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CITY OF WAKEFIELD.

REPORT

ON THE

PUBLIC HEALTH

AND

SANITARY STATE

OF THE

CITY OF WAKEFIELD,

FOR THE YEAR 1919,

BY

THOMAS GIBSON, M.D., C.M., D.P.H.,

MEDICAL OFFICER OF HEALTH.

WAKEFIELD

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HEALTH DEPARTMENT,
TOWN HALL,
WAKEFIELD.

*To the Mayor, Aldermen and Councillors of the
City of Wakefield.*

I beg to submit for your information and consideration a Report on the Public Health and Sanitary state of the City of Wakefield for the year 1919. As regards vital statistics, you will notice a still depressed birth-rate, though a marked increase in the marriage rate may raise our hopes as to the future.

Neither the general mortality nor the infantile mortality are so satisfactory as one would wish, but the highly fatal epidemic of Influenza which occurred in the early part of the year is largely responsible for this.

There have been during the year important developments in the work concerning the welfare of mothers and children, and of these the most important was the opening of the Municipal Maternity Hospital, which has already fully justified its existence.

With regard to Infectious Diseases, apart from the epidemic of Influenza, there has been a very low prevalence and a very low mortality from all forms of Infectious Diseases. It is very rarely that a year passes without a death from Measles, but this did happen in 1919.

There were no cases of Smallpox, but at the time of writing this Report a number of cases have occurred in various parts of the Country. I therefore view with much concern the decreasing proportion of children vaccinated, as shewn in Table VI. at the end of the Report. The reduction in the Tuberculosis mortality during the year is very gratifying, and the provision of Sanatorium Treatment has continued to prove an inestimable boon to many sufferers. There, however, remains a need for

local hospital accommodation for advanced cases. There is also the need for an open-air school, for debilitated children and children threatened with Tuberculosis.

The treatment of Venereal Diseases has been continued at Leeds Infirmary, but the Clinic treatment of these diseases will never be satisfactory until it is provided in the City itself, and I hope that the scheme you have now in hand for this purpose will soon be completed. The proposed co-ordination of all the Medical Clinics in the King Street Chambers, adjoining the Town Hall, should do much to further the development and efficiency of the Public Medical Service.

The question of housing has received great attention during the year, and the building of Municipal houses, postponed through the War, was commenced. At the same time schemes for dealing with Insanitary Areas and Insanitary Dwellings generally have been pushed forward, though the carrying out of these schemes into effect must necessarily be postponed until there is a sufficiency of habitable dwellings.

Every effort has been made to protect the public against adulterated and unsound food, and in this connection I would again direct your attention to the need of a new public abattoir.

We welcomed back during the year members of the staff who had been on military service abroad. These were Dr. Shand (the Assistant Medical Officer), Miss Stones (Health Visitor), Mr. H. Elkington (Food Inspector), and Mr. H. Tate (Clerk). New members of the staff who took up their duties during the year are Miss Sparshott (School Clinic Nurse) and Miss Greenwood (Health Visitor), while Miss E. Holland (Health Visitor) and Inspector Elkington resigned on receiving other appointments. Owing to failing health Mr. A. B. Whitaker, the Chief Sanitary Inspector, asked to be relieved of his duties, and in November Mr. F. G. McHugh, a District Sanitary Inspector of Norwich, was appointed Chief Inspector. At the same time Mr. James Taylor was appointed Food Inspector, and Mr. Wm. Tutin an assistant (district) Inspector. I cannot allow the occasion of Mr. Whitaker's resignation to pass without adding my meed of appreciation of his long and faithful services to Wakefield. During the long period—nearly forty years—that he occupied the post of Inspector of Nuisances there has been an enormous improvement in the Sanitary condition of the City. One has only to read Dr. Netten Radcliffe's Report on the Sanitary condition of Wakefield in

1869 and compare the state of the town then with what it is to-day to realise how great, even with all our admitted shortcomings, has been in the sanitary betterment of the Borough. And no one can deny but that Mr. Whitaker, through his conscientious and hard work—he worked hard up to the very end of his time in office—contributed in no small degree to the sanitary improvements which have been achieved.

In conclusion, I wish to thank every member of the staff for their ever willing and valuable services, and to acknowledge the courtesy and consideration which I have received from the Chairman and Members of the Health Committee.

I am,

Your obedient Servant,

THOMAS GIBSON,

Medical Officer of Health.

29th May, 1920.

PHYSICAL FEATURES AND GENERAL SOCIAL CONDITIONS.

The City of Wakefield is the County Town of the West Riding of Yorkshire, and is situated in the heart of Northern Yorkshire Coalfields. Covering an area of 4,060 acres, the main axis of the City runs north and south for over 4 miles. The greatest width on the northern side is just over 3 miles, whilst the southern prolongation varies from a mile to a mile and a half. The Area is roughly divided into two halves by the River Calder, which runs through the City from West to East, and is here spanned by the Kirkgate Bridge. North of the river lies the older and main part of the City, which rises from the river flat to a height of 200 feet O.D. at St. John's. Up this rise and spreading around it the population is closely aggregated, whilst outlying centres of population are to be found at Alverthorpe in the North-West, Thornes in the West, and at Belle Vue, Sandal, and Newmillerdam in the South. The City is wholly within the watershed of the River Calder, which is canalised.

The Town is a very old one, and is mentioned in the Domesday Book. In former times it was typically a country and residential town, but it is now the centre of a great number of industries, such as woollen and worsted mills, foundries and engineering works, chemical works, malt kilns and breweries, flour mills, railway locomotive depot, and collieries. There is only one coal shaft within the City, but there are a number of collieries in the vicinity. There is also a corn and cattle market. The City contains several important institutions and offices, such as the West Riding County Hall, the West Riding Lunatic Asylum, Headquarters of the West Riding Constabulary, the County Court, H.M. Prison, the Clayton Hospital, and the Workhouse and Infirmary of the Wakefield Union.

The following table gives a classified list of the number of persons employed in various industries at the 1911 Census.

5
CENSUS 1911.
OCCUPATIONS OF WAKEFIELD RESIDENTS.

Occupations at Ages of 10 and upwards.	Total.	Males.	Females.
1. General or Local Government	687	616	71
2. Defence of Country (at home)	19	19	—
3. Professional Occupations	1058	578	480
4. Domestic Offices or Services	2151	355	1796
5. Commercial Occupations	837	756	81
6. Conveyance of Men, Goods, and Messages	2270	2244	26
7. Agriculture (on farms, woods, and gardens)	254	247	7
8. Fishing	—	—	—
9. In and about, and working and dealing in the Products of Mines and Quarries	2850	2848	2
10. Metals, Machines, Imple- ments, and Conveyances	2637	2630	7
11. Precious Metals, Jewels, Watches, Instruments, and Games	108	89	19
12. Building and Works of Con- struction	1225	1224	1
13. Wood, Furniture, Fittings, Decorations	366	322	44
14. Brick, Cement, Pottery, and Glass Workers	405	376	29
15. Chemicals, Oil, Grease, Soap, Resin, etc.	163	151	12
16. Skins, Leather, Hair, and Feathers	53	51	2
17. Paper, Prints, Books, and Stationery	481	276	105
18. Textile fabrics	3000	1015	1985
19. Dress	1077	458	619
20. Food, Tobacco, Drink, and Lodging	2144	1537	607
21. Gas, Water, and Electricity Supply, and Sanitary Service	187	186	1
22. Other general and undefined workers and dealers	1086	980	106
23. Without specified occupations or unoccupied	18274	3658	14616

POPULATION.

The population at the 1911 Census was 51,511. The population at the middle of 1919 is estimated by the Registrar-General at 51,260 for the purpose of the birth-rate and at 49,208 for the purpose of the death-rate. As stated in previous reports, I consider these figures to be too low, and believe the population to be nearer 55,000. At the same time I have taken the Registrar-General's estimates for the purpose of calculating the various vital statistics in this report, and if my assumption is right, the various rates will be stated higher than they ought to be. As a Census will be taken next year, I will be able in the next Annual Report to give a correct statement as to the population and correct vital statistics. At the moment most vital statistics are anything but reliable.

POPULATION OF INSTITUTIONS (MIDDLE OF 1919).

	W. R. Asylum.	H. M. Prison	Union Work- house	Clayton Hospital	Total
Persons belonging to the City of Wakefield (including all persons admitted from addresses within the City of Wakefield, and all officials, servants, etc., residing on the premises)	290	—	203	76	569
Persons not belonging to the City of Wakefield (including all persons admitted from addresses outside the City of Wakefield)	1941	—	131	49	2121
Total	2231	—	334	125	2690

NOTE.—Owing to the Prison being unused in 1919 and the resident staff of the Asylum becoming reduced the institutional population has decreased by 424 since 1918.

MARRIAGES.

The number of marriages celebrated in Wakefield during 1919 was 590, giving a marriage-rate of 23.0 persons married per 1,000 of the population, which is much higher than it has been for a long time. The rate for 1918 was 15.3, for 1917 13.8, and the average for the preceding ten years was 16.1.

BIRTHS.

During 1919 there were 891 births registered as having occurred in the City. Of these 8 were non-resident births and 11 resident births occurred outside the City, leaving 883 as the nett number of resident births, 437 being males and 446 females. This gives a birth-rate of 17·2 per 1,000, as compared with 17·6 in 1918 and 21·7 the average for the preceding 10 years. The birth-rate is the second lowest on record for the City, that of 1917 (16·3) being actually the lowest. The Wakefield birth-rate is less than that of England and Wales in 1919 (18·5) and less than the average of the 96 large English towns (19·0). The birth-rate has been falling steadily for the past 50 years, but at an accelerated rate during the last five years. There are, however, indications of an improved birth-rate for 1920, as one would expect from the marriage boom in 1919.

TABLE GIVING AVERAGE ANNUAL BIRTH-RATE IN EACH OF THE
FIVE DECENNIAL PERIODS 1867—1916, AND
BIRTH-RATE IN 1918—1919.

Period.	Birth Rate per 1,000 of Population.
1919	17·2
1918	17·6
1917	16·3
1907—1916	23·0
1897—1906	27·4
1887—1896	29·1
1877—1886	34·0
1867—1876	38·0

TABLE SHEWING NUMBER OF RESIDENT BIRTHS REGISTERED
IN THE WHOLE CITY AND WARDS DURING 1919.

WARD.	Total.	Males.	Females.	Illegitimate.	Percentage Illegitimate Births
Alverthorpe	81	42	39	3	3·7
North Westgate.....	74	35	39	3	4·0
South Westgate.....	65	27	38	6	9·0
St. John's	64	25	39	2	3·1
Eastmoor	76	36	40	5	6·5
Northgate	78	37	41	8	10·0
Kirkgate.....	105	54	51	9	8·5
Primrose Hill.....	83	42	41	5	6·0
Calder.....	81	38	43	2	2·4
Belle Vue	119	69	50	4	3·3
Sandal	46	24	22	1	2·18
Resident Births occur- ing outside the City	11	8	3	5	45·4
Whole City	883	437	446	53	6

The percentage of illegitimacy (6) is higher than last year (3·5), and is also higher than the average for the preceding ten years (4·3). Northgate Ward shows the highest percentage and Sandal Ward the lowest, and this also holds true for the past ten years.

NOTIFICATION OF BIRTHS.

Under the Notification of Births Act there were 949 births notified, 588 were notified by midwives, 358 by doctors, and 3 by other persons. 35 births registered in 1919 were not notified, 24 having been attended by doctors, 10 by midwives, and with regard to one which occurred on canal boat no information could be obtained. The percentage of unnotified births (3%) is the lowest on record since the Act came into force. 61% of the births notified were attended by midwives and 39% by medical men. Amongst the midwives' cases are included 68 which occurred in Public Institutions. The number of births attended by 14 midwives at the homes were respectively 193, 101, 78, 44, 39, 25, 12, 7, 4, 4, 3, 3, 2, and 2.

STILL BIRTHS.

Included in the above notifications were 37 still births, of which 15 were attended by doctors and 22 by midwives. 45 interments of still-born children were reported from burial places (39 in Cemetery, 5 in Alverthorpe Churchyard, and 1 in Thornes Churchyard), 8 more than had been notified. There were 4 still births notified but without any ensuing record of their interment.

ADMINISTRATION OF THE MIDWIVES ACT.

At the end of 1919 there were 18 Midwives on the register as having given notice of intention to practise during the year, and of these 9 were trained and 9 not trained. There were two more trained Midwives than in the previous year.

During the year I received from Midwives 43 notices of sending for medical help, which is equal to 8 % of the cases attended by Midwives at their patients' homes. The reasons for sending for medical help were stated to be:—Difficult labour (12), Inflammation of Infants' Eyes (8), Premature Infant (5), Malposition (3), Ruptured Perineum (3), Weakness of Infant, (3) Abnormality of Infant (2), Twins (1), Fits of Infant (1), High Temperature (1), Adherent Placenta (1), Umbilical Hæmorrhage (1), Malæna (1), and Contracted Pelvis (1).

There were 3 deaths from accidents and diseases of pregnancy and parturition, equal to 0.33 per cent. of the births registered, as compared with 0.58, the average for the past ten years. There were no deaths from puerperal fever.

42 visits of Midwives were made during the year, and the inspection of equipment, registers, etc., showed them to be on the whole satisfactory.

No disciplinary action was required during the year.

The supply of Midwives in the City may be considered numerically adequate, but a better distribution of them over the City is desirable. There is particularly the need of a midwife in the Alverthorpe and Flanshaw districts, where at the present time there is no resident midwife.

MIDWIVES ACT, 1918.

The provisions of the above Act and the new Rules were brought to the attention of the Midwives in the following letter sent to them in May, 1919:—

MIDWIVES ACT, 1919.

I have to inform you that under the above Act there are certain additional duties placed on Midwives, to which I have to draw your attention.

(1) In the event of a Midwife changing her address, she must within seven days give me notice of the change and state her new address in full.

(2) Where in the case of an infant under your care it is proposed to substitute artificial feeding (that is, any kind of bottle feeding) for breast feeding, you must at once give me notice on the form prescribed for the purpose, and state the reasons for adopting artificial feeding. The fact should also be entered in your register.

I have also to inform you that in future all forms and books which you are required to fill up or use will be supplied free by the Corporation, and stamped envelopes will be supplied in which to send me notices required under the Rules of the Central Midwives Board. I send you herewith a supply of forms and six stamped and addressed envelopes, as well as a card which should be filled up and sent to me when you require any of the articles mentioned thereon.

I have further to inform you that in the event of a householder not paying the fee of a medical man called in by you under the Rules of the Central Midwives Board, the fee will be paid by the Corporation.

I have also to inform you that an Ante-Natal Clinic for Expectant Mothers has been established in connection with the Maternity Hospital, Blenheim Road, St. John's, Wakefield, and is held there every Friday afternoon at 2.30 o'clock, when a doctor will be in attendance. If you wish any advice with regard to an expectant mother who is not under the care of a medical practitioner, I should be glad if you would send her up to the

Clinic with a note from yourself, or, better still, come with her yourself. Arrangements will be made in such cases for any necessary advice to be given direct to you.

It is greatly to be desired that every expectant mother should at least be seen once by a doctor, and this is especially important in cases of first pregnancy and in cases where previously there has been any complication in confinement or where the patient has any sign of illness or deformity.

CENTRAL MIDWIVES BOARD.

ADDITIONAL RULE E 12A.

A Midwife must forthwith notify the Local Supervising Authority of each case in which it is proposed to substitute artificial feeding for breast feeding.

NOTE.—The Midwife should endeavour to promote breast feeding and should, when breast feeding cannot apparently be continued, urge medical advice. In nearly all districts Health Visitors and Maternity and Child Welfare Centres are provided for the assistance of mother and child. It is desirable that the Midwife when she ceases attendance should advise the patient to avail herself of such help.

ADDITIONAL RULES F 3 AND F 4.

F 3. In the exercise of the powers conferred on it by section 6 (1) (a) of the Midwives Act, 1918, the Board may:—

(a) Suspend from practice for such period as it thinks fit in lieu of removing her name from the Roll any Midwife who, after investigation by the Board in manner prescribed by Section D of the Rules of the Board, has been found guilty of disobeying the Rules or of any other misconduct.

(b) Suspend from practise until the case has been decided by the Board and, in the case of an appeal, until the appeal has been decided by the High Court, any Midwife whose conduct is under investigation by the Board on a charge of disobeying the Rules or of other misconduct.

F 4. In the exercise of the powers conferred on it by Section 6 (1) (b) of the Midwives Act, 1918. The Local Supervising Authority may suspend from practice until the case has been decided:—

(a) A Midwife against whom it has taken proceedings before a Court of Justice

(b) A Midwife against whom it has reported a case for consideration by the Central Midwives Board.

The Local Supervising Authority shall in each case communicate their decision in writing to the Midwife concerned, and forthwith report the suspension (with the grounds thereof) to the Central Midwives Board.

MATERNITY AND CHILD WELFARE.

1. HOME VISITING.

The Health Visiting staff consists of 5 Health Visitors, an additional Health Visitor having been appointed in September. Each Health Visitor carries out her work in a district of the City, and in addition to visiting the homes where births have occurred and supervising infants and young children she also carries out the following duties in her district:—(1) Supervises the Child Welfare Centre in the district; (2) Acts as School Nurse; (3) Acts as Tuberculosis Nurse; (4) Assists the Medical Officer in the supervision of Midwives; (5) Supervises Expectant Mothers; (6) Supervises cases of Mental Deficiency; and (7) Carries out Nursing duties when necessary. The duties are various and exacting, but ability to cope with the work is facilitated by the comparatively small size of each district, which has approximately a population of 10,000, and in itself the combination of duties has the great advantage of obviating overlapping in visiting work, and saves householders from what must be a veritable nuisance, namely, a succession of visitors each bent on some special object concerning one household. In our system the Health Visitor gets to know her district well, and has an intimate knowledge of the social circumstances of most of the families in her district, and in turn gets to be well known and to earn the confidence of those among whom she works. She is regarded as a friend and helper, and not as an official, except on those occasions when she encounters neglect or worse and when she has reluctantly to take sterner measures. The Wakefield system, if I may call it so without claiming any originality, does call for an exceptionally well trained and capable type of Health Visitor for the variety of duties imposes, as I have said, a much greater strain on personal capacity than when the sphere of activity is more limited. Fortunately we have usually been able to secure Health Visitors of that type, and I will venture to say that no Local Authority

has a more capable and more hard-working staff of Health Visitors than Wakefield has at the present time. I think the Health Visitors' duties might be still more extended to include those of the school attendance officer, and so go a step further to reduce overlapping. When one remembers that the great bulk of absentecism from schools is caused by sickness, or alleged sickness, one can see that the following up of absentees could best be undertaken by Health Visitors. Of course this would necessitate a still greater reduction in the size of the districts, but probably two additional Health Visitors would suffice if this work was included.

The following is a statistical list of the work carried out by the Health Visitors during 1919:—

Infant Visiting—Primary Visits	...	...	...	984
" " Re-Visits	...	...	...	6,296
" " Total Visits	...	...	...	7,280
Visiting Expectant Mothers—Primary Visits	...	...	...	256
" " " Re-Visits	...	...	...	276
" " " Total Visits	...	...	...	532
Visits re Still Births	...	...	...	38
Visits to Midwives	...	...	...	20
Attendances at Child Welfare Centres	...	...	...	338
Visits to Tubercular Patients	...	...	...	1,987
Attendances at Tuberculosis Dispensary	...	...	...	235
Attendances at Medical Inspection of School Children	...	...	...	235
Number of Visits to Schools	...	...	...	577
Number of Examinations in Schools re Cleanliness	...	...	...	11,787
Number of Examinations in Schools re Treatment	...	...	...	426
Number of Home Visits re Infectious Diseases	...	...	...	426
Number of Home Visits re Contagious Diseases	...	...	...	221
Number of Home Visits re Verminous and Neglected Children	...	...	...	126
Number of Home Visits re Treatment	...	...	...	404
Number of Home Visits for other purposes	...	...	...	211
Total Number of Home Visits re School Children	...	...	...	1,388
Home Visits to Mental Defectives	...	...	...	116
Visits for purposes of Nursing	...	...	...	406
Miscellaneous Visits	...	...	...	1,146
Total Number of Home Visits	...	...	...	12,913

2. CHILD WELFARE CENTRES.

There are now six Child Welfare Centres established in the City, in the following localities and held at times stated:—

1. Market Street (Sunday School premises of the Primitive Methodist Chapel), Monday, 2.30 to 4.30. (Miss Thorp, Health Visitor and Superintendent).
2. Hatfeild Street (Sunday School premises of Brunswick United Methodist Chapel), Wednesday, 2.30 to 4.30 p.m. (Miss Stones, Health Visitor and Superintendent).
3. Doncaster Road (Sunday School premises of Belle Vue Primitive Methodist Chapel), Tuesdays, 2.30 to 4.30 p.m. (Miss Dobinson, Health Visitor and Superintendent).
4. Stanley Road (Sunday School premises of Eastmoor Wesleyan Chapel), Tuesdays, 2.30 to 4.30 p.m. (Miss Stones, Health Visitor and Superintendent).
5. Alverthorpe Road (The Homestead), Wednesdays, 2.30 to 4.30 p.m. (Miss Gittings, Health Visitor and Superintendent).
6. Thornes Lane (Christ Church Mission Room, Mark Street), Wednesdays, 2.30 to 4.30 p.m. (Miss Greenwood, Health Visitor and Superintendent).

The Thornes Lane Centre was opened in June, 1919. The Medical Officer of Health and the Assistant Medical Officer attend the meetings of the Centres. The following tables give the statistics of the Centres for 1919.

CHILD WELFARE CENTRES.
NUMBER ON REGISTER, 1919.

Centre.	Mothers.	Infants.	Children. 1—5	Expectant Mothers.
Homestead	103	49	45	6
Market Street	79	53	35	14
Brunswick	85	55	30	12
Eastmoor	86	66	28	6
Belle Vue	78	48	37	7
Thornes Lane	57	46	25	4
Total	488	317	200	49

ATTENDANCES.

