the year when there was a shortage of beds. During the same period 45 cases were admitted to hospital.

#### Home Treated.

Out of the 45 primary cases who commenced home treatment there were nine secondary cases resulting from a primary infection. In three instances the secondary infection had occurred before the primary was diagnosed. In two cases the mother nursing the patient was infected. Of the remainder the onset of the secondary case after the onset of the primary varied from 5 to 20 days. If it is accepted that each of these was infected from the primary source and not through another child in the house having had an unrecognised attack and serving as a connecting link, the removal of the primary case in these instances would probably have avoided the case of secondary infection. The house populations where secondary infections occurred were—over 15, 2.3, under 15, 3.0, the corresponding figure for all houses attacked by scarlet fever being 2.47 and 2.87. In one instance a return case occurred in the house after the freeing of a home-treated case.

#### Hospital Treated.

19 primary cases gave rise to 24 secondary cases of infection. It is often doubtful where a third case arises in a house as to whether it was infected by the primary case, or by the second patient. When secondary cases occur at long intervals after the removal of the primary, it is suspected that one of the other members of the household suffered from an unrecognised attack. In only one case was this suspicion confirmed by subsequent desquamation, but in all cases where the onset of the second case was delayed beyond the usual incubation period of the disease, there were other children in the house.



As to the efficacy of removal in preventing secondary cases, the following figures are of interest:—

In six instances the secondary case was removed on the same day as the primary, in two the following day, while in three other secondary cases the onset was before the removal of the primary.

Day of Removal of Primary after onset.	No. of Cases.	Number of Secondary Cases.
1st	10	0
2nd	27	1
3rd	35	4
4th	27	6
5th and over	28	8

The Table shows there is a steadily increasing risk of secondary infection the longer the primary case remains at home.

Amongst these cases however, are 5 whose onsets vary from 10 to 24 days after the removal of the first case. It is probable that one of the other children present in the house formed a connecting link and that there was a secondary infection which was not prevented by the removal of the primary case to hospital, and this secondary gave rise to the third case which was recognised.

In judging the value of removal to hospital as a preventive of spread of infection, Return Cases must be taken into consideration. These are cases occurring in the same house or elsewhere, and apparently traceable to the person released within a period of not less than 24 hours and not more than 28 days after his return.

Ten patients on discharge from hospital gave rise to 12 Return Cases, the interval between the date of discharge of the infecting case, and the onset of the Return Case varying between 3 and 22 days. 3 of the infecting cases were re-admitted, they having developed a nasal discharge on return home.

Comparing the two sets of cases therefore, in the home treated, of the 45 primary cases which were home treated, 6 occurred in the earlier part of the year when accommodation was available and were allowed to remain home because of favourable home circumstances. The other 39 remaining at home were those selected. The average population at risk (i.e. of children under 15) in these houses was 2.5, giving a total



population at risk of 98. In 9 houses there occurred 9 secondary cases and one Return Case, i.e., a percentage of infection in the houses resulting from the primary case 10.2.

Amongst the 127 hospital cases 19 houses had 24 secondary cases, and 10 had 12 Return Cases, a total of 36 cases. The population at risk (children under 15) of 2.87 per house in these homes was 364, i.e., percentage rate of infection resulting from the primary case of 9.9.

Unless therefore it is assumed that the more clinically severe cases are more infectious from the onset than the milder cases, there appears practically the same risk of spread in the home if the primary cases treated at home as if removed to hospital.

If even secondary infections are not much increased by home treatment it raises the question as to whether wholesale removal of all cases is justifiable. An Isolation Hospital should be utilised more as a hospital for the skilled treatment of the infectious sick and less as premises for the segregation of infectious persons. The prevailing type of Scarlet Fever being so mild, selection for admission made on clinical grounds would free beds for the reception of cases of other diseases such as Measles or Whooping Cough which are greater killing diseases and require skilled treatment and should have a stronger claim on these beds than mild uncomplicated cases of Scarlet Fever.

In spite of the mildness of the present type however, it is not a disease to be treated too casually. There were three fatal cases in this district, 1 being toxic from the onset and the other 2 suffering from complications. Further, although mild cases with care, recover well, 2 cases mild enough to be unrecognised, and so untreated until desquamating, developed nephritis.

