

[Report 1915] / Medical Officer of Health, County Council of the Palatine of Chester / Cheshire County Council.

Contributors

Cheshire (England). County Council.

Publication/Creation

1915

Persistent URL

<https://wellcomecollection.org/works/b8ubpemm>

License and attribution

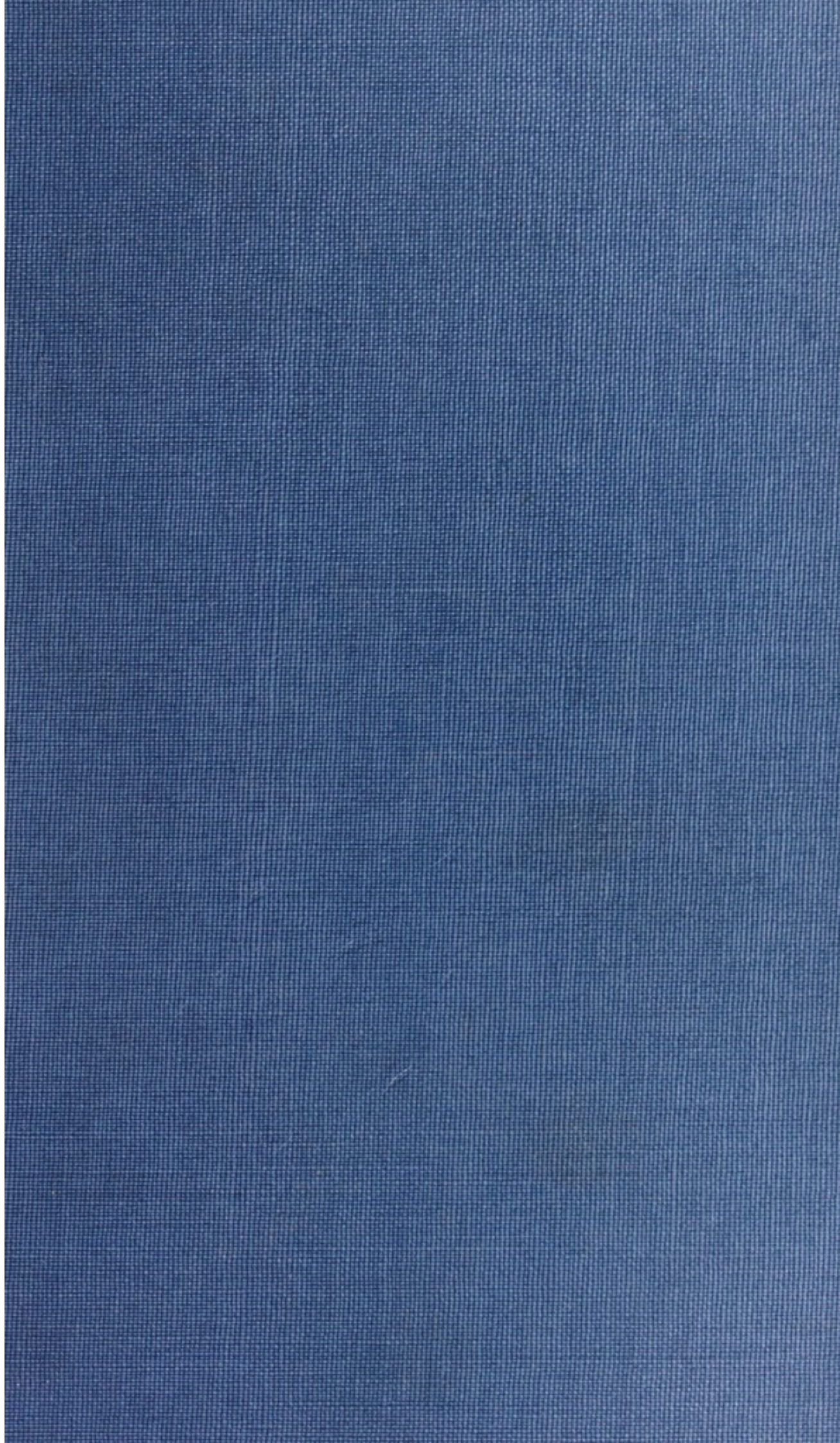
You have permission to make copies of this work under a Creative Commons, Attribution license.


This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

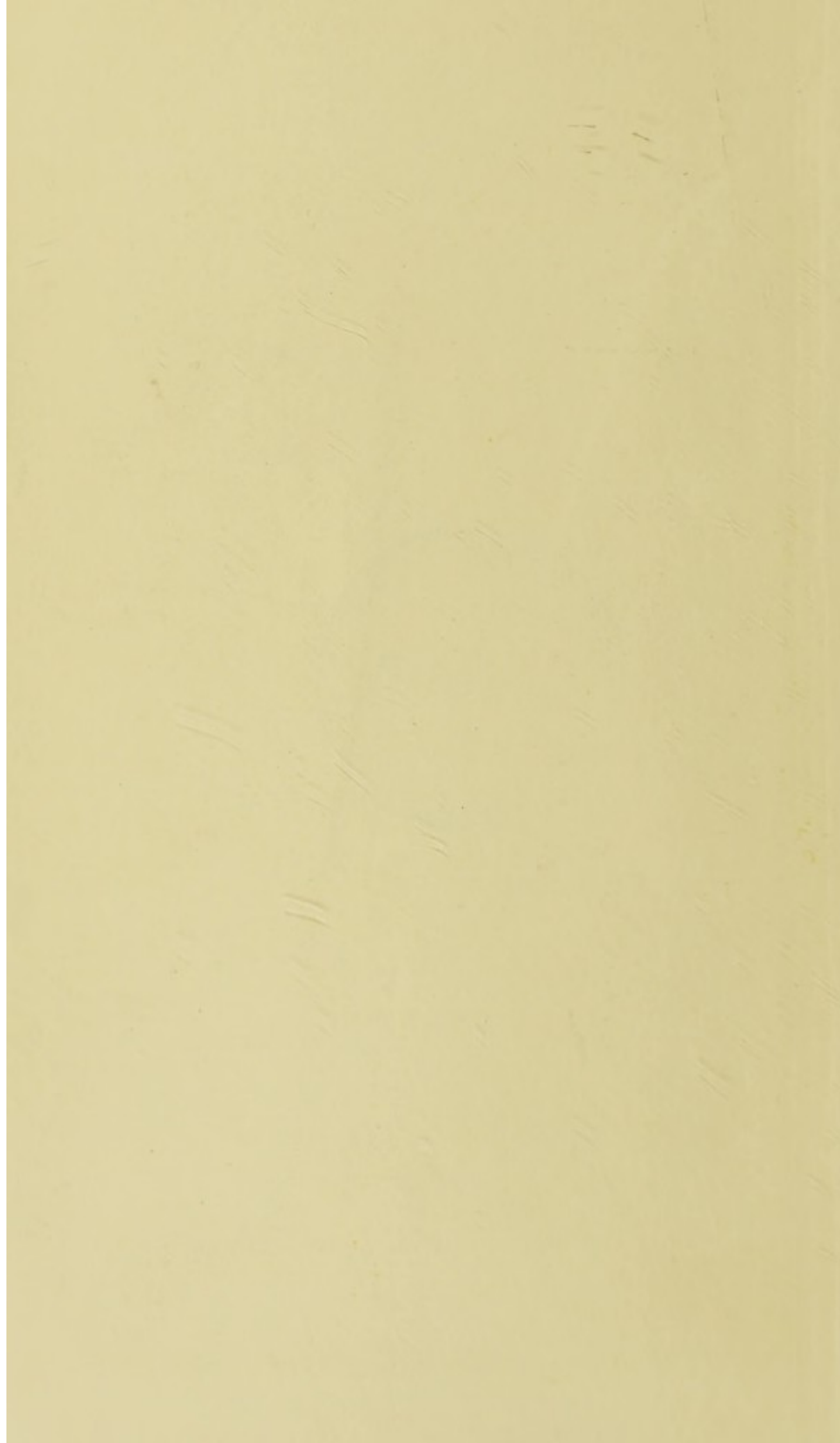




Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29104403>







County Palatine of Chester.

REPORT

OF THE

Medical Officer of Health,

FOR THE YEAR 1915,

BY

MEREDITH YOUNG, M.D., D.P.H.,

Of Lincoln's Inn, Barrister-at-Law.

PRESENTED TO THE

Public Health & Housing Committee

OF THE COUNTY COUNCIL,

July 14th, 1916.

CHESTER:

PHILLIPSON AND GOLDER, PRINTERS, EASTGATE ROW AND FRODSHAM STREET.

741





County Palatine of Chester.

REPORT

OF THE

Medical Officer of Health,

FOR THE YEAR 1915.

BY

MEREDITH YOUNG, M.D., D.P.H.,

Of Lincoln's Inn, Barrister-at-Law.

PRESENTED TO THE

Public Health & Housing Committee

OF THE COUNTY COUNCIL,

July 14th, 1916.

CHESTER:

PHILLIPSON AND GOLDER, PRINTERS, EASTGATE ROW AND FRODSHAM STREET.



County Palatine of Chester

REPORT

Medical Officer of Health

FOR THE YEAR 1915

MERESBOROUGH ROAD, N.W. 101

Printed by the County Council

Public Health & Sanitation Committee

REPORT
OF THE
Medical Officer of Health

For the Year ending December 31st, 1916.

*To the Public Health and Housing Committee of the
County Council of the County Palatine of Chester
and to the Members of the County Council.*

REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING DECEMBER 31, 1915

WILLIAM J. HARRIS, M.D.

TO THE PUBLIC HEALTH AND HONORARY COMMISSIONERS OF THE
COUNTY OF THE COUNTY BOARD OF HEALTH
AND TO THE MEMBERS OF THE COUNTY BOARD.

INTRODUCTION.

*To the Chairman and Members of the
Public Health and Housing Committee
of the Cheshire County Council.*

MR. CHAIRMAN AND GENTLEMEN,

In presenting to you my Annual Report for the year 1915, I beg to draw your attention to the continued decline in the birth-rate, the slight increase in the death-rate, the not unsatisfactory but still improvable infantile mortality, the slight increase in the death-rate from pulmonary tuberculosis and the heightened death-rate from cancer and malignant disease (the highest rate yet recorded under this heading) as compared with the rates recorded for the previous year.

So far as infectious disease prevalence is concerned the year 1915 bears favourable comparison with its predecessor. Scarlet fever, Diphtheria, Pulmonary Tuberculosis and other forms of Tuberculosis all shew an appreciable decrease.

Some few schemes of sewerage, sewage disposal, water supply and housing which were in progress have been continued, but otherwise works of sanitary improvement have been suspended unless danger to the public health has been threatened.

With some difficulty the tuberculosis scheme has been carried a few stages further and considerable benefit has been derived from it by the uninsured members of the community.

The campaign against maternal and infant mortality has recently developed considerably though there are many necessary items in the programme to be filled in still.

This Report has been materially curtailed for reasons which your Committee will readily understand. It has also been re-arranged so as to give the material portions of the Reports of the District Medical Officers of Health in the form of an Appendix.

The staff left at my disposal and in particular my Chief Clerk, Mr. V. O'Connor, has worked most loyally and cheerfully as have the new and temporary members so that, despite difficulties too numerous to mention the work of the Department has not suffered in any material manner. My sincere thanks are due to all those who have so willingly rendered assistance under persistently trying circumstances.

I am,
Mr. Chairman and Gentlemen,
Your obedient Servant,
MEREDITH YOUNG,
County Medical Officer of Health.

43, Foregate Street,
Chester,
June, 1916.

INDEX.

	PAGE
Area and Population	1
Births and Deaths	4
Cancer and Malignant Disease	14
Census, 1911	2
Deaths	4
Deaths from Zymotic Disease	13
Density of Population	4
Diphtheria and Membranous Croup	18
Erysipelas	18
Fever, Enteric	18
„ Scarlet	18
„ Puerperal	18
Hospitals, Isolation	22
Housing	25
Illegitimate Infants	13
Infantile Mortality	7
Infectious Disease, Notifications of	16
Isolation Hospitals	22
Maternity and Child Welfare	8
Midwives Act, 1902	23
„ Shortage of Supply	24
Mortality, Infantile	7
Mortality Tables	Appendix
Population	1
Puerperal Fever	18
Pulmonary Tuberculosis	14, 19
Rivers Pollution	26
Scarlet Fever	18
Sewerage and Sewage Disposal	26
Small-pox	18
Tubercular Diseases, Other	14, 21
Tuberculosis, Deaths from	14, 19
Venereal Diseases	15
Water Supply	25
Zymotic Deaths	13
REPORTS OF MEDICAL OFFICERS OF HEALTH, EXTRACTS FROM	
BOROUGH—	
Congleton	31
Crewe	33
Dukinfield	34
Hyde	38
Macclesfield	41
Stalybridge	42

URBAN DISTRICTS—

PAGE

Alderley Edge	...	...	...	...	44
Alsager	...	...	...	...	45
Altrincham	...	...	...	...	47
Ashton-upon-Mersey	...	...	...	...	50
Bebington Higher	...	...	...	...	51
Bebington Lower	...	...	...	...	52
Bollington	...	...	...	...	54
Bowdon	...	...	...	...	57
Bredbury and Romiley	...	...	...	...	58
Bromborough	...	...	...	...	61
Buglawton	...	...	...	...	63
Cheadle and Catley	...	...	...	...	64
Compstall	...	...	...	...	67
Ellesmere Port and Whitby	...	...	...	...	68
Hale	...	...	...	...	71
Handforth	...	...	...	...	74
Hazel Grove and Bramhall	...	...	...	...	75
Hollingworth	...	...	...	...	77
Hoole	...	...	...	...	78
Hoyle and West Kirby	...	...	...	...	81
Knutsford	...	...	...	...	83
Lymm	...	...	...	...	85
Marple	...	...	...	...	86
Middlewich	...	...	...	...	87
Mottram-in-Longdendale	...	...	...	...	88
Nantwich	...	...	...	...	89
Neston and Parkgate	...	...	...	...	90
Northwich	...	...	...	...	91
Runcorn	...	...	...	...	93
Sale	...	...	...	...	97
Sandbach	...	...	...	...	99
Tarporley	...	...	...	...	101
Wilmslow	...	...	...	...	103
Winsford	...	...	...	...	104
Yeardsley-cum-Whaley	...	...	...	...	108

RURAL DISTRICTS—

Bucklow	...	...	...	...	109
Chester	...	...	...	...	114
Congleton	...	...	...	...	117
Disley	...	...	...	...	118
Macclesfield	...	...	...	...	119
Malpas	...	...	...	...	122
Nantwich	...	...	...	...	124
Northwich	...	...	...	...	128
Runcorn	...	...	...	...	133
Tarvin	...	...	...	...	135
Tintwistle	...	...	...	...	138
Wirral	...	...	...	...	140

REPORT OF THE Medical Officer of Health

For the Year ended December 31st, 1915.

Section I.—Area and Population.

Area.

In the Census Report of 1911 this is given as 640,823 acres.

This area is distributed as follows:—

6 Municipal Boroughs ...	...	15,588 acres.
35 other Urban Districts ...	...	80,832 „
12 Rural Districts...	...	544,503 „
Total ...		640,823 „

Population.

At the Census of 1901 this was 593,865. At the Census of 1911 the population of the Administrative County was 597,771 (excluding Wallasey).

At Midsummer, 1915, the population was estimated to be 604,528, distributed as follows:—

6 Municipal Boroughs ...	170,344 persons.
35 other Urban Districts ...	252,230 „
12 Rural Districts ...	181,954 „
Total ...	604,528 „

Census, 1911.

The Report of the 1911 Census, shows the following figures for the Administrative County (excluding Wallasey):—

Area in Statute Acres (Land and Inland Water)	640,823
Families or Separate Occupiers ..	133,626
Persons ...	597,771
Males ...	286,380
Females ...	311,391

The figures for the various Districts are as under:—

Municipal Boroughs. (6)	Population.		Popula- tion Estimated Mid Year,	Families or Separate Occupiers.
	1901.	1911.	1915.	1911.
Congleton ...	10707	11310	11310	2665
Crewe ...	42074	44970	45825	9955
Dukinfield ...	18929	19426	20000	4626
Hyde ...	32766	33444	32665	8019
Macclesfield ...	34624	34804	33639	8436
Stalybridge ...	27673	26514	26905	6399

Urban Districts, (35)	Population.		Popula- tion Estimated Mid Year,	Families or Separate Occupiers,
	1901.	1911.	1915.	1911.
Alderley Edge ...	2891	3143	2985	701
Alsager ...	2597	2743	2743	640
Altrincham ...	16831	17816	18407	4107
Ashton-upon-Mersey ...	5563	7236	7750	1746
Bollington ...	5245	5225	5001	1212
Bowdon ...	2788	3044	3050	665
Bredbury and Romiley	7185	8684	9163	2115
Bromborough ...	1891	1974	2178	403
Buglawton ...	1452	1439	1439	337
Cheadle and Gatley ...	7916	9914	11680	2199
Compstall ...	875	908	900	223
Ellesmere Port and Whitby ...	4275	10366	13151	1963
Hale ...	4562	8351	9300	1945
Handforth ...	911	935	940	211
Hazel Grove & Bramhall	7934	9634	10817	2268
Higher Bebington ...	1540	1689	1628	353
Hollingworth ...	2447	2581	2351	634
Hoole ...	5341	5929	5911	1224
Hoylake & West Kirby	10911	14029	13671	2890
Knutsford ...	5172	5760	4917	1135
Lower Bebington ...	8398	11412	13118	2300
Lymm ...	4707	4989	5028	1177
Marple ...	5595	6484	6650	1590
Middlewich ...	4669	4910	4860	1094
Mottram in Longdendale	3128	3049	3049	756
Nantwich ...	7722	7815	7850	1691
Neston and Parkgate ...	4154	4596	4570	935
Northwich ...	17611	18151	18027	3831
Runcorn ...	16491	17354	16540	3767
Sale ...	12088	15046	16200	3563
Sandbach ...	5558	5723	5723	1340
Tarporley ...	2644	2604	2402	598
Wilmslow ...	7361	8153	8131	1947
Winsford ...	10382	10772	10150	2372
Yeardsley-cum-Whaley	1487	1659	1720	390

Rural Districts. (12)	Population.		Popula- tion Estimated Mid Year,	Families or Separate Occupiers,
	1901.	1911.	1915.	1911.
Bucklow	19890	22870	22462	4959
Chester	10908	12448	11091	2381
Congleton	12220	12821	12845	2755
Disley	2827	2958	2972	716
Macclesfield	15740	16628	16680	3659
Malpas	4488	4643	4330	1030
Nantwich	23197	24992	24572	5458
Northwich	22073	23270	23435	4983
Runcorn	23244	28216	28405	6211
Tarvin	12614	13187	12350	2867
Tintwistle	2105	2193	2193	551
Wirral	13905	19024	20119	3836

Density of Population.

This is shewn in the first Table of Statistics given at the end of this Volume. In the six Municipal Boroughs it averages 10.92 persons per acre, in the 35 other Urban Districts 3.12 persons per acre and in the 12 Rural Districts 0.33 persons per acre. Taking the Administrative County as a whole it averages 0.94 persons per acre. The variation is of course considerable in different parts of the County. In Altrincham Urban District it is highest, namely, 27.8 persons per acre and this figure is followed by Crewe Municipal Borough (20.98), and Hoole Urban District (17.69). The lowest figures for density of population are found in Tintwistle Rural District (0.16), Macclesfield Rural District (0.20), Malpas Rural District (0.20), Tarvin Rural District (0.22) and Nantwich Rural District (0.24), whilst several of the other Rural Districts shew figures only very slightly higher.

Section II.—Births and Deaths.

Births.

There were 12,078 births registered in the Administrative County during 1915, namely, 3,517 in the six Municipal Boroughs, 5,074 in the 35 other Urban Districts and 3,487 in the 12 Rural Districts.

The birth-rate per thousand living in the Administrative County was therefore 19.9 for the year 1915. In the whole of England and Wales this rate was 21.9 per thousand living, in the Rural Districts of England and Wales 20.7, in the 96 great towns 22.8 and in the 148 smaller towns 21.6. In Cheshire the birth-rate varied from 20.64 in the six Municipal Boroughs to 20.1 in the 35 other Urban Districts and 19.1 in the 12 Rural Districts. Ellesmere Port and Whitby Urban District and Runcorn Urban District showed the highest rate, viz., 27.9 and the rate varied in other parts of the County from 27.7 in Neston and Parkgate Urban District, 26.6 in Middlewich Urban District and 26.41 in Higher Bebington Urban District, down to 10.8 in Mottram Urban District, 11.1 in Bowdon Urban District, 12.7 in Alderley Edge Urban District and Yeardsley-cum-Whaley Urban Districts.

Once again the birth-rate was lower in what may be termed the better-class residential districts than in the poorer-class districts and in the manufacturing towns. The following may be taken as examples:—

Better-class Districts.				Birth-rate.
Bowdon	...	...	...	11.1
Alderley Edge	...	...	...	12.7
Alsager	...	...	...	13.12
Marple	...	...	...	14.4
Wilmslow	...	...	...	17.0
Hale	...	...	...	13.3
Hoyle-cum-West Kirby	...	...	...	16.8
Working-class Districts.				
Ellesmere Port and Whitby U.D.	...	...	...	27.9
Buglawton U.D.	...	...	...	24.3
Dukinfield M.B.	...	...	...	23.05
Middlewich U.D.	...	...	...	26.6
Runcorn U.D.	...	...	...	27.9
Sandbach U.D.	...	...	...	25.6
Winsford U.D.	...	...	...	23.1

The decline in the County birth-rate during the past ten years is shewn by the following figures:—

1906	...	24.90	1911	...	22.20
1907	...	23.80	1912	...	21.52
1908	...	23.70	1913	...	21.53
1909	...	22.87	1914	...	20.91
1910	...	22.30	1915	...	19.90

Comparing 1915 with 1906 the difference in the birth-rates means that approximately 3,200 fewer infants were born last year than in 1906.

This fall in the birth-rate makes it more important than ever to carry out all known measures to reduce infantile mortality.

The National Birth-rate Commission publish the following findings with respect to the birth-rate of the United Kingdom:

“We consider that the following propositions are definitely established:—

“(1) That the birth-rate has declined to the extent of approximately one-third within the last thirty-five years.

“(2) That this decline is not, to any important extent, due to alterations in the marriage rate, to a rise of the mean rate at marriage, or to other causes diminishing the proportion of married women of fertile age in the population.

“(3) That this decline, although general, has not been uniformly distributed over all sections of the community.

“(4) That on the whole the decline has been more marked in the more prosperous classes.

“(5) That the greater incidence of infant mortality upon the less prosperous classes does not reduce their effective fertility to the level of that of the wealthier classes.

“We consider that the following propositions, although based upon evidence less substantial than that upon which conclusions (1) to (5) rest, are also sufficiently well established:—

“(6) Conscious limitation of fertility is widely practised among the middle and upper classes, and there is good reason to think that, in addition to other means of limitation, the illegal induction of abortion frequently occurs among the industrial population.

“(7) There is no reason to believe that the higher education of women (whatever its indirect results upon the birth-rate may be) has any important effect in diminishing their physiological aptitude to bear children.”

Deaths.

The total number of deaths during 1915 in the Administrative County numbered 8,286, namely, 2,814 in the six Municipal Boroughs, 3,222 in the 35 other Urban Districts and 2,250 in the 12 Rural Districts. The death-rate for the County, as a whole, was 13.7 per thousand living. The comparative standardised figures for the rest of the country were:—

England and Wales	...	...	14.8
96 Great Towns	...	...	15.9
148 Smaller Towns	...	...	14.2
Rural Districts	...	...	13.6

In the six Municipal Boroughs of Cheshire taken together the death-rate was 16.51, in the 35 other Urban Districts 12.7 and in the 12 Rural Districts 12.4.

The death-rates varied considerably in the different districts, the highest (19.16) being in the Borough of Hyde and the lowest (6.8) being in the Urban District of Bromborough. The death-rate in the Administrative County was 12.55 in 1914, 12.82 in 1913, 12.52 in 1912, 13.75 in 1911 and 11.75 in 1910.

Infantile Mortality.

In the Administrative County taken as a whole, the deaths of infants under one year of age numbered 1,190, equal to a rate per thousand registered births of 98. In England and Wales the comparative figure was 110, in the 96 great towns 117, in the 148 smaller towns 114 and in the Rural Districts 98. The figure for the Administrative County of Cheshire is thus a fairly favourable one. In the six Municipal Boroughs of Cheshire the rates averaged 131, as compared with 89 in the 35 other Urban Districts and 77 in the 12 Rural Districts. These figures do not vary greatly from those recorded for the previous year.

The districts shewing the highest rates were:—

Compstall U.D.	...	...	214
Hollingworth U.D.	...	...	200
Stalybridge M.B.	...	...	147
Hyde M.B.	...	...	141
Macclesfield M.B.	...	...	140
Neston and Parkgate U.D.	...	...	133
Runcorn U.D.	...	...	133
Dukinfield M.B.	...	...	132
Hoole U.D.	...	...	130
Nantwich U.D.	...	...	127
Marple U.D.	...	...	125

A beginning has been made with the scheme for the care of mothers and infants and so far the work is going on smoothly. Before this Report is in print I shall have (with the Committee's approval) blended together all the nursing services of the County so that each nurse will take a smaller area and carry out in this area maternity and child welfare work, visitation of cases of tuberculosis, inspection of midwives, following up children reported defective as the result of medical inspection and supervising a few cases of mental defect. I am sure this is the best system from every point of view. It certainly possesses the following advantages:—

- (a) The nurses will have shorter distances to travel and thus there will be a saving both of time and money:
- (b) There will be less risk of causing friction with parents than there is under a system where one nurse visits a house to see the mother or infant, another visits to see a case of tuberculosis, another comes to inquire about a defective school child and so on:
- (c) The variety of work will at least prevent the nurse getting stale or into a groove:
- (d) The nurse will gradually come to know her district and those with whom she has to deal: in the case of her school medical inspection work she will in a few years reach the stage when she will have known her children from the day on which they were born.