Centre.	Mothers.	Infants.	Children. 1-5	Expectant Mothers.
Homestead	1425	938	668	54
Market Street	1461	1067	894	131
Brunswick	958	471	507	56
Eastmoor	835	501	396	40
Belle Vue	1115	607	460	65
Thornes Lane	625	462	338	39
Total	6419	4046	3263	385

The work at the various Centres was carried out on similar lines to previous years. The Centres are so situated that there is one in each of the five Health Visitor's districts, and in one district there are two. The Health Visitor is therefore fully acquainted with the home circumstances of the mothers who attend her centre, and this is distinctly advantageous in Child Welfare Work. At each meeting the Health Visitor gives a short talk or demonstration on some subject connected with Child Welfare or Domestic Hygiene, and individual advice is also given as required. I know that lectures at Child Welfare Centres have often been criticised as useless, but from a fairly long experience I have come to a very different conclusion. Of course everything depends on the person who lectures, and we are singularly fortunate in Wakefield in having Health Visitors who are eminently qualified for this branch of their work, and who never fail to make their addresses both interesting and instructive. At any rate, these addresses do unquestionably a great deal of good.

The infants are weighed at each meeting, and on its first attendance each child is examined by the Medical Officer, and subsequently as may be required.

Treatment is provided for such ailments as can properly be treated at the Centres, but cases of serious illness are referred to the family doctor.

The Babies' Welfare Committee continues to co-operate with the Child Welfare Committee of the Corporation, and provides the necessary voluntary assistance at the Centres, runs a Thrift and Clothing Club, and also at every meeting provides

a cup of tea for each mother, which is very much appreciated. I cannot speak too highly of the invaluable services rendered by the Babies' Welcome and its enthusiastic band of voluntary helpers.

The usual Christmas parties in connection with the Centres were held and prizes, given by Sir E. A. Brotherton, M.P., were presented to the mothers who had made the best attendances during the year. In connection with the Peace Celebrations in July a Pram Parade, in which over 300 mothers, mostly members of the Child Welfare Centres, attended, took place from Wood Street to Clarence Park. In the Park itself there was a baby show of 311 entrants, organised by Councillor S. Sheard, who personally bore all the expenses connected with the show, including the prizes and the tea which was given to each mother who had a baby entered for the competition.

3. FEEDING OF INFANTS.

The important question of feeding of infants receives much attention from the Health Visitors, both in their home visiting and at the Centres, and every effort is made to encourage breast feeding.

The following table gives the results of an inquiry made into the feeding of 755 infants born in 1918:—

Wholly breast fed for 6 months or longer	...	532
Wholly breast fed for periods less than 6 months, but not more than one month	...	26
Combined breast and artificial feeding for periods of six months or longer	...	13
Combined breast and artificial feeding for periods of less than six months, but not more than one month	...	106
Artificially fed from one month or earlier	...	78

The 78 infants artificially fed from the first were fed:—
30 on cows' milk, 31 on dried milk, 12 on condensed milk,
and 5 on other foods.

From the above table it will be seen that 70 % of the infants were wholly fed on the breast for six months or longer, 10 % were artificially fed from the first, and the remaining 20 % had a certain amount of breast feeding, though for the most part they were artificially fed. Although the percentage of breast feeding is higher than that given for many towns I am

not satisfied that it could be materially increased. In fact, with a proper ante-natal and post-natal care and with a determination on the part of each mother to breast feed her baby, I believe the percentage of breast feeding could be raised to 95, or even higher. If this could be achieved, and in Wakefield, where only a comparatively small proportion of the married women do work outside their homes, I believe it could be, a very considerable amount of infantile sickness and mortality could be averted. I feel certain that our ante-natal work will soon tell on this, for in many cases in order to get satisfactory breast feeding certain medical steps and hygienic measures have to be taken before the birth of the child. In connection with this I might mention that 68 pound packets of Lactogol (which stimulates the secretion of milk) were given to mothers during the year, 58 being paid for and 10 given free.

When a baby has to be artificially fed, the best substitute is cow's milk, and in the case of expectant and nursing mothers cow's milk should also form a substantial item in their diet. The importance of a clean and wholesome milk supply is therefore of the greatest importance, and in Wakefield there is plenty of room for improvement with regard to this. During the summer especially, but also at times during the winter, many complaints were received as to milk going sour soon after receiving it. In part no doubt this was due to the fact that the milk was only delivered once a day and was often mixed milk, and in part may have been due to keeping the milk in the houses under improper conditions, but I am convinced that the main cause is that the milk is more or less contaminated from the cow-shed and is not cooled down after milking. Dried cow's milk is now largely used in lieu of fresh milk, and it has many advantages over cow's milk as at present produced and supplied. It is sterile and free from all noxious germs or dirt. It is easily prepared for use, and in hot weather or when there is a shortage of cow's milk, it has proved a great boon. Under the Milk (Mothers and Children) Order of the Local Government Board, Local Authorities are empowered to supply milk for the use of mothers and children, and in necessitous cases at less than cost price. The Wakefield Corporation has prepared the following scale of income acceding to which the milk may be supplied at cost or less than cost price.

SUPPLY OF DRIED MILK.

1. When the income does not exceed 6/- per head per week, after the rent has been paid, the milk is supplied free.
2. When the income exceeds 6/- but does not exceed 6/6 per head per week, etc., the milk is supplied at 25% cost price.
3. When the income exceeds 6/6 but does not exceed 7/- per head per week, etc., the milk is supplied at 50 % cost price.
4. When the income exceeds 7/- and does not exceed 12/6 per head per week, etc., the whole of the cost price of the milk has to be paid.
5. When the income exceeds 12/6 per head per week after deducting the rent, the milk will have to be obtained at shops in the ordinary way.

The milk has been supplied in the form of dried milk, and the following amounts were given out during 1919:—

Sold at Cost Price	...	...	5,344 lbs.
" " Half Price	...	...	97 "
" " Quarter Price	...	...	151 "
Supplied Free	...	...	114 "
Total	...	...	5,706 "

The cost to the Corporation of milk sold at less than cost price was £23 3s. 8d

THE MATERNITY HOSPITAL.

The large house, St. John's Mount, situated in Blenheim Road, was purchased by the Corporation for the purpose of a Maternity Hospital in 1918, and after being adapted, painted, and equipped was opened in April, 1919. The house, previously occupied as a private residence, is a modern building, well built, pleasantly situated, and in all respects suitable for a small Maternity Hospital. The site occupied by the house and grounds covers an area of about an acre.

As now adapted the building provides the following accommodation:—

1. Large basement rooms used as laundry and food store.
2. On ground floor there are:—
 - (a) Children's Ward, measuring 20ft. by 15ft. 3in., and with a cubic space of 4,125.
 - (b) A room used as out-patient room and ante-natal clinic.
 - (c) Nurses' dining and sitting room.
 - (d) Kitchen.
 - (e) Larder.
3. On first floor there are:—
 - (1) Combined Labour and Operation Room, measuring 19ft 8in. by 10ft. 2in. and with cubic space of 2,100ft.
 - (2) Maternity Ward, measuring 20ft. by 14ft. and having a cubic space of 2,888ft.
 - (3) Maternity Ward, measuring 20ft. x 15ft 3in. and with a cubic space of 3,203 cubic feet.
 - (4) Maternity Ward, measuring 20ft. by 15ft. 3in. and with a cubic space of 3,570 feet.
 - (5) Matron's sitting-room.
 - (6) Bath-room and lavatory accommodation.

On the second floor there are 5 bedrooms for Matron, Nurses, and Maids.

The Hospital provides accommodation for 12 maternity cases and 7 or 8 sick infants. Originally two maternity and two sick children wards were provided, but very soon the demand for maternity beds necessitated one of the children's wards being given up for maternity cases, and no doubt in time the whole of the accommodation will be required for maternity cases. It was, however, thought desirable to utilize any present spare accommodation for the benefit of ailing children sent in from the Child Welfare Centres, and such accommodation has proved very useful.

The present staff consists of a Matron (Miss Dickson), 3 Probationer Nurses, and 1 trained Nurse, who is also a

midwifery pupil, and a domestic staff of cook, housemaid, ward-maid, laundress, and porter-gardener. The institution is under the general supervision of the Medical Officer of Health, and Dr. J. W. Thomson, Hon. Surgeon to the Clayton Hospital, has been appointed consulting and operating surgeon. The institution has been recognised by the Central Midwives Board as a training school for Midwives, and the Matron, who has had extensive experience in Midwifery at Queen Charlotte's Hospital and elsewhere, has been approved as a teacher. The Medical Officer of Health has given a course of lectures on midwifery to the present pupils, but it will probably be necessary in future to make arrangements for the pupils to attend lectures at the Leeds Maternity Hospital.

The Hospital is now equipped so as to deal with all kinds of Midwifery cases, and the operating-room is furnished with all necessary surgical instruments and apparatus. The following is a copy of a leaflet which is handed to expectant mothers and which explains the conditions under which patients are admitted to the hospital:—

1. The Hospital is provided by the Wakefield Corporation as part of their Maternity and Child Welfare Work, and it is intended for women residing in the City.

2. Any woman wishing to be admitted should make application as early as possible on the attached form, which should be sent to the Matron at the Hospital.

3. A fee of 10/- will be charged in each case, and in addition a charge of 2/- per day for maintenance during the period of stay. The above charges will have to be paid to the Matron before the patient leaves the Hospital. In necessitous cases the Maternity and Child Welfare Committee may, on application, reduced or remit the above charges.

Patients are expected to pay for their conveyance to the Hospital, if this is required, but in cases of emergency application may be made to the Medical Officer of Health or the Matron.

4. It is desirable that expectant mothers who have booked for admission to the Hospital should attend the Ante-Natal Clinic, which is held at the Hospital every Friday afternoon at 3 o'clock, where they can be seen by the Medical Officer, their state of health inquired into, and any necessary advice given. The Ante-Natal Clinic is open to all expectant mothers, whether they have booked for the hospital or not, provided they are not already under the care of a medical man.

5. A certain amount of accommodation is provided in the Hospital for sick infants and young children who have been attending the Child Welfare Centres, where the Medical Officer considers indoor treatment to be necessary.

6. Out-patient treatment is also provided at the Hospital for sick infants and young children referred by the Medical Officer of the Child Welfare Centres. These cases should attend at the Hospital each morning at 10 o'clock. Parents are expected to pay for any medicines supplied.

As a matter of fact, the Hospital is intended chiefly for two classes of cases—(1) where the home circumstances are unsatisfactory, and (2) where there is some complication or expected complication of labour. At the present time when so many people are without homes, the Hospital is proving a veritable boon, and most of the cases admitted so far have come in because of lack of proper accommodation or attention at home.

By arrangement with the County Council cases from the West Riding area are admitted at a charge of two guineas per week. The following tables give the chief statistics of the year, which so far as the Maternity Hospital is concerned commenced in April. The usual period of stay in hospital is 14 days.

MATERNITY WARDS.

Number of Patients admitted (including 5 from West Riding)	...	...	...	...	62
Number of Patients confined	...	...	...	...	56
Number of Miscarriages	...	...	...	...	2
Number of Patients discharged after confinement or miscarriage	...	...	...	...	57
Number of Patients discharged not confined	...	...	...	...	4
Number of Deaths of Mothers	...	...	...	...	1
Number of Still Births	...	...	...	...	3
Number of Deaths of Infants	...	...	...	...	5

REASONS FOR ADMISSION.

Lack of proper accommodation or attention at home	...	...	...	...	52
Complications, etc.,	...	...	...	...	10

The complications were Ante-Partum Hæmorrhage (3 cases), Eclampsia, Threatened Eclampsia, Albuminuria, Cardiac Disease, Pulmonary Disease, Hæmaturia, and Neurasthenia.

COMPLICATED CASES.

The only complicated case that gave rise to a fatal issue was one of placenta prævia. Of the 5 infants 3 died within ten days of birth. In 4 cases the cause was Prematurity and in the other Asphyxia Neonatorum.

SICK CHILDREN'S WARD.

33 patients were admitted during the year for treatment for the following conditions:—

Marasmus	...	...	...	...	7
Rickets	...	...	...	...	7
Congenital Syphilis	...	...	...	...	4
Debility and Inanition	...	...	...	...	3
Ophthalmia Neonatorum	...	...	...	...	3
Gastro-Enteritis	...	...	...	...	2
Dermatitis	...	...	...	...	1
Bronchitis	...	...	...	...	1
Pneumonia	...	...	...	...	1
Pleurisy	...	...	...	...	1
Malæna	...	...	...	...	1
Prematurity	...	...	...	...	1
Anæmia	...	...	...	...	1

20 of the patients were under twelve months, 8 between 1 and 2 years, and 5 between 2 and 5 years. 22 of the patients were discharged well or much improved, 5 not improved, and 6 died. The causes of death were:—Congenital Syphilis (2), Gastro-Enteritis, Congenital Debility (1), Prematurity, and Pneumonia. 18 patients stayed one month or less, 7 between one and two months, 3 between two and three months, 4 between three and four months, and 2 patients over four months. As an auxiliary to the Child Welfare Centres, the Children's Ward in the Maternity Hospital has proved a great boon. Many cases that refused to thrive at home, under the influence of regulated feeding and care and the fresh air at the Maternity Hospital soon began to improve. The Maternity Hospital has in its pleasant site and surroundings some of the features of a convalescent home, and many a tiny mite out of the stagnant and sunless yards has got a fresh lease of life in the ward and garden of the Hospital.

The ward unfortunately had to be closed during the latter part of the year to make room for certain Maternity cases, but it has now (February, 1920) been re-opened.

OUT-PATIENT DEPARTMENT.

It has been proposed to utilise the Maternity Hospital as an out-patient department for the treatment of infants requiring daily treatment and referred from the Child Welfare Centres. So far no great need for this work has arisen, but the facilities will probably be taken advantage of more later on. During the year 59 attendances were made by infants receiving treatment.

ANTE-NATAL CLINIC.

In one of my previous Annual Reports I ventured to say that for an Ante-Natal Clinic to be really successful it must be attached to a hospital. This opinion has been fully confirmed by our experience at the Maternity Hospital, to which an Ante-Natal Clinic has been attached. The attempt to run an Ante-Natal Clinic in the Town Hall was not a success, but on the other hand the Clinic at the Hospital has been increasingly successful ever since it was started. The Clinic is held every Friday afternoon and is attended by Dr. Shand or myself. The history of the expectant mother is obtained, any necessary examination made, and appropriate advice or treatment given. The period of pregnancy is more or less a trying period in a woman's life, and much can be done at the Clinic to alleviate the various troubles that are apt to arise. But even more important than this is the opportunity it gives to recognise abnormalities that are calculated to complicate labour, and to take timely steps to avert and mitigate serious consequences.

During the year 73 expectant mothers attended the Clinic, and the total attendances were 161.

PUBLIC EDUCATION IN MATERNITY AND CHILD WELFARE.

During 1919 the Corporation made a special effort to focus public attention on the importance of Maternity and Child Welfare Work, and arranged an Exhibition of Child Welfare and Domestic Hygiene and a course of Lectures on Maternity and Child Welfare subjects. The Exhibition, which was provided by the National Union of Women Workers, was held in the Technical and Art School on the 8th, 9th, and 10th of May. It proved to be a most practical and educative demonstration and was well attended not only by the general public but arrangements were made for the older girls from the various schools to attend in batches. The course of lectures was intended chiefly for Health Visitors, Voluntary Health Workers,

Teachers, Midwives, and Nurses, and was arranged in conjunction with the West Riding County Council and under the auspices of the National League for Health, Maternity, and Child Welfare. There was a large attendance at all the lectures, of which the following is a syllabus:—

THURSDAY, MAY 1st, 1919.

- 10.45 a.m.—Opening Address: Sir E. A. Brotherton, Bart., M.P.
- 11—12 a.m.—Ante-Natal Hygiene, by Mrs. Sloan Chesser, M.B.
- 12—12.30 p.m.—Demonstration on how to conduct an Ante-Natal Clinic, by Mrs. Sloan Chesser.
- 2—3 p.m.—Management of the Lying-in Period: The Rules of the C.M.B., by Mrs. Sloan Chesser.
- 3—4.30 p.m.—The Care of the New-born Infant and Common Diseases of Infancy, by Dr. Eric Pritchard.
- 4.30—5.0 p.m.—Demonstration on How to Conduct an Infant Consultation, by Dr. Eric Pritchard.

FRIDAY, MAY 2nd, 1919.

- 10.45 a.m.—Opening Address: The Right Rev. The Lord Bishop of Wakefield.
- 11—12.30 p.m.—The Principles of Feeding in connection with Children, by Dr. Eric Pritchard.
- 2—3 p.m.—Infant Mortality: Its Causes and Prevention, by Dr. Eric Pritchard.
- 4—5 p.m.—How the Growth and Development of the Child and its whole Future Potentialities depend mainly on Maternal Care and Management in the first years of life (illustrated by limelight), by F. Truby King, Esq., C.M.G., M.B., B.Sc.
- 7.0 p.m.—A Lecture (illustrated by limelight) on "Infant Welfare and Rebuilding of the Race," in the Music Saloon, Wood Street, by Dr. F. Truby King. This Lecture was open to the public.

SATURDAY, MAY 3rd, 1919.

- 10.45 a.m.—Opening Address: County Alderman P. R. Jackson.
- 11.15 a.m.—Habit in Infancy, by Miss Sarah Gray, F.R.C.S.
- 2—3 p.m.—Demonstration on the Teaching of Mothercraft to Schoolgirls, by Miss Chapman, Headmistress of the Page Green Girls' School, South Tottenham.
- 4—5 p.m.—Second Demonstration by Miss Chapman and her pupils.

DEATHS.

During 1919 there were 1,155 deaths registered in the City, comprising 801 persons belonging to the City (residents) and 354 persons not belonging to the City (non-residents). Of the non-resident deaths 347 occurred in public institutions (247 in the Asylum, 50 in the Union Infirmary, 46 in the Clayton Hospital, and 4 in the Military Hospitals).

Thirty deaths of Wakefield residents were returned by the Registrar-General as having occurred at places outside Wakefield, and these added to the resident deaths registered in Wakefield make a total of 831 resident deaths (452 males and 379 females).

The nett death-rate calculated on the Registrar-General's estimate of the population is 16.8 per 1,000, which is 2.3 per 1,000 lower than the rate for 1918, also calculated on the Registrar-General's estimate.

Calculated on a population of 55,000, the death-rate works out at 15.1 per 1,000. The death-rate exceeds that of England and Wales and that of the 96 great towns, which in both cases is 13.8 per 1,000 of the population.

The number of deaths in 1919 was 35 less than in 1918, and there was a decrease in all the age periods except the first (under 1 year) and the last (over 65 years). There was an exceptionally low rate of mortality during the second year of life, although that for the first year was somewhat raised.

TABLE SHEWING NUMBER OF DEATHS (RESIDENTS) IN VARIOUS AGE PERIODS DURING 1919 AND 1918.

Age Period.	1919	1918
Under 1 Year... ..	108 (+31)	77
1-2 Years	21 (-30)	51
2-5 Years	41 (-32)	73
5-15 Years	33 (-35)	68
15-25 Years	59 (-2)	61
25-45 Years	124 (-11)	135
45-65 Years	199 (-6)	205
65 Years and over	246 (+50)	196
All Ages... ..	831(-35)	866

Amongst individual causes of death Influenza comes first with 107 deaths, or 13 % of the whole. Pneumonia comes next with 10 %, Bronchitis, Heart Disease, and Old Age with 9 % each. Influenza, along with Bronchitis and Pneumonia, which are so often its sequelæ, accounts for the high rate of mortality during the year, and there is also to be recorded a notable increase in the number of deaths from old age. There was, on the other hand, a marked decrease in the mortality from Phthisis.

All the deaths were certified by a Medical Practitioner or the Coroner.

NUMBER OF DEATHS IN WARDS IN 1914—1919.

WARD.	1919	1918	1917	1916	1915	1914
St. John's	74	71	64	64	63	62
Northgate	98	108	77	74	119	93
Eastmoor	64	80	81	63	75	69
Primrose Hill ...	97	105	73	78	88	98
North Westgate ...	69	62	64	74	60	58
South Westgate ...	65	69	62	46	68	59
Kirkgate	97	78	79	66	97	89
Calder	73	82	55	58	66	59
Alverthorpe	64	72	48	59	59	57
Belle Vue	82	103	64	58	81	67
Sandal	48	36	33	36	37	30
Whole City	831	866	700	676	813	751

Lacking proper data for Ward populations, I have not ventured to calculate death-rates for the various Wards, but the above table will give a rough idea of the comparative mortality.

Of the 1,155 deaths registered in Wakefield 503, or 44 %, occurred in public institutions, whilst of the resident deaths occurring both within and without the City 166, or 20 %, occurred in public institutions.

TABLE SHEWING NUMBER OF DEATHS IN PUBLIC INSTITUTIONS WITHIN
THE CITY IN 1919.

Institution.	Total.	Residents.	Non-Residents.
W.R. Asylum	264	17	247
Union Workhouse	138	88	50
Clayton Hospital	77	31	46
City Hospital (Fever)	6	6	—
Military Hospitals	7	3	4
Maternity Hospital	11	11	—
Total	508	156	347

INQUESTS.

Inquests were held on 67 resident deaths during 1919.

INQUESTS ON RESIDENTS.

Natural Causes (Disease)	...	...	37
Injuries (Accidental)	...	...	22
Drowning (Accidental)	...	...	5
Suicide by Strangling	...	...	3

Two children died from burns.

- (1) Male, 5 years. Shock and Meningitis following burns from his shirt catching fire whilst playing with matches.
- (2) Female, 4 years. Shock and burns from her flannelette nightdress and skirt catching fire whilst playing.

INFANTILE MORTALITY.

During 1919 there were 108 deaths of children under the age of one year (65 males and 43 females), equal to an infantile mortality of 122 deaths per 1,000 births, which is 34 per 1,000 higher than that of the previous year, and 33 per 1,000 higher than the rate of England and Wales for 1919. The Infantile

Mortality is indeed the highest we have had since 1911, but closely approached by that of 1917.