The mildness of the disease accounts to some extent for its prevalence, it being probable that there are many unrecognised cases spreading infection.

### Home Treated Cases.

The Health Visitors paid regular visits, the first, on learning that the case was to stay at home. Leaflets of instructions as to disinfection and general conduct were left on this occasion. Another visit was paid shortly after to see if instructions were understood and being carried out. Thereafter in favourable circumstances at weekly intervals, the last in uncomplicated cases being in the sixth week after onset. Disinfection was carried out about the 30th day in most cases.



### Dick Test.

No children have been submitted to the Dick test.

### Schools.

No Public Elementary Schools were closed during the year on account of Scarlet Fever, though one private school anticipated the holidays voluntarily owing to a number of its scholars having been attacked.

### Enteric Fever.

Only one case of enteric fever was notified in this district during the year. As this case occurred in the latter part of the year when there was no available accommodation at the Isolation Hospital, it was removed to Oldchurch Hospital.

### Cerebro-Spinal Meningitis.

This case was diagnosed when in a hospital in another district. The notification was not received at the office though the subsequent registration of death was sent through as a transfer.

### Encephalitis Lethargica.

Three cases were notified during the year. One was apparently of the fulminating type who died within 48 hours of onset. Of the other two, one was treated at home and the other in hospital. Both recovered.

### Smallpox.

No cases of smallpox occurred in this district in the course of the year. Observation of contacts was carried out to cover the usual period of isolation.

### Anthrax and Plague.

There were no cases of anthrax or plague.

### Ophthalmia Neonatorum.

Notified.	Treated at Home.	Treated in Hospital.	Vision Unimpaired.	Vision Impaired.	Total Blindness.	Deaths.
15	15	—	15	—	—	—

## Tuberculosis.

	New Cases. (Forms A & B).				Transfers into District.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M	F	M	F	M	F	M	F	M	F	M	F
—	—	—	—	—	—	—	—	—	—	—	1	—
1	—	—	3	2	—	—	3	—	—	—	—	1
5	1	1	8	5	—	2	6	2	—	2	—	—
10	1	—	—	3	1	1	3	3	1	—	—	—
15	1	3	—	—	—	—	—	—	—	2	—	—
20	4	6	2	—	2	3	1	—	1	1	1	—
25	7	11	2	1	12	4	—	1	6	5	—	—
35	9	3	1	—	7	11	1	—	6	1	—	—
45	2	2	—	—	3	—	—	1	3	2	1	1
55	1	—	—	—	4	—	—	—	—	—	—	—
65 & upwards	—	—	—	—	—	—	—	—	—	—	—	—
Total	26	26	16	11	29	21	14	7	17	13	3	2

## Register.

	Pulmonary		Non-pulmonary	
	Male.	Female	Male.	Female.
No. on register April 1st, 1927	232	165	67	65
During the year—				
New notifications	26	26	16	11
Deaths ... ..	17	13	3	2
Transfers into area ... ..	43	41	15	11
Transfers out of area ... ..	2	4	0	1
No. on register Dec. 31st, 1927	274	195	84	75

The numbers on the register in the middle of the year were Pulmonary 424 and Non-pulmonary 145 cases. If this disease were present in the district at the rate holding for the country, amongst the 50,000 population there would be, Pulmonary 320 and Non-pulmonary 115 cases.

In a report submitted in July, 1927, dealing with the incidence of tuberculosis in the district, it was pointed out that



this excess obtained then, and that in proportion to the population, the L.C.C. houses contained the excess, the amount of tuberculosis distributed throughout the original population being somewhat below the rate through the country as a whole. Part of the excess is no doubt to be explained by the fact that the register is not actually up to date. There is a certain amount of migration back to London of the people who have moved down here. In the case of the tuberculous, it is probable that notification of their transfer would not be received until they had attended a Dispensary in London some time after returning. While the names of these transfers therefore are soon added to the register on their moving into the district, it is possible that many names remain on long after the patients have removed from the district.

As tuberculosis has its own predilection in age-groups it is probable that the altered age distribution of the population may account to some extent for this excess too, though this has not been worked out.