The staff of Nurses and Health Visitors first appointed has not proved sufficient and two additional ladies will be put on to the staff almost at once bringing the total up to 20.

An endeavour has been made in various parts of the County to get voluntary helpers to assist in the carrying out of work ancillary to that of health visitation such as the establishment of Thrift Clubs, Girls' Clubs, Sewing Centres, Cookery Centres, Health Talks and so on, but the difficulty I find greatest of all is that associated with class. By this I do not mean that the middle class lady does not wish to visit working class homes or that the working class mothers and girls do not wish to be visited and helped by those socially above them. Neither of these things exists to my knowledge. The strife, where it is present, is an internecine one between the members of the middle class themselves. The existence of such a state of things and in such a connection at a time like this is deplorable.

There is an excellent Day Nursery at Hoylake where not only babies are received but where also young girls are trained in the management of infants. I hope to see the arrival of the day when no woman or girl will be allowed to take charge of a child under the age of five years unless she is the holder of a certificate to the effect that she has received adequate and proper education in the management of children. To give the title 'nurse' to some of these women and to allow them to wear uniform is a degradation of the name and the cloth.

So far as those districts which are *outside the County Scheme* are concerned the following is believed to be the present position:—

The Boroughs of Crewe, Hyde and Macclesfield have their Health Visitors and an organisation for the carrying out of the work. Stalybridge Municipal Borough, which had a Health Visitor, came into the County scheme on a special basis the County Council taking over the part-time services of the existing Health Visitor; the remainder of her time is devoted to medical inspection work in the Borough.

In Altrincham Urban District there is a whole-time Health Visitor, arrangements are in operation for providing substantial dinners for expectant mothers and those nursing their infants in return for a very small contribution, children needing operation are sent to the General Hospital for treatment and mothers in labour requiring special treatment or operation are also received at the Hospital. Special milk food is provided at cost price by the Council. This is altogether a most commendable scheme.

In Ashton-on-Mersey Urban District the District Nurse undertakes infant visiting and some ante-natal work.

In Lower Bebington Urban District a whole-time Health Visitor is at work, a 'Baby Welcome' has been established and a clinic for expectant mothers is being arranged.

In Bollington Urban District the District Nurse has been appointed as part-time Health Visitor, the Council paying £25 annually for her services.

In Ellesmere Port Urban District a whole-time Health Visitor has been appointed, a maternity centre has been commenced and arrangements are being made for ante-natal consultations. In Hale Urban District

the District Nurse acts as part-time Health Visitor doing some ante-natal work: special milk-food is granted in necessitous cases. A similar arrangement is in operation in Knutsford Urban District where a voluntary school for mothers was started during the year. In Middlewich Urban District much the same arrangement prevails: some ante-natal work is being done. In Nantwich Urban District the District Nurse devotes part of her time to infant visitation and a Voluntary Infant Welfare Centre has now been established. In Northwich Urban District all infants are visited by the Health Visitor. In Sale Urban District the District Visitor visits new births. In Winsford Urban District the Council have apparently done nothing more than collect Births Notification Cards.

The Rural Districts of Chester, Tarvin and Malpas have prepared a joint scheme and have recently appointed a Health Visitor. In Macclesfield Rural District a Sub-Committee was appointed in November, 1915, to make suggestions as to the carrying out of the Act, but I have not yet heard that the appointment of a Health Visitor has been made.

This work which is easy enough to organise in a large town is full of difficulty in a County area: it is further complicated here by the fact that in nearly half the County the Local Sanitary Authorities have undertaken maternity and child welfare work, whilst work connected with inspection of midwives, medical inspection and tuberculosis is in the hands of the County Council *over the whole of the County*.

I sincerely hope that a more homogeneous scheme will eventually be evolved.

In the Borough of Macclesfield a fairly complete organisation exists supported by voluntary subscription and by grants from the Town Council and Board of Education.

The Macclesfield Public Health Society in their thirteenth Annual Report give some very interesting details of their work which I quote for the information of your Committee and others:—

The primary aims of the Society are:—

- (1) To reduce the present high rate of infantile mortality in Macclesfield by taking every infant under the

guardianship of the Society for the first twelve months; (2) To promote cleanliness and better hygienic conditions generally in the homes; (3) To teach the simplest and most economical forms of Cookery in the homes.

The Committee reports as under:—

In spite of devoted service on the part of the Health Visitor in home visiting and a most encouraging development of the School for Mothers the number of deaths has been larger than in the three preceding years, while the number of births has decreased. The loss of life is partly due to epidemics of whooping-cough and measles, but the following statistics show the rate of still-births and deaths under one month, already high, has risen, and it is quite evident that pre-natal influences are responsible for the increase.

This section of the Society's work is still in its infancy and owing to lack of time on the part of the Health Visitors and the special difficulty of reaching the expectant mothers who spend practically the whole time of pregnancy at work in the mills, very little has yet been accomplished. This difficult work must however be tackled but it will take time to accomplish visible results.

While it is well to recognize the serious position of the nation, for the rise in the infantile death-rate is universal and not confined to Macclesfield, losing by war its best potential fathers and by sickness and often preventible causes, its infants, the work of a Society such as the Public Health Society becomes more and more necessary and must be developed in every possible direction.

In September Dr. Lilian E. Wilson, of the Board of Education, again inspected the work and premises of the School for Mothers and a grant of £59 0s. 1d. was received for 1915-16.

The visits paid to infants during the year numbered 5,603 and in addition 173 ante-natal visits were made.

The dinners to expectant and nursing mothers are still supplied by Mrs. E. Tootal Broadhurst at a cost of 1d. each to the recipients. Sixty different mothers attended during the year and 4,605 dinners were supplied.

The Sand Garden was again opened last summer and an increasing number of children enjoyed it. The Care-taker manages the children well and teaches them nice habits.

In connection with the School for Mothers it is reported that during the past year 98 meetings have been held and the attendance of women is steadily on the increase. The names on register number 251.

A Sewing, Cutting-out, Knitting, &c., Class is held each Monday and Thursday and a Cooking Class is held each Thursday. This Class is very well attended, the women taking a great interest in Cooking and practising what they learn in their own homes. Babies are weighed each Monday and Thursday.

Each afternoon a short address or Health talk is given to the mothers such as "Baby's First Needs," "How to bathe and clothe a baby," "Breast and Bottle Feeding," "Care of Milk and general Cleanliness," "Advice in Pregnancy," also talks on "Temperance," "Food and Coal Economy," "Training of Children in early Childhood."

The Thrift Club in connection with this School has an increasing membership of 74 women and during the past year £68 8s. 8d. has been deposited and £47 8s. 2d. withdrawn.

The Girls' Club opened on September 14th, 1915, 40 girls being present. The helpers were all new to the girls, so it took some time for them to feel at home and really settle down. The membership has increased from 40 to 80 in seven months.

About 250 yards of material have been distributed and interesting results have followed: nightdresses, petticoats, baby's clothes, knickers, camisoles, pillow cases, many pinafores, blouses, shirts, and even coats, also knitted scarves and hats and several serge tunics have been made. One or two members have done a little embroidery and all the garments have been cut out and made by the girls (many of whom have had no previous experience whatever) with the assistance of a few helpers and a sewing machine. The materials are sold to the girls at cost price, so they obtain their garments at the lowest possible rate. A Thrift Club has been started to which many of the members belong, but they are not allowed to subscribe to this until their garments are paid for.

Illegitimate Infants.

The following figures taken from the Crewe Report illustrate the high mortality amongst infants born out of wedlock:

	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Infantile Mortality of legitimate children ...	118	108	101	106	102	162	82	106	85	115
Infantile Mortality of illegitimate children...	224	142	166	68	116	209	80	47	75	209

The campaign against venereal diseases may effect some betterment of this loss for it is well-known that the number of deaths from syphilis is very much greater in the case of illegitimate infants than in those born in wedlock.

Deaths from Zymotic Diseases.

The death-rate in the Administrative County from this group of diseases during 1915 was 0.91 per thousand of the estimated population. In the 6 Municipal Boroughs it was 1.50, in the 35 other Urban Districts 0.73 and in the Rural Districts 0.59 per thousand of the estimated populations. In most districts this death-rate was slightly higher than it was in 1914.

There were 552 deaths in the County from this group of diseases, a number somewhat higher than that recorded during the previous year.

The rates appear to have been unusually high in the following areas:—

Compstall U.D.	...	..	2.22
Hyde M.B. ...	...	...	1.89
Higher Bebington U.D. ...	...	...	1.84
Crewe M.B.	...	...	1.78
Stalybridge M.B.	...	...	1.70

Small-pox only occurred in one case in the Borough of Crewe the patient dying from it: despite the most vigorous inquiries the source of the disease was not traceable. Measles

was responsible for 185 deaths, the districts chiefly affected being the Boroughs of Crewe and Hyde and the Urban District of Runcorn. Scarlet fever appears to have been somewhat less prevalent than usual and of a milder type: 33 deaths are ascribed to it. Diphtheria was somewhat widespread in prevalence, causing 65 deaths, but no district seems to have been severely hit by it. Whooping-cough was the cause of 84 deaths: in the Borough of Macclesfield 11 deaths are recorded and in Lower Bebington Urban District nine deaths occurred from it: there was a somewhat severe outbreak in Neston and Parkgate Urban District causing five deaths. Typhoid fever has not been present in epidemic form in any part of the County and only 19 deaths are ascribed to it. Diarrhœal diseases were responsible for 165 deaths and the following districts seem to have suffered rather severely from this group of diseases:—

Crewe M.B.	...	...	31 deaths
Stalybridge M.B.	...	...	25 „
Northwich U.D.	...	...	12 „
Runcorn U.D.	...	...	9 „

Tuberculosis. (a) Pulmonary Forms.

There were 469 deaths ascribed to pulmonary tuberculosis, namely, 191 in the Municipal Boroughs, 172 in the Urban Districts and 106 in the Rural Districts. The death-rate per thousand from this form of the disease was thus 0.77, as compared with 0.73 in 1914 and 0.63 in 1913. This rate has, however, shewn a steady diminution during the past 20 years.

(b) Other Forms of Tuberculosis.

From these there have been 116 deaths and in addition there have been 92 deaths from tuberculous meningitis.

The total death-rate for *all* forms of tuberculosis for the year 1915 is 1.12 per thousand of the population.

Cancer and Malignant Disease.

These diseases continue to levy a heavy annual toll of lives. During 1915 there were 657 deaths ascribed to them, viz., 219 in the Municipal Boroughs, 243 in the Urban Districts and 195 in the Rural Districts. The death-rate per 1,000 of the estimated population for these diseases was thus 1.08—the highest rate yet recorded under this heading.

The figures available for the past sixteen years shew a steady increase from 0.70 per 1,000 of the population in 1900 to 1.08 for the past year.

I am quite convinced that our only hope of saving life and suffering in the present state of knowledge is to pursue an active campaign of education with the objects (1) of securing earlier operation and (2) of preventing non-malignant conditions taking on a malignant tendency. The most that appears to have been achieved so far by such agencies as radium, X-ray treatment, electro-therapeutics, &c., is the relief of symptoms and some prolongation of life. This is all to the good of course but so far as knowledge of the causation of the disease is concerned very little advance has been made, despite the fact that hundreds of highly skilled brains have been working on the subject for many years. The victories achieved in the case of such diseases as malaria, syphilis and diphtheria leave us with the strong hope that before long a similarly successful attack on malignant disease will be possible.

Venereal Diseases.

It appears from the Report of the Royal Commission on Venereal Diseases (Appendix page 134) that the Administrative County of Cheshire stands 25th on the list of 56 Counties in England and Wales for the proportion of cases of General Paralysis at ages 25 to 54 in males and 39th on a similar list for females. The figures given relate to cases of general paralysis amongst paupers admitted to Asylums during the years 1908—1912. The proportion of such cases per 10,000 of the male population of Cheshire is 4.6, the highest figure being that for Warwickshire (7.9) and the lowest figure that for Flintshire (0.6). In the case of females the corresponding figure for Cheshire is 0.27 per 10,000, the highest figure being that for Berkshire (2.49) and the lowest figure that for Cornwall (0.14). The combined figures represent a total of 64 pauper admissions of cases of general paralysis to Asylums during the period quoted and at the age-period mentioned. This condition is, of course, only one of the secondary consequences of syphilis.

Those who are not perhaps sufficiently impressed by the seriousness of this problem should consider the following facts relating to the effects on the subsequent life-history of the patient in the case of 4,134 German Officers suffering from syphilitic infection (Appendix xviii, Report of Royal Commission):—

- "198 suffered from paralytic dementia :
 113 were attacked by locomotor ataxy :
 132 developed cerebro-spinal syphilis :
 80 shewed various forms of insanity :
 147 died of tuberculosis :
 17 died of aneurism of the aorta :
 101 either died or were attacked by muscular degeneration : in 20 cases syphilis was the immediate cause of death and in a like number of cases it caused permanent disablement."

One hundred and nineteen of the patients died within 10 years of becoming infected, 105 died between 11 and 20 years of being infected and in the remaining cases death was postponed until a later period even to more than 30 years after becoming infected.

The question of providing facilities for diagnosis and treatment of these conditions will, I think, shortly be before your Committee and in view of the extreme seriousness of the subject I feel sure you will ungrudgingly accept the additional burden thrown upon you as a Public Health Authority.

Section III.—Infectious Diseases.

General.

The following statement gives a summary of the cases of infectious disease notified during the year:—

	Boroughs.	Urban Districts.	Rural Districts.	Total.
Small-pox ...	1	—	—	1
Scarlet Fever ...	517	859	635	2011
Diphtheria ...	129	302	247	678
Enteric (Typhoid Fever)	27	31	26	84
Puerperal Fever ...	14	7	7	28
Erysipelas ...	128	129	71	328
Cerebrospinal Meningitis	1	5	3	9
Epidemic Poliomyelitis	1	3	1	5
Pulmonary Tuberculosis	306	280	119	705
Other Forms of Tuberculosis	99	134	63	296
Ophthalmia Neonatorum	20	23	9	52

The following Table taken from the Annual Return of the Local Government Board shews the incidence or attack rates of certain infectious diseases:—

COUNTY OF CHESTER.	Small-pox		Scarlet Fever.		Diphtheria.		Enteric Fever.		Puerperal Fever.		Erysipelas.	
	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.	Cases.	Rate.
ADMINISTRATIVE COUNTY ...	1	0·00	2016	3·41	670	1·13	86	0·15	28	0·05	325	0·55
BOROUGH & URBAN DISTRICTS—												
Alderley Edge ...	—	—	4	1·34	1	0·34	—	—	—	—	1	0·34
Alsager ...	—	—	2	0·74	6	2·21	2	0·74	—	—	3	1·10
Altrincham ...	—	—	28	1·58	10	0·56	1	0·06	1	0·06	10	0·56
Ashton-upon-Mersey ...	—	—	20	2·67	18	2·41	—	—	—	—	5	0·67
Bollington ...	—	—	32	7·60	2	0·40	1	0·20	—	—	—	—
Bowdon ...	—	—	3	1·04	1	0·35	—	—	—	—	1	0·35
Bredbury and Romiley ...	—	—	75	8·19	8	0·87	—	—	—	—	10	1·09
Bromborough ...	—	—	18	8·26	—	—	—	—	1	0·46	3	1·38
Buglawton ...	—	—	11	7·53	1	0·68	—	—	—	—	—	—
Cheadle and Gatley ...	—	—	25	2·40	10	0·96	—	—	—	—	12	1·15
Compstall ...	—	—	1	1·11	—	—	—	—	—	—	1	1·11
Congleton ...	—	—	43	3·94	7	0·64	—	—	1	0·09	8	0·73
Crewe ...	1	0·02	184	4·02	73	1·59	3	0·07	2	0·04	24	0·52
Dukinfield ...	—	—	34	1·83	4	0·22	7	0·38	1	0·05	19	1·02
Ellesmere Port and Whitby ...	—	—	54	5·05	8	0·75	—	—	—	—	5	0·47
Hale ...	—	—	36	4·04	2	0·22	—	—	—	—	1	0·11
Handforth ...	—	—	1	1·05	1	1·05	1	1·05	—	—	—	—
Hazel Grove and Bramhall ...	—	—	13	1·30	2	0·20	—	—	—	—	1	0·10
Higher Bebington ...	—	—	1	0·61	—	—	—	—	—	—	1	0·61
Hollingworth ...	—	—	1	0·40	2	0·79	—	—	—	—	1	0·40
Hoole ...	—	—	9	1·60	6	1·07	2	0·36	—	—	9	1·60
Hoylake and West Kirby ...	—	—	38	2·78	10	0·73	—	—	—	—	5	0·37
Hyde ...	—	—	115	3·52	12	0·37	4	0·12	5	0·15	50	1·53
Knutsford ...	—	—	9	1·81	4	0·81	1	0·20	—	—	3	0·60
Lower Bebington ...	—	—	30	2·29	29	2·21	3	0·23	—	—	12	0·91
Lymm ...	—	—	24	4·77	33	6·56	—	—	—	—	2	0·40
Macclesfield ...	—	—	65	2·02	19	0·59	7	0·22	3	0·09	15	0·47
Marple ...	—	—	29	4·60	—	—	—	—	—	—	2	0·32
Middlewich ...	—	—	1	0·21	2	0·41	1	0·21	—	—	1	0·21
Mottram in Longdendale ...	—	—	1	0·38	—	—	—	—	—	—	—	—
Nantwich ...	—	—	25	3·50	23	3·22	1	0·14	—	—	6	0·84
Neston and Parkgate ...	—	—	3	0·66	2	0·44	—	—	—	—	—	—
Northwich ...	—	—	24	1·33	16	0·89	—	—	3	0·17	7	0·39
Runcorn ...	—	—	250	14·14	14	0·79	7	0·40	1	0·06	19	1·07
Sale ...	—	—	53	3·42	35	2·26	2	0·13	—	—	2	0·13
Sandbach ...	—	—	12	2·07	3	0·52	—	—	1	0·17	—	—
Stalybridge ...	—	—	75	3·06	7	0·29	8	0·33	1	0·04	14	0·57
Tarporley ...	—	—	16	6·66	—	—	—	—	—	—	—	—
Wilmslow ...	—	—	5	0·61	3	0·37	3	0·37	—	—	—	—
Winsford ...	—	—	14	1·31	47	4·41	7	0·66	1	0·09	6	0·56
Yeardsley-cum-Whaley ...	—	—	1	0·62	3	1·85	—	—	—	—	—	—
RURAL DISTRICTS—												
Bucklow ...	—	—	68	3·11	33	1·51	2	0·09	2	0·09	17	0·78
Chester ...	—	—	37	3·34	14	1·26	4	0·36	—	—	1	0·09
Congleton ...	—	—	31	2·41	16	1·25	—	—	1	0·08	6	0·47
Disley ...	—	—	9	3·03	—	—	1	0·34	—	—	3	1·01
Macclesfield ...	—	—	31	1·86	17	1·02	2	0·12	2	0·12	6	0·36
Malpas ...	—	—	11	2·54	7	1·62	—	—	—	—	—	—
Nantwich ...	—	—	67	2·73	26	1·06	—	—	—	—	7	0·29
Northwich ...	—	—	102	4·35	51	2·18	1	0·04	1	0·04	12	0·51
Runcorn ...	—	—	199	7·01	51	1·80	6	0·21	1	0·04	10	0·35
Tarvin ...	—	—	37	2·88	3	0·23	—	—	—	—	—	—
Tintwistle ...	—	—	1	0·46	—	—	1	0·46	—	—	—	—
Wirral ...	—	—	32	1·59	28	1·39	8	0·40	—	—	4	0·20

Small-pox.

One case only was reported. This occurred in Crewe and the patient was removed to the Nantwich Union Work-house where she died. The source of infection was not traced.

Scarlet Fever.

There were 2,011 cases reported. Runcorn Urban District suffered very severely from this disease having 245 cases reported. The strain on the Isolation Hospital was very severe. Other districts in which the disease was unusually prevalent were Bromborough Urban District (19 cases), Bollington Urban District (37 cases), Bredbury and Romiley Urban District (77 cases), Runcorn Rural District (207 cases), Crewe Municipal Borough (181 cases) and Hyde Municipal Borough (114 cases).

Diphtheria.

There were 678 cases reported in the Administrative County, giving an attack-rate of 1.13 per 1,000 of the estimated population. The Urban District of Lymm suffered very severely from this disease having a total of 34 cases and an attack-rate of 6.56 per 1,000 of the population. Winsford Urban District had 49 cases (attack-rate 4.41 per 1,000), Nantwich Urban District 23 cases (attack-rate 3.22), Crewe Municipal Borough 76 cases (attack-rate 1.59), Northwich Rural District 51 cases (attack-rate 2.18) and Runcorn Rural District also 51 cases (attack-rate 1.80).

Enteric Fever.

This appeared in 84 cases during the year (attack-rate for County 0.15 per 1,000 of population). There was nothing in the nature of an outbreak.

Puerperal Fever.

There were 28 notifications of this disease received in the whole County. In 34 districts no single case of the disease was notified. The attack-rate for 1915 was 0.05 per 1,000 of the population.

Erysipelas.

Three hundred and twenty-eight cases are recorded for 1915 (attack-rate 0.55 per 1,000). The highest attack-rate (1.53) occurred in Hyde Municipal Borough, where it was also high in 1914 (1.93). I am at a loss to understand this unless it be that there is a more elastic definition of the disease in that Borough than elsewhere, or unless the fact be that the special industries of the Borough lead to the occurrence of minor injuries on which the infection of this disease is grafted. The next highest attack-rate from this disease (excluding Bromborough where the rate is calculated on only three cases) is the Urban District of Cheadle and Gatley where it is 1.15.

Section IV.—Tuberculosis.

Pulmonary Form.

The total number of cases of pulmonary tuberculosis notified to Sanitary Authorities in the Administrative County during 1915 (or from 3rd January, 1915, to 2nd January, 1916, was 705.

Owing to the fact that the District Medical Officer's of Health have in the majority of instances failed to send in proper returns it is not possible to analyse these figures as in previous Reports.

The districts in which the greatest number of notifications were received are the following:—

Cases.				Cases.			
Crewe M.B.	...	86	Runcorn U.D.	...	23		
Macclesfield M.B.	...	61	Bucklow R.D.	...	26		
Hyde M.B.	...	51	Northwich R.D.	...	27		
Dukinfield M.B.	...	46	Ellesmere Port U.D....	28			
Altrincham U.D.	...	32	Hoyle and West				
Northwich U.D.	...	25	Kirby U.D.	...	23		

Owing to the continued absence of the County Tuberculosis Officer and the pressure of other work this scheme suffered a little in the early part of the year. But good progress has been made since then and, with the sole exception of West Kirby, all the Dispensaries planned in the original scheme are in operation. Premises have been secured at West Kirby and plans, &c., of the necessary alterations have been prepared: the work will shortly be completed. Uninsured persons are coming to know that there are considerable advantages open to them under the scheme and at the time of writing this Report 20 such are under treatment at Sanatoria and a few cases are awaiting admission. Some of the beds engaged in Surgical Hospitals have been in use for several months.

The following figures shew the work done by the several Dispensaries during the year:—

Dispensary at	New Patients 1915.		Attendances.	
	Insured.	Non-Insured.	Insured.	Non-Insured.
Chester ...	6	2	10	8
Tarporley ...	3	—	5	—
Ellesmere Port ...	32	36	48	111
Crewe ...	57	54	157	99
Winsford ...	10	7	37	22
Congleton ...	7	4	12	11
Northwich ...	14	6	55	17
(Opened July, 1915)				
Altrincham ...	9	3	25	65
Opened Oct., 1915)				

The procedure adopted whenever a Dispensary has been ready for work has been to send a circular to every medical practitioner in that Dispensary area informing him of the action that the Council is prepared to take in order to assist him in the treatment of any cases of Tuberculosis he may have. Unfortunately circulars of this kind do not always have the desired effect and in consequence the Dispensary organisation is not yet being as fully utilised as I hope to see it. It is, of course, desired to make the Dispensary the starting point of all treatment and also the official bureau for both practitioners and patients desiring advice or assistance. I am perfectly certain that when this scheme gets into full work further arrangements will have to be made to facilitate the attendance of both practitioners and patients at Dispensaries. The distance to be travelled from a good many areas to the nearest Dispensary is altogether too great and it will be necessary, I think, to adopt some more convenient system. Great difficulty will no doubt be experienced in carrying out any extension of this work.

Whilst no great difficulty has been experienced in securing beds for surgical cases for both adults and children there is a very serious shortage of beds for children in Sanatoria and in consequence I have only been able to place very few children under the best conditions for recovery. The present state of affairs appears likely to continue until the difficulties of building and staffing can be overcome. Residential open-air schools should form a part of all County institutional accommodation for cases of tuberculosis.

The question of providing accommodation for 'hospital' cases in various parts of the County, *e.g.*, at Clatterbridge,

Crewe, Davenham, Dutton, Congleton, &c., has been held up for the time, but I am in hopes that a scheme can be completed for such cases at Hyde before very long.

Other Forms of Tuberculosis.