Period.	Average Annual Infantile Death Rate.	
	Wakefield.	England and Wales.
1919	122	89
1918	88	97
1917	119	97
1916	91	91
1915	117	110
1914	104	105
1913	109	109
1912	89	195
1911	143	130
1910	108	106
1900—1909	143	132
1890—1899	175	153
1880—1889	154	142
1870—1879	171	149

TABLE SHEWING INFANTILE DEATH-RATES IN THE MUNICIPAL WARDS
1904-1919.

WARD.	Year 1919	Year 1918.	Year 1917.	Year 1916.	Year 1915.	Year 1914.	Average 1904-13	Max. 1904-13	Minim. 1904-13
St. John's ...	47	74	54	32	97	69	92	145	38
Northgate ...	166	126	135	89	181	135	128	117	93
Eastmoor ...	92	36	151	79	132	132			
Primrose Hill	193	136	122	111	142	116	136	198	81
North Westgate	94	24	90	76	102	78	109	145	72
South Westgate	92	89	111	103	127	150	128	176	67
Kirkgate ...	171	173	160	110	114	127	117	169	58
Calder ...	50	30	95	89	73	82	111	221	45
Alverthorpe ...	135	89	108	94	65	111	133	211	44
Belle Vue ...	151	88	137	124	150	69	112	170	79
Sandal ...	84	121	143	48	71	78			
Whole City	122	88	119	91	117	104	122	221	38

The infantile mortality in the four quarters of the year was :—

1919.				Infantile Deaths per 1000 Births
1st Quarter	...	...	...	244
2nd Quarter	...	...	...	95
3rd Quarter	...	...	...	103
4th Quarter	...	...	...	50

TABLE SHEWING NUMBER OF CHILDREN DYING AT VARIOUS AGE PERIODS DURING THE FIRST YEAR OF LIFE DURING 1919.

Period.				Number of Deaths.	
Under 1 week	...	...	...	35	} 49
1-2 weeks...	...	...	...	6	
2-3 weeks...	...	...	...	6	
3-4 weeks...	...	...	...	2	
1-3 months	...	...	...	19	
3-6 months	...	...	...	14	
6-9 months	...	...	...	15	
9-12 months	...	...	...	11	

CAUSES OF INFANTILE DEATHS.

Disease.	Number of Deaths.
Premature Births	27 (25%)
Broncho-Pneumonia	13 (12%)
Bronchitis	10 (9%)
Inanition	9 (8%)
Gastritis	6
Marasmus	5
Congenital Syphilis	5
Influenza	5
Gastro Enteritis	3
Congenital Heart Disease ...	3
Diarrhœa	3
Atelectasis	2
Meningitis	2
Scarlet Fever	1
Laryngeal Diphtheria	1
Asphyxia Neonatorum... ..	1
Malformation of Larynx ...	1
Congenital Stricture of Oeso- phagus	1
Congenital Absence of Rectum	1
Umbilical Haemorrhage ...	1
Congestion of Lungs	1
Violence (Murder)	1
Want of proper attention at Birth	1
Whooping Cough—	
Broncho-Pneumonia ...	1
Status Lymphaticus	1
Tubercular Meningitis... ..	1
Haemophilia	1
Teething—Convulsions... ..	1

REMARKS.

1918 was Wakefield's record year for Infantile Mortality, and the rate then dropped to 88. 1919 is the record year for England and Wales, and the rate is 89. Unfortunately Wakefield in 1919 has not been able to keep the infantile mortality down to the level achieved in the previous years, and the rate has risen to 122. In 1919 there were 31 more infantile deaths than in 1918. The causes of death showing an increase were chiefly:—Premature Birth (+14), Pneumonia (+6), Influenza (+5), Debility and Inanition (+5), Congenital Malformations (+4), Bronchitis (+3), Congenital Syphilis (+2).

The increase was chiefly in the first week of life, when there were 14 deaths more than in 1918. About one-third of the deaths (32 %) occurred during the first week of life, and nearly a half (45 %) during the first month of life. These facts indicate that a very considerable amount of the infant mortality during 1919 depended on causes operating prior to birth, some of it preventable, and some (for example, Congenital Malformations) not preventable. The epidemic of Influenza also accounted for at least a dozen deaths, either directly or through respiratory complaints, and probably may have adversely affected many more. It will be noted that the excessive infantile mortality only prevailed during the first quarter of the year, during which time Influenza was epidemic. As regards the geographical distribution of the mortality it will be noted that Primrose Hill, Kirkgate, and Northgate Wards have the highest mortality, while Calder and Sandal Wards have the lowest.

ZYMOTIC MORTALITY.

Zymotic Mortality includes the deaths from the seven principal zymotic diseases, namely, Small Pox, Scarlet Fever, Diphtheria, Enteric Fever, Measles, Whooping Cough, and Diarrhoea. In 1919 there were 27 deaths from these diseases, giving a zymotic death-rate of 0.54 per 1,000, as compared with 1.78 in 1918 and 1.13 the average for the preceding 10 years. The mortality is therefore comparatively low.

ZYMOTIC DISEASES AND DEATHS IN 1919.

Diseases.				Number of Cases Notified.	Number of Deaths.	Case Mortality, per cent.
Smallpox	...	...	...	—	—	—
Scarlet Fever	...	...	...	145	1	0.7
Diphtheria	...	...	...	45	4	8.8
Enteric Fever	...	...	...	4	3	75.0
Measles	...	...	...	207	(2 non-residents)	—
Whooping Cough	...	...	...	—	7	—
Diarrhoea	...	...	...	—	15	—

SCARLET FEVER.

SCARLET FEVER STATISTICS, 1889-1919.

Year.	Number of Cases Notified.	Attack Rate per 1000 of population.	Number of Cases Isolated in Hospital.	Percentage of Cases Isolated in Hospital.	Total Case Mortality Percentage.	Case Mortality, Home Cases Per-centage.	Case Mortality, Per-hospital Cases Per-centage.	Number of Deaths. (Total).	Death Rate per 1,000 of Population.
1919	145	2.8	125	86	0.7	0.0	0.8	1	0.02
1918	74	1.3	52	70	2.7	4.5	1.9	2	0.04
1917	64	1.2	55	86	0.0	0.0	0.0	—	0.00
1916	46	0.9	37	90	4.3	11.1	2.7	2	0.04
1915	51	1.05	41	80	0.0	0.0	0.0	0	0.00
1914	117	2.19	84	71.7	4.3	6.0	3.5	5	0.00
1913	148	2.83	87	58.7	1.3	0.0	2.2	2	0.03
1912	54	1.03	27	50.0	0.0	0.0	0.0	0	0.00
1911	138	2.67	73	52.9	0.72	0.0	1.5	1	0.02
1910	150	2.92	100	66.6	3.3	2.0	2.6	5	0.09
1909	40	0.92	16	40.0	2.5	0.0	6.2	1	0.02
1908	41	0.95	10	24.4	2.4	3.2	0.0	1	0.02
1907	46	1.07	14	30.5	0.0	0.0	0.0	0	0.00
1906	194	4.54	67	34.5	3.5	2.3	4.6	6	0.14
1905	191	4.51	19	9.9	3.1	3.4	0.0	6	0.14
1904	37	0.88	2	5.4	5.4	5.7	0.0	2	0.05
1903	108	2.58	4	3.7	1.8	1.9	0.0	2	0.05
1902	198	4.75	70	35.3	4.7	5.4	2.8	9	0.21
1901	150	3.71	68	45.3	2.6	4.8	0.0	4	0.09
1900	293	7.5	144	49.0	8.2	8.0	8.3	24	0.62
1899	102	2.6	47	46.0	0.0	0.0	0.0	0	0.00
1898	155	4.1	50	32.3	3.8	3.8	4.0	6	0.15
1897	92	2.4	21	22.8	5.6	5.6	4.7	5	0.13
1896	172	4.6	40	23.2	7.5	7.5	12.5	15	0.4
1895	259	7.5	49	18.9	4.2	4.2	4.0	11	0.32
1894	38	1.1	0	0.0	2.6	2.6	—	1	0.02
1893	78	2.3	0	0.0	2.5	2.5	—	2	0.05
1892	108	3.2	0	0.0	2.7	2.7	—	3	0.08
1891	53	1.3	8	15.0	0.0	0.0	0.0	0	0.00
1890	39	1.1	8	20.5	12.9	12.9	0.0	4	0.12
1889	343	10.2	53	15.4	18.9	18.9	16.9	64	1.9

During 1919 there were 145 cases of Scarlet Fever notified (85 males and 60 females), giving an attack rate of 2.8 per

1,000, which is rather more than double the rate of the previous year (1·3), and is also above the average for the preceding 10 years (1·79). The incidence of the disease was heaviest during the last quarter of the year, more than half the cases having been notified during these three months. The incidence was highest in Sandal, Belle Vue, Calder, and Primrose Hill Wards, and was lowest in North and South Westgate Wards. 71 % of the cases were children between 5 and 15 years of age.

NUMBER OF CASES NOTIFIED IN EACH MONTH AND QUARTER
IN 1919.

Month.	Number of Cases.		
January	2	}	18
February... ..	2		
March	14		
April	20	}	29
May	4		
June	5		
July	2	}	20
August	5		
September	13		
October	20	}	78
November	36		
December... ..	22		

NUMBER OF CASES AND NUMBER OF DEATHS IN THE CITY WARDS.

Ward.	No. of Cases.	No. of Deaths.
St. John's	15	—
Northgate	12	—
Eastmoor	8	—
Primrose Hill	20	—
North Westgate	3	—
South Westgate	2	1
Kirkgate	10	—
Calder	22	—
Alverthorpe	10	—
Belle Vue	21	—
Sandal	22	—
Whole City	145	1

NUMBER OF CASES AT AGE PERIODS.

Under 1 Year	1 Case
1—5 Years	23 Cases
5—15 „	103 „
15—25 „	17 „
25—45 „	1 Case

CLASS OF HOUSES INVADED.

All the cases notified occurred in ordinary dwelling-houses as follows:—

Size of House.	Number of Houses Invaded.	Percentage of Total Houses Invaded.	Number of Cases.	Percentage of Cases.
2 Roomed	10	8.4	14	9.6
3 „	25	21.1	33	22.7
4 „	35	29.5	42	28.8
5 „	32	27.1	34	23.4
6 „	6	5.0	9	6.2
7 „	6	5.0	9	6.2
And over ...	4	3.4	4	2.8

86 houses had one case each, 26 houses had two cases each, 4 houses had three cases each, 1 house had four cases, and 1 house five cases. Of the 118 houses 78 were through houses and 40 back-to-back. Most of the invaded houses were free from sanitary defects, marked defects being only found in seven houses.

INTERVAL BETWEEN DATE OF ONSET AND NOTIFICATION.

The interval between date of onset and receipt of notification varies from the same day to 28 days, the average being 2.3 days.

ISOLATION.

125 cases (86 %) were removed to the City Hospital and 20 cases were treated at home. Nearly all the cases removed to Hospital were removed within an hour or two of receipt of the notification. The period of detention in hospital, excluding deaths, varied from 11 to 105 days, the average being 33 days.

The period of isolation among the home treated cases (taking the interval between the date of notification and the date of disinfection) varied from 10 to 45 days, the average being 35 days.

SECONDARY CASES.

The term "secondary" is applied here to cases of the disease occurring in houses subsequent to primary cases, but before the return of the primary case from hospital or before the disinfection of the house in the case of home-treated cases. During 1919 there were 16 secondary cases (11 %) occurring in 12 houses. Nine houses had 1 case each, and four houses had 2 cases. Of the 13 houses three were back-to-back.

Two-roomed	...	0	Five-roomed	...	3
Three-roomed	...	4	Six-roomed	...	1
Four-roomed	...	4	Seven-roomed	...	1

All the secondary cases except two were connected with cases removed to hospital.

The interval between the dates of onset of primary and secondary cases varied from 1 to 31 days, the average being 8 days.

Six of the secondary cases were removed to hospital with the primary case or cases and the remainder at periods varying between 1 and 35 days after the removal of the primary case.

RETURN CASES.

by "return" case is meant a case occurring in the home of a patient after the latter's return from hospital or his liberation from home isolation. During 1919 there were 5 "return" cases (3.4 %); 3 occurring in connection with hospital treated cases and 2 in connection with a home-treated case. The infecting cases were 4 in number (2.8 %).

- (1) Boy, 9 years, discharged from hospital on 35th day of disease, desquamation completed except on soles of feet, but with a chronic otorrhoea which had existed prior to the attack of Scarlet Fever. The boy lived in a Common Lodging House, and two days after his discharge another child in the house started with Scarlet Fever.

- (2 and 3). A boy, aged 5 years, and his sister, aged 9 years, were discharged from hospital on the same day and on the 30th and 31st days of the disease. In both cases desquamation had been completed and there were no nasal or aural discharges, but one of them is said to have had a nasal discharge for a few days after returning home. Another child in the family developed Scarlet Fever 28 days after the return home of the other two children. The house had a living-room and 2 bedrooms and 5 inmates.
- (4) A girl, aged 10 years, treated at home, was liberated from isolation and the room disinfected on the 30th day of the disease. The girl had completed desquamation and was free from discharges. A sister developed Scarlet Fever three days later, and another sister and brother six days later. These three were removed to hospital. It is very rare indeed that a return case occurs after home isolation. It is much more common after hospital isolation.

SCARLET FEVER AND SCHOOLS.

Out of the 145 cases notified 89 were attending the following public Elementary Schools:—

Sandal Council Junior	...	...	...	18
Sandal Council Senior	...	...	...	13
Ings Road Senior	...	...	...	7
St. Mary's Infants	...	...	...	7
Clarendon Street Girls	...	...	...	5
Thornes Lane Mixed	...	...	...	5
Cathedral Girls	...	...	...	4
Trinity Infants	...	...	...	4
St. Austin's Mixed	...	...	...	4
Alverthorpe Church Infants	...	...	...	3
St. Austin's Infants	...	...	...	3
Sandal Endowed Junior	...	...	...	2
St. Michael's Girls	...	...	...	2
Cathedral Infants	...	...	...	2
Clarendon Street Infants	...	...	...	2
St. Andrew's Infants	...	...	...	2
Sandal Endowed Senior	...	...	...	1
St. Catherine's	...	...	...	1
Trinity Girls	...	...	...	1
Trinity Boys	...	...	...	1
Wesleyan Mixed	...	...	...	1
Eastmoor Junior	...	...	...	1

MORTALITY.

There was only one death from Scarlet Fever during the year. This was a child five months old, which had been taken to the out-patient department of the Clayton Hospital, where he was found to be peeling. He was transferred to the Fever Hospital, where he developed convulsions from Nephritis and died.

DIPHTHERIA.

DIPHTHERIA STATISTICS, 1890—1919.

Year.	No. of Cases Notified.	Attack Rate per 1000 of population.	No. of Cases Isolated in Hospital.	Percentage of Cases Isolated in Hospital.	No. of Deaths.	Case Mortality per cent.	Death Rate per 1,000 of population.
1919	45	0.8	37	82.2	4	8.8	0.08
1918	66	1.12	48	73.0	5	7.5	0.09
1917	84	1.6	77	91.0	8	9.5	0.17
1916	86	1.7	72	81.0	8	9.3	0.17
1915	93	1.92	80	86.0	5	4.3	0.8
1914	173	3.24	136	78.6	17	9.8	0.32
1913	103	1.95	75	72.8	6	5.4	0.11
1912	68	1.30	51	75.0	7	10.3	0.13
1911	39	0.75	12	30.7	4	10.2	0.07
1910	31	0.60	13	41.9	6	16.1	0.11
1909	69	1.59	24	34.7	5	7.2	0.11
1908	56	1.33	24	42.8	10	17.8	0.23
1907	19	0.44	6	31.5	5	26	0.11
1906	33	0.77	9	27.2	5	16	0.11
1905	27	0.63	1	3.8	8	31	0.19
1904	33	0.78	0	0.0	1	3	0.02
1903	19	0.45	0	0.0	1	5	0.02
1902	24	0.57	2	8.3	2	8	0.05
1901	52	1.25	5	9.6	5	10	0.17
1900	100	2.60	19	19.0	16	16	0.41
1899	20	0.52	1	5.0	6	30	0.15
1898	17	0.45	0	0.0	2	12	0.05
1897	22	0.58	0	0.0	0	0	0.00
1896	20	0.54	0	0.0	5	25	0.13
1895	24	0.70	0	0.0	5	21	0.14
1894	13	0.38	0	0.0	1	8	0.02
1893	26	0.77	0	0.0	4	15	0.11
1892	30	0.89	0	0.0	1	3	0.02
1891	25	0.75	0	0.0	0	0	0.00
1890	44	1.34	0	0.0	1	2	0.03

During 1919 there were 45 cases of Diphtheria notified, 19 males and 26 females. The attack rate (0.8) is lower than that of the previous year (1.12), and also lower than the average for the preceding 10 years (1.65). The cases were pretty uniformly distributed over the City, the highest number being in Calder Ward and the lowest in South Westgate Ward. The cases were also distributed generally over the year, the incidence being slightly higher in the third quarter. About half the cases occurred between the ages of 5 and 15 years.

NUMBER OF CASES AND DEATHS IN WARDS.

WARD.	Number of Cases.	Number of Deaths.
St. John's	5	—
Northgate... ..	2	—
Eastmoor	5	1
Primrose Hill	7	1
North Westgate	3	—
South Westgate	1	—
Kirkgate	4	—
Calder	9	—
Alverthorpe	2	1
Belle Vue	3	—
Sandal	4	1
Whole City	45	4

NUMBER OF CASES AT AGE PERIODS.

Age Period.	No. of Cases.
Under 1 Year	1
„ 1-5 Years	10
„ 5-15 „	21
„ 15-25 „	9
„ 25-45 „	4
„ 45-65 „	—

NUMBER OF CASES NOTIFIED IN EACH MONTH AND QUARTER
OF 1919.

January9	} 12	July4	} 14
February	...	...2		August	...	...4
March	...	...1		September	...	...6
April1	} 10	October4	} 9
May	...	...3		November	...	...3
June	...	...6		December	...	...2

CONDITION OF HOUSES INVADED.

Of the 45 cases, 43 cases occurred in 42 ordinary dwelling-houses, 1 in the Clayton Hospital, and 1 in the Union Infirmary. 41 houses had one case each and 1 house had two cases.

Of the 42 houses, 15 were through and 27 were back-to-back. The invaded houses are classified according to the number of rooms in the following list:—

Two-roomed	...	...	...✓	8 houses.
Three-roomed	...	...	...	11 "
Four-roomed	...	...	...	7 "
Five-roomed	...	...	...	12 "
Six-roomed	...	...	...	1 "
Seven-roomed and over	...	...	...	3 "

The majority were working-class houses. All except three were provided with ordinary water-closets. Two were provided with tub-closets and one with a privy.

NOTIFICATION.

The period elapsing between the onset of the disease and the receipt of notification varied from the same day to 14 days, the average being 3—4 days.

BACTERIOLOGICAL EXAMINATIONS.

In 21 cases the diagnosis was confirmed by bacteriological examination of throat or nasal swabs at the County Hall Laboratory. Altogether 210 swabs from suspected diphtheria cases, or from convalescent cases, were sent to the Laboratory during the year.

ISOLATION.

37 cases (82 %) were treated at the City Hospital and 8 cases were treated at home.

The period of detention of cases in hospital (excluding deaths) average 29 days. The period of isolation in home-treated cases, taking the period between the date of notification and the date of disinfection, varied from 10 to 29 days, the average being 27 days.

SECONDARY CASE.

There was only one secondary case, where the patient developed diphtheria eight days after the onset of the primary case and three days after the removal of the primary case to hospital.

There were no return cases during the year.

DIPHTHERIA AND SCHOOLS.

Out of the 45 cases notified 19 were in attendance at the following public Elementary Schools:—

Eastmoor Council Senior	...	...	4
Cathedral Girls	...	...	3
Thornes Lane Infants	...	...	2
Belle Vue Council Infants	...	...	2
Cathedral Infants	...	...	2
St. Austin's Infants	...	...	1
Westgate Council Junior	...	...	1
St. John's Mixed	...	...	1
St. Mary's Mixed	...	...	1
Wesleyan Mixed	...	...	1
Alverthorpe Council Junior	...	...	1

MORTALITY.

There were 4 deaths from Diphtheria, equal to a mortality of 0.08 per 1,000, which is slightly lower than that of the preceding year and is much lower than the average for the preceding ten years (0.14). Two deaths took place in hospital and two at home.

DEATHS FROM DIPHThERIA.

No.	Age.	Sex.	Locality.	Place of of Death.	Date of Death.	Day of Disease.	No. of Days after Notifica- tion.	No. of Days after removal to Hospital	Cause of Death as Certified.
1	11 months	F	Victoria Street, Balne Laue ...	Hospital	31-7-19	2nd	Same Day	1	Laryngeal Diphtheria
2	13	M	Belgrave Mount, Pinderfields...	Home	29-8-19	7th	6th	—	Diphtheria
3	3	M	Johnston Street, Primrose Hill...	Hospital	15-5-19	6th	5th	5	Diphtheria
4	5	M	Beaconsfield Terrace, Sandal ...	Home	17-11-19	6th	—	—	Vincent's An- gina, Diph- theria, Cardiac Paralysis.

ENTERIC FEVER.

ENTERIC FEVER STATISTICS, 1888 to 1919.