### Primary Notifications.

The primary notifications received during the year were Pulmonary 52 and Non-pulmonary 27. The corresponding figures in the same population of England and Wales would be 74 and 25.

This slight excess in the Non-pulmonary notifications was found to exist before, and it was suggested then that it was due to the fact that the population is to a certain extent a selected one; that parents would be moving here for the benefit of their children, who although not definitely notifiable at the time of transfer would later increase the number of cases of tubercular adenitis.

### Deaths.

In the year there were 35 deaths from tuberculosis divided out into Pulmonary, males 17 and females 13, Non-pulmonary, males 3 and females 2. If the same rate held amongst the 50,000 population as held in England and Wales in 1926, the corresponding figures would have been 21, 17, 5 and 4, i.e., there are fewer deaths in each group although the actual numbers of cases on the register are larger.

Of the 30 deaths from pulmonary tuberculosis, 3 cases were not on the register, 2 were notified immediately prior to death, and a further 7 were notified within 6 months of death.



## Transfers.

Below is given the actual number of transfers that occurred during the year and for comparison the number of cases that would be present in a population of 15,000 people amongst whom the distribution was the same as that occurring in the Metropolitan Boroughs during the year 1926. This figure is taken as being roughly the number who removed from London to this district during the year.

	Pulmonary		Non-pulmonary	
	Males.	Females.	Males.	Females.
Actual number of transfers...	43	41	15	11
No. on register of 15,000 ...	77	57	27	24

These figures show that the population moving here contains a smaller proportion of cases of tuberculosis than is the average incidence amongst the population of the Metropolitan Boroughs. It is also less than the distribution throughout England and Wales.

## Sputum Analysis.

104 samples of sputum were submitted to analysis during the year at the Essex County Public Health Laboratories.

## Public Health Act, 1925, s. 62.

No action was taken during the year for the compulsory removal to hospital of an infectious tuberculous person.

# MATERNITY AND CHILD WELFARE.

## Notification of Births.

1,174 notifications of live births were received during the year, 584 males and 590 females.

230 notifications (including still-births) were received from medical practitioners and 967 from midwives. In addition information was received of 51 births occurring outside the area.



### Still-births.

Under the Births and Deaths Registration Act, 1926, which came into operation July 1st, 1927, all still-births require to be registered within 6 weeks.

23 were notified in this district, 14 male and 9 female.

### Infant Mortality.

The Infant Mortality Rate is the number of deaths registered of infants under one year of age to every 1,000 births during the year.

The figure is an important index of the standard of healthiness of a district, owing to the variety of factors involved, and that these factors are social and personal as well as environmental. Such being the case it is necessary to analyse carefully these deaths in an attempt to determine how far this rate can be accepted as a standard of comparison with other districts.

75 deaths of infants under one year of age occurred, giving an infant mortality rate of 62 as compared with the figure of 69 for the country as a whole.

The rate amongst legitimate children is 61 and illegitimate 107, the corresponding figures for England and Wales being in 1926, 70 and 130.

It was noted that more males are born usually than females, whereas the births for the year showed 592 males to 618 females. The Infant Mortality Rate in general is higher amongst males than females, being in 1926 in this country 79.15 compared with 60.88. The fact that there is this slight excess of births amongst the sex with the lower Infant Mortality Rate will lower the rate for the district to a small extent.

Similarly when it is realised that the mortality rate amongst illegitimate infants is practically double that amongst the legitimate, the fact that the proportion of illegitimate is only 2.1% of total births compared with the figure of 4.07 for 1925 for the country, would account for a slight diminution in the rate.

Further, the viability of the child varies according to the age of its parents, particularly the mother, the risk of death being greater where the mother is very young or elderly. The age distribution of the population here is such that fewer than the average proportion of births occur to persons at the extreme ends of the reproductive ages.



Each of these factors would of course account only for some fractional diminution but their effect would definitely be to lower the Infant Mortality Rate for this district as compared with that of the country as a whole.

The 75 deaths amongst the 1,210 births registered can be divided into 47 out of the 592 males, and 28 out of the 618 females, giving for male infants a mortality rate of 80.1 and females 45, the comparable figures for England and Wales in 1926 being 79.1 and 60.9. This shows that our favourable position of Infant Mortality is one due entirely to a deficiency of deaths amongst the female babies, the mortality amongst the males being the same as that for the country.