In this class all cases of the disease except that attacking the lungs are included. The number of notifications of such cases received during the year was 296. To this total Runcorn Urban District contributed the greatest number, viz., 30. The Municipal Boroughs of Crewe and Macclesfield shew 29 cases each and the Borough of Hyde 18 cases.

The County Accountant has very kindly furnished me with the following account of expenditure on the Tuberculosis scheme during the year:—

Payments during the year ended 31st March, 1916—

	£	s.	d.
Salaries of Chief Tuberculosis Officer and			
Assistant Tuberculosis Officers ...	985	17	2
Salaries of Office Staff ...	140	10	5
Salaries of Nurses ...	280	0	0
Officers' Travelling Expenses ...	123	6	3
Nurses' „ „ ...	85	9	4
General Expenses—Administration ...	285	4	3
Joint Sanatorium Committee — Precept for Expenses ...	98	0	0
Maintenance of Patients in Sanatoria ...	47	8	8
Dispensaries—Chester ...	234	12	6
Crewe ...	243	17	9
Northwich ...	397	15	8
Hyde ...	69	7	2
Altrincham ...	99	6	7
Birkenhead ...	30	0	0
Ellesmere Port ...	57	2	8
Congleton ...	99	10	6
Runcorn ...	22	11	0
Tarporley ...	118	18	5
Stockport ...	55	17	8
Winsford ..	42	0	6
	1471	0	5
	£3516	16	6

Receipts during year ended 31st March, 1916—

City of Chester Contribution towards Salary of			
District Tuberculosis Officer	...	...	68 1 1
Local Government Board—Balance			
of Grant for year ended 31st			
March, 1915	...	...	310 10 0
Local Government Board — On			
account of year ended 31st			
March, 1916	...	...	1124 0 0
			<hr/> 1434 10 0
Per Dr. Meredith Young—Contributions from			
persons receiving Sanatorium Benefit			
	...		30 9 0
			<hr/> £1533 0 1
Net Cost to County Council			<hr/> <hr/> £1983 16 5

Section V.—Isolation Hospitals.

At the end of Table III. in the Appendix to this Report will be found a statement shewing the Hospital accommodation for each district in the County. There have been no extensions made during 1915 but some are contemplated in the Runcorn Urban District where, indeed, they are badly needed. I am not altogether satisfied with the accommodation available for Stalybridge Municipal Borough. During the year 1915 79 cases of scarlet fever were reported and only five of these were isolated in Hospital, namely, in the Borough Hospital, Ashton-under-Lyne. Three out of seven cases of typhoid fever occurred in the same cottage and two of the three proved fatal. To quote the Borough Medical Officer of Health, "Efficient isolation was not possible and there was not any Hospital accommodation available." The proper nursing of typhoid fever in a cottage house is not only a practical impossibility but also a danger to the public. Handforth Urban District is, I believe, without any provision whatever for hospital isolation of infectious cases.

A combination for isolation hospital provision might be effected when normal conditions again prevail for Marple Urban District, Yeardsley-cum-Whaley Urban District, Disley Rural District, Hazel Grove and Bramhall Urban District, Cheadle and Gatley Urban District, Handforth Urban District and Compstall Urban District, with possibly Bredbury and Romiley Urban District and a portion of Macclesfield Rural District. None of these areas are quite satisfactorily provided for at present. Something of the same nature may also be found desirable for the Rural Districts of Chester, Tarvin and Malpas and the Tarporley Urban District: these districts at present constitute a Joint Hospital Board though they have no isolation hospital of their own (having an agreement with the Corporation of Chester for the reception of a certain number of cases other than small-pox), but only a site, &c., for a small-pox hospital.

Section VI.—Midwives Act, 1902.

At the close of the year 1914 there were 390 midwives on the County Register. During 1915 there were 53 names taken off the Register. Thirty-two names were added, this bringing the net total to 369 now on the County Register. Deaths, removals and retirement, accounted for the remainder.

Of those midwives whose names have been removed from the Register, 21 were women who were in *bonâ fide* practice in July 1901 and 32 were women who had undergone the prescribed training.

Of midwives whose names have been added to the Register, 27 are women who have undergone the prescribed training and 5 are women who were in *bonâ fide* practice in July, 1901.

The number of properly trained midwives practising in the Administrative County is now 158, as compared with 164 for 1915, 155 for 1914, 181 for 1913, 183 for 1912, 180 for 1911, 156 for 1910 and 120 for 1909.

The number of midwives who have been trained and certified at a Training School approved by the Central Midwives Board is 43.0 per cent. of the total number on the County Register, as

compared with 42.0 per cent. for 1915, 37.25 per cent. for 1914, 39.7 per cent. in 1913; 37.57 per cent. in 1912; 35.08 per cent. in 1911; 31 per cent. in 1910; 25.64 per cent. in 1909; 23.67 per cent. in 1908; and 21 per cent. in 1907.

Shortage of Supply.

I am glad to be able to state that this is a shade less acute than it was the last time I reported. The County Nursing Association has rendered very valuable assistance in this matter and it is owing to their help that the shortage has been overcome in certain areas.

A District Nurse to undertake midwifery as well has now been appointed at Ashton Hayes and at Tarporley. There is a hope that one may shortly be appointed to serve Dunham Hill and some of the adjacent area. But there is still a shortage in the Nantwich Urban District, in Smallwood, Goostrey, Mount Pleasant and Mow Cop in the Congleton Rural District, in Rainow, Wincle, Styal and Wildboarclough in the Macclesfield Rural District, Thornton Hough in the Wirral Rural District and at Moulton in the Northwich Rural District.

It is not sufficiently known (I for one have only seen it reported in the proceedings of the General Medical Council of May, 1916), that "the Government for the last 2 or 3 years had offered to pay any Council one-half the total expenditure of placing midwives in remote country districts where otherwise they would not be able to earn a living wage and in towns to pay half the fee where the mother could not afford to pay the whole, if the Council would pay the other half: further it had offered to pay half the doctor's fee in emergency cases, so that given the co-operation of the Government and County Councils and Borough Councils there was no reason why this need should not be met at once." (Dr. Newsholme, Principal Medical Officer of Local Government Board, reported in *British Medical Journal*, June 3rd, 1916.)

This promise of Government aid, if called upon, should relieve us of what is one of the most pressing needs of the moment—that of proper attention to mother and infant in out-lying parts of the county, such as some of those named above. It will also have another beneficial effect, namely, the gradual ousting of the untrained woman and the restriction of illegal practice. One cannot with any show of either reason or humanity take steps to prevent uncertified women practising as midwives when one knows quite well that there is no medical or trained nursing help reasonably available. I hope, now that this promise of Government assistance has come to light, to be able to make some recommendation on the subject at an early date.

Training of Midwives.

If it is found practicable to start a few Maternity Centres it will be possible to use these as training centres for some of the *bonâ fide* midwives, not only in the taking of pulse and temperature but also in the prevention of sepsis, the treatment of ophthalmia neonatorum, methods of disinfection, the resuscitation of children born apparently dead and a number of similar matters on which they are very ignorant at present. The Nurses or Health Visitors do all that is possible in this matter when they visit midwives, but there is in many instances a considerable leeway to be made up.

Section VII.—Miscellaneous.

Housing.

On the whole inspections of houses and repairs, closure, &c., have been fairly well maintained despite shortage of staff and of labour. Shortage of housing accommodation for the working classes is reported or known to exist at Dukinfield, Congleton, Altrincham, Bollington, Bowdon, Bredbury and Romiley, Knutsford, Northwich, Sandbach, Wilmslow, Disley Rural District, Nantwich Rural District, Northwich Rural District, and Tarvin Rural District.

It is to be regretted that a Council such as that governing the Knutsford Urban District should be prevented from carrying out a necessary and desirable scheme for the provision of workmen's dwellings by the apparent impossibility of obtaining land at a reasonable price and free from restrictions of a character referred to by their Medical Officer of Health as "obnoxious." But this Council do not appear, for some reason of which I do not know, to have applied to the Local Government Board and submitted to such Board for approval an Order putting in force the provisions of the Land Clauses Acts with respect to the purchase and taking of land otherwise than by agreement for this purpose. This they are entitled to do under the Housing and Town Planning Act, 1909, and one would be interested to know why it has not been done.

Water Supply.

Some small extensions of mains were carried out in Congleton. The new scheme at Alsager has now been completed.

At Bollington the Council are considering measures for the improvement of the supply. A new and larger main has been laid on to Ellesmere Port. The Nantwich Urban District have had to hold up their new works and the same is the case in the Northwich Urban District. The Sandbach supply has been much improved by the new softening plant.

In the Tarporley Urban District the public supply has been extended to Rushton Village. In the Bucklow Rural District the supply to Mobberley is being actively considered. In Chester Rural District the supply to Dunham Hill is now completed, water being obtained from the Runcorn Rural District supply at Helsby. In the same area the supply to Ince is under consideration, as is also that to Blacon Cottages. In Disley Rural District the public supply has been extended to Lane Heads, Higher Disley. In Nantwich Rural District mains have been extended to supply Ridley and Acton; the supply to Audlem, &c., has had to be postponed. A number of extensions of mains have been carried out in the Northwich Rural District and others are in hand. A few improvements have been effected in Tarvin Rural District.

River Pollution and Sewage Disposal.

Certain sources of pollution from Collieries continue to give rise to considerable trouble, as do also some from manufacturing premises. In a few areas sewage purification works are either absent or inefficiently managed, but the expenditure of money on new schemes has not been deemed advisable for the moment.

The sewerage of the Low Marple area has now been completed. That of Haslington is proceeding. The Willaston and Wistaston scheme is completed. The reconstruction of the Eastham works has now been carried out. A considerable number of connections to the new sewer have been made in Yeardsley-cum-Whaley Urban District. The scheme for Great Saughall has been postponed for a time. Furness Vale is now sewerage, but the Newtown portion of the Disley Rural District requires attention. Some extensions of sewers have been made at Rudheath (Northwich Rural District) and other improvements have been effected in various townships. A scheme is in progress for sewerage Moore, in the Runcorn Rural District.

The Use of "Activated" Sludge.

The possibilities of aerating sewage as a means of facilitating its purification have been recognised for many years and experiments have been carried out to this end by a number of observers.

The most recent work on these lines has resulted in a noticeable modification of previous experiments which so far has been attended with remarkable results. Mr. E. Ardern, M.Sc., and Mr. W. T. Lockett, M.Sc., in a paper read in April, 1914, which I had the pleasure of hearing, pointed out that during the experimental aeration of sewage it was found that a certain deposit occurred and that as the amount of this deposit increased so the time required for complete oxidation of crude sewage decreased. This deposit they termed "activated sludge." This is an inoffensive, dark brown, flocculent deposit which rapidly separates out from water or sewage and which contains a large number of nitrifying organisms. When sterilised this sludge has no purification effect whatever. Messrs. Ardern and Lockett have carried out an immense number of experiments and analyses which have been set out in detail in the paper referred to and elsewhere and Mr. S. E. Melling, our County Analyst, was quick to take the opportunity of translating this laboratory work to a practical working scale. For some considerable time now Mr. Melling has been at work at Salford and has recently demonstrated the practicability of dealing with some 80,000 gallons of sewage per diem in a tank of 22,000 gallons capacity but this does not represent quite the highest possibilities of the case. By the means adopted by Mr. Melling an effluent can be obtained which is stable on incubation and comes well within the requirements laid down by the Royal Commission on Sewage Disposal. Further experiments are in progress as are also improvements in the mechanical means of filling and drawing off the tank and in a short time it is confidently anticipated that some of the most troublesome problems of sewage disposal will have been eliminated. The system has, in my opinion, very great possibilities in front of it and I hope that when normal times return we shall be able to adopt it in a good many parts of the County.

Milk Supply.

The reports from the various districts indicate that cowsheds, dairies, &c., receive regular inspection. But what I cannot understand is that for some reason or another many obvious defects are allowed to continue unremedied year after year. It is my regular experience when visiting farms at which cases of tuberculosis have been notified to me by the various Corporations possessing special powers under local Acts to find gross defects remediable under the powers possessed by District Councils, but which have been overlooked for many years. In some instances I strongly suspect and in other instances I know it as a fact, that this inaction is caused by the representation on the Council concerned of some individual who is interested either directly or indirectly. Instances have come to my knowledge in which the Inspector concerned has

ceased to report faulty conditions on farms, either because he has feared this would entail loss of office, or because he has found by experience that the Council concerned has merely "shelved" the matter. These are strong things to say and I only say them because I hope that by so doing it may enable action to be taken by which the control of these premises may be removed into stronger hands.

Dr. Garstang records the conviction that in and around Winsford a large trade is carried on in "cattle of an exceedingly doubtful quality" and deplores the discontinuance of the notification to the Sanitary Authority by the police of cases of suspected tuberculosis in cattle. One has frequently seen coming to or going from the cattle market at Crewe (and the same thing obtains at all cattle markets) rank, weedy cattle in such a condition that one has wondered how it could be that they could change hands from one honest person to another honest person. The Public Health Act, 1875, permits of the seizure of live animals exposed for sale, &c. and intended for the food of man, but this power is only very rarely acted upon.

The action taken by such Corporations as those of Manchester and Liverpool to prevent the sale of tuberculous milk is excellent and one wishes that it could be more universally adopted.

MEREDITH YOUNG, M.D., D.P.H.,
County Medical Officer of Health.

Administrative County of Chester

SUMMARY

OF

REPORTS

OF

District Medical Officers of Health,

FOR THE YEAR

1915.

Administrative County of Chester

SUMMARY

REPORTS

District Medical Officer of Health

for the year

1910

SUMMARY OF REPORTS

OF

District Medical Officers of Health,

FOR THE YEAR 1915.

CONGLETON Municipal Borough.

Census population, 1901—10,707.
 " " " 1911—11,309.
 Estimated population, 1915—11,310.
 Births—235.
 Birth-rate per 1,000 of estimated population—20.7.
 Deaths—179.
 Death-rate per 1,000 of estimated population—15.8.
 Infantile Mortality per 1,000 births—106.
 Death-rate from principal Zymotic diseases—1.32.

Infectious Disease.—Ninety-one cases of infectious disease, against 268 last year, were notified. Exclusive of tuberculosis, there were 16 deaths from this class of disease, viz.:—Fifteen from measles and one from puerperal fever, giving a rate of 1.4 compared with 1.1 last year. There were six deaths from pulmonary tuberculosis and three from other forms of tuberculous disease, giving a rate of 0.8.

Measles.—An outbreak of measles began in April and soon assumed the form of an epidemic, which continued till the middle of December. There were probably about 2,000 cases and 15 deaths, 10 of which occurred in the last quarter, owing greatly, no doubt, to the colder weather, giving rise to serious complications, such as pneumonia and bronchitis.

Diphtheria.—Six cases of diphtheria were notified, all of a mild type and all recovered.

Congleton Municipal Borough.

Scarlet Fever.—Forty-four cases of scarlet fever occurred in the beginning of the year, as a continuation of a considerable epidemic in progress at the end of the previous year. There were not any deaths.

One case of diphtheria and 31 of scarlet fever were sent to the hospital, compared with 89 last year.

Tuberculosis.—Of the 19 cases notified of pulmonary tuberculosis, four died. Two or three seemed to recover under home treatment. Several others had been in Sanatoria, some of whom were apparently benefited permanently and others benefited while there, but relapsed afterwards.

Water Supply.—The whole district is supplied except a few thinly populated, outlying and inaccessible places. The 3-inch main was extended in Howey Lane 33 yards. About $1\frac{1}{2}$ miles of 3 and 4-inch mains were cleaned during the year.

Sewage.—The effluent was analysed several times and found to be satisfactory. A few of the outlying districts are still without sewers and also some back streets in the town. The 9-inch sewer was extended 134 yards in Moss Road. The larger humus tanks have commenced at the Sewage Works.

Water-closets and Privies.—During the year the house to house and factory inspection was revised, which shewed that there are 2,323 pail-closets, which are emptied every week, 294 privy middens which are emptied on notice received, 23 waste-water-closets and 933 water-closets, 45 of which were supplied during the year, viz.:—Twenty-five to replace pail or privy-closets, 11 to factories, and nine to recently built houses. Thirty-nine pail-closets were supplied to replace privy middens, which are gradually being replaced by pail or water closets, and in future all new buildings will have to be provided with water-closets.

Housing and Town Planning.—The following is a list of what was effected in the year, viz.:—

Number of inspections made under Housing (Inspection of District) Regulations	...	...	116
„ of dwelling-houses which, on inspection, were considered so dangerous as to be unfit for human habitation	...	...	2

Congleton Municipal Borough.

Number of dwelling-houses inspected which though not in a state so dangerous or injurious to health as to be unfit for human habitation, were seriously defective from the point of view of danger to health or structural faults	...	89
„ of notices served under Sec. 15 of the H. & T. P. Act	... ..	48
„ of those notices satisfactorily complied with	...	48
„ of closing orders made	... ..	0
„ of houses, the defects of which were remedied without closing orders	... ..	59
House demolished	... ..	1
Leaving to be dealt with	... ..	27

Factories and Workshops.—Forty-eight factories and workshops were inspected, 13 defects being found, in respect of which 13 informal notices were served, all of which were remedied.

Pollution of Rivers and Streams.—There is not any pollution from the public sewage works. The River Dane is polluted by the effluent from Silversprings Bleach Works in Buglawton, by the discharge of the water-closets of two Congleton factories into it and slightly by sewage from some of the outlying and distant parts of the district.

CREWE**Municipal Borough.**

Census population, 1901—42,074.

„ „ 1911—44,960.

Estimated population, 1915—45,825.

Births—1,042

Birth-rate per 1,000 of estimated population—22.6.

Deaths—662.

Death-rate per 1,000 of estimated population—14.4.

Infantile Mortality per 1,000 births—119.

Death-rate from principal Zymotic diseases—1.78.

At the time of printing (June 30th) no complete report had been received from this district.

DUKINFIELD

Municipal Borough.

Census population, 1901—18,929.
 „ „ 1911—19,422.
 Estimated population, 1915—20,000.
 Births—461.
 Birth-rate per 1,000 of estimated population—23.0.
 Deaths—305.
 Death-rate per 1,000 of estimated population—15.25.
 Infantile Mortality per 1,000 births—132.
 Death-rate from principal Zymotic diseases—.70.

House Accommodation.—The house accommodation, owing to the scarcity of new buildings in recent years, is not sufficient. Much of the worst property has been demolished or remains unoccupied and very few houses have been built to replace them. The majority of the people in the town belong to the working-class and from 1906 to 1911 excellent cottage houses were built, fitted with modern sanitary arrangements and conveniences and with plenty of air space. The number of plans submitted and passed for new houses during the year 1915 has only been four, compared with two in 1914, eight in 1913 and five in 1912 and compares unfavourably with previous years, viz.:—Thirty in 1911, 40 in 1910, 50 in 1908, 61 in 1907, 61 in 1906 and 24 in 1905. In every case the drains are thoroughly tested by the Surveyor and strict supervision is taken by him as regards structure and air space and fitness for habitation. The average inhabitants per house occupied was only 4.19 in census 1911, compared with 4.48 in 1901. A few cases of overcrowding, due to insufficient house accommodation, have been reported and dealt with during the year. We have a complete list of four-roomed houses, where eight and upwards are living and the Inspector is very assiduous in tactfully altering matters where practicable. We have a list of back-to-back houses and the worst class of property is kept under careful and periodical inspection and improvements and alterations are insisted upon being done when necessary.

Population, &c.—Our estimated population is 20,000, the census returns for 1911 being 19,426.

In July, 1915, the following was the number of inhabited and empty houses in the Borough:—

Inhabited.	Empty.	Total.
4694	65	4759

Although the total increase of houses since 1901 is only 272—many of the older houses having been closed and demolished—the total number of inhabited houses has increased by 468.

Sewage Disposal.—The following extensions and alterations to the Sewage Works are in course of construction :—(1) Five circular filters, 84 feet in diameter, by 7 feet deep. (2) One rectangular precipitation tank, with a holding capacity of 600,000 gallons. (3) Two storm tanks, each with a capacity of 300,000 gallons. (4) Two detritus tanks, with automatic screens, driven by electric motor. It is also proposed not only to light the place with electricity, but also to use it for pumping purposes.

Closet Accommodation.—At present there are four systems of closets, viz. :—Ashpit privies, pails, automatic flush-closets and fresh-water-closets. The Committee have advocated a steady substitution of water carriage for the two first systems just mentioned. Wherever practicable, fresh-water-closets are put in rather than the automatic flush. There is no doubt, if the annual charges for water supply, 10/- per closet, were less, it would hasten materially the number of conversions. Seventy-four closets have been converted during the year. The intention is, where possible, to carry out the principle of one house one closet.

Infectious Diseases, Hospitals, &c.—We have arrangements with the Hyde Hospital Authorities for four beds, two for small-pox and two for other infectious cases, but we have never had any difficulty in arranging for more cases to be admitted. The Hyde Fever Hospital has beds quite sufficient to allow of the treatment of all the infectious cases we are likely to send to hospital. All our small pox cases are sent to hospital and other infectious cases are also sent at the discretion of the Sanitary Authority. One case of typhoid fever, two of diphtheria and two of scarlet fever were sent to hospital during the year.

During the year 69 cases of infectious diseases have been notified and, including tuberculosis, 124 cases in all.

There were 34 notifications of scarlet fever during the past year.

There were eight cases of typhoid fever notified during the year.

There were 46 cases of pulmonary tuberculosis and nine of other forms of that disease.

Dukinfield Municipal Borough.

Bacteriological Work.—In cases of diphtheria, typhoid fever and tuberculosis, arrangements are made with the Public Health Laboratory, at Manchester, for examinations of specimens and reporting on the same. Advantage is taken of this by the medical practitioners in the district and the following bacteriological examinations were made during the year 1915 :—

Diphtheria.		Typhoid Fever.		Human Tuberculosis.	
Total	+	Total	+	Sputum. Total	+
1	0	2	0	11	2

Scarlet Fever.—Thirty-four cases were notified, with no deaths, compared with 143 cases, with five deaths, in 1914.

In four houses duplicate cases occurred. In two of these houses two cases were notified on the same day. In one house one case was notified four weeks after the first and in the other house three weeks after the first.

Diphtheria and Croup.—Six cases were notified, with five deaths, compared with two in 1914. During the past year the death-rate from diphtheria was 83 per cent., which is remarkably high compared with previous years. It is remarkable that during the past twelve years the deaths from this fatal disease have been so few, there being only 40 deaths out of about 254 cases. The cases of mortality in previous years have been as high as 30 per cent. and upwards. I attribute this to the fact that in most cases anti-diphtheritic serum is used very early on in the illness and with excellent results, as there is no reason to believe that the attacks themselves are less severe. The Sanitary Committee supply the serum free of charge in all cases.

Vaccination.—The Registrar's return of births, successful vaccinations, insusceptible of vaccination, dead unvaccinated, postponements, removed from district, certificates of exemption, &c., from January 1st, 1915, to December 31st, 1915, shews the following :—

Number of Births :		Legitimate ...	447
		Illegitimate ...	15
		———462	
Insusceptible of Vaccination ...	...	...	0
Successful Vaccination ...	...	...	32
Postponements by Medical Certificate ..	...	...	3
Removed from District ...	...	...	1
Conscientious Objections ...	...	...	206
Births Unaccounted for ..	...	...	180
Dead Unvaccinated ...	...	...	40

Cancer.—Cancer accounted for 19 deaths, compared with 21 in 1914. This disease has caused an increased number of deaths of recent years, the explanation of which is not very satisfactory.

Tuberculosis.—Pulmonary phthisis was responsible for 24 deaths and 10 more were due to other forms of tuberculosis, compared with 23 in 1914. This is an undoubted infectious disease and, owing to improved hygienic conditions, the death-rate has considerably decreased in recent years.

On receipt of primary notification, the house is immediately visited and instructions left for the guidance of patient and household. Subsequent visits are paid, if necessary, and sputum is pathologically examined free of charge, at the request of the medical attendant. Tuberculin is also supplied by the Local Authority.

Infantile Mortality.—There were 61 deaths of children under one year, the average for the previous five years being 77. The mortality per thousand births registered was 132, compared with 149 in 1914. Since 1901, when the infantile mortality in Dukinfield reached its high-water mark of 275, there has been a considerable decline. This year we are well below the average of the previous 10 years. The average for the years 1897 to 1901 (inclusive) was 239.

Midwives.—The number of midwives in the County Register residing in the district is 15. These midwives keep their case books or registers fairly well as a rule.

The total number of cases attended by registered midwives during the period under review was 411.

In the event of midwives attending cases of puerperal fever or other infectious conditions arrangements are made whereby in every case the midwife attends Hyde Hospital with her bag, instruments and uniform and is bathed and her clothes, &c., are sterilized and disinfected. She then resumes her duties.

I can again record that there is no shortage of midwives in any part of the Borough. As regards the merits of each midwife, the public soon judge for themselves and I find that the most efficient and trained women are rapidly getting most of the cases. Time alone will bring about a change for the better. I have pleasure in stating, however, that the work of these midwives is being done in a very satisfactory manner, surgical cleanliness being observed in every detail.

HYDE

Municipal Borough.

Census population, 1901—32,766.
 " " 1911—33,437.
 Estimated population, 1915—32,665.
 Births—610.
 Birth-rate per 1,000 of estimated population—18.67.
 Deaths—626.
 Death-rate per 1,000 of estimated population—19.16.
 Infantile Mortality per 1,000 births—141.
 Death-rate from principal Zymotic diseases—1.89.