Year.	Cases Notified.			Attack Rate per 1,000 of Population.	No. of Cases Isolated in Hospital.	Percentage of Cases Isolated in Hospital.	No. of Deaths.			Case Mortality Per Cent.	Death Rate per 1,000 of Population.
	Total.	Cases in Asylum.	Rest of City				Total.	Residents.	Non- Residents.		
1919	4	2	2	0.08	0	0	3	1	2	75	0.02
1918	19	4	15	0.37	11	73	4	2	2	22	0.04
1917	23	15	8	0.43	5	22	9	3	6	13	0.06
1916	25	13	12	0.48	10	40	6	4	2	80	0.08
1915	25	10	15	0.52	11	44	6	3	3	24	0.12
1914	33	6	27	0.62	15	46	7	1	6	21	0.13
1913	9	3	6	0.17	1	9	3	—	3	33	0.05
1912	17	9	8	0.33	3	38	3	—	3	18	0.05
1911	21	—	21	0.40	13	62	3	—	3	14	0.05
1910	6	—	6	0.11	4	66	2	2	—	33	0.04
1909	5	—	5	0.11	3	60	1	1	—	20	0.02
1908	15	4	11	0.35	2	13	3	1	2	20	0.07
1907	8	1	7	0.19	3	37	2	2	—	25	0.04
1906	14	2	12	0.32	2	14	3	1	2	21	0.07
1905	13	4	9	0.30	0	0	3	3	—	23	0.07
1904	20	2	18	0.47	0	0	4	3	1	20	0.09
1903	30	11	19	0.71	0	0	8	6	5	27	0.14
1902	28	—	—	0.67	1	4	18	—	—	28	0.16
1901	51	—	—	1.23	14	27	16	—	—	31	0.31
1900	83	—	—	2.16	6	7	14	—	—	17	0.36
1899	45	—	—	1.17	4	9	9	—	—	20	0.23
1898	62	—	—	1.64	0	0	6	—	—	10	0.15
1897	29	—	—	0.77	0	0	14	—	—	14	0.10
1896	55	—	—	1.48	2	4	13	—	—	24	0.35
1895	45	—	—	1.31	1	2	8	—	—	18	0.21
1894	26	—	—	0.75	1	4	16	—	—	23	0.17
1893	61	—	—	1.81	0	0	12	—	—	20	0.35
1892	30	—	—	0.89	0	0	7	—	—	23	0.20
1891	28	—	—	0.84	1	4	7	—	—	25	0.21
1890	43	—	—	1.31	9	21	9	—	—	21	0.27
1889	28	—	—	0.85	0	0	6	—	—	21	0.18
1888	73	—	—	2.25	0	0	8	—	—	11	0.24

DEATH RATES FROM ENTERIC FEVER, 1867—1919.

1919	...	...	...	...	0.02
1918	...	...	...	...	0.04
1917	...	...	...	...	0.06
1907—1916	...	...	...	...	0.07
1897—1906	...	...	...	...	0.18
1887—1896	...	...	...	...	0.22
1877—1886	...	...	...	...	0.21
1867—1876	...	...	...	...	0.73

During 1919 there were only 4 cases of Enteric Fever notified or ascertained, and 2 of these were female patients in the Asylum, both of whom died.

The two cases that occurred in the town were :—

- (1) Male, aged 16 years, employed in draper's shop. He was notified on 8th January (10th day of disease) and was treated at home and recovered.
- (2) Male, 30 years, railwayman. Notified on the 28th of April (11th day of disease). The patient was treated at home and died.

Inquiries into both cases did not reveal the source of infection.

Although there were only four cases, three of these were fatal. Two of the fatal cases were non-residents in the Asylum, so that only one death is credited to the City. This gives a nett death-rate of 0.02 per 1,000.

ERYSIPELAS.

Twelve cases of Erysipelas were notified, but there were no deaths.

PUERPERAL FEVER.

Three cases of Puerperal Fever were notified, but there were no deaths. Two of the patients had been attended in their confinements by midwives and one by a doctor. The average annual number of cases of Puerperal Fever for the preceding ten years is also 3.

OPHTHALMIA NEONATORUM.

18 cases of Ophthalmia Neonatorum were notified, as compared with 9 in 1918 and 8 the average for the preceding 7 years. In 14 cases the confinements had been attended by midwives, in 3 by doctors, and in 1 by neither a midwife nor doctor. Seven had nursing assistance from the Health Visitors, 3 were admitted to the Maternity Hospital, 1 to the Union Infirmary, 1 to the Fever Hospital, and 1 to Leeds Infirmary. Although this disease, which is a highly contagious and virulent inflammation of the eyes of the newly-born child, is a frequent cause of blindness or impaired vision, I am glad to say that in all the cases which occurred in 1919 no damage to the eyes ensued, and this is due to the prompt treatment and nursing assistance which was rendered. Three-fourths of cases of Ophthalmia Neonatorum are due to Gonorrhœa in the mother, and the increase of the cases in 1919 does at least suggest an increase in the prevalence of Gonorrhœa.

MEASLES.

MEASLES NOTIFIED OR ASCERTAINED DURING 1919.

	MEASLES		GERMAN MEASLES		TOTAL.	
	Civil	Military	Civil	Military	Civil	Military
Notified by Medical Practitioners	95	—	8	—	103	—
Notified by Parent or Guardian	70	—	—	—	70	—
Reported from School or otherwise ascertained but not Notified	34	—	—	—	34	—
Total	199	—	8	—	207	—

Following the severe epidemic of Measles in 1918 it was not expected that the disease would be so prevalent in 1919. There were 207 cases notified or ascertained, and no deaths occurred.

Five cases were reported in the first quarter of the year, 17 in the second, 44 in the third, and 141 in the last quarter. The greatest prevalence was in the Sandal and Belle Vue Wards.

The number of cases in age groups is as follows:—

	AGE PERIODS.												
	Undr 1 Yr	1-2 Years	2-3 Years	3-4 Years	4-5 Years	5-6 Years	6-7 Years	7-8 Years	8-9 Years	9-10 Years	10-15 Years	15-20 Years	Over 20 Years
Cases	9	12	4	25	32	40	31	25	11	4	12	1	1
Deaths	—	—	—	—	—	—	—	—	—	—	—	—	—

The Order under which Measles was compulsorily notifiable all over the country was rescinded at the end of 1919. The Corporation has, however, applied to the Ministry of Health for an Order to make the disease notifiable in the City.

WHOOPING COUGH.

During 1919 there were 7 deaths from Whooping Cough (5 males and 2 females), equal to a mortality of 0.14 per 1,000, as compared with 0.13 in 1918 and 0.19 the average for the preceding ten years. One was a baby under one year, 2 in the second year, 3 in the third year, and 1 in the fifth year of life.

In 4 cases the secondary cause of death was Pnuemonia, and in 2 cases Bronchitis.

Two deaths occurred in February, 2 in March, 1 in May, 1 in August, and 1 in December.

Whooping Cough is not notifiable and no accurate records of its prevalence are available, but there appears to have been no very high prevalence during the year.

CEREBRO - SPINAL FEVER.

Only one case of Cerebro Spinal Fever was notified, and the patient, a boy of 10 years, died. When notified the patient was stated to have been affected for three months, and the patient died three weeks later. No bacteriological examination of cerebro-spinal fluid was made. No other cases were associated with this case. There were two other suspected cases reported, but on further investigation proved not to be of this disease.

ZYMOTIC DIARRHŒA.

There were 15 deaths certified as caused by Diarrhœa, Enteritis, or Gastro-Enteritis, equal to a mortality of 0.3 per 1,000, as compared with 0.28 in 1918 and 0.39 the average for the preceding ten years.

The number of deaths from Diarrhœa of Children under two years was 8, equal to a mortality of 9 per 1,000 births, as compared with 10.11 in 1918 and 9.59 in England and Wales and 12.24 in the 96 great towns in 1919.

There were 4 deaths between 2 and 5 years, and 3 over 5 years (24 years, 60 years, and 80 years).

Of the 8 deaths under 2 years 1 occurred in January, 2 in April, 1 in July, 3 in September, and 1 in October. Of the 5 deaths under 1 year of age 3 were fed on cow's milk, 1 on dried milk, and 1 on the breast, but the last case had also been receiving other food as well. It is indeed rare that one meets with a fatal case of summer diarrhœa amongst purely breast-fed babies.

INFLUENZA.

During 1918 there were two epidemic outbursts of Influenza, one in the middle of the summer and the other in the autumn. The latter had died out by the end of the year and during January, 1919, there was not much Influenza about. About the middle of February the disease, however, began again to assume epidemic proportions and went on throughout March, when it reached its maximum intensity and died out in April. For the remainder of the year the City was practically free from the disease. The 1919 epidemic was much more severe and fatal than either of the 1918 epidemics, and in mortality nearly reached the combined mortality of the two 1918 epidemics. The deaths in 1919 certified as due to Influenza amounted to 107 (57 males and 50 females), equal to a mortality of 2.17 per 1,000, as compared with 115 deaths in 1918. There was also, coincident with the Influenza epidemic, an increase in respiratory diseases, and no doubt many deaths certified from Pneumonia and Bronchitis had originated in Influenza. In 1919 there were 86 deaths from Pneumonia, as compared with an average of 60 for the ten years 1908—1917, and 73 deaths from Bronchitis, as compared with an average of 64 for the ten years mentioned.

NUMBER OF DEATHS FROM INFLUENZA AND RESPIRATORY
DISEASES.

Year.	Total.	Influenza.	Bronchitis.	Pneumonia	Other Respiratory Diseases.
1919	278	107	73	86	12
1918	296	115	68	99	14
1917	143	3	76	52	12
1916	142	3	70	60	9
1915	208	12	91	91	14
1914	130	2	44	67	17
1913	165	3	71	83	8
1912	141	9	62	64	6
1911	95	1	55	31	8
1910	129	6	58	51	14
1909	126	9	60	46	11
1908	119	7	52	51	9
Av'r'ge 1908- 1917	139	6	64	60	11

DEATHS FROM INFLUENZA AND RESPIRATORY DISEASES, 1919.

Month.	Total.	Influenza.	Bronchitis.	Pneumonia	Other Respiratory Diseases.
January ...	18	2	11	5	—
February ...	66	35	14	14	3
March ...	93	66	11	14	2
April ...	22	4	7	10	1
May ...	16	—	10	5	1
June ...	3	—	2	1	—
July ...	6	—	3	1	2
August ...	3	—	2	1	—
September	10	—	5	3	2
October ..	11	—	1	10	—
November	17	—	4	12	1
December	13	—	3	10	—
Total ...	278	107	73	86	12

The 107 Influenza deaths comprised 60 males and 47 females. The following table gives the Influenza deaths classified according to age period.

AGE PERIOD.	DEATHS.	AGES PERIOD.	DEATHS.
0—1 year	5	15—25 years	14
1—2 years	7	25—45 years	26
2—5 years	6	45—65 years	30
5—15 years	5	over 65 years	14

The following table gives the deaths from Infleunza in the various Wards:—

Alverthorpe ...	0	Northgate ...	11
North Westgate ...	14	Kirkgate ...	7
South Westgate ...	8	Primrose Hill ...	15
St. John's ...	9	Calder ...	5
Eastmoor ...	11	Belle Vue ...	20
Sandal ...	7		

The highest mortality occurred in Belle Vue Ward, whilst Alverthorpe escaped without a death. In the two 1918 epidemics the mortality was highest in Alverthorpe and Belle Vue Wards.

PREVENTATIVE MEASURES, &c.

Like the epidemics of 1918 the epidemic of 1919 ran through its three months' course without let or hindrance. The experience of 1918 had shown the futility of the various preventative measures usually advocated, and practically the only thing a local authority can do is to supply nursing assistance and home helpers, and, if need be, medical aid to the stricken householders. The Corporation has now made arrangements for the provision of an auxiliary nursing service, through the St. John Ambulance Brigade (Wakefield Nursing Division), of which Mrs. T. King is Commandant, in the event of another epidemic arising. A Register of Home Helpers has also been opened at the Town Hall, which should prove helpful not only in times of epidemics, but in normal times as well.

TUBERCULAR DISEASES.

TUBERCULOSIS DEATH-RATES IN WAKEFIELD, 1871-1919.

Period.						Death Rate per 1,000 of the Population.
Year	1919	...	...	...	...	1.36
"	1918	...	...	...	...	2.16
"	1917	...	...	...	...	1.57
"	1916	...	...	...	...	1.58
"	1915	...	...	...	...	1.61
"	1914	...	...	...	...	1.36
"	1913	...	...	...	...	1.33
"	1912	...	...	...	...	1.66
"	1911	...	...	...	...	1.88
Decennium	1901-1910	(Average Annual)				1.75
"	1891-1900	"	"	"	"	2.3
"	1881-1890	"	"	"	"	2.6
"	1871-1880	"	"	"	"	3.7

During 1919 there were 70 deaths from Tuberculosis (41 males and 29 females), comprising 52 from Pulmonary and 18 from Non-Pulmonary Tuberculosis. The Tuberculosis death-rate (1.36) is much lower than that of 1918 (2.16), and is also lower than the average for the preceding ten years (1.65).

PULMONARY TUBERCULOSIS IN WAKEFIELD, 1898-1919.

Year	CASES.				DEATHS.	
	Total Cases Notified or Ascertained	Cases Notified	Cases Ascertained but not notified.	Attack Rate per 1,000 of population.	Deaths num ber	Death Rate per 1,000 of population
1919	130	125	5	2.53	52	1.01
1918	183	176	7	3.60	76	1.68
1917	209	202	7	4.28	61	1.28
1916	152	147	5	2.95	67	1.41
1915	140	128	12	2.87	62	1.28
1914	92	82	10	1.72 (1.82)	52	0.97 (1.03)
1913	111	107	4	2.12 (2.32)	40	0.76 (0.8)
1912	122	110	12	2.35 (2.47)	58	1.11 (1.17)
1911	—	60	—	—	60	1.16 (1.22)
1910	—	46	—	—	54	1.05 (1.11)
1909	—	46	—	—	53	1.22
1908	—	42	—	—	58	1.35
1907	—	40	—	—	62	1.45
1906	—	36	—	—	48	1.13
1905	—	14	—	—	47	1.11
1904	—	27	—	—	53	1.25
1903	—	50	—	—	58	1.38
1902	—	40	—	—	52	1.28
1901	—	50	—	—	55	1.42
1900	—	51	—	—	58	1.06
1899	—	—	—	—	43	1.12
1898	—	—	—	—	65	1.72

PHTHISIS NOTIFICATIONS AND DEATHS IN WARDS

Ward.	Cases notified or ascertained.	Deaths.
St. John's... ..	14	4
Northgate	11	9
Eastmoor	25	7
Primrose Hill	9	7
North Westgate	6	4
South Westgate	9	6
Kirkgate	11	1
Calder	14	3
Alverthorpe	13	4
Belle Vue	4	4
Sandal	9	3
Whole City	125	52

During 1919 there were 125 cases of Phthisis notified (69 males and 56 females), and there were 5 others ascertained, making a total of 130, which is equal to an attack rate of 2.53 per 1,000.

The following are some particulars as ascertained on first visiting notified cases.

The average number of persons per house among the cases notified was 5.3, as compared with 4.9 in 1918.

In 112 houses the bedroom accommodation was as follows:—

1 Bedroom	...	...	...	18 houses.
2 Bedrooms	...	...	...	53 "
3 Bedrooms	...	...	...	28 "
4 Bedrooms or more	...	...	...	13 "

Of 123 houses 66 were through houses, 43 were back-to-back, and 13 were Common Lodging Houses.

The weekly rental of 95 houses was obtained and is shown as follows:—

	3/- or less	...	...	8 houses.
Over	3/- but under 4/-	...	...	22 "
"	4/- " " 5/-	...	...	18 "
"	5/- " " 6/-	...	...	34 "
"	6/-	...	...	13 "

Out of 113 cases 62 were occupying the same room as others, and 50 were sharing the bed with others.

During 1919 there were 52 deaths from Phthisis (28 males and 24 females), equal to a death-rate of 1.01 per 1,000, as compared with 1.68 in the previous year and 1.22 the average for the preceding 10 years.

Of the 52 deaths 20 (38 %) occurred in public institutions (16 in the Workhouse, 1 in the Asylum, and 3 in Mount Vernon Sanatorium).

DEATHS AND NOTIFICATIONS.

Of the 52 deaths 47 had been notified and 5 had not been notified.

The following list gives the period elapsing between the date of notification and the date of death in the case of 47 patients who had been notified:—

Under 1 month	...	...	...	8
Between 1—2 months	...	...	...	7
" 2—3 "	...	...	...	3
" 3—4 "	...	...	...	2
" 4—5 "	...	...	...	7
" 5—6 "	...	...	...	0
" 6—7 "	...	...	...	1
" 7—8 "	...	...	...	1
" 8—9 "	...	...	...	0
" 9—10 "	...	...	...	5
" 10—11 "	...	...	...	0
" 11—12 "	...	...	...	0
" 12—15 "	...	...	...	1
" 15—18 "	...	...	...	1
" 18—24 "	...	...	...	5
" 24—36 "	...	...	...	2
" 36—48 "	...	...	...	0
" 48—60 "	...	...	...	1
" 60—72 "	...	...	...	0
" 72—84 "	...	...	...	3

NON-PULMONARY TUBERCULOSIS.

During 1919 there were 21 cases of Non-Pulmonary Tuberculosis notified (13 males and 8 females), as compared with 49 in 1918.

Glands	...	...	5	Kidney	...	...	1
Abdomen	...	...	2	Cerebral Meninges	...	...	3
Joints	...	...	6	Skin	...	...	4

GLANDS.

There were 5 cases of Tubercular Glands of the Neck notified (2 males and 3 females).

Under 5 years	...	1	15—25 years	...	1
5—15 "	...	0	25—45 "	...	3

ABDOMEN.

There were 2 cases of Abdominal Tuberculosis notified (1 male and 1 female), 9 and 16 years respectively.

JOINTS.

There were 6 cases of Tubercular Disease of Joints notified (5 males and 1 female).

Under 5 years	...	1	25—45 years	...	0
5—15	„	2	45—65	„	1
15—25	„	1	Over 65	„	1

KIDNEY.

There was 1 case of Tubercular Disease of the Kidney notified (female, aged 38 years).

SKIN.

Four cases of Tuberculosis of Skin were notified (3 males and 1 female).

Under 5 years	...	1	15—25 years	...	0
5—15	„	3	25—45	„	0

OTHER ORGANS.

There were 3 cases of Tubercular Meningitis (male, 6 years, male, 6 years, and male, 7 weeks).

During 1919 there were 18 deaths from Non-Pulmonary Tuberculosis (13 males and 5 females), equal to a death-rate of 0.35 per 1,000, which is lower than that of the previous year (0.48) and also than the average for the preceding ten years (0.43).

The causes of death were certified as follows:—

Tubercular Meningitis	...	...	5
Tubercular Peritonitis	...	...	4
Spinal Caries	...	...	1
General Tuberculosis	...	...	4
Tubercular Disease of Ankle	...	...	2
Tubercular Adenitis	...	...	2

REMARKS ON TUBERCULOSIS MORTALITY.

In my Report for 1918 I recorded an increase in the mortality from Tuberculosis, and pointed out that the increase was general and not confined to Wakefield. In my present Report I have to report a mortality not only lower than that of 1918, but also below the average. The decrease applied both to Pulmonary and Non-Pulmonary Tuberculosis, but most notably to the Pulmonary variety. With regard to Pulmonary Tuberculosis I have again to draw attention to the fact that 52 per cent. of the patients who died had been notified within six months of death, and 15 per cent. within a month of death. It must therefore be admitted that so far as half the fatal cases are concerned the Local Authority could do little or nothing to stay the progress of the disease. It is now a trite saying, but a very true one, that early diagnosis is all essential to the effective grappling with the scourge, and is essential to the prevention of the disease no less than to the cure of it.

SANATORIUM TREATMENT—MOUNT VERNON
SANATORIUM.

Sanatorium treatment is provided by the Barnsley and Wakefield Joint Sanatorium Committee at the Mount Vernon Sanatorium, near Barnsley. During 1919 the accommodation for Wakefield patients was raised from 20 beds to 26 beds.

The following table gives the Sanatorium statistics for the year:—

PATIENTS.	Total	Total		INSURED.			NON-INSURED.		
		M	F.	Total	M.	F.	Total	M.	F.
Remaining at end of 1918	17	12	5	13	11	2	4	1	3
Admitted 1919 ...	58	36	22	40	32	8	18	4	14
Total Treated, 1919 ...	75	48	27	53	43	10	22	5	17
Discharged 1919 ...	57	38	19	40	33	7	17	5	12
Died 1919 ...	3	3	—	3	3	—	—	—	—
Remaining at end of 1919	18	10	8	13	10	3	5	—	5

It will be noted that 75 persons received Sanatorium Treatment at Mount Vernon Sanatorium during the year, as compared with 74 during the preceding year. Of the 75 cases 53 (70%) were insured persons, and 28 were discharged soldiers.

The average number of beds occupied throughout the year was 22, and the number occupied by insured persons 17.

The following table gives the cases admitted classified according to the stage of the malady:—

	TOTAL.	Insured.	Non-Insured.
Stadium 1 ...	26	20	6
Stadium 2 ...	23	13	10
Stadium 3 ...	9	7	2
Total ...	58	40	18

It will be noted that 45 % of the cases were in the early stage of the disease, 40 % in the middle stage, and 15 % in an advanced stage.

The admissions included 19 discharged soldiers and 1 discharged sailor, 4 of whom were admitted direct from the Army. In addition to the foregoing 2 discharged soldiers, both advanced cases, were admitted to the Odsal Sanatorium, Bradford, under arrangement made by the Ministry of Pensions for the institutional treatment of advanced cases. One of these took his discharge before the end of the year, whilst the other still remained in the institution.

During 1919 the average period of stay in the Mount Vernon Sanatorium was 16 weeks, as compared with 15 weeks in 1918.

Duration of Stay.	Number of Patients.
Under 4 weeks ...	6
4 to 8 weeks ...	6
8 to 13 „ ...	4
13 to 26 „ ...	25
26 to 62 „ ...	16
Total	57

It will be noted that 212 patients were inquired about, but information could only be obtained with regard to 185. Taking all the cases, practically half had remained well or with their improved condition maintained, while one-fourth had died. Of the cases who received treatment in the early stages of the disease 66 % remained apparently well and 8 % were dead; in the middle stages 30% were apparently well and 43% were dead; and in the advanced stages 13 % were apparently well and 60 % were dead.

TUBERCULOSIS DISPENSARY.

During 1919 there were 211 applicants for examination or treatment at the Dispensary. Of these 104 were found to be suffering from Pulmonary Tuberculosis and 17 from Non-Pulmonary Tuberculosis, whilst 90 were found to be non-tuberculous.