Below is a table showing the death rate for various diseases for each sex in England and Wales for 1926 and for this district in 1927.

	England & Wales.		Dagenham.	
	Males.	Females.	Males.	Females.
Measles, Whooping Cough and Infectious Diseases	4.3	4.4	—	—
Diarrhœa and Enteritis ...	8.9	6.6	15	6.4
Premature Births, Congenital Debility, Developmental and Wasting Diseases	19.6	15.3	20	3.2
Tubercular Disease ...	13.6	10.2	12	8.0
Convulsions ...	1.6	1.0	1.6	—
Bronchitis & Pneumonia	4.2	3.0	3.2	1.6
Other Causes ...	16.2	12.2	25.3	21
	10.9	8.0	3.2	4.8
<b>Total ...</b>	<b>79.1</b>	<b>60.9</b>	<b>80.3</b>	<b>45</b>

It will be seen that the saving amongst these female deaths falls almost entirely under the column for premature births and to a slight extent the congenital defects and debility; and that the sum total of deaths due to causes which are influenced by environment are the same as those for the country. Why there should be this small number of premature births amongst the females, especially as the male figures are normal is difficult to explain. Should the premature births amongst females occur in any year at the normal rate, and other conditions remain the same, our Infant Mortality Rate will rise to the rate obtaining for the country; and this without the healthiness of the locality diminishing.



Considering the respiratory diseases, it is seen that they are higher than the normal. To some extent these figures are increased at the expense of those of "other causes" as bronchitis or pneumonia in the very young, as in the very old is more a method of dying than actually the primary cause of death. From one illness or another, vitality is lowered and the respiratory affection merely represents the terminal stage.

That this is true to a certain extent is possible when the distribution throughout the year of respiratory affections is considered.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Under 1 ... ..	10	9	5	2
1 to 5 ... ..	7	1	1	1
Over 5 ... ..	14	10	2	7

This shows that the deaths from pneumonia are more evenly distributed throughout the year for infants under one, and are not as limited to the colder months as is the case of respiratory disease at other ages.

### Deaths from Enteritis.

Divided according to age and sex these cases occurred as follows:—

	Under 1 month	1 to 3 months	3 to 6 months	6 to 9 months	9 to 12 months
Males ... ..	1	1	1	5	1
Females ... ..	—	1	1	1	1

This shows that they mostly occurred at those ages at which weaning is usually practised.

Divided according to the time of the year they occurred Jan. 1, Feb. 1, March 2, May 1, June 2, July 1, August 2, November 3, i.e. no rise occurred during the summer months. This is in accordance with the morbidity rate, there being little evidence of enteritis or summer diarrhoea amongst the babies. This low rate was accounted for mainly by the atmospheric conditions obtaining last summer, viz. much rain and a persistently low temperature. In view however of the complaints of the scavenging of the district and the methods of disposal of house refuse the figure is interesting as the rate of mortality from enteritis is intimately related to domestic insanitation.



### Child Deaths.

The deaths of children one to five years of age are evenly distributed throughout each year, making a total of 42. The chief causes were whooping cough 5, measles 1, scarlet fever 3, diphtheria 12, pneumonia 10, and deaths from violence 4.

For the lower two years the rate was below the average, but for the other two the rate is about normal being raised by the heavy incidence of diphtheria at this age.

### Maternal Mortality.

The total number of deaths recorded as being due to child-birth or pregnancy during the year were:—

Puerperal Sepsis	4
Eclampsia	2

which is a maternal mortality rate of 4.96 compared with the rate for England and Wales in 1926 of 3.81. All of these deaths occurred in institutions.

### Puerperal Pyrexia.

There were notified during the year 7 cases of Puerperal Pyrexia and 1 of Puerperal Fever.