Illegitimate Births.—Twenty-seven births were registered as illegitimate—fourteen males and twelve females. Twenty-three occurred in Hyde, three in Newton and one in Godley. This gives an illegitimate birth-rate of .82 per 1,000 of the population, or 4.4 per cent. of the total births registered.

Deaths.—The largest number of deaths was caused by bronchitis 77, organic heart diseases 64, cancer 61, pneumonia 56, pulmonary tuberculosis 42, measles 39 and wasting diseases 30.

Infant Mortality.—The number of deaths of infants under one year of age was 86, which gives an infant mortality rate of 140.9 per 1,000 births.

The infant mortality rate is higher by 18.4 deaths per 1,000 births than in 1914. This rise is more than accounted for by the increase in the number of deaths from measles and pneumonia. Another factor which has some bearing on the increase is the fact that the rate is calculated on a rapidly declining birth-rate. The measles epidemic occurred in the early months of the year and was the most virulent that has visited the Borough for fifteen years. The increase in deaths from respiratory diseases occurred at all age periods and no doubt depended on the severe epidemic of influenza of the Spring. Other causes are the increase in the employment of married women, owing to the war and the want of agencies for attending to young children during the absence of the mothers. The Ladies' Health Society have been actively engaged at the centre at Mechanics' Institute. Forty-nine meetings have been held, at which 230 mothers, with their babies, attended 1,408 times, an average of 32 attendances at each meeting.

During the year the Health Visitor has paid 3,203 visits to the homes of 584 infants and has given advice to the mothers on the feeding and general management of their children.

The dinners to nursing and expectant mothers and children under school-age, which were instituted in 1914, were continued during 1915. The number of mothers and children who attended and were supplied with dinners, was as follows:—

Number of mothers who received dinners	...	48
Number of expectant mothers who received dinners	...	3
Total number of dinners served to mothers	...	1,939
Average number of weeks each mother attended.	30 weeks and 2 days	
Number of children under school age who received dinners	... ..	33
Total number of dinners served to children	...	1,084
Nursing mothers supplied with milk	...	20
Number of children supplied with milk	...	13

Bacteriological Examinations.—The following statement shows the number of bacteriological examinations made at the Public Health Laboratory of Manchester University during the year and the results:—

Diphtheria.		Enteric Fever.		Human Tuberculosis Sputum.		Bovine Tuberculosis Milk.	
Total.	Positive.	Total.	Positive.	Total.	Positive.	Total.	Positive.
5	2	3	0	18	3	18	0

Phthisis and other Tuberculous Diseases.—There were 42 deaths from pulmonary tuberculosis and 10 from other forms of tuberculous disease during the year. The phthisis death-rate is equal to 1.2 per 1,000 and that of other forms of tuberculous disease to .30. Fifty-one cases of pulmonary tuberculosis and 18 of other forms were notified. All cases notified have been visited and instructions given for the prevention of the spread of infection.

Isolation Hospital.—One hundred and nineteen cases of infectious diseases belonging to the Borough have been isolated and treated in the Hyde Isolation Hospital during the year. 106 of these cases were scarlet fever, ten diphtheria, one enteric fever, one puerperal fever and one cerebro spinal meningitis.

The cases received in Hospital from outside districts were :—

District.	Scarlet Fever.	Enteric Fever.	Diph- theria.	Puerperal Fever.
Marple	10	0	1	0
Droylsden	10	3	0	0
Denton	7	2	0	0
Bredbury	17	0	3	0
Audenshaw	4	0	0	0
Dukinfield	2	1	2	0
Hazel Grove	3	0	0	0
Disley	1	0	1	0

Water Supply.—The water supply is obtained from the reservoirs of the Manchester Corporation, situated at Woodhead. The supply for trade purposes is obtained from the reservoirs belonging to the Corporation, situated at Gee Cross.

Housing and Town Planning Act.—The following tabular statement shows the number of houses inspected, notices served and alterations and improvements made during the year :—

The number of houses inspected under Section 14 of Act of 1909	...	...	...	...	3,154
The number of dwelling-houses, which, on inspection, were considered to be so dangerous or injurious to health as to be unfit for habitation	..	...	...	...	6
The number of representations made to the Local Authority	...	...	...	...	300
The number of closing orders made	...	1,	relating to six houses	...	...
The number of houses where defects were remedied without closing orders being made	...	...	...	...	284
The number of houses where defects were remedied after closing orders were made	...	...	...	...	0
The number of houses closed after closing orders were made	...	...	...	...	3
The number of houses demolished after closing orders were made	...	...	...	...	0

The housing accommodation in the Borough is, generally speaking, good. The houses are brick built, self-contained and all have a backyard and sanitary conveniences. No complaints have been received during the year as to a shortage of houses, although there are very few empty houses within the limits of rent in Section 14 of the Act of 1909.

During the year 291 dry ashpits have been demolished and 589 ashbins substituted. One privy has been converted to the water carriage system and one to a pail closet. Seven pail closets have been converted to w.c.'s. There are now existing in the Borough 101 privies, 107 pail closets, 16 cesspools, 1,622 ashpits, and 3,831 ashbins.

Fourteen new houses have been certified fit for habitation during the year. Seventy-one dwelling-houses have been inspected under Section 17 of the Act of 1909; 3,154 houses have been inspected under Section 14 of the same Act, six of which were considered unfit for habitation. The estimated number of houses within the limits of rent in Section 14 of the Act of 1909 is 7,508. 284 Notices have been served in respect of these houses in 1915. One closing order was made in respect of six houses. There are approximately 46 back-to-back houses and no cellar dwellings in the Borough.

Midwives.—Twenty-two names of Midwives practising in the Borough have been on the register during 1915. According to the midwives' case books 569 cases have been attended by them during the year. In 63 cases medical help was received and 17 still-births were notified. Six cases of puerperal fever were notified, of which one died. In puerperal cases the midwives were dealt with as in previous years. They were immediately directed to cease practising and were sent to the hospital with clothes, bag and appliances, and were there disinfected. In no instance did a second case arise.

MACCLESFIELD Municipal Borough.

Census population, 1901—34,624.

 " " 1911—34,797.

Estimated population, 1915—33,639.

Births—620.

Birth-rate per 1,000 of estimated population—18.4.

Deaths—551.

Death-rate per 1,000 of estimated population—15.6.

Infantile Mortality per 1,000 births—140.

Death-rate from principal Zymotic diseases—1.12.

At the time of printing (June 30th) no complete report had been received from this district.

STALYBRIDGE

Municipal Borough.

Census population, 1901—27,673.
 „ „ 1911—26,513.
 Estimated population, 1915—26,905.
 Births—549.
 Birth rate per 1,000 of estimated population—20.37.
 Deaths—491.
 Death-rate per 1,000 of estimated population—18.2.
 Infantile Mortality per 1,000 births—147.
 Death-rate from principal Zymotic diseases—1.70.

Population.—The population of the Borough is based on the Census of 1911, with the increase of births over deaths, and at the end of the year was 26,944,

The foregoing estimate of course makes no allowance for those who have so nobly answered their country's call, for as yet we can get no precise record of them

Since completing the report so far as it deals with the estimated population and with the birth and death-rates there has been received from the General Register Office a communication giving the estimated civil population, 1915, as 21,511.

Infantile Mortality.—The deaths of infants under one year of age computed upon the number of births registered the infantile mortality were 147.5 against an average of 178 for the previous ten years.

Miss Hanson, the Lady Sanitary Inspector, has during the year done good service in visiting the homes where infants have been born and in supervising the infants during their first year of life, while the School for mothers, a Voluntary Institution organised by Councillor Mrs. John Summers, has also assisted in instructing mothers and in getting them to take more care of and a greater interest in their babies. During the year Miss Hanson paid 2,687 visits *re* births, and 1,379 re-visits. Besides visiting the newly-born infants she also investigates all cases of deaths of infants under one year of age, and in this connection she has inquired into the deaths of 80 infants. Of these she ascertained that 14 had never partaken of any food, 28 had been entirely breast-fed, and 38 had been artificially fed. The number of mothers who worked away from home was 17. The Infantile

Mortality has during recent years diminished considerably though it is much heavier than it ought to be, but I am convinced that moral and social habits have more to do with it than either the occupation of the parents or such conditions as can be effectively dealt with by a sanitary authority. The terribly low birth-rate, the altogether too numerous still-births and the puny infants who succumb within a few minutes, hours or days constitute a sad record. The establishment of maternity centres and the various schemes for infantile welfare must in time exercise an elevating influence and bring about some diminution in the mortality of infants, but until we get our young men and more especially our young women to realise that it is their duty and their privilege to replenish the population and that the large family is preferable to the one and only pampered child, which is so often ailing, our Country will not reap that advantage from its sons and daughters which is its due and which it will need more than ever after the War is over to enable us to keep abreast of other nations both in trade and power.

Infectious Disease.—Scarlet fever, of which 79 cases were notified as against 124 cases in 1914, was generally of a mild type and only three deaths resulted therefrom. Five cases were sent to the Borough Hospital, Ashton-under-Lyne. Three of the seven cases of typhoid fever occurred in the same cottage and two of the three proved fatal. Efficient isolation was not possible and there was not any hospital accommodation available. Of the other four cases two proved fatal, but there was no further spread of the disease in any of these four dwellings.

Tuberculosis.—During the year 43 persons have been notified as suffering from pulmonary tuberculosis, of whom 22 were males and 21 females; while two males and three females have been notified as suffering from other forms of tuberculosis.

The deaths from pulmonary tuberculosis during the year numbered 35 and from other forms of tuberculosis there were 13 deaths.

Cancer.—The mortality from cancer (including "malignant disease") continues very heavy, 42 deaths having resulted from this disease during the year, the numbers for the previous year being 31.

Premises where deaths from "malignant disease" have occurred are disinfected.

Stalybridge Municipal Borough.

General Inspection.—The general inspection of the various premises within the Borough has continued throughout the year and the total number of visits made is 1,923. The number of notices served for the removal of nuisances is 313 informal notices and 19 statutory notices. The Sanitary Inspector has continued his house to house inspection of the Borough and when necessary I have also accompanied him in the inspection. Full records are made and are readily available so that when the time is more opportune several defective or insanitary properties will be brought to the notice of the sanitary authority. As it is, only really necessary and urgent alterations and improvements have been insisted upon. During the year, 492 dwellings have been carefully inspected and reported upon. Besides these, 47 dwellings were inspected, and notices under the Public Health Act were served for various repairs and alterations.

House Refuse.—The following table shows the return of the number of ashbins, privy-middens and dry pits which have received attention during the year.

Ashbins.		Middens.		Drypits.
84,140	...	2,857	...	1493

Last year's totals are :—

Ashbins.		Middens.		Dry-pits.
80,454	...	3,239	...	1,575

ALDERLEY EDGE

Urban District.

Census population, 1901—2,856.

„ „ 1911—3,143.

Estimated population, 1915—2,985.

Births—38.

Birth-rate per 1,000 of estimated population—12.7.

Deaths—27.

Death-rate per 1,000 of estimated population—9.04.

Infantile Mortality per 1,000 births—26.

Death-rate from principal Zymotic diseases—

At the time of printing (June 30th) no complete report had been received from this district.

ALSAGER

Urban District.

Census population, 1901—2,597.

„ „ 1911—2,743.

Estimated population, 1915—2,743.

Births—36.

Birth-rate per 1,000 of estimated population—13.12.

Deaths—44.

Death-rate per 1,000 of estimated population—16.4.

Infantile Mortality per 1,000 births—55.

There were no deaths from the principal Zymotic diseases.

Infectious Disease.—During the first quarter there were the usual winter diseases, especially bronchitis and a few cases of influenza of a mild type amongst the adult population. In April of the next quarter the former disease was rather prevalent but had materially decreased in May. In June and July the health was very good and continued so until the commencement of September when a sharp epidemic of measles broke out, affecting especially the younger children attending the Infant School. This increased so rapidly that both schools were closed on September 6th and remained so until October 4th, when they were again opened. In November the children of both schools suffered severely from bronchitis—which almost amounted to an epidemic—affecting most severely those who had previously suffered from measles in September. The school attendance fell very low, over 50 per cent. of those attending the Infant School being absent. The attendance gradually increased in December and when the Christmas holidays commenced it again assumed the normal.

During the year six cases of diphtheria, two cases of scarlet fever, two cases of enteric fever and three cases of erysipelas have been reported. Of the enteric cases, one was contracted in France, the other—a child 12 years old—was probably caused by contamination of hands by water of a dirty pond, the bacilli being conveyed from the hands to the mouth. The inmates of both the houses where these cases had been treated were inoculated with Anti-Typhoid Vaccine—as a prophylactic—and have escaped contagion.

To combat the spread of disease by contamination of food-stuffs, &c., by flies, the Council has had issued posters and

Alsager Urban District.

handbills urging the public to destroy these pests in every way possible and to cover all foods when not in immediate use.

Water Supply.—This was from the same source as reported last year up to May 14th—upon which date the water from the new supply was turned on and the old works were shut down—with the exception of the reservoir and tank at Linley. These are kept full in case of necessity—their total capacity being 355,000 gallons.

Scavenging.—This is carried out by contract.

Approximate number of the following in the District.			How frequently scavenged.
Midden Privies 310 about	...	...	Fortnightly or as required
Dry Ashpits 30	„	...	As required.
Pail Closets 2	„	...	Weekly.
Dustbins 630	„	...	Weekly.
Cesspools 30	„	...	As required.
Fresh Water W.C's estimated at 335.			
Waste Water and hand-flushed W.C.'s 30.			

Midwives.—There are three Midwives practising in the district. Registers are regularly and well kept. One cannot write; her register is kept by a neighbour. She nurses for medical men only. She can take temperature and is thoroughly reliable and a very clean and respectable woman.

No laying out the dead is sanctioned by the Local Authority without the consent of the Medical Officer of Health. No case of puerperal fever or other infectious or contagious disease has arisen in cases attended by the midwives. I have inspected their bags and found them very satisfactory. Their houses are kept scrupulously clean.

ALTRINCHAM

Urban District.

Census population, 1901—16,831.

” ” 1911—17,813.

Estimated population, 1915—18,407.

Births—376.

Birth-rate per 1,000 of estimated population—20.4.

Deaths—218.

Death-rate per 1,000 of estimated population—11.3.

Infantile Mortality per 1,000 births—74.

Death-rate from principal Zymotic diseases .38.

Mortuary.—A public mortuary and post mortem room are provided at the Town Hall by the Council.

Infectious Diseases.—The notifications received were—scarlet fever 29, diphtheria 11, erysipelas 10, puerperal fever 2, ophthalmia 1, enteric fever 2, cerebro-spinal fever 1.

Arrangements exist between the Council and the Victoria University, Manchester, for all bacteriological examinations and antitoxin serum is supplied for any cases in the district.

Isolation Hospital.—The Sinderland Isolation Hospital in Dunham Massey, provides for scarlet fever 20 beds, diphtheria 5 beds, typhoid fever 5 beds. There are also two observation wards and all the necessary buildings and plant for the disinfection or destruction of infected articles. A separate arrangement for small-pox cases has been made with the Manchester City Council for the reception of cases from this district.

Admitted to Hospital from January 1st to December 31st, 1914 (inclusive of both dates), 55 cases, classed as follows:—

Scarlet Fever.	Diphtheria.	Typhoid Fever.	Cerebro-spinal Fever.
28	11	2	1

Also from Bowdon two cases, Hale four cases and Lymm seven cases.

Tuberculosis.—Notifications were:—

Form A, 41 (pulmonary 32, other forms 9),

Form B, 3, Form C, 12, Form D, 13.

The action taken in the case of tuberculosis includes the disinfection of houses and effects by the Council, cards of advice provided for households invaded by the disease and attention is directed to the surrounding influences. As far as possible these cases have been dealt with through the agency of the Manchester Consumption Hospital and the Crossley Sanatorium at Delamere.

Sewage, &c.—A commencement of separating the surface water from sewage has been made on the east side of the district, with the object of relieving the sewers during storm times and further work in this direction is contemplated. A scheme for the extension of this work was sanctioned by the Local Government Board and further works have been carried out in Stockport Road. As regards the sufficiency of the arrangements at the Sewage Disposal Works an expert engineer is at present engaged upon a scheme and additions and improvements are contemplated, but are at present in abeyance.

Sanitary Accommodation.—A statement as to the privy and water-closet accommodation is given below:—

No. of Common Privies	...	1667
„ Moveable Receptacles	...	18
„ Fresh Water Closets	...	2252
„ Waste Water Closets	...	208
		<hr/> 4145 <hr/>

The number of privy conversions into water-closets during the year was 36. In connection with this matter the Council has decided to attack the conversion of privies on a large scale and, as soon as plans and estimates are ready, application will be made to the Local Government Board for sanction to borrow the money necessary to convert 1,000 as the first instalment towards the complete abolition of privies in the town. This is also for the present in abeyance.

Housing.—The inspection of the District, under the (Inspection of District) Regulations, 1910, has been carried out under my direction by the Inspector of Nuisances. The total number of dwelling-houses inspected to date, under Section 15 of the Act, is 1,667. During the year 395 houses have been inspected and defects reported at 121 houses. At 54 houses the defects have been remedied.

During the year the number of houses inspected under Section 17 of the Act was three, which were found to be unfit for human habitation. A closing order has been made in each case. In the Police Street area, about which last year an Inquiry was held by the Local Government Board, notices of demolition in connection with the whole of the 14 houses which were considered unfit for habitation expired on the 5th November and the work is to be proceeded with forthwith. This has been completed. The only cellar dwellings in the town (New Street) which were also the subject of an Inquiry, have ceased to be used as dwellings, the owners having agreed to this course at the instance of the Council.

Workmen's Dwellings.—Throughout the year, the question of extending the provision of small houses for the working classes has engaged the serious attention of the Council and the difficulty so far has been the provision of a suitable site for the erection of workmen's cottages. Owing to the restrictions of the Treasury with regard to loans, any extension of their housing scheme is in abeyance. The Council have erected dwelling-houses under the Housing Acts and there are at present in occupation 25 five-roomed cottages, which let at a rental of 6/6 per week; 11 four-roomed cottages at 5/6 per week; 22 four-roomed cottages at 4/9 per week; 24 two-roomed cottage flats at 3/6 per week; and four two-roomed cottage flats at 3/- per week.

The site of the old Infectious Diseases Hospital in Lloyd Street (one acre) has been acquired by the Council and the best method of dealing with it was under consideration at my last report. In such a congested area I felt very strongly that the whole site should be kept open and I am glad to report that the Council decided upon this course and it is now in use as an open space.

Notification of Births Act, 1907.—As stated in my last report, a scheme was under consideration for providing a Health Visitor under this Act. In April the Council appointed Nurse Bardsley as Visitor and, the notice necessary having been given to practitioners, nurses and parents in the district, she began her duties on May 1st.

I was fortunately able to back the Council's provision with a pre-existing voluntary scheme for feeding poor mothers, expectant and nursing and to make other arrangements, so that there is now working a fairly complete method of dealing

with this matter. By the kindness of the owner, a portion of High Bank has been put at the disposal of the original Committee and substantial dinners are provided there daily, except Sunday, for expectant mothers and those nursing their infants, for a very small contribution. Every Wednesday the Medical Officer of Health and the Nurse attend after dinner and the babies are weighed, a record of their progress kept and advice, &c., given.

I have been able to arrange with the Board of the Hospital that all children needing operation, &c., can be sent there for treatment. Also, the Board has extended its scope of operation so as to include the admission of mothers in labour, where such labour is dangerous or requiring operative treatment. The Health Visitor has made 4,343 visits to infants at home; 320 children have been weighed, &c., at the School for Mothers. Special advice has been given in twelve cases, operations performed in two cases, mothers removed to Hospital for labour, one. Special milk food is procured by the Council at special rates and sold to mothers at cost price.

ASHTON-UPON-MERSEY

Urban District.

Census population, 1901—5,563.

„ „ 1911—7,234.

Estimated population, 1915—7,750.

Births—163.

Birth-rate per 1,000 of estimated population—21.0.

Deaths—96.

Death-rate per 1,000 of estimated population—12.3.

Infantile Mortality per 1,000 births—71.

Death-rate from principal Zymotic diseases—.90.

Infectious Disease.—The cases of infectious diseases reported were:—diphtheria 18, scarlet fever 16, erysipelas 6, whooping-cough 7, German measles 14, measles 124.

Four cases of diphtheria were moved to Monsall Infectious Hospital.

In all cases of tubercle of the lungs reported the room in which the patient had been was disinfected and the house carefully examined.

Ashton-upon-Mersey Urban District.

Housing.—With respect to the five cases of closing orders referred to in my last annual report as outstanding, in four cases the owner has demolished the houses, thus leaving one to be dealt with. No further representations for closing orders have been made during the year.

Closet Accommodation.—The number of privy conversions carried out is 48; in addition to this three privies have been pulled down, making a total of 51 done away with during the year. The total number of privies in the district is now 174. This figure represents double and single pits. The exact number of privy-middens is 141 and in a number of these cases the pits are used only as dry ashpits, the houses being provided with inside water-closets. Fresh-water-closets number 1,615 and waste-water-closets 16. Twenty-five ash-pits have been done away with and galvanised iron ashbins provided. The total number of ashbins in the district is now 976.

**HIGHER BEBINGTON
Urban District.**

Census population, 1901—1,540.

„ „ 1911—1,689.

Estimated population, 1915—1,628.

Births—43.

Birth-rate per 1,000 of estimated population—26.41.

Deaths—27.

Death-rate per 1,000 of estimated population—16.58.

Infantile Mortality per 1,000 births—93.

Death-rate from principal Zymotic diseases—1.84.

Closet Accommodation.—Nearly all the houses are provided with water-closets. Scavenging is carried out by contract.

Infectious Diseases.—The Wirral Joint Hospital Board supply the necessary isolation accommodation for infectious diseases.

Two cases were notified, viz.:—erysipelas one, scarlet fever one.

The last-named was treated in the Isolation Hospital.

Higher Bebington Urban District.

Two cases of pulmonary tuberculosis were notified and this disease is given as the cause of death in two instances.

Infant Mortality.—The Notification of Births Act is in force, the working of which has been deputed to the County. Four infants died before reaching the age of one year, giving an infantile mortality rate of 93.02 per 1,000 births. The two registered midwives attended 39 births and there were no still-births.

LOWER BEBINGTON Urban District.

Census population, 1901—8,398.

„ „ 1911—11,401.

Estimated population, 1915—13,118.

Births—290.

Birth-rate per 1,000 of estimated population—22.1.

Deaths—143.

Death-rate per 1,000 of estimated population—11.1.

Infantile Mortality per 1,000 births—100.

Death-rate from principal Zymotic diseases—1.52.

Destructor.—The Destructor has been erected and has worked very efficiently for the whole year. The steam disinfecter in connection with this has been of great service for the sterilizing of military equipment.

Housing.—Very little work has been done that can be brought under this heading, but it might be added that the district has not suffered in consequence, as minor defects have been brought forward and remedied. Thirty-four houses have been erected during the year.

The following statement shews the work done during the year:—

Number of dwelling-houses inspected under Section 17	
Act of 1909	35
Number of such houses considered unfit for habitation...	1
Number of representations made to Local Authority ...	31
Number of closing orders made by Local Authority ...	1

Lower Bebington Urban District.

Number of houses where defects remedied <i>without</i> closing orders being made	...	...	...	26
Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909	...	...	...	1739
Number of such houses in respect of which notice was served	...	...	...	31
Number of back-to back houses in district	...	...	...	2
Number of cellar-dwellings in district	...	...	...	0

Hospital.—The Wirral Joint Hospital Board supply the necessary isolation accommodation for infectious diseases.

Infectious Diseases.—Thirty cases of diphtheria were notified of whom 27 were removed and treated in hospital. Death occurred in two instances. Seventy-eight cases of scarlet fever were notified. All were removed and treated in hospital; one case proved fatal. Four cases of enteric fever were notified. All were treated in hospital; one gave positive reactions (Widal) and death occurred in this case. Twelve cases of erysipelas were notified and two deaths occurred in persons of over 65 years of age.

There was one case of poliomyelitis—that of a military officer from Salisbury, who came home on short leave. Early symptoms really appeared before leaving the camp. He is making slow progress towards recovery, but there is definite paralysis in the shoulder group of muscles.

Three cases of ophthalmia neonatorum were notified and investigated by the Lady Health Visitor.

Twenty-seven cases of tuberculosis were notified, 17 pulmonary and 10 other forms and 19 deaths attributed to this cause. Disinfection is rigidly carried out by the Council on removal of the patient or in case of death.

Midwives.—The five midwives practising in the district have attended 255 births; there were two still-births.

Notification of Births Act.—This is in force in the district and the work has been efficiently carried out by the Lady Health Visitor. A "Baby Welcome" has been established, which is well attended; and it is also proposed to arrange, in conjunction with the midwives, a clinic for expectant mothers. Twenty-nine infants died before attaining the age of one year, equalling an infantile mortality of 100 per 1,000 births. Whooping-cough accounted for five of these deaths.

BOLLINGTON

Urban District.

Census population, 1901—5,245.
 " " 1911—5,224.
 Estimated population, 1915—5,001.
 Births—91.
 Birth-rate per 1,000 of estimated population—18.2.
 Deaths—86.
 Death-rate per 1,000 of estimated population—17.2.
 Infantile Mortality per 1,000 births—88.
 Death-rate from principal Zymotic diseases—1.39.

Infant Welfare.—Under the Notifications of Births Act 1907.—Two methods were proposed to carry out the provisions of this Act, one to join with the Rural District in the expense and share the services of the Nurse and the other to approach the District Nursing Association with a view to obtaining the services of their Nurse. It was held very strongly that the latter course would be of far greater benefit to the district and this was the one eventually adopted. Nurse Ashton, who is highly trained and who has been resident in the district for a good many years, is so well known and so well liked that the work has had a most satisfactory commencement. She has had 65 cases in her books and has made in all since the 1st of April 655 visits. The fee paid by the Urban District Council to the District Nursing Association for the Nurse's services is £25 per annum.