	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.			Non-Tubercular.			TOTAL.		
	Total	M	F	Total	M	F	Total	M	F	T	M	F
Insured ...	46	33	13	6	3	3	36	31	5	88	67	21
Non-Insured	58	25	33	11	5	6	54	21	33	123	51	72
Total ...	104	58	46	17	8	9	90	52	38	211	118	93

Amongst the applicants were 41 discharged or demobilised soldiers and 1 discharged sailor, and of these 20 were found to be suffering from Pulmonary Tuberculosis, 2 from Non-Pulmonary Tuberculosis, and 20 were found non-tubercular, or at any rate with no active tubercular lesions.

CASES DIAGNOSED PULMONARY TUBERCULOSIS.

INSURED.						NON-INSURED.						Total. All Stadia.
ST. I.		ST. II.		ST. III.		ST. I.		ST. II.		ST. III.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
11	9	13	2	7	3	22	17	5	5	1	9	104

The above table shows that of the 104 cases diagnosed as Pulmonary Tuberculosis, 59 (57 %) were in the early stage, 25 (24%) were in the middle stage, and 20 (19%) in the advanced stage. Amongst the soldiers, 40 % were in the early stage, 50 % in the middle stage, and 10 % in the advanced stage.

The Non-Pulmonary cases of Tuberculosis comprised Disease of Cervical Glands (8 cases), Skin (3 cases), and Spine, Hip, Peritoneum, Testes, Femur, and Abdominal Glands (1 case each).

CASES TREATED AT THE DISPENSARY, 1919.

	Total	Pulmonary Tuberculosis				Non-Pulmonary Tuberculosis.				Cases remaining under Treatment at end of 1919.		
		Insured.		Non-Insured		Insured.		Non-insured		Total.	Pul'm'ry	Non-Pul'm'ry
		Males.	Females.	Males.	Females.	Ma'es.	Females.	Males.	Females.			
Taken on in 1913...	1	—	—	—	1	—	—	—	—	—	—	—
1914...	5	2	—	1	2	—	—	—	—	1	1	—
1915...	15	4	1	3	5	1	1	—	—	4	4	—
1916...	27	5	8	2	8	1	—	—	3	12	10	2
1917...	76	31	4	7	24	1	1	3	5	23	21	2
1918...	88	37	6	9	28	—	2	4	2	27	26	1
1919...	102	29	12	24	27	1	2	3	4	62	56	6
Total...	314	108	31	46	95	4	6	10	14	129	118	11

The above table shows that 314 patients were treated at the Dispensary during 1919, comprising 149 insured persons and 165 non-insured persons. 280 were treated for Pulmonary and 34 for Non-Pulmonary Tuberculosis. The cases of Non-Pulmonary Tuberculosis treated comprised Disease of the Cervical Glands (12 cases), Skin (5 cases), Bones (5 cases), Spine (5 cases), Joints (3 cases), Abdominal Glands (3 cases), and Peritoneum (1 case). Of the total cases treated 35 were discharged soldiers and one discharged sailor.

At the end of the year there remained 129 cases under treatment, 118 being Pulmonary and 11 Non-Pulmonary cases, 64 insured and 65 non-insured.

The following table gives the age periods of patients treated during 1919.

CASES TREATED AT THE TUBERCULOSIS DISPENSARY, 1919.

CLASSIFIED ACCORDING TO AGE PERIODS.

PULMONARY TUBERCULOSIS.								NON-PULMONARY TUBERCULOSIS.							
0-1	1-5	5-10	10-15	15-25	25-45	45-65	Ov 65	0-1	1-5	5-15	15-25	25-45	45-65	Ov 65	
—	4	40	46	41	126	23	—	—	2	16	10	6	—	—	

The total number of attendances made at the Dispensary during 1919 was 4,263

CONTACTS.

Only 22 contacts of notified cases were sent to the Dispensary for examination. Of these 13 were found to have suspicious symptoms, and 4 were ultimately diagnosed as suffering from Pulmonary Tuberculosis. This is a high percentage, but practically all the 22 contacts examined were sent because they were not well. It is regrettable that the facilities for free examination of contacts are not more largely taken advantage of. Tuberculosis is so often a family disease, that it is very desirable when once a case is notified that all members of the family should be medically examined. In this way many incipient cases would be recognised and appropriate treatment applied when there is the best opportunity for securing a successful result

VENEREAL DISEASES.

The arrangements made in 1917 for the treatment of Venereal Diseases at the Leeds General Infirmary were continued during 1919, and the following table compiled from the quarterly returns supplied by the Medical Officer of Health of Leeds gives the chief figures relating to Wakefield patients treated at the Clinic during the year ended 31st December, 1919. The Annual Return (Form V.R. 6) has not been sent me by the authorities at Leeds, and I am unable to furnish the

more complete figures required for that form. For instance, the figures now submitted do not give the total number of patients who attended during 1919, as the number carried over from the previous year is not included. The number of patients given is that of the new cases taken on in 1919.

VENEREAL DISEASES CLINIC, LEEDS
GENERAL INFIRMARY.

1919.

- (a) Number of persons from Wakefield dealt with during the year at or in connection with the out-patient Clinic for the first time and found to be suffering from

	Total	Males	Females
Syphilis	109	74	35
Soft Chancre... ..	1	1	—
Gonorrhœa	37	32	5
Condition other than Venereal ...	42	28	14
Total ...	189	135	54

(b) Total number of attendances at the outpatient Clinic of all patients residing in Wakefield.

	Total.	Males	Females
Syphilis	1435	919	516
Soft Chancre... ..	1	1	—
Gonorrhœa	211	159	52
Not found to be suffering from Venereal Disease...	44	39	5
Total ...	1691	1118	573

(c) Aggregate number of "In-patient days" of all patients residing in Wakefield suffering from :

	Total	Males	Females
Syphilis	1	—	1
Gonorrhœa	—	—	—

- (d) Number of doses of Salvarsan substitutes (Galyl) given in 1919 555

As compared with 1918, there was an increase of 43 Syphilitic cases, and 15 Gonorrhœa cases. There can hardly be any question, however, but that the figures only represent a small proportion of the patients that require treatment, and this is especially true of Gonorrhœa. Gonorrhœa is at least three times as prevalent as Syphilis, but the Gonorrhœa cases who attend the Clinic only amount to one-third of the Syphilitic cases. Only 5 women suffering from Gonorrhœa applied for treatment during the year. These facts emphasise the urgent need for a Clinic in Wakefield itself. The Board of Governors of the Clayton Hospital have now intimated their willingness to open a Clinic in that Institution as soon as certain contemplated extensions of the Hospital buildings are carried out. In all probability a considerable time will elapse before this can be done, and in the meantime the Corporation proposes to start a Venereal Diseases Clinic in premises acquired for other public health purposes.

LABORATORY EXAMINATIONS.

The following Laboratory Examinations were made in connection with Venereal Diseases:—

	Leeds Infirmary.	County Council Laboratory, Wakefield.	Total.
For the detection of Spirocheates	6	10	16
„ „ „ Gonococci	16	40	56
„ Wassermann Reaction	191	56	247
Total	213	106	319

SUPPLY OF SALVARSAN SUBSTITUTES TO MEDICAL PRACTITIONERS.

Only one medical man applied for Salvarsan Substitutes during the year, and 12 doses of Neovarsenobillon were supplied to him.

EDUCATIONAL WORK.

The Educational Work in connection with Venereal Diseases is undertaken by the Wakefield Branch of the National Council for Combating Venereal Diseases, and the following is the Report of the Branch for 1919:—

REPORT OF THE WAKEFIELD BRANCH OF THE BRANCH OF THE NATIONAL COUNCIL FOR COMBATING VENEREAL DISEASES FOR THE YEAR 1919.

The Committee has to report that the meetings arranged by the Branch during the last fortnight in October have been carried out, with the exception of five meetings arranged for men and lads in mills on Monday, Tuesday, and Wednesday (27th, 28th, and 29th October), which, owing to the inability of the Lecturer (Mr. Elliott) to come down on account of illness, had to be abandoned.

Dr. Victoria Bennett addressed meetings of women and girls during the week ending 25th October. Eight meetings were held at mills, four at Child Welfare Centres, two in connection with Women's Societies, one to Girl Guides, and a Mass Meeting for Women in the Unity Hall. Approximately she addressed 1,800 women and girls during the week. As stated, Mr. Elliott was at the last moment unable to come down, and Mr. Aronson, his substitute, did not arrive till Wednesday, 29th October. During the rest of the week he addressed five meetings of men and lads in mills, a meeting of Police Constables, a meeting in connection with a Society, and a Mass Meeting for Men in the Picture House on the evening of Sunday, 1st November. Approximately he addressed 1,280 persons during his visit, so that altogether during the fortnight over 3,000 people were spoken to on the subject of Venereal Diseases.

The address to the Mass Meeting for Women was illustrated by lantern slides, and that the Mass Meeting of Men by lantern slides as well as by Cinema films illustrating some aspects of plant life bearing on the questions of sex and also showing the casual agent of syphilis in a very vivid fashion.

The Mass Meetings were well attended. It was estimated that 450 attended the Women's Meeting and 800 the Men's Meeting.

There was also a private exhibition of the film "The End of the Road" given at the Picture House (kindly lent by Mr. Tolfree) on the afternoon of Friday, 31st October, when about 250 persons attended. Mr. Aronson gave a short address at the exhibition. Pamphlets bearing on the question of Venereal Diseases were distributed gratuitously at all the meetings.

The various meetings appeared to have aroused considerable interest and may be considered entirely successful in achieving their object. The Mass Meetings were somewhat of an experiment, but the attendances at both meetings were very gratifying, and that for men was particularly successful.

Those who visited the exhibition of the film "The End of the Road" would probably be agreed as to its usefulness for private exhibition to selected audiences, but probably would differ as to its suitability for general public exhibition.

The Committee has with interest followed various movements with regard to the prevention and treatment of Venereal Diseases. The question of personal prophylaxis by means of self-medication has been vigorously advocated in certain quarters, and a Society for the promulgation of this doctrine has now been formed. The system advocated by this Society has never found favour with the National Council, and your Executive Committee is also opposed to any method of prevention which is divorced from morals and is indeed calculated to encourage immorality, while it cannot from the purely physical point of view be regarded as a reliable and satisfactory method of prevention.

The question of Notification of Venereal Diseases has cropped up again and again, but the Committee is of opinion that the time is not yet ripe for the institution of compulsory notification, and indeed compulsory notification would in all probability nullify its very object by restraining patients from applying for medical treatment. The only form of notification that might in practice be found useful would be that which obliged a medical practitioner to notify a patient who failed to secure or continue adequate treatment. But even this modified form of notification is not free from objection, and it might keep patients from applying for treatment.

The Committee regrets that the National Council has not yet been able to get Parliament to pass the Criminal Law Amendment and Sexual Offences Bills. Whilst undoubtedly it would often be a very difficult matter to prove cases of infection knowingly conveyed, at the same time if the law made it an offence for a person to give the disease to another, whilst aware that he or she was affected with the disease, it would give the Anti-Venereal Campaign greater moral support. As regards treatment for Venereal Diseases the Committee learns with pleasure that the Clayton Hospital Committee is prepared

to grant facilities for the treatment of Venereal Diseases as soon as suitable accommodation is provided, and that until such accommodation is provided the Wakefield Corporation proposes to establish a Clinic in premises obtained for certain public health purposes. There can be no question but that the problem of Venereal Diseases cannot be properly dealt with until there is a Clinic established in Wakefield. There will always be patients who will prefer to go to Leeds, and they can always do so if they wish, but there is also a large number of persons, especially women, who cannot afford the time to go to Leeds, but who would avail themselves of facilities for treatment in Wakefield. When this Clinic is established the Branch will have an opportunity in its educational work of making the facilities for treatment as widely known as possible.

HEART DISEASE.

The deaths certified from Organic Heart Disease were 74 (42 males and 32 females), equal to a mortality of 1.5 per 1,000, as compared with 1.7 in 1918 and 1.82 the average for the preceding ten years. This form of mortality is therefore below the average.

RESPIRATORY DISEASES OTHER THAN PHTHISIS.

There were 171 deaths from Respiratory Diseases other than Phthisis, including 86 from Pneumonia, 74 from Bronchitis, and 12 from other Respiratory Diseases. The death-rate from this group of diseases is 3.47 per 1,000, as compared with 3.99 in 1918 and 3.0 the average for the preceding ten years.

The Pneumonia death-rate is 1.78, as compared with 2.18 in 1918 and 1.39 the average for the preceding ten years, while the Bronchitis death-rate is 1.5 per 1,000, as compared with the same rate in 1918 and 1.36 the average for the preceding ten years.

It will be observed that while the death-rate from Respiratory Diseases was less than in 1918, it was still above the average, and this increase is largely explained by the Influenza epidemic.

Primary Pneumonia and Influenzal Pneumonia became notifiable on the 1st March, 1919. 46 cases of Primary and 18 of Influenzal Pneumonia were notified during the last nine months of the year. Of the deaths certified during that period as from Primary Pneumonia 10 had not been notified, and of those certified from Influenzal Pneumonia 22 had not been notified.

The main object of notification of Pneumonia is to allow enquiries to be made as to home circumstances and to secure the provision of nursing assistance when required. The Corporation is now in a position to offer nursing assistance when it is needed.

MALARIA AND DYSENTERY.

13 cases of Malaria and 19 of Dysentery were notified during the last nine months of the year, but no fatal cases occurred. All the Malaria cases were soldiers who had contracted the disease abroad. Of the 19 Dysentery cases 6 were soldiers who had contracted the disease abroad, and 13 were female patients in the Asylum. Appropriate advice as to precaution was given to all the non-institutional cases.

CANCER.

During 1919 there were 56 deaths (24 males and 32 females) from Cancer and other forms of malignant disease equal to a mortality of 1.14 per 1,000, as compared with 1.5 in 1918 and 1.15 the average for the preceding ten years. The death-rate is therefore rather below the average.

At age periods the deaths were 4 between 25 and 45 years, 29 between 45 and 65 years, and 23 over 65 years.

The organs affected were as follows:—

Carcinoma of Intestines	...	...	17	(including 7 of rectum).
" " Stomach	...	...	6	
" " Liver	...	...	5	
" " Pancreas	...	...	2	
" " Uterus	...	...	6	
" " Breast	...	...	6	
" " Jaw	...	...	2	
" " Tongue	...	...	1	
" " Larynx	...	...	1	
" " Lung	...	...	1	
" " Bladder	...	...	3	
" " Prostate Gland	...	...	3	
Malignant Growth of Shoulder	...	...	1	
" " " Sacrum	...	...	1	
Sarcoma of Kidney	...	...	1	

CITY FEVER HOSPITAL

The following table gives the chief statistics of the Hospital for 1919:—

Disease.	No. of Cases Remaining 1st Jan., 1919.	No. of Cases admitted	Number of cases treated.	No. of Cases Discharged	No. of Deaths	Percentage Mortality.	No. of Cases Remaining 31st Dec., 1919.
Scarlet Fever...	1	125	126	102	2 (1 Non-Resident)	1.6	21
Diphtheria ...	1	37	38	35	2	5.3	1
Enteric Fever	2	—	2	2	—	0.0	—
Measles ...	—	1	1	1	—	0.0	—
Opthalmia Neonatorum	—	1	1	1	—	0.0	—
Meningitis ...	—	2	2	1	1	50.0	—
For Observation ...	—	1	1	1	—	0.0	—
Total ...	4	167	171	143	5	3.35	22

The average daily number of patients in the Hospital throughout the year was 13, the maximum being 30 (November) and the minimum 1 (July).

SCARLET FEVER.

The average daily number of Scarlet Fever Cases was 10, the maximum being 29 (November) and the minimum nil on four occasions.

The average duration of stay (excluding deaths) was 33 days, the maximum being 105 days, and the minimum 11 days.

Complications on Admission.			Complications after Admission.		
Otorrhœa	12	(10%)	Rheumatism	8	(6%)
Rhinorrhœa	10	(8%)	Adenitis	7	(6%)
Adenitis	9	(7%)	Otorrhœa	6	(5%)
Albuminuria	5	(4%)	Nephritis	2	(2%)
Rheumatism	4	(4%)	Tonsillitis	2	(2%)
Tonsillitis	4	(4%)	Heart Affections	2	(2%)
Opthalmia	2	(2%)			
Pneumonia	1	(1%)			
Diphtheria	1				

In two cases the Scarlet Fever had supervened on burns and in one case after scalds.

DIPHTHERIA.

The average daily number of Diphtheria cases in Hospital throughout the year was 2.6, the maximum being 8 and the minimum nil on four occasions. The average duration of stay was 29 days, the maximum being 51 and the minimum being 16 days.

Complications on Admission.			Complications after Admission.		
Adenitis	...	9 (26%)	Paralysis	...	5 (15%)
Rhinorrhœa	...	2 (6%)	Otorrhœa	...	2 (6%)
Otorrhœa	...	2 (6%)	Antitoxin Rashes	2 (13%	
Scarlet Fever	..	2 (6%)	of patients who had antitoxin)		
Palatal Paralysis	1	(3%)	Albuminuria	...	1 (3%)
Albuminuria	...	1 (3%)	Heart Affections...	1	(3%)

RELATION OF DEATHS AND RECOVERIES TO THE DURATION OF ILLNESS PRIOR TO ADMISSION.

Day of Disease on Admission.	1	2	3	4	5	6	7	8	9	10	Total
Admitted ...	1*	3	6	5	7	5	5	1	0	1	84
Recovered ...	0	3	5	5	7	5	5	1	0	1	32
Died ...	1	0	1	0	0	0	0	0	0	0	2
Percentage Mortality	100	-	16.6	-	-	-	-	-	-	-	

* Laryngeal obstruction.

Antitoxin was given to 15 patients on admission, 8,000 units being the maximum and 4,000 the minimum dose.

REMARKS.

I have again to express my appreciation of the admirable way in which the Matron (Miss Peck) has managed the Hospital during the year, and of the devoted services of her staff of nurses. The staff consists of 2 Charge Nurses, 4 Probationer Nurses, Cook, Housemaid, 2 Ward Maids, Laundress, and Porter.

The Porter also does all the disinfecting work for the City. The Hospital buildings are old and lack many of the conveniences of modern institutions, but thanks to the excellent work of the staff the results of treatment will compare favourably with those of any fever hospital. The Hospital has now been re-painted and generally overhauled, and the accommodation has been extended by the adaptation of part of the Wood and Iron Building into two small wards, with bath-room and lavatory accommodation. Three new gas-heated boilers have also been installed in the bath-rooms.

DISINFECTION.

Disinfection of houses was carried out with Formalin Spray or Formalin Fumigation. Disinfection of bedding, etc., was effected in a Washington-Lyon Steam Disinfector at the Corporation Fever Hospital.

Number of Houses disinfected	...	...	...	322
Number of Rooms disinfected	...	...	...	571
Number of Schools disinfected	...	...	...	2
Number of School Class-rooms disinfected	...	...	...	24
Number of times Steam Disinfector used	...	...	...	481

NUMBER OF ARTICLES DISINFECTED.

Beds	...	...	...	...	...	470
Mattresses	...	...	...	...	...	363
Blankets	...	...	...	...	...	756
Sheets	...	...	...	...	...	906
Counterpanes	...	...	...	...	...	566
Pillows	...	...	...	...	...	673
Bolsters	...	...	...	...	...	436
Curtains	...	...	...	...	...	328
Carpets	...	...	...	...	...	281
Rugs	...	...	...	...	...	256
Boots	...	...	...	...	...	209
Articles of Men's Clothing	...	...	...	...	...	485
Articles of Women's Clothing	...	...	...	...	...	981
Articles of Children's Clothing	...	...	...	...	...	1494
Miscellaneous	...	...	...	...	...	1136

BACTERIOLOGICAL LABORATORY.

During the year 762 specimens from the City were examined at the County Bacteriological Laboratory.

Sputum (Tuberculosis)	...	...	...	...	200
Throat Swabs (Diphtheria)	...	...	...	...	210
Blood (Enteric Fever)	...	...	...	...	10
Urine (Enteric Fever)	...	...	...	...	8
Urine (Tuberculosis)	...	...	...	...	13
Urine (Other Organisms)	...	...	...	...	26
Hairs (Ringworm)	...	...	...	...	87
Blood (Wassermann Reaction)	...	...	...	...	102
For Detection of Spirocheates	...	...	...	...	10
For Detection of Gonococci	...	...	...	...	40
Various	...	...	...	...	56
Total	...	...	...	...	762

MENTAL DEFICIENCY.

I submit a statement as to the position in Wakefield with regard to Mental Defectives at the end of 1919.

1. SCHOOL SURVEY.

A school survey made during 1919 revealed 62 children as being Mentally Defective, 56 of these were classified as being feeble minded, and of these 12 were reported as high grade cases and 12 low grade cases. Six were reported as imbeciles. Nearly all these children were in attendance at the ordinary elementary schools, but the majority were making little or no educational progress. In addition to the above, six cases previously on our list had left school and were working, and one had been lost sight of.

One case (an Epileptic Idiot) died during 1919.

There are at least 9 cases (8 boys and 1 girl) who appear suitable for institutional treatment. An effort has already been made to get three of these cases into institutions, without success.

2. CASES IN INSTITUTIONS.

There are at present 5 cases (2 males and 3 females) in institutions:—

1. Female, now 20 years, admitted to the Lancaster Institution in 1916.
2. Female, now 19 years, admitted to Stoke Park Colony in 1916.
3. Female, now 28 years, admitted to Farmfield Colony in 1916.
4. Male, now 22 years, admitted to Prudhoe Hall in 1919.
5. Male, now 17 years, admitted to Prudhoe Hall in 1919.

3. HOME SUPERVISION.

There have been 5 cases put under Home Supervision by the Mental Deficiency Committee instead of being sent to institutions, but one (an epileptic idiot) died during 1919, the remaining 4 cases comprise 2 females (aged 18 and 20 years) and 2 males (aged 13 and 17 years).