### Work of Health Visitors.

During the year the Health Visitors paid the following visits:—

First visit to children under one year	...	1,295
Subsequent visits to these children	...	2,107
Subsequent visits to children 1 to 5	...	3,104
Visits to expectant mothers	...	391

### Work at the Clinics.

Infant Welfare Centres:—

Total number of sessions held	...	133
Total attendances of children	...	7,633
Average attendance of children per session	...	57

Ante-natal Clinics:—

Total number of sessions held	...	30
Total attendances of mothers	...	306
Average attendance per session	...	10



### Infant Welfare Centres.

The weekly centre at Dagenham previously held at Station Road was transferred in August to Heathway, as being more central to the population using the centres. The average attendance for this clinic was 71, new cases 10.

The Becontree clinic continued to be held at Haydon Road with an average attendance of new cases 9, total 67.

In June a weekly session was opened at Chadwell Heath. This had an average attendance of 24, new cases 3.

The centres are all maintained by the Local Authority, there being no voluntarily run centres in the district and no voluntary helpers attached to the clinics. At most of them there are present two Health Visitors with, in addition, a clerk to deal with the distribution of the foodstuffs.

Owing to the nature of the premises and the large numbers of persons attending, there has been no attempt as yet made for class instruction or talks to mothers. This is a line where much good can be done, but to be a success it does need to be carried out in favourable circumstances.

### Assisted Milk Scheme.

Milk is granted to necessitous cases either free or at half-price in those cases where the family income is below that of the scale approved by the Ministry of Health. The expenditure incurred by the Local Authority during the year was:—

	£	s.	d.
For ordinary milk ... ..	375	0	0
For dried milk (April to December) ...	102	17	3

Owing to the high rents paid in this district, there are comparatively few who are not entitled under the scale to assistance. Although they may be thriving, the infants are justifiably recommended for milk by the Medical Officers at the centres as in many cases no milk would enter the homes except that paid for by the Local Authority.

In addition to this assistance, at each centre is sold at cost price to those cases recommended by the Medical Officers, various patent foods and simple medicaments. Also there is a very large sale, at cost price, of wool for the making of infant garments.



### **Treatment.**

The only provision for treatment of these children, made up to the present, is for operative removal of tonsils and adenoids. Where the family income falls below the scale approved by the Ministry of Health the Local Authority pays the necessary fee for the operation at Queen Mary's Hospital, Stratford.

In view of the crowded conditions existing at some of the houses, it is hoped to come to an arrangement by which, where the home circumstances are not suitable, the patient can remain in hospital on the night following the operation.

### **Foster-children.**

There were 42 additions to the register of Foster-children in the district, and 35 erasures of children reaching the age of 7 or removing from the district.

These children are visited by the Infant Protection Visitor appointed by the Board of Guardians who is successful in most cases in getting the children to attend regularly at the Infant Centres.

### **Ante-natal Work.**

In the earlier part of the year, an ante-natal clinic was held fortnightly in the Dagenham area. This was well patronised and in November the clinic was opened weekly. That this was justified was soon shown by the average attendance for the weekly session equalling that obtaining when it was held fortnightly.

In November a fortnightly clinic was opened in Becontree. In the latter part of the year there was for the whole district an average weekly attendance of 6 new cases, representing roughly about 25 % of the number of births.

In addition to the steady increase in numbers at the Ante-natal clinics it is gratifying to find that some women are now attending for post-natal examination. This is a field in which much work can be done in avoiding chronic invalidity, though it does not produce spectacular changes in death rates.

Of the women attending the Ante-natal clinics, over 50 % were in urgent need of dental treatment. Septic mouths act as possible foci of infection for puerperal sepsis and also interfere greatly with the mother's capacity to nurse her baby. These figures then show the need for provision of dental treatment. The difficulty arises through there being no premises suitable



for the holding of dental sessions for adults. It is for this reason too, that no dental provision has been made for children under school age.

The women were referred to the clinics mostly by the Health Visitors, only about one-third coming from the midwives. Out of these too, most came from two or three of them, most midwives referring few, or none of their patients.

No provision has yet been made for the assistance of maternity cases in institutions, those women recommended by the Medical Officer as requiring such treatment making their own arrangements.

### **Maternity Homes.**

Under the Midwives and Maternity Homes Act, 1926, of which Part II. came into operation January 1st, 1927, all persons carrying on a Maternity Home must be registered with the Local Supervising Authority, in this case the Essex County Council. No Homes of this nature have been registered in this district.

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