Isolation Hospital.—The total cost of maintenance and treatment of 13 cases sent to the Isolation Hospital amounted to £104 0s. 6d. Other fees paid to the Macclesfield Borough for Hospital Account and Medical Officer's fee amounted to £75 13s. 4d.

Two beds in the Small-pox Hospital and four beds in the Isolation Hospital are reserved by the Borough for the use of patients from the Urban District.

Tuberculosis.—Four cases of pulmonary tuberculosis and one non-pulmonary were notified during the year. The houses of these patients are visited by your Medical Officer who inquires into the conditions of the house and the other inhabitants. Sputum flasks and disinfectants are supplied by the Council.

Bacteriological Examinations.—Material such as blood, sputum and throat swabs are sent either to the Lister Institute or to the Runcorn Laboratories for examination at the cost of the Council. In this way material from 11 patients has been examined during the year.

Housing.—The following are the particulars required by the Local Government Board:—

Number of new houses built during 1915 ...	...	None
Number of dwelling houses inspected under Section 17 Act, 1909 ...	...	320
Number of such houses considered unfit for habitation...		None
Estimated or ascertained number of houses within limits of rent in Section 14 of Act, 1909 ...	...	1118
Number of such houses in respect of which notice was served during 1915 ...	...	90
Number of such houses closed after notice ...		None
Number of such houses where Local Authority has executed necessary repairs, &c. ...	...	None
Approximate number of back-to-back houses in district...		6
Number of cellar dwellings in district ...	...	None

The houses are chiefly built of stone and rubble and for the greater number consist of four rooms—two down and two up. The later built houses consist of six rooms and in some cases have a bathroom.

Sewerage.—It has not yet been found possible to extend the system to the few houses in the outlying highest districts, viz.:—Long Lane and Windmill Lane.

Closet Accommodation.—Twenty-eight closets, supplying 45 houses, have been put in during the year. The total number of closets is thus 613. The work of conversion from privy-middens to water-closets and dry ashpits is undoubtedly a slow one and one could wish for greater acceleration in this important matter, but under the conditions brought about by the great war it is hardly possible to push on at a greater rate. The alternative would seem to be to pay greater attention to the more frequent emptying and cleansing of the privies which still remain.

Water Supply.—The district is supplied with water from the boreholes at Lowerhouse and Dane Bent, Rainow. The

supply from the Lowerhouse source falls rapidly during dry weather and appears to be entirely dependent on the rainfall for the time being. There would appear to be very little reserve of water held upon the strata which supply the borehole.

The supply from Dane Bent varies very little during the seasons. Pumping here is necessary however during six or seven months of the year to make up for the fall in the supply from Lowerhouse. In this way the quantity has been easily sufficient for the needs of the district.

Samples of water were sent to Professor Delépine who reported that the Dane Bent supply might be considered very good and above suspicion, but suggested the taking of further samples of the Lowerhouse surface spring and borehole water after heavy rains. This resulted in a report that:—"The number of bacteria is high and the presence of the bacillus coli in 1 c.c. is an indication of pollution which is undesirable. It is possible that the bacillus coli has been introduced into the sample as a result of some accidental contamination at the time of collection."

After consideration of this report it was thought that it would be well to have further samples taken frequently during a period of continuous wet weather. This was done and samples from the surface, spring and borehole supply at Waterhouse and also of tap water were sent to Dr. Annett at the Research Laboratories, Runcorn, for bacteriological examination. As a result the surface spring water was found to shew bacillus coli in 5 c.c.; the borehole water in 15 c.c.; and the tap water in 5 c.c. Dr. Annett arrived at the conclusion that the water should be placed in the 3rd class of drinking water and should be regarded with suspicion.

The matter is now in the hands of a Sub-Committee appointed for the purpose. Upon the members of this Committee I would impress the vital necessity of using all urgency fully consistent with attaining a satisfactory result. In the meantime I would again bring forward the question of the prevention of the grazing of cattle on the Council's ground adjoining the borehole. The advisability of taking this course is borne out I think by that portion of Professor Delépine's report which reads as follows: "The effect of the heavy fall of rain has been to cause a considerable alteration due to the displacement of faecally polluted soil."

BOWDON

Urban District.

Census population, 1901—2,788.

„ „ 1911—3,044.

Estimated population, 1915—3,050.

Births—35.

Birth-rate per 1,000 of estimated population—11.1.

Deaths—34.

Death-rate per 1,000 of estimated population—11.1.

Infantile Mortality per 1,000 births—58.

Death-rate from principal Zymotic diseases—0.

Measles.—Measles has been lately made compulsorily notifiable. In my opinion the benefits therefrom will not compensate for the trouble and expense incurred. Measles is most infectious before the rash appears and therefore, often before it is recognised, the infection spreads before measures can be taken to check it. In an epidemic of measles, I do not see, with the present limited accommodation for isolation at the Altrincham Sanatorium, how all cases can be isolated, as is done with scarlet fever; the expense would be a very grave consideration. No doubt, the making of measles compulsorily notifiable will make the public, especially the working classes, look upon measles more seriously than they have hitherto done. I notice that the death-rate from measles in the County of Cheshire for the last year is greater than that of any other infectious disease; there were twice as many deaths from measles as there were from scarlet fever.

Notification of Births Act.—The duty of notifying all births in the district has been very perfunctorily performed; I have only been notified of six births during the four months the Act has been in force and by reports which I receive monthly from the Registrar, there have been 13 births in the Bowdon district.

Infectious Disease.—Again we are fortunate in not having had any infectious epidemic; there were nine cases of infection reported to me, viz.: one from diphtheria, one from erysipelas, three from scarlet fever, one from cerebro-spinal meningitis and three from tuberculosis.

Housing.—No houses have been built in Bowdon during the past 12 months, although the demand for workmen's houses is great. The houses in the district are kept in good repair

Closet Accommodation.—Eight houses have had their privies converted to the water-carriage-system. Owing to the war, the Council have deferred for the present the continuance of the work of conversion of earth to water-closets. Those which are still to do are not immediately adjoining the houses and are kept in a good sanitary condition. The middens are frequently and thoroughly emptied and no complaints have been lodged.

Census population, 1901—7,185.
 „ „ 1911—8,683.
 Estimated population, 1915—9,163.
 Births—138.
 Birth-rate per 1,000 of estimated population—15.
 Deaths—127.
 Death-rate per 1,000 of estimated population—13.8.
 Infantile Mortality per 1,000 births—93.
 Death-rate from principal Zymotic diseases—.32.

Hospital.—The Infectious Diseases Hospital is in Hyde, and we have an agreement whereby, for an annual payment, four beds are placed at our service, three in the new buildings for ordinary cases and one in the old block for small-pox. Further beds can also be utilised for an additional payment. This

Bredbury and Romiley Urban District.

accommodation has been ample hitherto and there has never been any difficulty in getting our cases admitted.

Water Supply.—In some parts of the district complaints have been made with regard to its yellow colour. This is due to a fine peat fibre which readily settles out and which is easily removed by simple filtration. It is more noticeable after the mains have been flushed. It is not injurious to health.

Refuse Removal.—Seven notices, *re* W.C.'s, have been attended to, thereby abolishing 23 old privies and erecting w.c.'s in their places. Three owners have been allowed to extend the time of conversion to six months owing to the effects of the war on their means and the extra cost of labour. Twenty-eight privy-closets have been converted to w.c.'s during 1915. All new property is provided with w.c. accommodation where it is in a position near a main sewer.

Infectious Diseases.—Of the notifiable infectious diseases scarlet fever heads the list for 1915, a few cases having been notified each month, the largest numbers being in the summer months, May to August. Amongst these were many girls and young women working at the Incandescent-Mantle Works. I visited this works and with the manager, who gave me every assistance, inquired as to the origin of the cases and examined suspects, sending home any with sore throats, or raised temperature and keeping others under observation. The room and all articles in it were disinfected thoroughly. On investigation I found that the earliest cases were probably introduced by a girl coming to work whilst suffering from a sore throat. She lived in an infected area and was not aware that she was ill. Several cases which followed were traced to visiting amongst girl friends and workmates, in spite of instructions given that this must not be allowed. In some cases the visiting took the form of congregating beneath the window of the room in which a patient was being isolated (?), the window being thrown open and the patient leaning out to facilitate conversation, &c. Similar cases were reported where children played at "ball" with patients through the open window. In all these cases the parents were at once warned of the danger of these practices and forbidden to allow it. The disease was of a mild type and this was the reason why it spread in many cases, as with little or no rash being noticed and little general malaise, parents did not suspect anything serious from "only a sore throat." Fortunately, there were no deaths from scarlet fever during the year.

Bredbury and Romiley Urban District.

Eight cases of diphtheria were notified during the 12 months and the patients were either sent to the hospital or treated at home with serum supplied (to necessitous cases) by the District Council. All ended in recovery.

Erysipelas was notified in ten cases.

Tuberculosis.—During 1915 nine cases of phthisis and nine of all other forms of tubercular diseases have been notified and there have been four deaths from the former and six from the latter during the year.

The death-rate from phthisis equals 0.43 and of other forms 0.65 per 1,000 per annum. The notified cases are privately investigated by me.

The following statement shows the Bacteriological examinations made for this Council during the year 1915 by Professor Delépine at the Victoria University:—

Diphtheria.		Tuberculosis.		Enteric Fever.	
Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
...	1	3	5	...	3

Midwives.—The number of midwives now on the register is five. From the information I have obtained I am satisfied that the work of the midwives is carried out in a much better way than in years gone by. Medical aid can always be obtained when required by midwives in any difficult case. Arrangements have been made by the Council for any midwife's clothing to be disinfected at the Hyde Hospital if and when required.

Notification of Births Act.—This was adopted by the District Council, but before it came in force the Local Government Board notice arrived, announcing the application of the Notification of Births (Extension) Act, 1915, to the whole of the country, so the former was dropped and the latter proceeded with, as from September 1st, 1915.

Books of instruction are issued to those having the care of young children by the Medical Officer of Health and by the Registrar of Births. The infant mortality has again been low, the number of deaths of infants under one year having been 13 during 1915, giving a mortality per 1,000 births registered of 93.

Bredbury and Romiley Urban District.

Housing.—The Assistant Sanitary Inspector has made 115 inspections during the year and defects were found at 61 dwelling-houses. These were put in order without closing orders being made. The following table gives the particulars required under these regulations:—

The number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909 . .	115
The number of dwelling-houses, the defects in which were remedied without the making of closing orders ...	61

BROMBOROUGH**Urban District.**

Census population, 1901—1,891.

” ” 1911—1,974.

Estimated population, 1915—2,178.

Births—43.

Birth-rate per 1,000 of estimated population—19.7.

Deaths—15.

Death-rate per 1,000 of estimated population—6.8.

Infantile Mortality per 1,000 births—116.

Death-rate from principal Zymotic diseases—.45.

Closet Accommodation.—In the more urban portion of the district water closets are the rule and at inspections these have always been found to be clean and well looked after. There are 25 privies in existence, 15 fewer than in 1914 and 43 less than in 1910. Fifteen privies at The Magazines have been converted into water-closets and ashbins provided in place of ashpits.

Scavenging.—At the present time 320 dustbins are in use, compared with 279 in 1913, these are emptied weekly. Twenty-five privies and ashpits combined and 49 separate ashpits are also in use, which are emptied once a month. The privy refuse is removed by the contractor on to his own land. Ashpit and dustbin refuse is removed and deposited by the Council's employees on a piece of waste land at the top of the Rake. There are six cesspools which are emptied by the owners when required.

Bromborough Urban District.

Housing.—One semi-detached house has been built during 1915 and plans have been passed for erection of 134 cottages for the Bromborough Port Development Company. There are two houses in the district considered unfit for human habitation; one is used as a room for Boy Scout meetings and the other for a chipped potatoe shop. There are no empty cottages and nearly all the working-class dwellings are modern and well constructed.

Hospital.—You provide hospital accommodation for acute infectious diseases by being one of the constituent authorities of the Wirral Joint Hospital Board. Twelve cases were treated at Clatterbridge. Bromborough Pool Village has an Infectious Disease Hospital of its own and nine cases have been admitted for treatment there during the year.

Infectious Diseases.—Twenty-three cases of acute infectious diseases were notified during 1915, viz.:—nineteen scarlet fever, three erysipelas and one puerperal fever. Four cases of pulmonary tuberculosis were notified, but there were no deaths attributed to this cause.

Midwives.—There is one midwife registered as such under the 1902 Act. She attended 26 births. There were no still-births. One case of puerperal fever occurred in connection with which every precaution was taken.

Infantile Mortality.—Five infants died under one year of age, giving an infantile mortality rate of 116 per 1,000 births. The Notification of Births Act is in force, the working of which has been deputed to the County Council.

BUGLAWTON

Urban District.

Census population, 1901—1,452.

„ „ 1911—1,438.

Estimated population, 1915—1,439,

Births—35.

Birth-rate per 1,000 of estimated population—24.3.

Deaths—15.

Death-rate per 1,000 of estimated population—10.4.

Infantile Mortality per 1,000 births—114.

Death-rate from principal Zymotic diseases—1.38.

Infant Mortality.—There were four deaths of children under one year of age, giving a rate per 1,000 of the births of 114, compared with 92 last year, and an average of 100 for the previous five years.

Infectious Disease.—Eleven cases of infectious disease against 44 in 1914 were notified, viz.:—one of diphtheria and 10 of scarlet fever. There were two deaths from diarrhœa, giving a zymotic rate of 1.3, compared with 0.6 last year. The 10 cases of scarlet fever notified occurred early in the year, and there was no new outbreak then, but a continuation of a rather extensive one in progress at the end of the previous year. Only two cases of scarlet fever were sent to hospital.

Closet Accommodation.—Sixteen water-closets and 21 pail closets were provided to take the place of privy-closets, making 99 pail closets now in use.

Housing.—The following statement shows the work done during 1915 :—

Number of inspections made	17
Number of dwelling houses, which, though not unfit for human habitation, were defective in some way ...	13
Number of houses the defects of which were remedied without closing orders	3
Leaving to be dealt with	10

CHEADLE AND GATLEY

Urban District.

Census population, 1901—7,916.
 " " 1911—9,913.
 Estimated population, 1915—11,680.
 Births—182.
 Birth-rate per 1,000 of estimated population—16.97.
 Deaths—98.
 Death-rate per 1,000 of estimated population—9.14.
 Infantile Mortality per 1,000 births—61.
 Death-rate from principal Zymotic diseases—.17.

Tubercular Diseases.—Seven deaths were registered in the district as due to tuberculous diseases which included four at the Barnes Convalescent Hospital, one transferable death belonging to the district proper was registered as due to tuberculous pneumonia.

The nett deaths belonging to the district proper is four, as compared with seven in 1914.

Of the four deaths belonging to the district proper, two were registered as due to tuberculous meningitis, one to tuberculous kidney and one to tuberculous pneumonia and of the four deaths at the Barnes Convalescent Hospital two were due to pulmonary tuberculosis, one tuberculous peritonitis and one tuberculous spinal caries.

Cancer.—Ten deaths were registered as due to cancer in the district and two transferable deaths, making a total of twelve for the district proper. The organs affected were in:—

3	cases	the	Oesophagus
2	"		Stomach.
2	"		Rectum.
2	"		Liver.
1	"		Breast.
1	"		Mediastinum.

Three cases of cancer occurred at the Public Institutions: in one case the ovary was affected, one case the breast and in one case the bladder.

Cheadle and Gatley Urban District.

Infant Mortality.—Eleven deaths were registered of children under one year of age, including one transferable death. The chief causes of death were premature birth and congenital debility. Two inquests were held on children under one month old, one being an illegitimate child. I have not been able to ascertain the exact number of still-born children. I received notice of one still-birth from a midwife and since the early Notification of Births Act came into force on September 1st, 1915, one still-birth was registered.

Midwives.—At the beginning of the year four midwives were on the register; one removed from the district at the end of the first quarter and of the three remaining on the register two do not practice and one is too old now to take cases by herself. I have made systematic inspections of the houses, bags and apparatus belonging to the midwives and they are all well kept and clean.

Infectious Disease.—During the year 64 cases of infectious disease were notified, of which 11 cases occurred at the Barnes Convalescent Hospital, five at the Royal Lunatic Asylum and 48 in the district proper. The number of notifications of each disease received from the district proper were as follows:

Smallpox	...	...	...	—
Scarlet Fever	...	...	...	19
Diphtheria and Membranous Croup	...	...	...	9
Erysipelas	...	...	...	2
Enteric Fever	...	...	...	—
Ophthalmia Neonatorum	...	...	...	1
Pulmonary Tuberculosis	...	...	...	14
Other forms of Tuberculosis	...	...	..	3

At the Barnes Convalescent Hospital seven case of erysipelas and four cases of scarlet fever were notified. At the Royal Asylum three cases of erysipelas and two cases of scarlet fever were notified.

Bacteriological Examinations.—Twenty-seven specimens were sent during the year for bacteriological examination; of these 22 were from suspected cases of diphtheria and five from suspected tuberculosis.

Cheadle and Gatley Urban District.

The results of the examinations were as follows:—

Diphtheria ...	... Positive, 6	... Negative, 16
Tuberculosis	... „ 3	... „ 2

Nine cases of diphtheria were notified during the year; of these two occurred in Cheadle and seven in Cheadle Hulme. The two cases which occurred in Cheadle were isolated cases and in neither case could I ascertain the source of infection. All the seven cases in Cheadle Hulme occurred at a small private school. The first case was notified at the beginning of October and then in a few days five other cases were notified; on receiving the notification I immediately visited the school and with the Principals took all possible precautions to prevent the disease from spreading with very satisfactory result. I ascertained that one of the pupils had been suffering from a sore throat and had just returned to school when the first notification was received. A swab was taken from this pupil's throat which gave a negative result, while swabs from the throats of the other children gave positive results. No pupil was allowed to return to school until a swab from the throat gave a negative result. The last case was notified three weeks after the others but I do not think that she was infected from these as she had been away from home staying in a house where there was some sore throats. Two cases were sent to Monsall Fever Hospital. Antitoxin is still supplied by your Council for necessitous cases and has been most useful.

Fourteen cases of pulmonary tuberculosis were notified. In each case full enquiries were made and when necessary advice was given. Four cases were sent away for sanatorium treatment and two were recommended for it. In two instances the patients came into the district suffering from the disease. Your Council only provide disinfectants which have been freely used and houses where cases have occurred or where patients have died have been thoroughly disinfected and also the bedding and articles of clothing which may have been infected.

Three cases of other tuberculous diseases were notified, viz.:—two cases of tuberculous meningitis and one of tuberculous glands. Both cases of tuberculous meningitis proved fatal.

Housing.—I shew here in tabular form the work done during 1915:—

Cheadle and Gatley Urban District.

Number of houses inspected, 200.

No houses were considered to be in a state so dangerous as to be unfit for human habitation.

Two representations were made to your Council with a view to making Closing Orders.

Two Closing Orders were made.

One dwelling-house had defects made good after Closing Order had been made.

Four dwelling-houses had defects remedied without making Closing Orders.

The number of houses in the district within the limit of rent in Section 14 of the Act, 1,361.

The number of houses and premises in respect of which notices were served: in six cases statutory notices; in 52 cases informal notices.

In no case had your Council to execute any necessary repairs.

The number of back-to-back houses in the district is six.

There are no cellar dwellings in the district.

The houses which were inspected were on the whole clean and commodious, well lighted and surrounded by plenty of air-space.

Thirty-six new houses were built and occupied during the year. They were nearly all semi-detached residences situated in Cheadle Hulme South Ward.

COMPSTALL

Urban District.

Census population, 1901—875.

„ „ 1911—908.

Estimated population, 1915—900.

Births—19.

Birth-rate per 1,000 of estimated population—21.0.

Deaths—14.

Death-rate per 1,000 of estimated population—16.0.

Infantile Mortality per 1,000 births—214.

Death-rate from principal Zymotic diseases—2.22.

Housing.—Number of houses erected during the year, one. Alteration to farm premises, one. Temporary cabins, three. Under Section 17 of Housing (Inspection of District) Regulations no houses were inspected during the year 1915.

Infectious Disease.—During the year there was one case erysipelas, one of scarlet fever and one case of measles. Two cases of tuberculosis were reported. One died at a Sanatorium.

ELLESMERE PORT AND WHITBY Urban District.

Census population, 1901—4,082.

„ „ 1911—10,366.

Estimated population, 1915—13,151.

Births—367.

Birth-rate per 1,000 of estimated population—27.9.

Deaths—126.

Death-rate per 1,000 of estimated population—9.5.

Infantile Mortality per 1,000 births—87.

Death-rate from principal Zymotic diseases—83.

Water Supply.—The West Cheshire Water Company supplies the district. The Council appointed a Water Engineer at the end of 1914 to prepare a report upon the water supply to their district, who reported that the mains were inadequate in size and number for the purpose. A new main of larger size has just been completed, extending from the Railway Station to Dock Street.

Canal Boats.—Duties under these Acts are carried out by the Inspector of Nuisances, who states that 142 boats, registered to carry 432 adults and 223 children, were inspected. The actual numbers found in occupation were 317 adults and 118 children. In addition, 60 boats have had 69 contraventions rectified at the local docks, complaint having been made by other Authorities. In each case the work was inspected and the complaint notes signed by your Inspector.

Housing.—Owing to the continuance of the War a large number of men have left the district for military purposes and in many instances wives and families have returned to

Ellesmere Port and Whitby Urban District.

their former homes, principally in Staffordshire and in a few cases two small families are occupying one house, which explains the number of empty dwelling-houses shewn in building statistics in this report.

The site for working-class dwellings acquired in July, 1913, (5 acres, 3 roods, 21 poles), has not been further dealt with.

Appended is the Table shewing housing inspections:—

HOUSING, TOWN PLANNING, ETC., ACT, 1909.

Number of dwelling-houses inspected under Section 17	
Act of 1909	165
Number of such houses where defects were found and dealt with	121
Number of such houses considered unfit for habitation...	9
Number of representations to Local Authority, Section 17	8
Number of houses where defects were remedied without closing orders being made	112
Number of houses for which further proceedings are pending	8
Number of houses where defects were remedied after closing orders made	1
Estimated or ascertained number of houses within the limit of rent, Section 14, Act of 1909 ...	471
Number of such houses in respect of which notice was served during 1915	23
Number of such houses closed after notice ...	1

Maternity and Child Welfare Work.—In December, 1915, the first two meetings were held in connection with the above work in the Council Chamber. Each child has separate medical attention and the parent is then advised in matters relating to the general health or defects found. Where necessary they are referred to their own medical practitioner and suitable hospitals for special treatment as required. Every infant is weighed at the consultation; tea is provided during the waiting interval, at which a voluntary worker so far has presided. Out of the 32 deaths of infants under the age of one year, pre-natal causes account for eleven, shewing the necessity for work in this direction. Arrangements are being

Ellesmere Port and Whitby Urban District.

made with the midwives for intimation of expectant mothers, so that Clinics can be formed, where suggestions and advice will be afforded for the benefit of the condition, medical or surgical necessities and requirements for the newly-born infant. By these means it is hoped to reduce the infantile mortality and raise the health standard of the children. It is satisfactory to note that the infantile mortality rate for this year is reduced from 123 to 87.1 per 1,000.

Infectious Diseases.—There were eight cases of diphtheria compared with 15 in 1914 and 43 in 1913. Five were removed and treated in the Isolation Hospital, one case was returned as negative and only one death resulted. A close investigation was made of the circumstances of every case and patients isolated at home were kept under observation. Fifty-four cases of scarlet fever occurred as against 36 last year. Forty-six were removed and treated in the Isolation Hospital. One death took place in the first week of illness, due to septic conditions of this disease. The great majority of the cases were of a very slight character and in several instances nothing was noted by the parents until the children were peeling. Several cases were traceable to an unrecognised case, which was contracted whilst on a visit to Blackpool. Disinfection was thoroughly applied; all sanitary defects noted and remedied with all possible speed.

Five cases of erysipelas were notified.

Five cases of ophthalmia neonatorum were notified and investigated.

Seventy-eight cases of pulmonary and six of other forms of tuberculosis were notified. Several patients received sanatorium treatment. Twelve persons died from tuberculosis: nine from tubercle of the lungs; three from tubercle of the coverings of the brain. Rooms occupied under these conditions are disinfected upon removal of the patient to sanatorium; also in every case where death occurs. The Tuberculosis Dispensary under the County Council's scheme is in full working order.

The district suffered from a prevailing epidemic of measles, whooping-cough and chicken-pox. It was necessary to close Whitby School on two occasions (in May for measles and in December for chicken-pox). Measles was the cause of death in two instances and whooping-cough for other three.

Ellesmere Port and Whitby Urban District.

This is a great improvement on last year's return when measles accounted for thirteen and whooping-cough eleven deaths. The reduction is, no doubt, directly attributable to the energies of the Lady Health Visitor who, as part of her daily routine, investigates and re-visits all cases and contacts excluded from school and intimated by teachers to the office.

Midwives.—The registered midwives practising have attended 430 cases during 1915. Seven still-births were notified. There were no deaths of infants born before the doctor attended. One notice was given of having laid out a dead body.

HALE

Urban District.

Census population, 1901—4,562.

" " 1911-8,351.

Estimated population, 1915—9,300.

Births—124.

Birth-rate per 1,000 of estimated population—13.3.