All the cases, both those under the Education Committee and those put specifically under supervision by the Mental Deficiency Committee, are regularly visited by the Health Visitors. Generally speaking, the home supervision is satisfactory, but 9 cases at least would be better in institutions.

FUTURE REQUIREMENTS.

SPECIAL SCHOOL FOR MENTAL DEFECTIVES.

Up to the age of 16 years all cases of Mental Deficiency, except those that are not educatable or suitable for attendance at special schools, are under the jurisdiction of the Education Committee. It is now the statutory duty of the Education Committee to provide a special school or classes for Mentally Defective Children, and it is, I believe, the intention of the Wakefield Education Committee to provide a special school at Thornes House. This is the first desideratum, for until such a school is provided, our work in connection with Mental Deficiency will be much handicapped.

2. INSTITUTIONAL ACCOMMODATION.

There is also a pressing need for further accommodation for cases of Mental Deficiency that are over 16 years, and for those cases that are not suitable for attendance at special schools. As you are aware, we are experiencing much diffi-

culty in getting cases into institutions. A large number of institutions restrict their admissions to the higher grade cases that are more or less trainable, and will not admit low grade cases or imbeciles. It is just the latter group that give the Local Authority, as well as their parents or guardians, the most anxiety, and for them institutional care is most needed. Then, again, Mental Deficiency is not seldom combined with epilepsy or paralytic affections, and we find most institutions are chary of taking mixed cases of this character. Institutions for the feeble-minded, for example, will not take Epileptics, and Epileptic Institutions will not take feeble-minded, and so the feeble-minded epileptic falls between two stools. It therefore appears to me that there is a real need for the admission of cases of Mental Deficiency of all types into some suitable institution. Such an institution must needs be a large institution, so as to provide for the proper classification of all kinds of cases, and the appropriate differential treatment, and it seems to me that this could best be achieved by the combination of large local authorities, *i.e.*, the County Boroughs of the West Riding of Yorkshire. I therefore make the suggestion that this question might be taken up with other authorities in the West Riding. It also seems to me that the provision could best be made by an Authority like the West Riding Asylums Board, who already deal with considerable numbers of imbeciles and idiots in their institutions, and at Wakefield have a separate institution for male cases of this kind.

As regards the higher grade cases of feeble-mindedness, who are more or less trainable, a separate institution would be required, and whilst under the present law, I suppose it would not be competent for a Lunacy Authority to deal with such cases, it does seem to me desirable that one Authority should be empowered to deal with all varieties of mental disorder.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

During the War this work has necessarily been curtailed, although a large amount of supplementary inspection has been carried out and the Treatment Clinic has been kept going. The Health Visitors have also continued their important work as school nurses. The return of Dr. Shand from military service in 1919 permitted towards the end of the year a resumption of the usual work. This includes:—

- (1). The statutory inspection of three age groups, the "entrants" (children from 3 to 7 years), the intermediates (children of 8 years), and the leavers (children of 12 to 14 years).

(2). The supplementary inspection of children apparently in need of treatment and brought to our notice by the teachers, school nurses, attendance officers, the medical officer, or by the parents themselves. This is carried out in the schools and at the Clinic in the Town Hall.

(3). The "following up" by the Health Visitors of cases requiring treatment.

(4). Systematic supervision of all school children as regards cleanliness, clothing, etc., by the Health Visitors.

(5). The investigation and supervision of cases of infectious and contagious diseases by the Health Visitors.

(6). The supervision of cases of Mental Deficiency by the Health Visitors.

(7). Treatment at the School Clinic for minor ailments

(8). General sanitary supervision of the schools.

The work carried out by the school medical service is fully set out in my report to the Education Committee, but it may be useful to give a brief summary here.

NUMBER OF INSPECTIONS.

The number of individual children medically examined during the year was 3,387 (1,067 at statutory and 2,320 at supplementary inspection). The number of medical examinations made was 7,756, including 4,369 re-examinations. In addition to this the Health Visitors examined all the children in the schools with regard to cleanliness, state of clothing and footgear, and general condition. In this way 8,095 children were examined.

The following is a synopsis of some of the findings of Inspection:—

1. CLOTHING AND FOOTGEAR.

As compared with pre-war a considerable improvement was noted. For instance, the percentage of children with unsatisfactory footgear has fallen from 16.3 in 1909 to 6.1 in 1914 and 4.1 in 1919.

2. HEIGHT AND WEIGHT.

The children examined were taller than in 1914 and were also above the average for England and Wales before the War. On the other hand, the average weights in 1919 were in some age groups rather less than those in 1914, but in others were higher.

3. NUTRITION.

The percentage of children with normal nutrition was higher than in any year preceding the War, and disproves any suggestion that the War rations have detrimentally affected the general physique of the children. Only about 4 per cent. of the children were under the normal as regards nutrition.

4. CLEANLINESS.

Here, again, there was a decided improvement noted, especially amongst the girls. At the statutory inspection 21 per cent. of the girls had dirty heads (*i.e.*, nits or nits and vermin), compared with 31 per cent. in 1914, but only 1.1 per cent. had live vermin, as compared with 1.5 in 1914.

The inspection of 8,095 children made by the Health Visitors showed that 19.3 per cent. of the girls had dirty heads, and 1.8 per cent. had vermin. The corresponding inspection in 1914 showed that 41 per cent. of the girls had dirty heads and 7 per cent. had vermin. It is manifest that the vigilant supervision of the Health Visitors has brought down the proportion of dirty heads to a certain residuum of children of neglectful parents, which will be hard to eliminate altogether.

5. TEETH.

The condition of the teeth is the black spot in the medical inspection records. Whilst year by year we are able to record some improvement in most of the conditions affecting the health of the children, we are not able to do so with regard to teeth. Of all the children examined at statutory inspection, namely, 1,067, only 58 (5 per cent.) had sound sets of teeth. Of the 519 "leavers" examined (*i.e.*, children over 12 years) only one child had a sound set of teeth. About 90 per cent. of the children had their teeth in a more or less dirty condition, and showing a lack of the care which should be exercised with regard to the teeth. Practically the only children in the schools where there was any evidence of proper dental care and attention were the children from the Scattered Homes of the Board of Guardians. The rôle which is played by dental disease is not confined to the mouth itself, it leads up to or aggravates many other maladies, and we are up against it in many departments of Public Health work other than that of Medical Inspection of School Children. We are up against it in the treatment of Tuberculosis. Hardly a patient goes into the Sanatorium but has an unsatisfactory dental apparatus, and one which in many instances interferes seriously with the

patient's recovery. We are up against it at the Ante-Natal Clinic, at the Fever Hospital, and indeed in every branch of medical work. There is an urgent need for a public dental service. The vast bulk of the community get little or no dental treatment, and when they do it is generally confined to extraction, and hardly any effort is made to secure the preservation of the teeth. As a start I have again to recommend the appointment of a dentist, who would deal mainly with school children, but who might also render part service in connection with the treatment of Tuberculosis and of Expectant Mothers.

6. ENLARGED TONSILS AND ADENOIDS.

About 3.2 per cent. of the entrants and 1.7 per cent. of the leavers had markedly enlarged tonsils, while 14.2 per cent. of the entrants and 4.4 per cent. of the leavers had adenoids. Markedly enlarged tonsils and adenoids are both conditions that interfere with normal breathing and lead to recurrences of colds, bronchitis, deafness, running ears, etc., and generally require surgical treatment. At the same time, as the above figures indicate, they tend to become less marked as the child grows older, and the milder cases may often be much improved by appropriate physical exercises. The question of physical exercises is one which is receiving an increasing amount of attention, and one in which medical advice is often advantageous.

7. VISION.

About 18 per cent. of the "leavers" had defective vision (poor vision in 12 per cent. and very bad vision in 6 per cent.). Modern town life is largely responsible for bad eyesight. The town child does not train the eye for distance, it is focussed generally for near vision, which means strain. Excessive reading, often in bad light, or with bad type, frequent attendance at picture shows, the general lack of tone from town life, all these and many other factors tend to damage the perfection of the natural eye.

The return to a more natural country life, better lighted homes and schools, and better general physique, would give the children better eyesight.

8. HEARING.

Defective hearing is present in about 2.5 per cent. of the children. Much of this arises from preventable causes.

9. TUBERCULOSIS.

Out of 1,067 children examined 27, or 2·5 per cent., were found to have either active or suspected Pulmonary Tuberculosis, but in only 6 cases (0·6 per cent.) was the disease definitely active. Altogether 47 new cases (25 boys and 22 girls) came under our observation during the year, in which there was either a suspicion of Pulmonary Tuberculosis or definite physical signs. The number of children of school age who had at some time or other been notified as suffering from Pulmonary Tuberculosis was 84, and of these 60 are attending Public Elementary Schools and 24 are not. 61 children of school age have at some time or other been notified as suffering from Non-Pulmonary Tuberculosis, and of these 46 are attending Public Elementary Schools, 4 are attending certified schools for physically defective children, and 11 are not attending school. Practically all the cases were referred to the Tuberculosis Dispensary for further investigation or treatment, and 4 cases were treated at Mount Vernon Sanatorium. However, what most of these children want is not dispensary treatment, but the benefits of an open-air school. Nothing is more wanted in connection with the Public Health Work of Wakefield than an open-air school, and at Thornes Park there is now an excellent site available for such a school.

TREATMENT CLINIC.

At the Treatment Clinic, which deals with minor ailments such as Ringworm, Scabies and other Skin Diseases, External Eye Diseases, Ear Diseases, etc., 546 children received treatment, and the total attendances during the year amounted to 10,839. Refraction testing and prescribing of glasses has been done in bad cases at the County Hall by arrangement with the County Council, but this work is now being done at our own Clinic, by Dr. Shand, the Assistant Medical Officer.

FACTORY AND WORKSHOP ACT, 1901.

"The Medical Officer of Health of every District Council shall, in his Annual Report to them, report specifically on the administration of this Act in Workshops and Workplaces, and he shall send a copy of his annual report, or so much of it as deals with this subject, to the Secretary of State."--Section 132.

ANNUAL REPORT

of the Medical Officer of Health for the year 1919, for the City of Wakefield, on the administration of the Factory and Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises 1	Number of		
	Inspections 2	Written Notices 3	Prosecu- tions 4
Factories (including Factory Laundries)	12	—	—
Workshops (including Workshop Laundries)	52	—	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	—	—	—
Total	64	—	—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

2.—DEFECTS FOUND.

Particulars. 1	Number of Defects.			Number of Prosecutions 5
	Found. 2	Remedied. 3	Referred to H.M. Inspector. 4	
Nuisances under the Public Health Acts†:—				
Want of Cleanliness	6	6		
Want of Ventilation				
Overcrowding				
Want of Drainage of floors				
Other Nuisances	1	1		
Sanitary { insufficient				
accommo- { unsuitable or defective ...				
dation { not separate for sexes ...				
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bake- houses (S. 101)				
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)				
Other offences (Excluding offences relating to outwork which are included in Part 3 of this Report.)				
Total	7	7		

†Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

3.—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107.										Outwork in Unwholesome Premises, Sect. 108			Outwork in Infected Premises, Sections 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists.	Prosecutions.		Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110)	
	Twice in the year.			Once in the year.												
	Lists	Con-tractors	Work-men.	Lists.	Con-tractors	Work-men.		Failing to keep or permit inspection of lists.	Failing to send lists.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Wearing Apparel—	6	—	8	1	—	4										
(1) Making, &c., ...																
(2) Cleaning and washing ...																
Household Linen ...																
Lace, lace curtains and nets ...																
Curtains & furniture hangings ...																
Furniture and upholstery ...																
Electro-plate. File making ...																
Brass and brass articles ...																
Fur pulling ...																
Cables and chains ...																
Anchor and grapnels ...																
Cart gear ...																
Locks, latches, and keys ...																
Umbrellas, &c. ...																
Artificial flowers ...																
Nets, other than wire nets ...																
Tents, Sacks ...																
Racquet and tennis balls ...																
Paper, etc., boxes, paper bags ...																
Brush making. Pea picking ...																
Feather sorting ...																
Carding, &c., of buttons, &c. ...																
Stuffed Toys. Basket making ...																
Chocolates and sweetmeats ...																
Total ...	6	—	8	1	—	4										

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Bakehouses (Factories)	4
Bakehouses (Workshops)	30
Dressmaking	28
Boot Repairing	26
Millinery	21
Tailoring	19
Joinery	12
Upholstering	6
Cycle Repairing	5
Saddlery	3
Hosiery	5
Coach Building	2
Various	42
Total number of workshops on Register ...	203

5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 6) { Notified by H.M. Inspector Reports (of action taken) sent to H.M. Inspector ..	
Underground Bakehouse (S. 101):—	
Certificates granted during the year.....	
In use at the end of the year	3

Section 22 of the Public Health Act, 1890, is in force in Wakefield, and, as far as possible, the standard of sanitary accommodation of the various Workshops on the Register conforms, as regards sufficiency and suitability, with the Sanitary Accommodation Order of 1902. This Order requires one closet for every 25 persons employed, and separate accommodation for the sexes.

HOUSING.

A. NEW HOUSES.

New houses erected during the last 10 years (1910-19):—

1910	...	...	115	1915	...	...	77
1911	...	...	173	1916	...	...	21
1912	...	...	125	1917	...	...	5
1913	...	...	105	1918	...	...	1
1914	...	...	156	1919	...	...	0

This table shows that during the 5 years preceding the War 674 houses were erected by private enterprise, or an average of 135 houses per annum. During the last 5 years only 104 houses were erected, and during 1919 none at all. About 80% of these houses may be considered houses for the working classes.

Although before the War private enterprise was building a fair number of houses, and probably providing for the natural growth of the population, the Corporation was of opinion that more new houses were required, in order that active steps might be taken with regard to insanitary dwellings that required demolition, and so provide for the people that were thereby dehouseed. Accordingly, in 1914, as a first step in this direction, a scheme was prepared under Part III. of the Housing of the Working Classes Acts, 1890, for the erection of 108 houses, 36 in Rufford Street, Alverthorpe Road, and 72 on a site off Elm Tree Street, Belle Vue.

The Local Government Board inquiry with regard to this scheme was held in March, 1914, and the sanction of the Board was subsequently obtained. The War then supervened, and the scheme was held up. Since then the Corporation has secured 744 additional acres, and is proceeding with a scheme for the erection of 2,000 new houses, and building on the Elm Tree Street site was commenced in June, 1919. 10 of the houses were nearly completed at the end of the year.

B. HOUSE INSPECTION AND INSANITARY DWELLINGS.

During the 16 years I have been in Wakefield the question of house inspection has received much attention, and much has been done to secure the repair and improvement of the very large number of old dwellings in the City. During all that time our efforts to secure radical and more permanent improvements have been hampered by the insufficient supply of new houses, which were being built at a rate barely sufficient to meet the natural growth of the Town, and quite insufficient to meet the

requirements that would arise if old dwellings were demolished on any considerable scale. The Corporation recognised this difficulty, and accordingly in 1914 it was decided to commence the erection of municipal dwellings, and as soon as sufficient of these were built to proceed to deal actively with the demolition of insanitary dwellings, and the clearance or reconstruction of insanitary areas. In 1913 I represented an area in Westgate as insanitary, an improvement scheme was prepared under Part I. of the Housing of the Working Classes Act, 1890, and in September, 1914, the Local Government Board made an order confirming the scheme and granting the loan. However, as the War had stopped all new building, the improvement scheme has remained in abeyance. The Westgate area was 0.65% of an acre in extent, composed of 22 dwelling-houses, with a population of 93 persons, and a number of more or less derelict buildings not occupied as dwellings. This scheme, although small in itself, was regarded by the Corporation as the first step in an active housing policy, and other areas would have subsequently been dealt with on similar lines. During the War, however, nothing could be done. Even systematic housing inspection had to be given up, owing (1) to reduction in the staff of Inspectors, who only had time to deal with the grosser nuisances and more urgent complaints and (2) to the inability to get improvements carried out owing to the shortage of labour and materials. During the latter part of 1919 it, however, became possible to do more inspection work, and since October an active survey of dwellings in the City has been carried out. This is more of the nature of a preliminary survey, in order to get a general idea of the housing conditions, and to enable us to formulate schemes for the improvement of the houses of the Working Classes. Up to the present 5,340 houses have been inspected, and there can be no question but that the Sanitary Condition of old property is now very much worse than it was five years ago. A large number of houses were just kept habitable by constant supervision and repair, and in consequence of neglect during the War they have now got beyond repair, and can only be dealt with by closure and demolition.

The inspections were commenced in districts with a large proportion of old property, and it is not surprising that a very large number were found unfit for habitation, and will have to be made fit by considerable structural improvements or demolished. As a matter of fact 2,014 houses have up to now been reported as unfit for habitation, comprising 1,175 unfit and not repairable, and 839 unfit but repairable. These figures are based on a rather hurried inquiry, and are now (1920) being checked by a more careful inquiry.

It has also been found that there has been a very considerable increase in the amount of overcrowding since the census in 1911. Out of the 5,340 houses inspected, 821, with a population of 5,197 persons (*i.e.* 6.3 persons per house) were overcrowded, or 15.4 per cent., as compared with 12.1 per cent. in 1911.

In consequence of the information obtained by this survey it has been possible to schedule the more insanitary areas for Reconstruction Schemes, and in addition to the Westgate Insanitary area 4 additional insanitary areas have now been scheduled, and, acting under the instructions of the Corporation, I am, along with the City Surveyor, now engaged in preparing schemes for the improvements of these areas. The following are the particulars of the 5 insanitary areas referred to:—

Insanitary Area.	Acres	No. of Houses (Approx.)	Population (Approx.)
Westgate	0.65	27	93
Warrengate and Pincheon Street...	6.28	192	766
Northgate	13.60	416	1834
Kirkgate	1.09	87	327
White Swan Yard ...	5.77	115	459
Total	27.39	837	3258

The foregoing facts demonstrate three propositions.

- (1) That there is a large amount of Insanitary Property in Wakefield.
- (2) That it is imperative to secure as early as possible a large increase in the number of new dwellings in order to provide for the people at present dwelling in houses unfit for habitation.
- (3) That the Wakefield Corporation fully recognises both propositions, and is most anxious to provide the new dwellings and deal actively with the insanitary houses and areas.

HOUSING AND TOWN PLANNING ACT, 1919.

In addition to the new powers and duties imposed on Local Authorities with regard to the building of houses for the working classes and with regard to Town Planning, the New Act confers certain powers and duties with regard to Sanitary Administration.

(1). Section 26 gives powers to make and enforce bye-laws in connection with houses let in lodgings, for the following purposes:—

- (a) For fixing number of occupants, and for separation of sexes.
- (b) For registration and inspection.
- (c) For enforcing drainage and promoting cleanliness and ventilation.
- (d) For requiring adequate and accessible Closet Accommodation, Water Supply, Washing Accommodation, and accommodation for the storage, preparation, and cooking of food, and, where necessary, for separate accommodation in each of these respects for each family
- (e) For keeping the common staircase in repair and adequately lighted.
- (f) For securing stability and the prevention of and safety from fire.
- (g) For the cleansing and re-decoration of the premises and the paving of courts and yards.
- (h) For the provision of hand-rails for staircases, where necessary.
- (i) For securing adequate lighting of every room.

If any work required under the bye-laws is not carried out by the owner after due notice, the Local Authority may itself execute the works and recover the costs and expenses.

(2). Section 28 empowers a Local Authority to serve on the owner of a house suitable for the occupation by persons of the working classes, and which he has failed to make and keep in all respects reasonably fit for occupation, a notice requiring him within a reasonable time to execute such works as may be necessary to make the house in all respects reasonably fit for

human habitation. If the notice is not complied with, the Local Authority may itself do the work required, and recover the costs and expenses.

If the house cannot be rendered fit without reconstruction the owner may within 21 days of receipt of the notice, declare his intention to close the house, and thereupon a closing order shall be deemed to have become operative. Any difference between the owner and the Local Authority shall be determined by the Ministry of Health.

(3). Section 29 requires that in the cases of houses intended or used for occupation by the working classes the name and address of the Medical Officer of Health and of the landlord or other person directly responsible for keeping the house in all respects reasonably fit for occupation shall be inscribed in every rent book, or if a rent book is not used shall be delivered in writing to the tenant at the commencement of the tenancy and before any rent is demanded or collected.

HOUSES LET IN LODGINGS.

At the end of 1919 there were 32 houses let in lodgings on the Register. The 32 houses provide accommodation for 395 adult lodgers, the actual number of occupants being 227 (187 adults and 40 children).

100 inspections were made during the year, and the defects were as follows:—Need of Cleansing, 10; Defective W.C., 3; and other Breaches of Bye-laws, 3.

"Furnished Rooms" or "Houses Let in Lodgings," as they are more euphemistically described in the Public Health Act, do not as a rule get much sympathy from the public health authorities, but, like everything else, they have their good points as well as their bad. They supply a need on the part of a section of the community, and are generally to be preferred as an alternative to Common Lodging Houses. In Wakefield they are generally kept clean, and are hardly ever found overcrowded. On the other hand most of the furnished rooms are to be found in Insanitary Areas, and are woefully destitute of ordinary domestic conveniences, although the rents charged would justify much better provision being made for the tenants. Under the new Housing Act (1919) there is power to make new bye-laws for securing better conditions in these houses, but it is a question, seeing that a large number of the houses will prob-

ably be demolished in the reconstruction of the insanitary areas, whether it is worth while putting these bye-laws, which would involve structural alterations, into force at the present time.

COMMON LODGING HOUSES.

At the end of 1919 there were 21 common lodging houses on the Register (15 licensed and 6 registered). The Registered Accommodation is for 737 adults.

125 inspections were made. The defects found were need of cleansing (4), structural defects (5), and other breaches of bye-laws (3). Some of the lodging houses are structurally very unsatisfactory. These houses are nearly in the insanitary areas which have been scheduled, and will be dealt with in the course of reconstruction.

SLAUGHTER-HOUSES.

There are 31 slaughter-houses on the Register, including the Public Slaughter-house. Of the 30 private slaughter-houses 8 are registered and 22 are subject to annual licence. The slaughter-houses have been inspected during the year (1,342 visits), and generally have been found in a satisfactory condition. Four were reported as being in need of cleansing.

NUMBER OF ANIMALS SLAUGHTERED IN THE CITY DURING 1919.

Where Slaughtered.	Beasts	Calves.	Pigs.	Sheep.	Horses	Total.
Public Slaughterhouse	3547	2646	3365	10416	94	20068
Private Slaughterhouses	459	167	769	—	—	1395
Total for Year	4006	2813	4134	10416	94	21463

There were 6,928 more animals slaughtered in the City in 1919 than in the previous year. There was an increase of 1,173 beasts, 2,629 calves, and 3,055 sheep, but a decrease of 23 pigs. Under the system of Government Control, not only has most of the slaughtering for the City butchers been done at the Corporation slaughter-house, but also most of the slaughtering for the surrounding districts. One notes with much misgiving the large number of calves slaughtered. Surely it is a very short-sighted policy to have allowed such a wholesale slaughtering of calves to have occurred.

CORPORATION SLAUGHTER-HOUSE.

I desire to point out, as I have done frequently before, the desirability of the reconstruction and extension of the Corporation Slaughter-house, or, better still, the erection of a new slaughter-house and the concentration of all slaughtering to one place. The present premises are unsatisfactory in many respects, and, indeed, are such that the bye-laws of the Corporation cannot be complied with. Probably the best site for the slaughter-house would be in the vicinity of the Cattle Market, so as to avoid the driving of the cattle along the streets from the market to the slaughter-house. A new slaughter-house should embrace accommodation for dealing with the bye-products of slaughtering (*e.g.* tripe boiling and gut scraping), and also for cold storage, and might also include a central depot for the fish of fish fryers. In this way many unsavoury spots in the City would be done away with. The provision of a satisfactory Public Slaughter-house would also enable the Corporation to abolish all the private slaughter-houses in the City, which would be of great advantage to the Public Health. This, however, is a matter not only of local concern, it should be made a national one, and there should be a uniform system operating all over the Country. I cannot put the case better than it is given in the last Annual Report of the Local Government Board by Dr. McFadden, the Chief Food Inspector to the Board.

“Centralization of the slaughter of doubtful and obviously diseased cattle in the Government authorised slaughter-houses has proved a great advantage from the Public Health point of view, and in the case of those established in districts where attention has been given to the subject of meat inspection a large amount of diseased and unsound meat has been discovered and destroyed. In other districts where little meat inspection is ordinarily carried out the scheme has encouraged improvement in this direction, and something more than the casual inspection arrangements of normal times have been secured. The value from the point of view of meat inspection of those arrangements in many districts in the past may be gauged by a comparison between the amount of diseased meat condemned in the Government Authorised Slaughter-houses and that condemned previous to their establishment. The contrast has been so striking in some districts as to compel the question ‘What became of this class of meat in normal times?’ The answer of course is that until the Ministry of Food took over the Control of the sale and slaughter of animals for food there was a large trade done in various parts of the Country by

“unscrupulous dealers, who carried on a highly lucrative business
 “in the purchase of diseased and emaciated animals for surrep-
 “titious conversion into meat. These animals were bought, on
 “farms and elsewhere, slaughtered in out-of-the-way places
 “where inspection was very infrequent, or never took place at
 “all, and the meat, after being carefully freed from all outward
 “traces of disease and boned out, was sent to large towns, either
 “for sale in the ordinary way or for use in sausage and pie
 “factories. No local system of meat inspection, however good,
 “will serve to protect consumers against diseased meat brought
 “in this way from districts in which inspection is absent or
 “inefficient.

“Some time before the outbreak of war evidence was
 “accumulating as to the practices of certain groups of dealers
 “and butchers of this class, and detailed investigations into
 “their activities were about to be undertaken when the outbreak
 “of War stopped our inquiries in this direction. For obvious
 “reasons reliable evidence of this class of trade is difficult to
 “obtain, and even more difficult subsequently to prove. Even
 “when an occasional conviction has been obtained in a police
 “court it has been no deterrent to dealers of this class.

“From the Public Health standpoint the most serious aspect
 “of the lack of systematic meat inspection in this Country is
 “the facility which is afforded for the unchecked disposal of cow
 “carcasses for human food. A very considerable proportion of
 “the cows slaughtered annually in this Country are seriously
 “affected with Tuberculosis, and under conditions which nor-
 “mally exist in England and Wales it is safe to say that only a
 “small proportion of these cows ever come under inspection at
 “the time of their slaughter. It is doubtful whether any large
 “proportion of the meat derived from them subsequently comes
 “under inspection in the town markets and shops or in rural
 “hawkers’ vans, but in any case it cannot be too strongly
 “emphasised that whatever inspection may be given to meat of
 “this or any other class after it has been dressed and cut into
 “portions for sale, it is generally quite incapable of detecting
 “whether or not the meat was derived from an animal in a
 “diseased condition.

“There is only one method of ensuring the freedom of meat
 “from disease, and that is by careful examination of the carcase
 “at the time of slaughter, when all viscera are available for
 “inspection. The only practicable means by which this can be
 “brought about is by requiring all animals intended for food

" purposes to be brought to a public abattoir, and by providing
 " skilled inspectors in sufficient numbers to inspect thoroughly
 " both before and after slaughter every animal brought there.
 " This would result in the closing of all private slaughter-houses
 " as such, and in order to be of practical advantage to public
 " health, the requirements would need to operate in Town and
 " Country alike. Their application to urban areas alone would
 " not be sufficient as this would merely accentuate past evils by
 " driving the trade in diseased animals exclusively into rural
 " areas where there is no inspection at all. It may take some
 " time to establish the system of slaughtering and inspection in
 " public abattoirs generally throughout the Country. If in the
 " meantime, however, urban authorities which had set up the
 " system within their areas, were placed in a position to require
 " that all meat brought into their districts from outside areas
 " should be marked as having been killed and inspected in a
 " recognised public abattoir this would provide a useful stimulus
 " to the erection of abattoirs in meat-producing rural areas.

" The position in regard to this matter is from the public
 " health point of view most unsatisfactory. The difficulties in
 " the way of dealing with it in the past have been very great,
 " but the opposition to public abattoirs which has hitherto been
 " encountered from butchers may possibly be modified in future
 " on account of the altered conditions which have resulted under
 " the Ministry of Food's restrictions as to slaughtering. These
 " have in many districts accustomed the butchers to centralised
 " slaughtering, and may help to overcome their prejudice against
 " the establishment of permanent central abattoirs. In any
 " case, for one reason and another, the number of private
 " slaughter-houses which will be in use after control of the meat
 " trade has been removed will be less than before control was
 " established. For these reasons the present seems to be a
 " favourable opportunity for the promotion of public abattoirs
 " on as large a scale as possible, and the compulsory closing of
 " private slaughter-houses.

" Such an arrangement should have much to commend it to
 " the best butchers, as compulsory inspection would almost cer-
 " tainly entail the marking of meat which had been passed by
 " the Inspector. Such marking might well be required to
 " operate in favour of the butcher as a guarantee against prose-
 " cution for selling or exposing for sale meat bearing such a
 " mark, which might happen, nevertheless, to be diseased.
 " Moreover, if this slaughtering in public abattoirs were made
 " compulsory it would be fair to all butchers alike, as the anomaly

“of one man slaughtering in the public abattoir under the eye of
 “an inspector and another in his private slaughter-house where
 “he was remote from inspection would be done away with.”

INSPECTION OF MEAT AND OTHER FOODS.

A very thorough inspection of the food-stuffs of the City was continued during the year, and the considerable increase of the slaughtering at the Corporation Slaughter-house very materially increased the inspection work there, much of it being the inspection of carcasses for the surrounding districts. During the year 1919 the total number of seizures was 485, with an approximate weight of 4,676 stones 10 lbs., comprising:—

459	Meat	...	...	Weighing	4,083	stones	1	lb.
10	Fish	...	...	"	139	"	7	lbs.
7	Fruit	...	...	"	385	"	1	lb.
5	Rabbits	...	...	"	27	"	5	lbs.
1	Crab	...	...	"	26	"	8	lbs.
1	Cheese	...	...	"	14	"	11	lbs.
1	Butter	...	...	"	—	"	7	lbs.
1	Milk.							

The seizures were effected at the following places:—

Public Slaughter-house	...	...	...	...	431
Private Slaughter-house	...	...	...	...	9
Borough Market	...	...	...	...	6
Foreign Meat Shops	...	...	...	...	6
Railway Station (Goods Department)	...	...	...	...	4
Other Premises	...	...	...	...	29
					<hr/> 485 <hr/>

TABLE 1.

Animal.	Tubercular Diseases.					Other Diseases.						
	Whole Carcases	Weight	Partial Seizures	Weight	Total.	Total Weight	Whole Carcases	Weight	Partial Seizures	Weight	Total.	Total Weight
		st. lb.		st. lb.		st. lb.		st. lb.		st. lb.		st. lb.
Bovines ...	57	2040 3	116	408 4	173	2448 7	15	461 2	193	379 3	208	840 5
Pigs ...	6	75 3	16	21 9	22	96 12	5	69 7	27	10 13	32	80 6
Sheep ...	...	...	...	...	...	...	22	68 10	24	24 6	46	93 2
Total ...	63	2115 6	132	430 13	195	2545 5	42	599 5	244	414 8	286	1013 13

TABLE 2.—TUBERCULAR DISEASE IN BOVINES.

	Whole Carcases		Weight.		Partial Seizures		Weight.		Total.		Total Weight.	
			st.	lb.			st.	lb.			st.	lb.
Cows	52	1826	11	106	886	2	158	2212	13	261	10
Other Bovines...	...	6	211	8	9	50	2	15	261	10		
Total	58	2038	5	115	436	4	173	2474	9		

Percentage of seizures due to Tubercular Disease	40.30
Percentage of bovines affected with Tubercular Diseases	4.31
Percentage of Pigs affected with Tubercular Disease	0.53
Percentage of all Animals slaughtered in the City affected with Disease	2.24
Percentage of all Animals slaughtered in Private Slaughter-houses affected with Disease ...	0.64
Percentage of all Animals slaughtered in the Public Slaughter-house affected with Diseases ...	2.14

It will be observed that the percentage of seizures in the Public Slaughter-house was more than three times that in the Private Slaughter-houses, thus bearing out the contention of Dr. McFadden that the inspection in a Public Slaughter-house is more thorough and adequate than can possibly be the case in the Private Slaughter-houses. At the same time probably a larger proportion of unsound animals were sent into the Public than into the Private Slaughter-houses. Comparing the above figures with those of 1913, we find that the percentage of diseased animals has risen from 1.39 in 1913 to 2.24 in 1919, and the percentage of bovines affected with Tubercular Disease from 1.86 in 1913 to 4.31 in 1919. On the other hand the percentage of Tuberculosis in Pigs has fallen from 1.67 in 1913 to 0.53 in 1919. The small amount of Tuberculosis found in Pigs was very noticeable, and is to be explained, I think, by the fact that a large proportion of the animals come from Ireland, where Tuberculosis, both human and animal, is much less prevalent than in England. In June a series of pigs were found tubercular, and on inquiry we found that they had come from the East Riding.

It is high time that the prevention of the spread of Tuberculosis amongst cattle and pigs was taken up in a thorough manner by the Board of Agriculture. Knowing as we do the cause of the disease and the manner of its spread, the disease could certainly be eradicated, and, both from the point of view of the industry and on public health grounds, the sooner it is done the better.

MILK SUPPLY.

There are registered in accordance with the Dairies, Cowsheds, and Milkshops Order (1885) at the end of 1919:—

Cowkeepers and Purveyors of Milk residing within the City	25
Purveyors of Milk residing within the City	17
Purveyors of Milk residing without the City	9

The Cowsheds have been regularly inspected both by the Veterinary Surgeon and the Sanitary Inspector. The Veterinary Surgeon (Mr. Pollard, M.R.C.V.S.) reports as follows on his inspections:—

1ST FEBRUARY, 1919.

“ Report of Cows, etc., inspected by me between January 1st to 31st inclusive. I have had the same difficulty as before in fitting in my visits to catch the cows when just milked owing to irregularity of milkers since the ‘once a day’ delivery was inaugurated, grumbling and threats of discontinuing the milk trade, or rather production, becomes greater, owing now more to restrictions and regulations than to the food supply. However, I find a slight increase in the number of milk cows to 250, an increase of 4 on the last Report, and more than we have had in any quarter since November, 1916. From what I can gather the owners do not appear to me to be ambitious enough with regard to individual or average quantities of milk given by their cows, and I have tried to show them that a very slight increase would make considerable difference in the aggregate. Other cattle are about the average, viz., 43, and mistals occupied are 45, as before. I have examined microscopically 5 samples of milk, rather more than usual, with negative results. The cows as a whole are in good condition, some dairies exceptionally so. I find at one Cowshed a pool of stagnant water mixed with manure, etc., immediately outside the mistal door, due to blocked or defective drain. This should not be near a milk supply. In one or two cases I complained to owners about dirty condition of their cows, which was explained by the difficulty of obtaining straw, even their own, due to inability to get the threshing machine.

1ST JUNE, 1919.

" Report on Cows, etc., inspected by me between April 3rd
" and May 1st, 1919.

" I am pleased to say the condition of the cows themselves
" leave nothing to be desired, but I have not in one or two
" cases got the owners to exercise the faculty of cleanliness
" in the animals that I desire. There has been some difficulty,
" probably considerable, in obtaining the threshing machine
" to thresh out their own straw, and no doubt it is just as difficult
" to procure bought straw. The number of milk cows have
" again decreased after the slight increase at my last inspection.
" They now number 239, against 250 last quarter, and 242 a
" year ago. Cow mistals occupied by milk cows number 44,
" 'other cattle' are 30, being below the average. I have taken
" and examined 4 samples of milk, with negative results, and
" found 8 other 'deficient' bags, such as blind paps or useless
" quarters, and 1 case of gargled bag—the fluid being thrown
" away.

3RD NOVEMBER, 1919.

" Report on Cows and Sheds by me between October 1st
" and 31st inclusive.

" I have great pleasure in stating that the cows as a whole
" are in excellent condition, far better than might have been
" expected from the price of feeding-stuffs, and the general
" grumbling one hears. The sheds are also clean and well
" looked after. The number of imperfect bags is much below
" the average, partly, no doubt, due to the dry summer and
" autumn—partly to discrimination in buying animals of such
" value. I found 4 cows each with one 'blind pap,' and only 4
" other defective bags. Two of these with 'gargle' and fluid
" from the affected quarters milked on the floor. Two bags
" had some induration in one quarter, from which I took samples
" of milk and examined microscopically, with negative results.
" These are the least number of samples I have thought
" necessary to take since I commenced inspecting the Dairies
" in 1914.

" It is also satisfactory to note there is little change in the
" number of cows milked. The total being 230, against 239 last
" April, and if we include 11 cows kept by a dairyman outside
" the City we should have no diminution. The sheds occupied

"by milk cows are 42, and there are on various premises 51 'other cattle.' This is a fictitious increase, as one man, who is also a dealer, had 30 of these which would be in the market on the following day—allowing for this the 'other cattle' show a falling off—which one must expect—Winter keep being so scarce and dear."

DIRT IN MILK.

Nine samples of Milk were examined for dirt, and were found to contain respectively 0.5, 0.75, 1.0, 1.25, 2.0, 2.3, 2.5, 2.5, and 5.0 parts of dirt per 100,000. The last sample was the only one exceeding the provisional standard of 4 parts per 100,000, and as the Milk came from a farm outside the City the County Council was written to.

ANALYSIS OF FOOD AND DRUGS.

A.—SAMPLES TAKEN.

Nature of Article.	No. of Samples Taken for Analysis.		No. Found Adulterated		Percentage Adulterated.	
	In-formal	Formal	In-formal	Formal	In-formal	Formal
Milk	2	69	...	14	...	20.3
Milk (Dirt) ... ..	...	9	...	1	...	11.1
Baking Powder... ..	14	..	...	...	...	...
Yorkshire Pudding Powder	1	...	...	...	...	...
Egg Substitute Powder	1	...	...	...	...	...
Cream	3	...	...	...	...	...
Lard	5	...	...	...	...	...
Tea	9	1	...	...	...	...
Coffee	7	...	...	...	...	...
Vinegar... ..	4	...	...	...	...	...
Salad Oil	3	...	...	...	...	...
Olive Oil	5	...	...	...	...	...
White Precipitate Ointment	8	...	...	1	...	12.5
Epsom Salts	9	...	...	...	...	...
Total	71	79	...	16	...	20.2

B.—ADULTERATED SAMPLES.

Name of Article.	Nature and Amount of Adulteration.	Proceedings Taken.	Fine.	Costs.	Remarks.
No 49, Milk	...	...	...	...	Town Clerk wrote vendor for explanation
No 7, White Precipitate Ointment	Added Water 3.5 per cent... Deficiency of Mercury Salt...	...	...	...
No 20, Milk	Added Water 11.7 per cent.	Yes	£5	—	
No 22, "	Added Water 1.77 per cent.	...	...	...	Case referred to County Council
No 26, "	Added Water 5.88 per cent.	...	...	...	Further sample taken and found genuine
No 16, "	Added Water 3.0 per cent...	...	...	...
No 4, "	Deficiency in Milk Fat 43 per cent.	Yes	£10	£1/1/-	
No 6, "	Added Water 5.8 per cent...	...	...	...	Further samples taken in course of delivery.
No 10, "	Added Water 7.3 per cent...	...	...	...	Nos. 11—12,
No 11, "	Added Water 5.9 per cent...	...	...	...	Further samples to be taken
No 12, "	Added Water 3.5 per cent...	...	...	...
No 13, "	Added Water 2.6 per cent...	...	...	...
No 14, " (dirt)	Sediment (parts per 100,000) 5	...	...	...	Referred to County Council
No 19, "	Added Water 6.4 per cent...	...	...	...	Further samples to be taken
No 20, "	Added Water 6.24 per cent.	...	...	...
No 22, "	Added Water 3.0 per cent...	...	...	...

REPORT OF ADMINISTRATION IN CONNECTION WITH THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS (1912-1917) DURING THE YEAR 1919.

1.—MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

				No. of Samples examined for the presence of a Pre-servative.	No. in which a Preservative was reported to be found.
Milk	...	...	...	62	None
Cream	...	...	...	2	2

It will be noted that no preservative was found in any of the samples of milk examined.

The two samples of Cream were taken on different occasions from the same shop. On each occasion the Cream was supplied in a receptacle without any label attached, and the analyst found 0.2 and 0.29 per cent. boric acid in each sample.

The Town Clerk wrote to and also interviewed the Vendor, who explained that owing to the length of time the sale of Cream has been prohibited he had inadvertently overlooked the labelling, but promised to attend to this in future.

Instructions were given for further samples to be taken, but as the sale of Cream was again prohibited no samples could be taken.

2.—CREAM SOLD AS PRESERVED CREAM.

(a) Only one sample of Cream sold as Preserved Cream was taken. The amount of boric acid found present (0.37%) was less than 0.4%, the amount stated on the label, and the maximum allowed by the Regulations.

(b) The amount of Milk Fat present was 56.7%, which is over the 35% of the Regulations.

(c) The labelling was in accordance with the Regulations.

3.—THICKENING SUBSTANCES.

No thickening substances were found in any of the samples.

NOTE.—Only 3 samples of Cream were taken because the sale of Cream was prohibited during the greater part of the year. When the prohibition was raised for about 4 months in the middle of the year very few of the vendors who had previously sold Cream resumed the sale.

WATER SUPPLY.

The Corporation water supply, which, with two exceptions, supplies every house in the City, continued to maintain its excellent character for purity, as shown in the analytical reports of Dr. Chaplin, and the natural plumbo-solvent quality of the water was efficiently neutralised by the chemical treatment.

OFFENSIVE TRADES.

The following offensive trades are on the register:—

Tripe Boiling ...	...	...	...	...	7
Gut Scraping ...	...	...	...	...	1
Tallow Melting ...	...	...	...	...	1
Rag and Bone Dealing ...	...	...	...	...	6
Fried Fish Shops ...	...	...	...	...	47

210 inspections have been made of these places during the year. Seven were reported in need of cleansing, 2 structurally defective, and 1 defective drainage.

SANITARY CONVENIENCES.

During 1919 2 Privies were converted into Water Closets.

NUMBER OF PRIVIES AND TUB CLOSETS AT END OF 1919.

WARD.	No. of Privy Buildings.	No. of Privy Closets.	No. of Privy Middens.	No. of Dwelling Houses Served.	If Used for Workshops &c.	No. of Tub Closets.	No. of Dwelling Houses Served.	If Used for Workshops &c.	Total No. of Privies and Tub Closets.
Alverthorpe	13	18	13	17	1	-	-	-	18
North Westgate	2	4	2	2	-	4	8	-	8
South Westgate	-	-	-	-	-	5	-	2	5
St. John's	10	13	10	17	-	-	-	-	13
Eastmoor	3	3	3	3	-	24	34	-	27
Northgate	2	3	2	3	-	4	4	-	7
Kirkgate	7	15	7	11	2	25	30	2	40
Primrose Hill	3	4	3	1	2	11	7	2	15
Calder	14	35	12	19	16	13	18	-	48
Belle Vue	170	311	165	328	1	-	-	-	311
San lal	117	192	114	200	2	6	5	1	198
Whole City	341	598	331	601	24	92	106	7	690

The above table shews that there still remain 598 Privy Closets (of which 503 are in Belle Vue and Sandal Wards and 95 in the rest of the City) and 92 Tub Closets in the City. There are 707 houses (6 per cent. of the total houses) and 31 work places served by Privy or Tub Closets. Up to the beginning of the War the conversion of such closets into Water Closets was being steadily carried out, but this work has practically been suspended since. On grounds both of health and economy, it is desirable that the work of conversion should be resumed as soon as possible. In converting closets in the past it has been customary to accept one Water Closet to two houses as being sufficient, but I think the time has come when this standard should be revised and one closet to each dwelling-house should be insisted on. This is required in connection with new houses, but the tenants of the older houses are equally in need of the same sanitary facilities.