Deaths—88.

Death-rate per 1,000 of estimated population—9.46.

Infantile Mortality per 1,000 births—24.

Death-rate from principal Zymotic diseases—.10.

Note.—In September, Dr. Rothwell, the Medical Officer of Health for this district, obtained the consent of this Council to retire temporarily from the post in order to join His Majesty's Forces. Dr. P. H. Midgley was nominated temporary Medical Officer for the duration of his absence.

Infantile Mortality.—During the year three deaths occurred of children under one year of age. The rate for the year is 24.193 per 1,000 births. This is the lowest ever recorded in the district, the next lowest being in 1906 when the rate was 35.21. The Notification of Births Act, 1907, came into force in this district on the 1st January, 1915.

Nurse Jackson took up the duties of Health Visitor on this date and remained in the Council's service until the end of July, when she was given temporary leave of absence for Military purposes, since when the duties have been undertaken

by Nurse Houghton. I am very pleased to be able to report that of the 124 children born in the year 1915, all were living on the 1st January, 1916, and Nurse Houghton reports that the 56 referred to her are all thriving. In two cases this year it was deemed advisable to allow the parents a supply of "Glaxo," as the children at the time were not receiving sufficient nourishment. This supply is still being continued and the children are doing exceedingly well.

Infectious Diseases.—During the year, 42 cases were notified under the Infectious Diseases Notification Act and 12 cases of consumption and seven of other tuberculous diseases were notified under the Tuberculosis Regulations. The former were made up as follows:—diphtheria three, scarlet fever 38, erysipelas one.

Twenty-nine cases of scarlet fever and two of diphtheria were removed to the hospital. The great increase in the number of scarlet fever cases is due chiefly to two outbreaks: (a) in June, 11 cases, eight of which appear to be due to an infected milk supply and (b) in October, five cases, all occurring in one street and apparently "return" cases. As in previous years, by arrangement with the Public Health Laboratory, Manchester University, "throat swabs" for examination of those suspected of diphtheria have been provided and also "typhoid outfits" for those suspected of typhoid fever. The cost of these examinations has been borne by the Council. During the year nine swabs have been submitted, three of which have been positive and six negative. Two typhoid outfits were utilized, both of which gave negative results.

The Council authorises the distribution of Diphtheria Antitoxin to such as cannot be reasonably supposed to bear the cost of the same.

The number of cases of phthisis notified (12) is the same as in the preceding two years and the number of other forms of tuberculosis (7) is an increase of one on 1914 and a decrease of one on 1913. All these cases were visited on notification and 25 subsequent visits have been made.

Cancer.—During the year 11 deaths from cancerous disease were notified. This figure continues high. The figures for the past few years are as follows:—1914, 10; 1913, 11; 1912, 7; 1911, 8; 1910, 9.

With regard to age, the deaths occurred between the ages of 51 and 78, the average being 63.10.

Housing.—Though the district is still developing as a whole, the main development during the year has taken place in the North Ward, artisans' dwellings having been built in the Hermitage District. These readily let, but the internal needs of the district are to my mind amply met.

I append a Table giving a summary of the year's working:—

	Houses Inspected.	Houses in which Defects were found.	Houses in which Defects were remedied.		
			(a) Informal Notices.	(b) Legal Notices.	
				P.H.A.	H. & T.P.A.
Over £16	304	49	28	22	0
Under £16	170	41	17	21	2
	474	90	45	43	2

Closet Accommodation.—The provision existing in the district is shown by the following details:—

Double Privy Ashpits	...	62	} = 181 houses
Single „ „	...	57	
Privy Pails	...	...	18 „
Water Closets	...	...	2111 „
			<hr/> 2310 <hr/>

Of the above privy ashpits, 14 double and 43 single (61 privies) are at houses which have also one or more w.c.'s, leaving 110 houses with privies alone.

Midwives.—There are two midwives in the district registered under this Act. In their capacity as midwives they have attended 36 cases. The midwives carry out their duties very well; they are of a superior class and fulfil the requirements of the district.

HANDFORTH

Urban District.

Census population, 1901—911.

„ „ 1911—934.

Estimated population, 1915—940,

Births—18.

Birth rate per 1000 of estimated population—19.1.

Deaths—12.

Death-rate per 1000 of estimated population—12.7.

Infantile Mortality per 100 births—Nil.

Death-rate from principal Zymotic diseases—Nil.

Infectious Diseases.—There were five cases notified, viz. — one each of diphtheria, scarlatina and enteric fever and two of tuberculosis. The houses were thoroughly disinfected after each case.

The large number of people brought into the district on account of the Concentration Camp does not seem to have had any bad effect. That part of the Camp which lies in the Handforth district has been visited and inspected and the sanitary arrangements are satisfactory.

Closet Accommodation.—The approximate number of the following in your district at the end of 1915 is as given below :

		How frequently scavenged ?
(a) Midden-privies	... 120	As often as may be required.
(b) Dry-ashpits	... 13	
(c) Pail-closets	... —	
(d) Dust-bins	... 30	

A proper system of sanitation would be more satisfactory.

Housing.—The following statement shews the work done during 1915:—

Number of new houses built during 1915 ...	..	None
Number of dwelling-houses inspected under Sec. 17 Act of 1909 ...	...	186 general inspections
Number of such houses considered unfit for habitation...		None
Number of houses where defects remedied without closing orders being made ...	...	5
Number of houses where defects remedied after closing orders made ...	...	None
Estimated or ascertained number of houses within limits of rent in Sec. 14 of Act of 1909 ...	...	144

Number of such houses in respect of which notice was served during 1914	...	...	...	4
Number of such houses closed after notice	...	...	...	None
Number of such houses where Local Authority has executed necessary repairs, &c.	...	...	...	None
Number of cellar dwellings in district	...	...	...	None

Midwives.—There are no midwives residing in the district. Practically all the midwifery in this district is done by the District Nurse from Styal.

HAZEL GROVE & BRAMHALL

Urban District.

Census population, 1901—7,934.

„ „ 1911—9,631.

Estimated population, 1915—10,817.

Births—169.

Birth-rate per 1,000 of estimated population—15.6.

Deaths—116.

Death-rate per 1,000 of estimated population—10.7.

Infantile Mortality per 1,000 births—71.

Death-rate from principal Zymotic diseases—.18.

Housing.—The housing accommodation for the working class is ample, the district is entirely free from cellar dwellings and there are not any back-to-back houses. No cases of overcrowding have come to my knowledge. There are not any offensive trades carried on.

Water Supply.—This is from the Lyme and Kinder Reservoirs, in about equal proportions and is of good quality and free from contamination.

Infectious Diseases.—During the year I have received notifications of the following infectious diseases :—diphtheria two, erysipelas one, scarlet fever 13, of which number it was deemed advisable to remove three to hospital, enteric fever—no cases.

I have received notification of eleven cases of pulmonary tuberculosis and five notifications of other forms of tuberculosis.

Hazel Grove and Bramhall Urban District.

Midwives.—The number of midwives practising in the district is two. Inspections of the midwives' homes and appliances have been carried out at frequent intervals, and have always been found satisfactory. There have not been any cases of puerperal fever.

Hospital.—Cases which cannot satisfactorily be isolated at their own homes are removed to Hyde Isolation Hospital, with whom the Council have an undertaking to provide two beds for a certain sum per year.

Housing.—The following work has been carried out during the year, in accordance with Article v. of Housing (Inspection of Districts) Regulations, in regard to the inspection of dwelling-houses under Section 17 (1.) of the Housing and Town Planning Act, 1909.

Number of New Houses built during 1915	...	14
Number of dwelling-houses inspected under Section 17		
Act of 1909	...	447
General Inspections		
Number of such houses considered unfit for habitation...		None
Number of houses where defects remedied without closing orders being made	...	64
Estimated or ascertained number of houses within limits of rent in Section 14 of Act 1909	...	1454
Number of such houses in respect of which notice was served during 1915	...	63
Number of such houses closed after notice	...	None
Number of such houses where Local Authority has executed necessary repairs, etc.	...	5
Number of back-to-back dwellings	...	None
Number of cellar dwellings	...	None

No fresh scheme of Town Planning has been introduced during 1915, though, of course, our first Scheme (Area No. 1), mentioned in previous reports, is being proceeded with.

Refuse Removal.—The following are approximate numbers, as nearly as can be estimated, of the various types of sanitary conveniences, &c., within the district, viz. :—

Pail Closets.	Privies. Ashpits. Closets.	Dry Ashpits.	Metal Bins.	Other Receptacles.	W.C.'s
6	745	1168	711	335	36
					1816

During the past year thirteen privy-closets and one tipper-closet have been converted into fourteen water-closets.

HOLLINGWORTH

Urban District.

Census population, 1901—2,447.

„ „ 1911—2,580.

Estimated population, 1915—2,581.

Births—40.

Birth-rate per 1,000 of estimated population—15.4.

Deaths—35.

Death-rate per 1,000 of estimated population—13.5.

Infantile mortality per 1,000 births—200.

Death-rate from principal Zymotic diseases—38.

Infantile Mortality.—There were eight deaths of infants under one year of age belonging to the district. The causes of death certified were:—marasmus one, malnutrition one, convulsions one, bronchitis one, atelectasis two, congenital abnormality two.

This gives a rate per 1,000 births of 200.

Two of the 40 births registered during 1915 were illegitimate.

Refuse Disposal.—The scavenging of all premises is carried out by the Council and also by private owners and is now quite satisfactory. The old property is in most cases served by midden-privies, which are being gradually abolished. Dry ashpits, pail-closets and dust bins are also found.

The approximate numbers are:—

Midden-privies	...	...	211
Dry Ashpits	...	...	170
Pail-closets	...	...	123
Dust-bins	...	...	44
Cesspools	...	...	2
Waste-water-closets	...	...	54
Town's water-closets	...	...	59

Housing.—There are now only 22 back-to-back houses. The tabular statement relating to the dwelling-houses inspected under Section 17 of the Act of 1909 during the year shews that no inspections have been carried out.

Owing to the war the Council decided that work under the Housing and Town Planning Act should be restricted and only matters of urgency should receive attention.

Hospital.—The only Isolation Hospital in Longdendale is situated on Mottram Moor, the ownership being vested in the three Councils of Mottram, Hollingworth and Tintwistle. Only one case has ever been admitted and home isolation has been found to be eminently satisfactory in all cases up-to-date.

Infectious Diseases.—Two cases of diphtheria were reported. Antitoxin treatment was employed in each case. One very severe case proved fatal. No clue as to the source of infection could be found. Two mild cases of erysipelas were reported and one very mild case of scarlet fever in a young man. There was one case of ophthalmia neonatorum reported.

Four deaths from tubercular diseases were registered last year. Two cases were reported to me, viz.:—one of tubercular glands of neck and one of tubercular disease of bone.

Midwives.—There were two midwives on the County register last year. Three other midwives practice in this area, but live in Derbyshire. During 1915 they attended 17 cases out of 40 births registered. No records of sending for medical help have been received. Their attendance has not been associated with any death of either mother or child. The midwives possess all the necessary appliances and antiseptics. The temperature and pulse rates are now recorded on charts. These midwives, whom I frequently meet, are clean and do their work to my satisfaction.

HOOLE

Urban District.

Census population, 1901—5,341.

„ „ 1911—5,929.

Estimated population, 1915—5,911.

Births—123.

Birth-rate per 1,000 of estimated population—22.1.

Deaths—73.

Death-rate per 1,000 of estimated population—13.0.

Infantile Mortality per 1,000 births—130.

Death-rate from principal Zymotic diseases—.67.

Drainage.—The sewers of the district, which empty into the Chester system have been regularly flushed. The Consulting Surveyor reports that the defective sewer in Charles Street has been reconstructed and appears to be working satisfactorily.

Scavenging.—The scavenging has been carried out daily by men in the employ of the Council with its usual efficiency. The

Midden-privies, 34 in number, have been scavenged monthly ;

Dry ashpits, 56 (28 of which are covered) weekly ;

Pail-closets, 4, weekly ;

Dust-bins and boxes, 1,195, weekly ;

Cesspools, 7, weekly.

Housing.—The erection of new houses has been thoroughly supervised by the Council's Consulting Surveyor. Three new houses were completed during the year, all being carried out in accordance with plans approved by the Council. In connection with the Housing Inspection and Town Planning Act, 1909, the Sanitary Inspector made inspection of 110 dwelling-houses. In 96 houses everything was found in order and the premises in good condition. Of the remaining 14 houses, informal notices were served for defects.

Infectious Diseases.—Apart from pulmonary and other forms of tuberculosis, there were 23 cases of infectious disease notified during the year, against 13 in 1914 and 25 in 1913. Eight of the 23 were cases of erysipelas, six of which occurred in the Workhouse Hospital; of the remaining 15 cases, nine were scarlet fever, five diphtheria and one cerebro-spinal meningitis. All the cases of diphtheria, six of the scarlet fever and the one case of cerebro-spinal meningitis were removed to the Isolation Hospital. In connection with the latter case, the premises were visited by myself and the Inspector, full enquiries were made in accordance with the Local Government Board circular and a report sent to London. At my request Dr. Rennet took throat swabs at the house from five contacts, which he subsequently submitted to a bacteriological examination with a negative result. He also examined swabs from two railwaymen who had been in contact, these also proved negative. The contacts were kept in quarantine till the examination of the swabs was completed. The clothes were taken away and steam disinfected. The patient was removed to the Isolation Hospital under the direct supervision of the Sanitary Inspector, the rooms were fumigated and orders were given to

the owner to cleanse same. The houses in every case of infectious disease were duly visited, sanitary defects remedied and the premises disinfected with Formalin Vapour. Full directions were given in all cases not removed to hospital as to the proper method of isolation and the use of disinfectants. The only non-notifiable diseases at all prevalent during the year were measles and mumps in the early part of the year. With a view to the control of infectious diseases the schools have been visited whenever any notifications were received. Scholars, too, have been frequently examined at my surgery, the teachers having been instructed to bring all suspicious cases, whether of notifiable or non-notifiable infectious disease, with the result that quite a number of cases were detected and exempted from school. Amongst those examined were cases of measles, mumps, ringworm, chicken-pox, eczema, &c.

Hospital.—With regard to isolation hospital accommodation, the same arrangements exist as in previous years and have proved quite satisfactory.

Bacteriological Examinations.—The arrangements entered into by the Council with the Manchester University Public Health Laboratory in November, 1912, for the bacteriological examination of morbid products continue and have proved quite satisfactory. Five specimens of sputum were examined for the tubercle bacillus. Dr. Rennet, Medical Officer of Health for the City of Chester, examined a number of throat swabs for me and I wish here to acknowledge the kindness and courtesy he has always displayed. In the case of positive diphtheria results a telegram is now sent to the Medical Practitioner in attendance.

Tuberculosis.—There were six cases of pulmonary tuberculosis and one of tuberculosis of the spine. The patients' houses were visited, full particulars were obtained, verbal advice as to general management given and a card of printed instructions left. Sputum flasks, paper handkerchiefs and disinfectants were also supplied. Altogether there were five deaths from pulmonary tuberculosis recorded during the year. The rooms were fumigated with Formalin Vapour and the bedding and contaminated articles of clothing destroyed where necessary. Notices also were served upon the owners to strip, lime-wash and re-paper the walls of infected rooms and to clean down the rest of the house, all of which notices were complied with. Three cases received institutional treatment, through the instrumentality of the Cheshire Insurance Committee.

Infant Mortality.—The Notification of Births Act came into force on November 1st and during the two months it has been in existence 20 births were notified under the Act, for the most part within the statutory 36 hours. The Council by resolution on September 13th, 1915, decided to participate in the scheme formulated by the County Council for the effective working of the Act. The District Nurse commenced her duties on February 4th, under the auspices of the Chester District Nursing Association and from that date to the end of the year 82 cases were attended and 2,336 visits paid, 51 cases were relieved, seven removed to hospital and seven died. Her services have proved of the greatest possible value to the neighbourhood.

Great vigilance was exercised by the Sanitary Inspector and the men working under him during the summer weather in the removal of house, stable and other refuse. There were very few cases of zymotic diarrhoea and only one death was certified as due to it.

HOYLAKE AND WEST KIRBY

Urban District.

Census population, 1901—10,911.

„ „ 1911—14,029.

Estimated population, 1915—13,671.

Births—230.

Birth-rate per 1,000 of estimated population—16.8.

Deaths—163.

Death-rate per 1,000 of estimated population—11.1.

Infantile Mortality per 1,000 births—47.

Death-rate from principal Zymotic diseases—.29.

Closet Accommodation.—The district is provided throughout almost its entire extent with water-closets and the conservancy system has been abolished, wherever practicable. Scavenging is carried out by a staff of men in the employment of the Council and is adequately performed.

Housing.—There does not appear to be any deficiency of cottages for the working-classes and the great majority of dwellings are modern and well built, with plenty of cubic space internally and free circulation of air around. The following statement shews the work done in 1915:—

Hoylelake and West Kirby Urban District.

Number of dwelling-houses inspected under Sec. 17, Act of 1909	...	...	...	...	19
Number of such houses considered unfit for habitation					0
Number of representations made to Local Authority	...				19
Number of closing orders made by Local Authority	...				0
Number of houses where defects remedied without closing orders being made	...	...			19
Estimated or ascertained number of houses within limits of rent in Sec. 14 of Act of 1909	...				855
Number of such houses in respect of which notice was served during 1915	...	...			19
Number of such houses closed after notice...			...		0
Approximate number of back-to-back houses in the district	...	...	...	...	6
Number of cellar-dwellings in the district	...				0

Infectious Diseases.—Notifications were received of 10 cases of diphtheria and eight of the patients were treated in the Isolation Hospital. There were no deaths. Thirty-six cases of scarlet fever were notified. The majority of the cases were of a mild type and were brought about either by visiting neighbouring towns or associations with playmates. No deaths occurred. One case of enteric fever was notified—that of a soldier stationed in the district, who was placed under observation, gave a negative Widal reaction and was discharged after ten days' isolation. Five cases of erysipelas were notified from Hoylelake, one was treated in hospital. Twenty-three cases of pulmonary and nine of other forms of tuberculosis were notified, most of them were visited, but in a number of instances the notifying practitioner requested that no visit should be paid.

Midwives.—Six midwives, whose names are on the County Register, practice in the district. During 1915 they attended 166 births; three of the infants were still-born. The Notification of Births Act is in force, the working of which has been included in the County Scheme.

KNUTSFORD

Urban District

Census population, 1901—5,172.
 " " 1911—5,760.
 Estimated population, 1915—4,917.
 Births—94.
 Birth-rate per 1,000 of estimated population—19.1.
 Deaths—62.
 Death-rate per 1,000 of estimated population—12.3.
 Infantile Mortality per 1,000 births—64.
 Death rate from principal Zymotic diseases—.40.

Housing.—

Number of houses inspected under Section 17 of Act of				
1909	...	...	..	... 100
Number unfit for habitation	...	...	...	None
Number where defects were remedied without closing				
orders	...	...	...	... 22
Number remedied after closing orders	...	...	...	None

There are 730 houses within limits of rent in Section 14 of Act. There are 14 back-to-back houses. Only one new house was built in 1915.

Mr. Marshall regrets that during the early part of the year he found it impossible to make inspections owing to his time being fully occupied with street improvements, making a new street and preparing a scheme for the improvement of the "Princess Street area" (including plans, bills of quantities and specifications).

In the 100 houses that were inspected later in the year, all necessary notices were served and all defects have been (or are in course of being) remedied. Two hundred and fourteen houses have now been effectively dealt with in four years. The special hindrances and delays which have been encountered have been fully explained in each previous report, beginning with 1910. It is hoped they will not recur.

Mr. Marshall has personally prepared a scheme for the proposed improvements (in the Princess Street area) which has been approved by the Council and by the Local Government Board. It includes the demolition of two cottages, paving a new back road, drains and new sewer and block-plan of the whole area, showing buildings to be removed and sites for new buildings. The owners have employed an architect

to work out the details of new buildings and apportion the cost. One of the condemned cottages is vacant and a closing order is being obtained for the other. The actual work will commence, it is hoped, early in 1916. No progress has been made in the matter of providing workmen's dwellings. The Council is willing to build and has even settled the type of cottage; but no land can be obtained at a reasonable price and free from obnoxious restrictions. Cottages are urgently needed; but nothing more can be done unless the Local Government Board or the County Council lend their more powerful assistance.

Hospital Accommodation.—Ample. Provided by the Joint Hospital Board. We have nothing to do with administration. Four cases of diphtheria, nine of scarlet fever and one of enteric fever were removed to Monsall Hospital. No phthisis cases were dealt with; but accommodation was available.

Chemical and Bacteriological Work.—No chemical work has been, or is likely to be, required. Bacteriological work is done at Professor Delépine's laboratory. It consisted in 1915 of seven diphtheria examinations (three positive) and two enteric fever (both negative).

Tuberculosis.—Of the notifications received in 1915 there were four males and two females (pulmonary) and three males and three females (non-pulmonary).

The non-pulmonary cases included (1) knee-joint, (2) spine, (3) bones generally (the child of a tuberculous mother), (4) three cases of abdominal glands, at ages 5 years, $2\frac{1}{2}$ years, 10 months. These last raise a suspicion of tuberculous milk; but no diseased cows have at any time been noticed.

Means for Preventing Mortality in Child-birth and in Infancy.—There are now three certified midwives; and they are regularly visited by myself on behalf of the County Medical Officer of Health. The District Nurse continues to work under the Notification of Births Act. In 1915 she had on the average 41 babies on her list and she paid 1,024 visits. She notified to me three still-births, two deaths and ten removals.

Gratifying and steady improvement in infant mortality has been going on ever since the district was formed. Nearly the whole of this improvement occurred before the work under the Notification of Births Act was taken up.

LYMM

Urban District.

Census population, 1901—4,707.

1911—4,989.

Estimated population, 1915—5,028.

Births—114.

Birth-rate per 1,000 of estimated population—22.7.

Deaths—66.

Death-rate per 1,000 of estimated population—18.1.

Infantile Mortality per 1,000 births—37.

Death-rate from principal Zymotic diseases—1.19.

Infant Mortality.—In 1915 there were four deaths of infants under 12 months of age. The rate is 37 per thousand births registered. The average for the years 1910-1914 (inclusive) for the district is nine deaths, yielding a rate of 88 per thousand births registered.

Infectious Disease.—In 1915 136 cases of infectious diseases were notified in Lymm, inclusive of six cases of pulmonary tuberculosis (phthisis or consumption), viz.:—Diphtheria, 34 cases, three deaths; erysipelas, one case, no death; scarlet fever, 20 cases, no death; chicken-pox, 66 cases, no death; measles, nine cases, no death; phthisis, four cases (notified); other forms of tuberculosis, 2 cases.

In 1915 there were nine deaths from pulmonary tuberculosis, as against three in 1914 and an average of four during the years 1910-1914 (inclusive). Four cases were notified, three of whom died. There were two cases of tuberculosis other than pulmonary notified, one of the knee joint and one of the hip joint. Two cases of pulmonary tuberculosis have been sent away for Sanatorium treatment. In considering tuberculosis, it is well to remember that it is a disease of indefinite and very variable duration. It may be acute and in the acute form be the terminal factor in persons debilitated by other diseases, such as diabetes and so on, or it may be chronic and last for years. Again, it may be cured and lie latent in an individual for years and then break out again. Figures, therefore, for a period considerably over five years, are necessary to enable us to find out where we stand with regard to this disease and the high figure for this year is of little significance as an indication of our progress in the prevention and cure of this disease. For as long perhaps as twenty years we shall have to look to a gradual lowering, gradual but steady, of the notification and death figures as really indicative of true success in the direction of conquest over this

Lymm Urban District.

disease. As a practical point it is well to remember that children with mild tuberculosis may infect adults, nurses, mothers, &c., who come into infective contact with them, as well as the other way about, which is perhaps much the commoner and more frequently observed course of events.

Hospital.—The Isolation Hospital is inspected at intervals, and kept ready for immediate use. It was used during the year for diphtheria and scarlet fever. Twenty-five cases of diphtheria and 10 of scarlet fever were isolated in the hospital during the year.

Housing.—In 1915 no new houses were completed, but two were in course of erection. The average number of persons per house is 4.2 (census year figures 1911). In again calling your attention to the most important question of sufficient domestic bath accommodation for the district, I may say that adequate and convenient bathing installations can be provided at a reasonable cost. Thus I have seen from personal experience in camp in our Army and I am sure something could be done on similar lines for small communities such as our own. I hope to have the opportunity of discussing this matter in detail on some future occasion when time and opportunity permit.

MARPLE
Urban District.

Census population, 1901—5,595.

„ „ 1911—6,483.

Estimated population, 1915—6,650.

Births—97.

Birth-rate per 1,000 of estimated population—14.4.

Deaths—86.

Death-rate per 1,000 of estimated population—12.9.

Infantile Mortality per 1,000 births—125.

Death-rate from principal Zymotic diseases—.45.

Sewerage.—The flushing of the dead ends of sewers, as at present practised, will not be sufficient in a dry season and thorough flushing of the whole system will be required.

Refuse Disposal.—The disposal of excrement in the district is by three methods, viz., water carriage, pails and middens. We are still converting privy-middens into water-closets as rapidly as possible. The number of such middens have fallen from 610

last year to 487 this, but much still requires to be done. There are now 843 water-closets and 309 slop-water closets. In the whole of the district there are only 20 cesspools. The pails and middens are emptied by the Council's men as quickly as possible, but it impossible to do all this at night and the result is not very satisfactory. Ashbins and pails are collected weekly. There are 1,010 ashbins, compared with 90 seven years ago. The refuse is deposited on tips away from habitation.