SEWERAGE AND SEWAGE DISPOSAL.

Wakefield is well drained and sewered. There are only 63 houses in the City not connected with the public sewers, and these are mostly isolated houses some distance from a public sewer or in low lying situations where it is not possible to drain into the sewers. There are 17 cesspools, and of these 10 are watertight and emptied by the Corporation and 7 are soakaway. In no instance is there any danger of polluting a domestic water supply.

The sewage is disposed of at the Calder Vale Sewage Works, where it is treated by percolating filters, covering an area of $3\frac{1}{4}$ acres, and designed to deal with a maximum volume of 10 million gallons per day. The dry weather flow has been estimated at 2 million gallons per day. There are also small subsidiary sewage works at Agbrigg.

REFUSE COLLECTION AND DISPOSAL.

Domestic Refuse is stored in Ashbins and Ashpits. All new houses are provided with galvanised iron ashbins, and an effort is being made to substitute ashbins for ashpits as much as possible, but since the War it has been very difficult to get suitable receptacles. In the case of houses provided with privies, the domestic refuse is mixed with the excreta in the ashpit. All the refuse, averaging 42 loads (each load 19 cwts.)

per day, is removed by the Corporation direct, and is disposed of at the Destructor at Calder Vale and also at a number of tips. Domestic refuse is removed once a week, and daily from the centre of the City.

The contents of privy middens are removed on to agricultural land, and previous to the War the privies were emptied once a month, but owing to shortage of labour the intervals have had to be made longer. It is desirable, however, that as long as we have these domestic abominations they should be emptied not less frequently than once a month. The contents of tub closets are removed once a week to the Corporation depot at Calder Vale, where they are mixed with ashes and then carted on to agricultural land.

With regard to tips, we had only one in use at the beginning of the War, namely, the one at Flanshaw Lane, which was commenced in 1913. Since then 6 other tips have been used, on account of the Destructor becoming inefficient and the impossibility of having it remodelled during the War. Although it was impossible under the circumstances to avoid the use of tips, on public health grounds tips stand condemned, and their use should be discontinued as soon as more sanitary methods of disposal can be secured. At the same time I am not sure that the destructor principle is the last word in refuse disposal, and I think the Corporation might very well consider alternative methods before proceeding to remodel the works at Calder Vale.

PUBLIC LAVATORIES.

I have previously urged the necessity for a public lavatory for women in the centre of the City, but it has not yet been found possible to get a suitable site. Some of the old iron urinals in the City are often very offensive places, and the substitution of more sanitary lavatories is called for.

NUISANCES.

Total Number of Inspections made in 1919	...	...	9273
Number of Informal Notices served	...	...	247
" " " " complied with	...	...	245
" " Statutory Notices served	...	...	36
" " " " complied with	...	...	29
" " " " outstanding at end of 1919	...	...	7
" " " " served in 1918 and complied with in 1919	...	...	None
Number of Nuisances reported during 1919	...	...	307
" " " abated during 1919	...	...	298
" " " in hand at end of 1918	...	...	None
" " " " " " " " 1919	...	...	9
" " Summonses served during 1919	...	...	None

The nuisance from the Chald Lane Chemical Works continued off and on during the year, and on occasions was very bad. The firm has introduced contrivances for abating the nuisance, but so far these have not been completely successful. Works of this character should be scheduled as offensive trades, and should not be started without the consent of the Corporation. Now that the War is over, the smoke nuisance should receive special attention. In my opinion, however, it is one which should be dealt with by a State Department and not by local authorities. From an industrial point of view it would be much fairer to have one uniform system of inspection and standard for the whole country than varying systems in different localities.

TABLE 1.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1919 AND PREVIOUS YEARS.

Year.	Popu- lation estim- ated to Middle of each year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.					
		Uncorrected Number.	Nett.				of Non-Resi- dents regis- tered in the District.	of Residents not registered in the District	Under 1 Year of age.		At all Ages.			
			Num- ber.	Rate.					Num- ber.	Rate.	Number.	Rate p. 1000 net Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13		
1914	53,316	1191	1177	23.2	1014	19.0	289	25	123	104	751	14.8		
1915	48,407	1032	1031	21.3	1245	25.7	462	30	121	117	813	16.5		
1916	47,293	999	999	19.3	1146	24.4	487	17	91	91	676	14.3		
1917	47,830	869	871	16.3	1395	27.0	709	13	104	119	6.7	14.6		
1918	45,251	894	890	17.6	1379	30.4	533	20	77	88	846	19.1		
1919	49,203	891	883	17.2	1155	23.3	354	30	103	122	801	15.1		

TABLE II.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1919.

	Number of Cases Notified							Total Cases Notified in each Ward.										Number of Cases Removed to Hospital from each Ward.													
	At ages—years.							Alverthorpe.	North Westgate.	South Westgate.	St. John's.	Eastmoor.	Northgate.	Kirkgate.	Primrose Hill.	Calder.	Belle Vue.	Sandal.	Alverthorpe.	North Westgate.	South Westgate.	St. John's.	Eastmoor.	Northgate.	Kirkgate.	Primrose Hill.	Calder.	Belle Vue.	Sandal.	Total Cases removed to Hospital.	
	At all ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.																								
Smallpox.....																															
Cholera,																															
Plague.....																															
Diphtheria including Membranous Croup.....	45	1	10	21	9	4		2	3	1	5	5	2	4	7	9	3	4	1	3	1	4	4	2	4	4	9	8	2	37	
Erysipelas.....	12				1	3	4	1		1		5		1	2	2															
Scarlet Fever.....	145	1	23	103	17	1		10	3	2	15	2	12	10	20	22	21	22	9	3	2	13	9	12	10	18	14	16	19	125	
Typhus Fever.....																															
Enteric Fever.....	4				1	3			1			2					1														
Relapsing Fever.....																															
Continued Fever.....																															
Puerperal Fever.....	3					3			1	1								1													
Cerebro-spinal Meningitis.....	1			1							1																				
Poliomyelitis.....																															
Ophthalmia Neonatorum.....	18	18								2		2	4	1	4	2	3														
Influenzal Pneumonia..	18	1	1	1	5	4	5	1		1	2	10	1	1	2			1													
Primara Pneumonia ...	46		1	8	7	12	12	6	5	2	4	1	22		9	1	2														
Dysentery	19				2	5	8	4				19																			
Malaria.....	13				4	9		1	2	2			2	2	1	1	2														
Pulmonary Tuberculosis	125		1	21	23	52	27	1	13	6	9	14	25	11	11	9	14	4	9												
Non-Pulmonary Tuberculosis...	21	1	3	8	3	4	1	1	4	2	1	1	2	1	1	2	4	2													
Measles	207	7	89	108	3			7	3	3	10	17	14	8	10	5	52	79												1	
Acute Polio Encephalitis...																															
Acute Encephalitis Lethargica...																															
Trench Fever.....																															
Totals	677	29	128	271	75	100	57	17	43	23	25	51	117	47	39	66	60	90	116	10	6	3	17	13	14	15	22	23	19	21	163

THE HISTORY OF THE CITY OF BOSTON

By

JOSEPH NEALE

Author of

"The History of the City of Boston"

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TABLE III.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1919.

Causes of Death.		Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of Residents or Non-Residents in Institutions in the District.
		All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1		2	3	4	5	6	7	8	9	10	11
All causes (Certified ... Uncertified ...)		831	108	21	41	33	59	124	199	246	503
Enteric Fever ...		1						1			2
Small-pox ...											
Measles ...											
Scarlet Fever ...		1	1								1
Whooping-cough ...		7	1	2	4						
Diphtheria and Croup ...		4	1		1	2					2
Influenza ...		107	5	7	6	5	14	26	30	14	7
Erysipelas ...											
Phthisis (Pulmonary Tuberculosis) ...		52				3	11	22	14	2	35
Tuberculous Meningitis ...		6	1			5					1
Other Tuberculous Diseases ...		12		1	3		3	1	2	2	27
Cancer, Malignant Disease ...		56						4	29	23	15
Rheumatic Fever ...		2			1			1			
Meningitis ...		9	2		2	2	2		1		2
Organic Heart Disease ...		74				1	8	11	29	25	28
Bronchitis ...		73	10	3	6	1		4	21	28	19
Pneumonia (all forms) ...		86	14	5	10	5	9	18	12	13	63
Other Diseases of Respiratory Organs ...		12						1	3	8	8
Diarrhœa and Enteritis ...		15	6	2	4		1		1	1	
Appendicitis and Typhilitis ...											1
Cirrhosis of Liver ...		1						1			3
Alcoholism ...											
Nephritis and Bright's Disease ...		21			1		1	5	7	7	29
Puerperal Fever ...											2
Other Accidents and Diseases of Pregnancy and Parturition ...		3						3			3
Congenital Debility and Malformation, including Premature Birth ...		36	35				1				8
Violent Deaths excluding Suicide ...		28	1	1	1	5	5	8	3	4	31
Suicides ...		9						4	4	1	2
Old age ...		74							1	73	85
Other Defined Diseases ...		121	18		2	4	4	12	38	43	128
Diseases ill-defined or unknown ...		21	13					2	4	2	1
Totals		831	108	21	41	33	59	124	199	246	503
SUB-ENTRIES included in above figures.											
Broncho-Pneumonia ...		38	13	5	7	2	2	1		8	17
Syphilis ...		6	5				1				1
Cerebro Spinal Fever ...		1				1					

TABLE IIIA.

CAUSES OF DEATH IN THE CITY WARDS. DURING THE YEAR 1919.

Causes of Death.	Total	Alverthorpe	North Westgate	South Westgate	St. John's	Eastmoor	Northgate	Kirkgate	Primrose Hill Calder	Belle Vue Sandal
Enteric Fever	1									1
Small-pox										
Measles										
Scarlet Fever	1			1						
Whooping-cough	7	1		1			1		1	2
Diphtheria and Croup	4	1				1		1		1
Influenza	107		14	8	9	11	11	7	15	5
Erysipelas										20
Phthisis (Pulmonary Tuberculosis)	52	4	4	6	4	7	9	1	7	3
Tuberculous Meningitis	6	1	1		1	1			1	1
Other Tuberculous Diseases	12	1		1	1		3	3	1	1
Cancer, Malignant Disease	56	8	8	1	4	5	6	7	2	7
Rheumatic Fever	2									3
Meningitis	9	2		1			2	1		3
Organic Heart Disease	74	12	4	2	7	2	5	9	9	14
Bronchitis	73	5	7	7	8	3	12	15	6	4
Pneumonia (all forms)	86	5	3	8	8	6	13	17	6	4
Other Diseases of Respiratory Organs	12	1		2	1	1	1		2	1
Diarrhœa and Enteritis	15	1	2	1	2	1	2	2	2	1
Appendicitis and Typhlitis										
Cirrhosis of Liver	1							1		
Alcoholism										
Nephritis and Bright's Disease	21	1	1	3	1	3	3	1	2	2
Paerperal Fever										
Other Accidents and Diseases of Preg- nancy and Parturition	3	2								
Congenital Debility and Malformation, including Premature Birth... ..	36	4	3			1	3	7	7	1
Violent Deaths, excluding Suicides	28	2	3	3	2	1	2	4	4	3
Suicides	9				3		1	1	2	2
Old Age	74	5	6	9	6	8	7	7	12	12
Other Defined Diseases	121	7	12	9	16	7	15	12	12	7
Diseases Ill-defined or Unknown	21	1	1	2	1	6	2	2	5	1
Total	831	64	69	65	74	64	98	97	97	73
SUB-ENTRIES included in above figures										
Broncho-Pneumonia	38	3	2	2	3	1	4	8	3	3
Syphilis	6			2	1	1	1			1
Cerebro Spinal Fever	1				1					

TABLE IV.

INFANTILE MORTALITY DURING THE YEAR 1919.

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year.
All Causes	{ Certified Uncertified	35	6	6	2	49	19	14	15	11	108
Small-pox	...										
Chicken-pox	...										
Measles	...										
Scarlet Fever	...							1			1
Whooping Cough	...								1		1
Diphtheria and Croup	...									1	1
Erysipelas	...										
Tuberculous Meningitis	...						1				1
Abdominal Tuberculosis	...										
Other Tuberculous Diseases	...										
Meningitis (<i>not Tuberculous</i>)	...							1	1		2
Convulsions	...		1			1	1			1	3
Laryngitis	...							1			1
Bronchitis	...				1	1	1	3	4	1	10
Pneumonia (all forms)	...						4	2	1	4	11
Diarrhoea	...	1				1			1	1	3
Enteritis	...	1				1	1		1		3
Gastritis	...		1			1	1	2	1	1	6
Syphilis	...		1	1		2	2	1			5
Rickets	...										
Suffocation, overlying	...										
Injury at Birth	...	1				1					1
Atelectasis	...	3				3					3
Congenital Malformations	...	4	1			5	1				6
Premature Birth	...	22		3	1	26	1				27
Atrophy, Debility, & Marasmus	...	1	2	2		5	4	1	3	1	14
Other Causes	...	2				2	2	2	2	1	9
Totals		35	6	6	2	49	19	14	15	11	108

TABLE V.
CITY OF WAKEFIELD—VITAL STATISTICS, 1909-1919.

YEAR.	Estimated Population.	Marriage Rate.	Birth Rate.	Death Rate.	Infantile Death Rate.	Tuberculosis Death Rate.	Phtisis Death Rate.	Other Tuberculosis Death Rate.	Zymotic Death Rate.	Scarlet Fever Death Rate.	Diphtheria Death Rate.	Enteric Fever Death Rate.	Diarrhoea Death Rate.	Measles Death Rate.	Whooping Cough Death Rate.	Cancer Death Rate.	Heart Disease Death Rate.	Respiratory Diseases other than Phtisis Death Rate.	Pneumonia Death Rate.	Bronchitis Death Rate.
1909	43,182	17.1	22.4	14.3	105	1.80	1.22	0.58	0.39	0.02	0.11	0.02	0.07	0.02	0.14	0.85	1.64	2.70	1.06	1.39
1910	51,258	15.0	24.5	15.0	108	1.57	1.11	0.46	1.15	0.10	0.12	0.04	0.23	0.29	0.37	1.03	1.88	2.60	1.05	1.19
1911	51,598	14.7	24.3	16.4	143	1.88	1.28	0.66	1.84	0.02	0.08	0.06	1.26	0.24	0.16	1.41	1.98	2.39	1.10	1.12
1912	51,942	16.0	23.3	14.7	89	1.66	1.17	0.48	1.09	0.00	0.14	0.00	0.12	0.56	0.26	0.69	1.77	2.68	1.30	1.25
1913	52,291	17.6	24.4	14.5	109	1.33	0.80	0.52	0.82	0.04	0.12	0.06	0.40	0.06	0.14	0.96	1.57	3.26	1.67	1.43
1914	53,316	19.0	23.9	14.8	104	1.36	1.03	0.33	1.6	0.10	0.32	0.14	0.65	0.29	0.07	1.08	1.88	2.5	1.3	0.87
1915	48,407	18.0	21.3	16.5	117	1.61	1.28	0.33	1.03	0.00	0.08	0.12	0.35	0.18	0.27	1.55	1.71	4.05	1.87	1.87
1916	47,293	14.0	19.3	14.3	91	1.58	1.41	0.17	0.53	0.04	0.17	0.08	0.16	0.16	0.02	1.25	2.24	2.94	1.27	1.48
1917	47,830	13.8	16.3	14.6	119	1.57	1.28	0.29	1.15	0.00	0.17	0.06	0.42	0.14	2.39	1.27	1.86	2.92	1.18	1.58
1918	45,251	15.3	17.6	19.1	88	2.16	1.68	0.48	1.78	0.04	0.09	0.04	0.28	1.3	0.13	1.5	1.7	3.99	2.18	1.5
Average 1909-1918	49,326	15.5	21.7	15.4	107	1.71	1.22	0.43	1.13	0.03	0.14	0.06	0.39	0.32	0.19	1.15	1.82	3.00	1.39	1.36
1919	49,208	23.0	17.2	16.8	122	1.36	1.01	0.35	0.54	0.02	0.08	0.02	0.3	0.0	0.14	1.14	1.5	3.47	1.78	1.5

TABLE VI.—BIRTH RATE, DEATH RATE, AND ANALYSIS OF MORTALITY DURING THE YEAR 1919,

(Provisional Figures. Populations estimated to the middle of 1919 have been used for the purpose of this Table).

	Birth-Rate per 1,000 Total Population.	Annual Death-Rate per 1,000 Civilian Population.								Rate per 1,000 Births.		Percentage of Total Deaths			
		All Causes.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Violence.	Diarrhoea and Enteritis (under 2 years).	Total Deaths under 1 year.	Deaths in Public Institutions.	Certified Causes.	Inquest Cases.	Uncertified Cause of Deaths.
England and Wales ...	18.5	13.8	0.01	0.00	0.10	0.03	0.07	0.18	0.47	9.59	89	23.9	92.5	6.2	1.3
96 Great Towns, including London (Census Population exceeding 50,000) ...	19.0	13.8	0.01	0.00	0.13	0.04	0.07	0.14	0.45	12.24	93	29.2	92.3	6.0	0.8
148 Smaller Towns—(Census Populations 20,000—50,000) ...	18.3	12.6	0.01	0.00	0.16	0.03	0.08	0.12	0.39	8.67	90	16.6	93.6	4.9	1.5
London... ..	18.3	13.4	0.01	0.00	0.08	0.03	0.05	0.18	0.47	16.22	85	44.7	91.2	8.6	0.2
Wakefield ...	17.2	16.8	0.02	0.00	0.00	0.02	0.14	0.08	0.56	9.0	122	20.0	91.9	8.1	0.0

TABLE VII.
TABLE SHEWING BIRTHS AND VACCINATION RETURNS IN THE CENTRAL VACCINATION
DISTRICT OF WAKEFIELD UNION.

Year.	Births Registered.	Successfully Vaccinated.	Insusceptible to Vaccination.	Died Unvaccinated.	Number exempted by conscientious objection Certificate.	Postponed by Medical Certificate.	Removed to other Districts.	Removed to places unknown, and cases that have not been found.	Percentage Successfully Vaccinated*.
1918	394	165	0	24	128	6	4	29	44.5
1917	407	186	1	40	124	15	7	13	50.6
1916	461	266	1	31	113	24	12	14	60.4
1915	500	291	0	37	123	16	3	24	62.8
1914	582	318	0	64	147	12	1	32	61.4
1913	588	334	0	45	132	20	14	26	61.5
1912	576	368	0	40	90	20	13	30	68.6
1911	593	381	0	52	100	13	10	16	64.2
1910	652	477	0	67	66	10	6	5	81.5
1909	620	481	0	49	53	14	13	6	84.2
1908	683	507	1	68	44	13	14	2	82.4
1907	669	541	0	67	29	11	10	5	89.9
1906	657	538	3	64	14	23	6	9	90.7
1905	762	649	0	69	10	13	9	10	93.6
1904	597	479	2	70	9	17	7	12	90.8
1903	604	489	2	60	7	15	10	12	89.8
1902	637	551	3	44	3	16	6	9	92.9
1901	669	488	6	86	14	11	5	10	83.7
1900	613	481	3	77	4	22	9	6	89.6

* The percentage is calculated on the number of Births registered, with the number who died unvaccinated deducted.
 No RE.—The Central Vaccination District only covers part of the City of Wakefield (1911 Census Population, 26,178).
 I am indebted to H. D. Gowers, Esq., Superintendent Registrar, for the data in the above Table.

TABLE VIII. METEOROLOGICAL TABLE FOR 1919.

MONTH. 1919.	Barometer corrected and reduced to 32 deg. Fah. at mean sea level.				TEMPERATURE.							RAINFALL.				SUN-SHINE. Hours.
	Mean 9 a.m.	Maximum Reading.	Date.	Minimum Reading.	Date.	Low- est Mini- mum	Date	Sub- soil 1 foot	Sub- soil 2 feet	Sub- soil 4 feet	Sub- soil 20 feet	Total in Inch's	Great est quan- tity in 24 hours	Date on which '01 or more fell		
January ..	29.711	30.428 25th	29.346 3rd		10th	45.2	14th	38.0	39.1	42.1	Mean	1.72	1.18	3rd 20		
February ...	30.161	30.560 9th	28.966 26th		23rd	39.1	9th	35.2	36.5	39.3		1.71	0.82	17th 6		
March ...	29.814	30.568 16th	29.041 14th		9th	42.8	1st	37.4	38.2	39.5		2.13	1.12	12th 14		
April ...	29.892	30.746 21st	28.790 15th		19th & 24th	45.0	1st	42.7	41.9	37.5		1.19	0.55	14th 15		
May ...	30.022	30.350 27th	29.430 2nd		17th	52.0	8th	50.4	49.0	46.1		1.37	0.45	6th 9		
June ...	30.100	30.446 10th	29.658 29th		11th	56.0	30th	56.3	55.5	51.9		0.73	0.18	3rd 13		
July ...	30.164	30.249 29th	29.652 1st		19th	55.0	1st	64.5	55.9	53.2		2.92	1.50	19th 10		
August ...	30.264	30.262 12th	29.190 27th		17th	55.2	20th	57.7	54.9	55.3		2.55	0.73	28th 10		
September	29.871	30.468 16th	29.451 23rd		6th	50.5	20th	54.2	55.2	54.4		0.95	0.25	13th 10		
October ...	30.138	30.695 7th	29.018 28th		7th	47.8	16th	48.0	50.3	51.8		2.74	0.89	29th 10		
November	29.747	30.904 18th	29.881 4th		24th	40.2	14th	40.8	42.5	45.3		1.54	0.27	3rd 16		
December	29.716	30.192 18th	29.276 27th		21st	44.1	26th	39.4	40.2	42.5		3.68	0.37	24th 18		
For the Year	30.050	30.904 18th Oct.	28.790 15th Apl.		19th July	39.1	9th Feb.	47.0	46.7	46.5		23.23	1.50	19th July 151		

The above Table is compiled from data supplied by Mr. Garside, Head Gardener to the Corporation, who made the observations at the Clarence Public Park.