MIDDLEWICH Urban District.

Census population, 1901—4,669.

„ „ 1911—5,909.

Estimated population, 1915—4,860.

Births—133.

Birth-rate per 1,000 of estimated population—26.6.

Deaths—57.

Death-rate per 1,000 of estimated population—11.4.

Infantile Mortality per 1,000 births—105.

Death-rate from principal Zymotic diseases—.61.

Infantile Mortality.—The number of deaths numbered 14. Three due to premature birth and four to pneumonia. The Notification of Births Act has been in force six years. The Lady Health Visitor has paid numerous visits and instructed the mothers' in the care of feeding of their infants.

Hospital.—One case of diphtheria and one scarlet fever were removed to hospital. One patient remained in hospital on December 31st.

Midwives.—There are three midwives practising in the district. Number of cases attended, 115. Number of inspections of midwives' homes, appliances and registers, 14. All found clean and correct.

Bacteriological Examinations made during the year:—

4	Specimens of Diphtheria examined	...	1	positive.
1	„ Typhoid	„	...	None do.
3	„ Tuberculosis	„	...	11 do.

Housing.—This is good and sufficient. The houses of the working-classes are good structurally and sanitary. 44 inspections have been made during the year.

MOTTRAM-IN-LONGDENDALE

Urban District.

Census population, 1901—3,128.

„ „ 1911—3,049.

Estimated population, 1915—3,049.

Births 33.

Birth-rate per 1,000 of estimated population—10.8.

Deaths—48.

Death-rate per 1,000 of estimated population—15.7.

Infantile Mortality per 1,000 births—90.

Death-rate from principal Zymotic diseases—nil.

Tuberculosis.—Three cases were notified during the year. Two in patients residing in Broadbottom and one in Mottram. The Broadbottom cases (being insured persons) were sent to Sanatoria. One was an acute case and the other a chronic one. They derived no benefit from the treatment. An acute case in a girl of 16 years ran a very rapid course and terminated fatally. Insured patients are receiving every consideration from the Insurance Committee and wherever they think a case will benefit by residence in a Sanatorium the patient is sent. Should Sanatorium treatment not be thought advisable domiciliary treatment is carried out. This is supplemented by grants of milk and eggs, should the patient's circumstances require them. The Tuberculosis Medical Officer is always at the disposal of the doctor in attendance, should there be any doubt as to the proper line of treatment. There is no tuberculosis dispensary in our district, but an arrangement has been made by the Cheshire Insurance Committee for our patients to go to Glossop.

Midwives.—There are two midwives resident in the district on the register. They have attended 22 cases during the year. There have been no new names added to the list of midwives, nor have there been any removals or names struck off the register. I have made, during the year, systematic inspection of the houses, bags and apparatus belonging to the midwives. They are all clean and well kept.

Housing.—Seven houses have been inspected under the Housing Act. The Council were of the opinion that owing to the war the cost of materials had so greatly increased and the shortage of labour—it would not be right to compel property owners to expend money which might be more usefully employed.

NANTWICH

Urban District.

Census population, 1901—7,722.

„ „ 1911—7,815.

Estimated population, 1915—7,850.

Births—141

Birth-rate per 1,000 of estimated population—17.9.

Deaths—121.

Death-rate per 1,000 of estimated population—15.4.

Infantile Mortality per 1,000 births—127.

Death rate from principal Zymotic diseases—1.27.

Infantile Mortality.—Eighteen deaths occurred under one year of age, being 12 per cent. of the total births registered during the year and a death-rate of 127.6 per 1,000 births. Two deaths were due to whooping-cough, two to consumption and four to wasting diseases and premature birth. Bronchitis and pneumonia accounted for five. Of the total infantile deaths registered three were of illegitimate children.

Infectious Diseases.—During 1915 68 cases were notified, as compared with 52 in the previous year. These were:—diphtheria 22 cases, scarlet fever 25 cases, enteric fever one case, erysipelas six cases, pulmonary tuberculosis 10 cases, other forms of tuberculosis three cases. Twenty cases of diphtheria, 14 of scarlet fever and one of typhoid fever were removed to the Isolation Hospital.

Smallpox.—A case of smallpox was sent into the Workhouse from Crewe and was at once removed to the Ravensmoor Hospital. The patient died six days after admission. The Hospital has been kept in readiness for use and I am pleased to be able to state that the Ward was ready for the patient to be admitted three hours after notice was given that the case was coming in.

Water Supply—Sewage Disposal Schemes.—The new Water and Sewage Schemes have been deferred, the Local Government Board not approving, at present, to sanction the necessary loans.

Midwives.—Only three reside in the district. There is a distinct shortage of midwives. It is a pity that the restrictions of the Act do not attract young well-educated women to replace the old type of midwife.

NESTON AND PARKGATE

Urban District.

Census population, 1901—4,154.
 „ „ 1911—4,596.
 Estimated population, 1915—4,570.
 Births—127.
 Birth-rate per 1,000 of estimated population—27.7.
 Deaths—80.
 Death-rate per 1,000 of estimated population—17.5.
 Infantile Mortality per 1,000 births—133.
 Death-rate from principal Zymotic diseases—1.53.

Closet Accommodation.—The conversion of privies to water closets proceeds slowly. Scavenging is efficiently carried out by the Council's employees.

Housing.—Two new houses have been erected during the past year, one of which is an artisan dwelling.

Tabular statement of Housing Inspections in 1915:—			
Number of dwelling-houses inspected under Sec. 17,			
Act of 1909	...	..	23
Number of such houses considered unfit for habitation...			0
Number of representations made to Local Authority	...		23
Number of closing orders made by Local Authority	...		0
Number of houses where defects remedied without			
closing orders being made	...	...	22
Number of houses where defects remedied after closing			
orders made	...	...	0
Estimated or ascertained number of houses within the			
limits of rent in Sec. 14, Act of 1909	...		674
Number of such houses in respect of which notice was			
served during 1914	...	...	23
Number of such houses closed after notice...		..	0

Town Planning.—The Council are conferring with the owners of the land approved of by the Local Government Board.

Hospital.—The Wirral Joint Hospital Board supply the necessary isolation accommodation for infectious diseases. The number of beds provided is 88.

Neston and Parkgate Urban District.

Infectious Diseases.—Two cases of diphtheria, three of scarlet fever and one of poliomyelitis were notified; investigations were made and thorough disinfection applied. In 1915 there were eleven deaths from tuberculous disease. Five deaths took place in Clatterbridge (Poor Law) Sanatorium and one in the Liverpool Royal County Hospital, Heswall. Ten cases were notified. No systematic periodic disinfection has been carried out, but after deaths and removals formalin is freely used.

Midwives.—During 1915 four midwives were practising in the district. The total number of births attended by them was 97. There were three still-births. The Regulations of the Central Midwives' Board are carried out.

NORTHWICH

Urban District.

Census population, 1901—17,611.

1911—18,151.

Estimated population, 1915—18,027.

Births—424.

Birth-rate per 1,000 of estimated population—23.5.

Deaths—257.

Death-rate per 1,000 of estimated population—14.2.

Infantile Mortality per 1,000 births—110.

Death-rate from principal Zymotic diseases—1.49.

Infant Mortality.—The infantile deaths number 47, which gives a rate of 110 deaths per 1,000 children born, which means that eleven children die before attaining one year of age out of every 100 born. Of these deaths two were from measles, one from scarlet fever, one from whooping-cough, two from tuberculous meningitis, fifteen from diseases of the lungs, a number of which are probably sequelae of measles as it was during an epidemic of this disease that they occurred, nine from diarrhoea, seven from marasmus, four from premature birth, three from convulsions, one from venereal disease, one from overlying and the remainder from various other causes. All newly born children are visited by the Health Visitor and it is significant that half the deaths took place after six months of life.

Infectious Diseases.—The total number of cases notified was 79, of which fifteen were diphtheria, seven erysipelas, twenty-three scarlet fever, one puerperal fever, twenty-five phthisis and eight other forms of tuberculosis. Eight of the cases of diphtheria and twelve of scarlet fever were removed to hospital. Seven of the phthisis were notified from sanatoria and five of the other tubercular cases (which were either cervical glands or skin) from general hospitals.

During the year a Tuberculosis Dispensary has been opened in the district by the County Council. It seems a somewhat costly machine for doing what the Poor Law and the general practitioners were already doing in part and which had a little widening of their powers might have encompassed entirely at much less cost. The total number of cases of tubercle of all kinds notified during the year in both the Rural and Urban Districts being 73. All cases occurring in this district are visited and the best arrangements made which the house will allow, instructions as to sputum, &c., are also given and disinfectants are supplied. Of the two cases treated in the old Wade Brook Hospital the child is practically cured and the man is enormously improved and the disease appears to be arrested.

Twenty-four swabs from throats were submitted for pathological examination at the Public Health Laboratory and of these 21 were negative, two affirmative and one doubtful. One examination for enteric fever and one phthisis both proved negative. These examinations are made at the expense of the Urban District Council and antitoxin is supplied also to any case needing it. In this way 68,000 units have been supplied.

Water Supply.—Owing to the war the scheme for which Parliamentary sanction was obtained is temporarily held over. To meet immediate shortage one of the bore-holes has been sunk on the site of the new works and conducted by a temporary pipe line to the old works at Cote Brook and is augmenting the town supply considerably. The supply to Rudheath in the adjoining Rural District receives its water from the Urban supply and as considerable extensions of works and houses are taking place there arrangements are being considered for replacing the present 3 in. main by one of greater calibre.

Housing.—The erection of the Council's 36 houses which had reached the state of accepting tenders has been postponed for the time being owing to the war. And although some 22

new houses had been built, six have been rendered uninhabitable owing to subsidence. There has been considerable provision of new houses just out of the district in the neighbouring Council District, but in spite of this the need for houses is acute owing to the erection of new works and extensions of old ones in the immediate vicinity.

The Sanitary Inspector reports as follows:—One hundred and twenty-seven houses have been inspected during the year in addition to the inspections earlier referred to. These houses are largely in the Castle district and the property is modern. Fewer defects were found. Fifty-seven were found to be in good sanitary condition, seven premises were found with defective drains, twenty-five had defective pails, sixteen ashpits had defective doors and walls, two had the pails removed and water-closets substituted and ashbins in lieu of ashpits. A number of back-to-back houses have been converted to through dwellings during the year.

RUNCORN

Urban District.

Census population, 1901—16,491.

„ „ 1911—17,353.

Estimated population, 1915—16,540.

Births—462.

Birth-rate per 1,000 of estimated population—27.9.

Deaths—282.

Death-rate per 1,000 of estimated population—17.0.

Infantile Mortality per 1,000 births—133.

Death-rate from principal Zymotic diseases—90.

Illegitimate Births.—Nine illegitimate births, six males and three females were registered during the year, that is a percentage of total births equal to 1.9.

Infant Mortality.—The infantile mortality rate is again “unquestionably higher than it need be.” The rates for the years 1914 and 1915 were about 24 per cent. higher than the average for the two previous years. Practically 33 per cent. of the deaths of infants under one year of age occurred within the first month of life; 56 per cent. occurred within the first three months; 82 per cent. within the first six months and 92 per cent. within the first nine months.

In addition to the actual mortality of infants, cognisance should be taken of the sickness amongst infants which arises from causes capable of control. No exact information is however available: but disease during infancy naturally shews itself in the mortality returns of children over one year of age and its effects extend particularly throughout the age period of two to fifteen years. Beyond the age of five school medical inspections reveal the dire results of disease acquired in earlier life and conclusively shew that during infancy the seeds are sown of such diseases as tuberculosis of lungs and other organs, blindness and other diseases of the eyes, deafness and discharge from ears, chronic bronchitis, rickets, &c., many of which might be prevented by the exercise of reasonable care during infancy.

From personal knowledge of the district acquired during the past twelve months, during which the conditions have been carefully observed, your Medical Officer of Health has arrived at the conclusion that the high infantile mortality rate in the Runcorn Urban District, which is unquestionably higher than it need be, is largely due to:—

- (1) Ignorance and lack of care on the part of the expectant mother, ignorance of the conditions necessary for the birth of a healthy infant and lack of care of her own person and in her home surroundings.
- (2) Ignorance of the proper methods of baby feeding and clothing and failure to exercise sufficient care of the young infant.

In reference to the administration of the Notification of Births Acts your Council has acquiesced in the suggestion that the County Council of Chester should operate the Acts.

Four notifications of still-births have been received since September 1st, 1915. In this relationship it is necessary to draw attention to the fact that the administration of drugs is a frequent cause of still-births and more particularly of abortions. From reports which have been received from several sources your Medical Officer concludes that drug taking for the procuration of abortion is not an uncommon practice in the Runcorn area.

Scarlet Fever.—The outstanding feature of the year's record of infectious diseases is the epidemic of scarlet fever. The disease was in most cases of a mild type; only three deaths

occurred: quite a number of cases were not detected [that is, probably showed no typical rash], until the infective peeling stage had been reached and some of these were first observed in school or in the streets. The mild form of the disease probably accounts for the persistency of the epidemic during the greater portion of the year.

Isolation Hospital.—Since the beginning of May, the hospital accommodation has been most severely taxed; a number of scarlet fever cases had, at times, to be refused admission, or admission postponed until accommodation became available. Among the 130 cases admitted only one death occurred. The average duration of a patient's stay in hospital was $6\frac{1}{2}$ weeks.

During the last six months of the year systematic bacteriological examinations of the throat swabs of scarlet fever cases in hospital were made (with the consent of the Doctor in attendance) and no case was discharged until the throat (or discharges) were found to be free from the organism commonly found in such cases, viz.: *Streptococcus scarlatinae*.

Your Committee has from time to time considered the question of more suitable accommodation for the nursing staff and has decided that under the present war conditions the matter cannot receive practical attention.

Small-pox—Vaccination and Exemption.—The Medical Officer of Health considers it advisable to warn the inhabitants of the district of the seriously susceptible condition into which the community as a whole is drifting with regard to small-pox and at the same time of the danger to which the public would be exposed should a small-pox epidemic occur in the country, by the presence of the large proportion of unvaccinated people in the district.

The Local Government Board has recently issued warnings regarding the possible outbreak of small-pox during war time and more particularly at the termination of the war when men and material of war will return to this country from other parts of the world and when the importation of goods and merchandise from parts where small-pox exists may possibly introduce the infection into the British Isles. Your Medical Officer views with alarm the probable effects of an epidemic of this disease amongst the inhabitants of Runcorn, with so large a proportion of unvaccinated people: that is, so great a number of persons highly susceptible to small-pox.

Tuberculosis.—Table giving number of cases of tuberculosis notified for the year 1915:—

	N'fied Cases	D'ths
Total number Tuberculosis Cases ...	52	21
Number Cases of Pulmonary Tuberculosis ...	24	14
Number Cases of other forms of Tuberculosis	28	7

Table shewing the location of the disease in these cases:—

Lungs	...	...	...	24
Cervical Glands	...	...	...	22
Joints and Bones	...	...	...	3
Abdomen	...	...	...	2
Kidneys	...	...	...	1
				—
				52

Refuse Disposal.—Very few privies are now left unconverted. There are two pail-closets, about 200 tipper-closets, no cesspools and about 4,000 dustbins in use.

Houses and Town Planning Act.—The following statement shews the work done under the Act during 1915:—

Number of new houses built	...	...	...	18
Number of dwelling-houses inspected under Section 17	...	...	...	893
Number of closing orders made by Local Authority	...	...	...	4
Number of houses where defects were remedied after closing order made	...	...	...	0
Number of houses where defects were remedied without closing orders being made	...	...	...	11
Number of houses with work in progress	...	...	...	4
Number of houses where Local Authority executed the necessary repairs	...	...	...	0
Number of houses demolished	...	...	...	0
Leaving to be dealt with	...	...	...	8
Number of back to back houses	...	...	about	100
Number of cellar dwellings	...	...	...	0

Canal Boats.—The Inspector submits the following report as to the execution of the Canal Boats Acts, 1887 and 1884, and the Regulations thereunder for the year:—

No. of boats registered	...	...	2
Total number registered at Runcorn	...	...	1118
No. in commission	...	...	595
No. of Inspections made	...	...	216
Contraventions of the Acts and regulations	...	...	13
Without certificate on board	...	...	1
Cabin repairs	...	...	9
„ overcrowded	...	...	1
Leaking	...	...	2
No case of Infectious Disease has been notified.			
No. of men on boats inspected	...	...	310
„ women on boats inspected	...	...	112
„ children „ „	...	...	40

SALE

Urban District.

Census population, 1901—12,088.

„ „ 1911—15,044.

Estimated population, 1915—16,200.

Births—301.

Birth-rate per 1,000 of estimated population—18.58.

Deaths—214.

Death-rate per 1,000 of estimated population—13.2.

Infantile Mortality per 1,000 births—80.

Death Rate from principal Zymotic diseases—1.48.

Infant Mortality.—During the year 24 infants died under twelve months old (13 males and 11 females), giving an infantile mortality rate of 79.9 per 1,000 per annum (1914, 85.36). On February 15th the Notification of Births Act came into force. During the 10½ months 282 intimations of births were sent to the Medical Officer of Health. Six of these infants died before December 31st and five of them were born severely handicapped by either immaturity, heart disease, or syphilis. The District Nurse, acting as Health Visitor, has done very good work in visiting and advising the mothers after the birth of a child. If much progress is to be made in the reduction of deaths amongst infants it will be necessary that expectant

mothers should be advised how to conduct their lives before the child is born, as pre-natal conditions are of vital importance.

Infectious Diseases.—There were 107 cases of infectious diseases notified in the year under review. Scarlet fever 61, diphtheria 37, erysipelas 4, typhoid 2 (one of these turned out to be pneumonia), cerebro-spinal fever 2 (one died), ophthalmia neonatorum 1.

Tuberculosis.—In the past year 25 cases of pulmonary tuberculosis and five of general tuberculosis were notified (an improvement on 1914 of 14 cases), ten deaths from pulmonary and five from general tuberculosis were registered in Sale area and seven pulmonary and one general tuberculosis in Hospital and Sanatoria outside Sale area, a total of 23 deaths from tuberculosis of Sale inhabitants during the past twelve months.

Cancer.—Malignant Disease has claimed a toll of twenty-one victims: sixteen in Sale and five in outside Institutions; of these twenty-one cases, four were males and seventeen females.

Closet Accommodation.—At the close of the year there were :—

Privy Ashpits	.	...	830
Pail Closets	...	...	50
Dry Ashpits	...	...	1570
Dustbins	...	...	1583
Fresh-water Closets	...	...	3099
Waste-water Closets		...	35

Housing.—The number of houses inspected was 150 43 notices were issued (13 statutory and 30 informal) and in all cases complied with without closing orders. There are some 2,020 houses within the limits of rent in Section 14 of the Act of 1909. No houses were condemned absolutely, the defects, as per table previously given, were rectified by the owners. There are a sufficient number of workmen's houses in good sanitary condition in the district. Nineteen new houses have been built in the past year.

SANDBACH

Urban District.

Census population, 1901—5,558.

1911—5,723.

Estimated population, 1915--5,723.

Births—147.

Birth-rate per 1,000 of estimated population—25.6.

Deaths—89.

Death-rate per 1,000 of estimated population—15.5.

Infantile Mortality per 1,000 births—61.

Death-rate from principal Zymotic diseases—69.

Housing.—Due to the flourishing condition of the industries, houses are very seldom empty and there is thus a decided shortage for people from other parts wishing to live here. The existing houses are in a good state of repair and practically all are connected with the sewer and water mains—there have been eight new houses erected during the year, all on the sewer and water mains. Two more are in course of erection.

Tuberculosis.—There have been five tubercular cases reported during the year, one of tubercular kidney and four of phthisis pulmonalis—three of the four were sent to Sanatoria by the Cheshire Insurance Committee and all derived great benefit and they are doing their best to continue the same lines of treatment at home. The poor go to Arclid Infirmary, where it is endeavoured to carry out the same form of treatment as at Sanatoria.

Water Supply.—This comes from an upland source and is brought down by two mains, a ten and a seven inch—only one being used at a time. It is taken to the Waterworks and treated by Clarke's Process. The new clear tank, 74ft. by 51ft. by 10ft., with a capacity of 200,000 gallons, can be used every day and, with the help of the Roturbo pump, capable of lifting 18,000 gallons of water per hour, has greatly relieved the anxiety at the Waterworks in hot weather and as the water has now more time to settle, the quality is better than ever.

Closet Accommodation.—A number of conversions have been made during the year and improvement in this accommodation is being maintained. Seventeen privies have been converted to the pail system and ten water-closets have been

Sandbach Urban District.

fixed. The number of different types of closets is now as follows:—

Water Closets	...	...	...	275
Pail	...	...	...	492
Earthenware	...	...	...	23
Privies	...	...	...	479

Housing.—The house-to-house inspection under the Housing (Inspection of District) Regulations has been continued during the year by the Sanitary Inspector and the following inspections have been made:—

Number of houses inspected	...	...	172
Number of inspections (including revisits)	...	...	293
Number of preliminary notices served for the remedy of minor defects	...	...	70

Infectious Disease.—We have had in all 21 cases of infectious disease reported as follows:—scarlet fever twelve, diphtheria three, puerperal one, tubercular five; six cases of the scarlet fever cases and two of the diphtheria cases were removed to the West Heath Sanatorium. All the bedding where necessary from the infected houses was sent to Congleton to be disinfected and the houses themselves were thoroughly stoved. All disinfectants were supplied and when necessary antitoxin was supplied free of charge. All morbid products from doubtful cases are sent to Manchester Laboratory for verification.

Midwives.—We have had six midwives in our district, but now two have retired on account of bodily infirmity. They attended during the year 168 cases. One of the babies were still-born. They sent for a Doctor on twelve occasions in difficult cases. I regret to say that we had a puerperal fever case this year—the first for many years.

TARPORLEY

Urban District.

Census population, 1901—2,644.

„ „ 1911—2,604.

Estimated population, 1915—2,402.

Births—46.

Birth-rate per 1,000 of estimated population—19.1.

Deaths—32.

Death-rate per 1,000 of estimated population—13.3.

Infantile Mortality per 1,000 births—21.

Death-rate from principal Zymotic diseases—.83.

Water Supply.—One extension has been carried out during 1915, this supply being brought to the cottages at Rushton Village, which was about 300 yards away from its water supply.

The owners of seven cottages in Utkinton Lane have been asked to provide a better supply, but the cost at present seems prohibitive. There is a good supply but it has to be carried about 300 yards. Eaton Village water supply has been much better this last year.

Pollution of Rivers and Streams.—The streams are fairly free from pollution, with the exception of the brooks in the Townships of Eaton and Utkinton, which are polluted by house drainage and farm sewage but not seriously; there is no manufacturing waste or effluents entering them.

Closet Accommodation.—Scavenging is not carried out by the Local Authority but by private arrangement. Each householder as a rule disposes of his own refuse. Your Council provides tips.

The following is the approximate number of the various conveniences:—

Midden Privies	...	...	180
Dry Ash-pits	...	...	137
Pail Closets	...	...	61
Dustbins	...	...	0
Cesspools	...	...	about 200
Water Closets	...	...	115

In Tarporley some of the privies were old and inadequate and your Council decided to have them converted into water-

Tarporley Urban District.

closets as early as possible; three of these were converted during the year 1915. In the other Townships where there are old and dirty privies pail-closets are being substituted as most of the cottages have good gardens.

Housing.—There were no new houses built during the year.

Number of new houses built during 1915 ...	...	0
Number of dwelling-houses inspected under Section 17, Act of 1909 ...	...	50
Number of such houses considered unfit for habitation— 5 very dirty, 2 cleaned, 3 in hand		
Number of representations made to Local Authority ...		10
Number of closing orders made by Local Authority ...		0
Number of houses where defects remedied <i>without</i> closing orders being made ...	...	4
Number of houses where defects remedied <i>after</i> closing orders made ...	...	0
Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909 ...	...	356
Number of such houses in respect of which notice was served during 1915 ..	... 6 informal notices	
Number of such houses closed after notice ...		0
Number of such houses where Local Authority has executed necessary repairs, &c. ...	...	0
Number of back-to-back houses in district ..		0
Number of cellar dwellings in districts ...	...	0

There is a sufficiency of houses for the working-classes in your district.

Hospital.—Infectious diseases may be sent to Chester Isolation Hospital, Sealand, near Chester—Tarporley, Tarvin and Malpas constituting a Joint Hospital Board. Seven cases were sent to hospital during 1915—all scarlet fever.

Infectious Diseases.—There were 16 cases of scarlet fever and no cases of diphtheria notified during 1915. Seven of these cases were sent to the Isolation Hospital. There were no other cases of infectious disease notified except tuberculosis.

During the early part of the year, April and May, there was a slight epidemic of scarlet fever. The school was closed and the epidemic ended.

Tuberculosis.—One case of pulmonary tuberculosis was notified during 1915 and no cases of "other forms of tuberculosis." The case was visited, card of instructions left, together with sputum flask, disinfectants and fumigating material. The Parish Nurse visited the case when required. There is no sanatorium or hospital accommodation in your district for phthisis patients.

Midwives.—There is no certified midwife in Tarporley. There is a Parish Nurse who does good work.

WILMSLOW

Urban District.

Census population, 1901—7,361.

" " 1911—8,153.

Estimated population, 1915—8,131.

Births—139.

Birth-rate per 1,000 of estimated population—17.0.

Deaths—108.

Death-rate per 1,000 of estimated population—13.2.

Infantile Mortality per 1,000 births—72.

Death rate from principal Zymotic diseases—None.

Housing.—Seven new houses were built in 1915. There is a shortage of cottages in the district. The character of houses for the working-classes on the whole is satisfactory. Some of the older cottages are defective. Inspections of these are being carried out. No cases of overcrowding have come under notice. There are no back-to-back houses and no cellar dwellings. One hundred and sixty-seven dwelling-houses were inspected under Section 17 Act of 1909. One was considered to be unfit for habitation. No representations were made to the Council. No closing orders were made. In one case defects were remedied without a closing order being made. There are 1,285 houses within limits of rent in Section 14 of Act of 1909. Notices were served in 18 cases. No houses were closed after notice and in no case did the Local Authority execute necessary repairs, &c.

Infectious Disease.—Thirteen cases of acute infectious disease were notified, viz.:—three diphtheria, five scarlet fever, three enteric fever, one poliomyelitis, one ophthalmia neonatorum.

Bacteriological Examination.—During 1915 there were sent for examination to the Manchester Public Health Laboratory throat swabs from eleven patients. In three the report was "diphtheria positive," on one doubtful and in seven negative. Four specimens of blood were examined for enteric fever with positive results in three cases. Examination of sputum for tuberculosis was made in three cases with negative results.

Tuberculosis.—Three cases of pulmonary tuberculosis and three of other forms were notified. Visits were made to the houses and the usual enquiries made and advice given.

Midwives.—There are five midwives on the county register residing in the district.

Their case books and appliances have been inspected and are in order. Their houses are satisfactory. Forty-seven cases were attended during 1915. Three records of sending for medical help were received.

The Sanitary Authority have not made any rule prohibiting the laying out of dead bodies by midwives. Three still-births have been notified by midwives. No case of puerperal fever but one of ophthalmia occurred in cases attended by registered midwives. Facilities are afforded for steam-disinfection of clothing of midwives who have attended such cases. No midwives have been suspended from practice.

WINSFORD

Urban District.

Census population, 1901—10,382.

" " 1911—10,770.

Estimated population, 1915—10,150.

Births—234.

Birth-rate per 1,000 of estimated population—23.1.

Deaths—144.

Death-rate per 1,000 of estimated population—13.4.

Infantile Mortality per 1,000 births—111,

Death-rate from principal Zymotic diseases—.59.

Closet Accommodation.—The approximate number of water-closets now in use in the district is 1,114, an increase

of 43 for the year, 39 having been converted from cesspool-privies, two from peat-pail closets and two provided to new property during the year. There are no waste-water or hand-flushed closets known of in the district.

The number of peat-pails in use at house property is 512, a reduction of two, due to conversions to fresh-water closets, during the year. The scavenging is performed by private contract, between the hours of 10 p.m. and 6 a.m. The pails are emptied, cleansed and re-charged with peat dust and vitriol once each week, a clean pail being substituted at each house. The manure is taken to a dépôt, provided by the contractor, outside the district and well removed from inhabited parts.

The approximate number of cesspool-privies is 828, a decrease of 39 for the year, this number having been converted to fresh water-closets during 1915. The scavenging is done by contract in the night-time, the manure being taken to out-lying parts of the district. As will be observed from the Table under this head, the supervision of this branch forms an important part of the duties of the office.

I would draw special attention to the very satisfactory nature of these figures; and would remind you that the whole work has been done by voluntary arrangement; and that in every case other and additional alterations and improvements to the premises have been effected at the same time.

Milk Supply.—It is out of my power to certify the wholesomeness of the milk, for reasons given in my last Annual Report.

On the contrary, I have an unhappy conviction (if intangible none the less deep-seated) that a large trade in cattle of an exceedingly doubtful quality (to put it very mildly) is done in this part of the County; (I don't mean in this Urban District specially, but only as part of a larger County area); which makes use of the facilities offered by the Crewe Cattle Market and also on occasion goes much further afield. I draw the attention of the County Council, as administrator of the Food and Drugs Act, to the urgent need for very much closer supervision.

Owing to the war, the police have discontinued in 1915 the very valuable work which they were doing in 1914, in notifying cases of suspected tuberculosis to the Sanitary

Authority. This ought to be resumed at the earliest opportunity; and the Home Office and Board of Agriculture should be memorialised (preferably by the County Council).

Housing.—The Sanitary Inspector reports:—"Forty-seven houses have been inspected in detail, divided as follows: 16 in Station Road, nine in Wharton Road, five in Chapel Road, two in East Dudley Street, five in High Street, three in Weaver Street, four in Gladstone Street and three in Dingle Lane. One house has been closed as unfit for human habitation and at 42 others the improvement required has been completed, including among other matters, the conversion of cesspool-privies to water-closets, the re-paving of rear yards and passages with smooth impervious materials, the provision of new drains, or re-arrangements of old drains, with gullies, &c., attached, and proper connections made with sewers, the provision of covered ash-bins and sinks; in three instances only is the improvement yet incomplete. The serving of statutory notices has not been necessary, the whole of the work required having been arranged and carried out by personal agreement with owners. As referred to in the last Annual Report, owing to the war, considerable difficulty was experienced towards the close of 1914 in negotiating improvements at house property. During the whole of 1915 and at present on account of the financial disability of many owners and the unprecedented rise in the price of building materials and labour, satisfactory progress in this important branch of public health work, under such abnormal conditions, is a practical impossibility.

Number of houses inspected under Section 19	...	47
Number found unfit for habitation	...	1
Number of representations (for closing orders)	...	None
Number of houses remedied without closing orders	...	42
Number of houses remedied after closing order	..	None

The total work done in five years is as follows:—

Number of houses inspected under Section 17	..	671
Number found unfit for habitation	...	7
Number of representations (for closing orders)	...	6
Number of closing orders	...	6
Number remedied without closing orders	...	522
Number remedied after closing orders	...	6

In this Table there is a discrepancy of 149 between the 1st and the 5th lines; this represents matters "in hand" but not completed at the end of each year. All have been completed eventually, though not again enumerated as belonging to the following year.

Dr. Garstang remarks:—The character of the houses for the working-classes is in most cases quite satisfactory and is improving each year as the worst cases are dealt with. The sufficiency will of course be measured by the number of empties; this number fluctuates according to the state of trade. The population is not perceptibly growing and absentees in connection with the war have caused a diminution of no less than 900 in the estimate as compared with 1914, or 8.3 per cent. (700, or 6.4 per cent. belonging to 1915).

Bacteriological Work.—The specimens sent to Professor Delépine's laboratory in 1915 were 68 diphtheria (two positive results), six enteric (one positive), 19 tuberculosis (four positive).

Diphtheria.—The year 1915 began with six notifications in January, six in February, 13 in March and 15 in April, total 40. In the middle of April I made arrangements with the medical practitioners (whose assistance I cordially acknowledge) to have "swabs" taken for bacteriological examination from all contacts; and when 27 consecutive negative results were recorded I had all the cases themselves examined as they were suspected, and 30 consecutive negative results were obtained between June and September. One positive result was obtained in October and one in December; and there were 66 negative results in the year. The notifications fell to four in May, one in June, one in July, one in August, one in October and one in December; or only four in the last six months; and so the long nightmare (which had troubled eight out of the last ten years) was dissipated and we awoke, perhaps rather resentfully, to the knowledge that it had been only a nightmare. One death occurred in August in hospital out of a total of 49 cases, of which 46 were removed to hospital in accordance with our custom in this district.

Tuberculosis.—Of the notifications received in 1915 there were eight males and six females (pulmonary) and five males and six females (non-pulmonary).

The non-pulmonary cases included seven of cervical glands, two of mesenteric glands, one of knee and one of nose.

Means of Preventing Mortality in Child-birth and in Infancy.—The number of midwives was further reduced in 1915 from 14 to 12. Only three are fully trained and two of these do not practice. One hundred and twenty-nine cases were attended; medical aid was sought 19 times; four still-births, one death and two cases of ophthalmia were reported.

The Notification of Births Act came into force on April 1st and a large number of cards have since accumulated in Mr. Hickson's office, but no use has been made of them as yet, as the Council has not yet appointed a Health Visitor. No other steps have been taken.

YEARDSLEY-CUM-WHALEY

Urban District.

Census population, 1901—1,487.

„ „ 1911—1,659.

Estimated population, 1915—1,720.

Births—22.

Birth-rate per 1,000 of estimated population—12.7.

Deaths—19.

Death-rate per 1,000 of estimated population—11.0.

Infantile Mortality per 1,000 births—None.

Death-rate from principal Zymotic diseases—.58.

Infectious Diseases.—Ten cases of infectious diseases have been notified, viz.:—one of scarlet fever, three of diphtheria and six of tuberculosis. The case of scarlet fever was removed to the Chinley Isolation Hospital, one case of diphtheria was removed to the Hyde Isolation Hospital and the remaining two were treated at home. Of the six cases of tuberculosis, one was sent to the Linacre Hospital at Bootle, two were treated at the Chinley Dispensary and three were treated at home. No insanitary conditions could be traced to account for the three cases of diphtheria. In all cases instructions were given and steps taken by the Sanitary Inspector to prevent further spread of the disease. No case of typhoid fever has occurred in your district for nineteen years.

Sewerage.—During the past 12 months 73 connections to sewerage system have been made serving 259 houses. It is to be regretted that the rest of the connections have not been made, but it is excuseable on the grounds of shortage of labour and the inability to borrow money.

Yeardsley-cum-Whaley Urban District.

Housing.—The house accommodation for the working classes is ample. There are no "back-to-back" houses in the district. It has not been necessary to take action under the Act during the year. Six new houses have been built during the year.

Midwives.—There are two midwives who practice in this district. The total number of cases attended was 20. Medical assistance was not required in any of the cases. No deaths of mothers or infants have occurred and no cases of puerperal fever have been notified. All the appliances required by the Rules are provided by the midwives and are in good order. The case books are well kept.

BUCKLOW

Rural District.

Census population, 1901—19,890.

" " 1911—22,868.

Estimated population, 1915—22,462.

Births—360.

Birth-rate per 1,000 of estimated population—16.0.

Deaths—269.

Death-rate per 1,000 of estimated population—12.4.

Infantile Mortality per 1,000 births—108.

Death-rate from principal Zymotic diseases—.53.

Population, &c.—The population has been estimated for 1915 from the known number of new houses erected and with a deduction of 455 for enlistments. This number is only 2 per cent. of the population and I fear it is too low, but it is what was estimated in January, 1915.

The district is rich in Public Institutions. They are (1) the Manchester Corporation's Sanatorium for Phthisis at Baguley, now being enlarged, (1915 figures, 50 officers and 143 patients; (2) the Manchester Guardians' Cottage Homes at Styal, (52 officers, 520 children; (3) the David Lewis Epileptic Colony at Marthall, (71 officers and 304 patients); (4) the Manchester Consumption Hospital in Dunham Massey, (14 officers and 49 patients); and the Altrincham Urban District Infectious Diseases Hospital in Dunham Massey, (10 officers

and 8 patients); giving a total of 197 officers and 1,024 inmates. Other inhabitants are estimated at 22,265; there is therefore a gross population of 23,486 and nett 22,462.

Water Supply.—Mr. Metcalfe's report is:—"Water certificates were granted for all new houses, when a wholesome supply of water had been provided, under the provisions of the Public Health Water Act, 1878. Forty-one houses were supplied from pipe service and nine from wells. Where the water supply was from wells samples of the water were submitted for analysis and a satisfactory report obtained before certificates were granted. Sixteen samples were analysed during the year from wells.

The consideration of a public water supply for the Township of Mobberley is being proceeded with. Gaugings have been taken from the out-crop of two springs and the average flow is found to be 484 gallons per hour. Other gaugings will be taken and the preliminary work pushed on with during 1916.

Closet Accommodation.—Mr. Metcalfe says:—"The following figures are as close an estimate as possible:—Privies 1,092, pails 700, cesspools 1,020, water-closets 2,846. There are no waste-water or hand-flushed closets. Conversion of privies into water-closets during year 66.

Housing.—Mr. Metcalfe reports as follows:—

Houses inspected under Section 17, Act of 1909	...	210
Houses found unfit	... ..	13
Number of representations to Local Authority	...	13
Number of closing orders made	..	13
Houses where defects remedied without closing order	...	94
Number within limits of rent of Section 14	...	3145
Number of notices served on such houses	...	46
Number closed	... ..	None
Number of back-to-back houses	...	None
Number of cellar dwellings	... ..	None

The work under this Act was proceeded with and 210 houses inspected. Thirteen representations were made to the Council in respect of 13 houses unfit for human habitation and closing orders issued.

Defects were remedied without closing orders at 94 houses.

Fifty houses were built and completed during 1915, 25 are let at rents under £16 and 25 over.

The systematic inspection of houses was only commenced late in 1911. In a period of four years (and a month or two) 826 houses have been inspected, out of 4,971. Judging by the figures alone the proportion seems small and 20 years appear necessary for completion. This however is not really so. The houses inspected have been chosen from among the worst in the district and another 826 can be dealt with in less than another four years, because they will contain a larger proportion of houses of a better class. Moreover those inspected have been dealt with thoroughly and the required sanitary improvements carried out. This is in my opinion the proper procedure and productive of greater benefit than if we had entered the particulars of every house in a register and in so doing had had no time to issue a single notice or secure a single improvement; though we could have shown, on paper only, a completed inspection of the district.

The totals for the four years are:—

Houses inspected under Section 17 of Act of 1909	...	826
Houses found unfit	... ..	25
Number of representations	... ..	25
Number of closing orders	... ..	25
Number where defects remedied without closing order...		601

It will thus be noticed that in our worst cottage property only 3 per cent. have had to be condemned outright.

Chemical and Bacteriological Work.—The chemical work is done by the County Analyst. Sixteen samples of water were submitted to him. The bacteriological work is done at Professor Delépine's laboratory. The specimens submitted to him were taken from 24 supposed cases of diphtheria, three of enteric fever, besides one special examination of excreta and six of tuberculosis.

Positive results were obtained in the three enteric fever and in ten diphtheria; the remainder were negative. The numbers are much larger than in the previous year, but this points rather to an increased use of bacteriological diagnosis, rather than to an increased prevalence of disease, except in the case of diphtheria where notified cases rose from 6 to 33.

Measles.—The following Schools have reported cases during the year (number of cases in brackets):—Arley (4), Little Heath, Dunham (2), High Legh (4), Mere (3), Mobberley (3). Baguley had 14, of which nine occurred in November and December and the school was closed two days before the Christmas holidays without my knowledge. St. Alban's, Broadheath, Dunham, closed for two weeks in April, Miss Fletcher acting as Health Visitor. Between 30 and 40 cases were dealt with. Timperley, Stockport Road and Thorley Lane schools were closed for four weeks in May, Miss Fitton acting as Health Visitor. About 60 cases were dealt with. St. Andrew's school was closed for a fortnight in August and September, Miss Ryder acting as Health Visitor. Between 10 and 20 cases were dealt with. In Northenden both schools were closed on December 15th and Miss Broadbridge acted as Health Visitor.*

I wish to draw very special attention to the fact that not a single death occurred among the cases enumerated above. The only deaths that occurred were a baby of 12 months in Northen Etchells in February, no other case being heard of in that township; and a baby of 8 months in Northenden on December 10th, this being the first case heard of there in that month; which may, or may not, have been connected with the epidemic whose commencement came to my knowledge a few days later.

In this connection I wish to draw equal attention to the fact that since 1897 only 34 deaths have occurred in 18 years, or an average of 1.9 per annum. In a population exceeding 20,000 I think that is a record to be proud of and I attribute it to the adoption of domiciliary visiting whenever schools are closed, for, although I have never written so fully before, each of my Annual Reports for the preceding 17 years will be found to contain references and several give definite examples of epidemics cut short and children's lives saved. In view of the Order making measles compulsorily notifiable after December 31st, 1915, it is only bare justice to place upon record the results which I have obtained without it.

Tuberculosis.—Of the notifications received in 1915 there were seventeen males and eight females (pulmonary) and seven males and three females (non-pulmonary).

Each case is visited by the Medical Officer of Health personally as soon as convenient and occasionally Mr. Metcalfe is asked to make a few preliminary (non-medical) enquiries;

* This epidemic ran until February 12th, 1916, eight weeks, and involved more than 100 cases. No deaths.

subsequent visits are made by the Medical Officer of Health at his discretion and in most cases are not numerous as the medical attendants are always careful; moreover if a close personal supervision by the Medical Officer of Health were expected the Council would have to provide an Assistant Medical Officer of Health; there are no arrangements (that is, there is no staff), for the detection of unrecognised cases; there is now a Dispensary at Northwich and a Sub-dispensary at Altrincham, at which patients can receive advice and treatment twice a week, or, if necessary, can be visited by the Tuberculosis Officer (or nurse) at their homes. Not much use has been made of them yet. Disinfectants are supplied on request; disinfection of premises and bedding is carried out after a death and at any time on request.

Vaccination.—Figures could be obtained, by favour, from the Vaccination Officers, but it is not worth while. There is no reason to believe that this district is different to the rest of the country, where 50 per cent. of infants are now unvaccinated. Some day, sooner or later, there will be a small-pox epidemic which will settle the question of exemption permanently and effectively.

Sanitary Condition of Non-Provided Schools.—Mr. Metcalfe has made a special enquiry for me at the close of the year. It is two years (Annual Report 1913) since I reported defects in detail and notices were served to abate insanitary conditions. The following are now passed as satisfactory:—

Bollington	
Dunham Massey, St. Alban's	
Mobberley	
Mobberley Infants	
Northenden C.E.	
Peover	
Tabley	
Arley	
Baguley	
Dunham Massey, Little Heath	
Do. Seamon's Moss	} Improvements made
Timperley, Stockport Road	
Do. Thorley Lane	
Do. St. Andrew's	

The following have complied partly but not completely:—

Ashley
 Northen Etchells
 Rostherne
 Styal

The following have done nothing:—

Carrington
High Legh
Mere
Ollerton
Partington
Warburton

It is interesting, but at the same time regrettable, to notice that all the schools which are giving trouble belong to one or other of the large estates; thus Ashley, Ollerton and Rostherne, for instance, belong to Lord Egerton of Tatton. It would almost appear that the officials in the various estate offices consider themselves able to disregard the sanitary requirements of a Rural District Council; and, without going into further details, there is at least ample justification for inviting the special attention of the County Council and Local Government Board to the peculiar position.

CHESTER

Rural District.

Census population, 1901—10,989.
 " " " " 1911—12,447.
 Estimated population, 1915—11,091.
 Births—226.
 Birth-rate per 1,000 of estimated population—20.3.
 Deaths—138.
 Death-rate per 1,000 of estimated population—12.4.
 Infantile Mortality per 1,000 births—79.
 Death-rate from principal Zymotic diseases—.45

Water Supply.—Chester Rural District is supplied by the Chester Water Company, by the Wrexham Water Company and by the West Cheshire Water Company. The outlying parishes are supplied by springs, dip-wells and ordinary wells. These waters are fairly wholesome and sufficient, except in the parishes of Mickle Trafford and Ince. The water supply of Dunham Hill is completed, arrangements having been made with Runcorn Rural District to supply from their waterworks at Helsby. Ince is still under consideration. Blacon cottages have not a satisfactory water supply yet, but it is in hand.

The following extensions have been carried out during 1915:—

Seven new houses have been connected to the Chester Waterworks main.

Three farms have been supplied from the Dunham Hill supply.

Pumps and wells have been put in order at Christleton and Upton.

There have been seven samples of water chemically analysed and two bacteriologically, two from Blacon, one from Upton, four from Dunham. No contamination of the water by lead has occurred.

Pollution of Rivers.—In the Chester Rural District some of the streams are polluted or are likely to be polluted. At Great Saughall the stream is polluted by the house drainage of the whole village. A second sewage scheme has been prepared for Great Saughall and has been accepted, but is being left over till after the war owing to shortage of labour. House drainage pollutes the River Gowy at Mickle Trafford and has been before you for consideration and some cottages pollute the brook at Abbot's Mead. No manufacturing waste or effluents cause pollution.

Mickle Trafford is still without a satisfactory system of sewage and has been before you for further consideration, but nothing further has been done.

There have been no complaints during 1915 as to the disposal works in your district.

Housing.—The following statement shews the work done during 1915:—

Number of new houses built during 1915	...	7
Number of dwelling-houses inspected under Section 17 of Act of 1909	... ..	157
Number of such houses considered unfit for habitation...		4
Number of representations made to Local Authority	...	0
Number of closing orders made by Local Authority	...	0
Number of houses where defects remedied <i>without</i> closing orders being made	... ..	67
Number of houses where defects remedied <i>after</i> closing orders made	... ..	0

Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909	..	1592
Number of such houses in respect of which notice was served during 1915	{ Informal... { Legal ...	132 27
Number of such houses closed after notice	...	2
Number of such houses where Local Authority has executed necessary repairs, &c.	... ..	0
Number of back-to-back houses in districts	..	0
Number of cellar dwellings in district	... ..	0

The most important alterations that have taken place are with regard to through ventilation, existing windows being made to open and new windows made in the parishes of Lea-by-Backford, Chorlton-by-Backford, Stoke, Hapsford, Elton and Ince and closet accommodation has been much improved.

There is a sufficiency of houses for the working-classes in your district.

Infectious Diseases.—There were 72 cases of infectious disease notified during the year 1915, being seven less than the previous year.

Scarlet Fever	... ..	35
Diphtheria (including Membranous Croup)		14
Enteric Fever	... ..	4
Pulmonary Tuberculosis	... ..	11
Other Tuberculous Diseases	... ..	7
Erysipelas	.. ...	1

Nine of the diphtheria cases were removed to hospital, twenty-two cases of scarlet fever and one enteric—32 in all.

Tuberculosis.—There were 11 cases of pulmonary tuberculosis notified during 1915 and seven other tuberculous disease. Every care is used to prevent the spread of infection.

There is no sanatorium or hospital accommodation in your district for phthisis patients other than the Workhouse Hospital, but cases may be admitted into the Kingswood Sanatorium, Delamere Forest, which is just over your boundary. There were eight deaths from phthisis and two from "other tuberculous diseases." Of the ten deaths from tuberculous diseases seven had not been previously notified as required by the Regulations of Tuberculosis Notification Act, 1912.

CONGLETON

Rural District.

Census population, 1901—12,220.
 " " 1911—12,821.
 Estimated population, 1915—12,845.
 Births—254.
 Birth-rate per 1,000 of estimated population—20.5.
 Deaths—156.
 Death-rate per 1,000 of estimated population—12.3.
 Infantile Mortality per 1,000 births—86.
 Death-rate from principal Zymotic diseases—.31.

Infectious Disease.—I have received 57 notifications, made up as follows:—Scarlatina 33, diphtheria 16, erysipelas 6, ophthalmia 1, puerperal fever 1.

Hospital.—West Heath was not quite so full as last year. Twenty-seven cases of infectious disease were removed there, the remainder, 21, being isolated at home. The Arcloid Small-pox Hospital was not required though it is kept in perfect readiness.

Tuberculosis.—Ten cases have been reported to me. I visit every case and advise as to the best means of preventing any spread of the disease.

Midwives.—The midwives have been inspected several times this year and they have done their work satisfactorily. There is a great shortage of midwives at one or two places but during this war I do not see any chance of an increase in their number.

Housing.—Fifteen new houses have been built at Elworth. Five hundred houses have been inspected under this Act. No houses were considered unfit for habitation and no closing orders were served. Fifty-five have been reported to the Council for various reasons, 38 have been put into a good state and 17 are pending.

DISLEY

Rural District.

Census population, 1901—2,827.
 " " 1911—2,958.
 Estimated population, 1915—2,972.
 Births—55.
 Birth-rate per 1,000 of estimated population—18.5.
 Deaths—34.
 Death-rate per 1,000 of estimated population—11.4.
 Infantile Mortality per 1,000 births—72.
 Death-rate from principal Zymotic diseases—.33.

Water Supply.—The public supply is derived from the Stockport Corporation Waterworks. The benefits of this supply have been extended to Lane Heads, Higher Disley, and nine old and two new houses have been connected to this extension. Eight other houses have been connected to the Stockport main. About 654 houses are supplied from public sources. This supply is constant and free from pollution. There are about 14 houses with no supply within 100 yards. About 13 are supplied from the surface wells and hillside streams. One hundred and sixty-eight houses are supplied from springs and private reservoirs. The supply to some seven houses is liable to pollution by drainage from manured land.

Rivers Pollution.—Gross pollution by trade effluents is prevented by the supervision exercised by the Mersey and Irwell Joint Committee. As stated in last year's report the undrained houses in Newtown and in Furness Vale are a source of pollution.

Sewerage.—In Disley this is, on the whole, satisfactory. The Newtown portion of the district is still without a proper system of sewers. The works, approved by the Local Government Board, are in abeyance during the war. Furness Vale has now a system of sewers and notices have been served on the owners of houses to connect their drains thereto. When these have been complied with considerable nuisance will be abated.

Closet Accommodation.—Approximate number of houses :

Privy Middens.	Pail Closets.	Water Closets.	Slop Water Closets.
379	92	249	20

Nineteen privy middens and pails were converted to water-closets during the year. Five defective privies were improved. In 25 instances dustbins were substituted for ashpits. There are still

too many privy middens. They preponderate. Water-closets should be substituted in Furness Vale and use made of the system of sewers there established.

Housing.—Seventy-two houses were inspected under and for the purposes of Section 17 of the Act of 1909. Two of these houses were considered unfit for human habitation and representations were made to the Council with a view to the making of Closing Orders. Closing Orders were not made, but the property is not being let for habitation. In 25 houses defects were remedied without the making of Closing Orders. There were no serious complaints as regards the adequacy of houses for artisans and labourers. Four new houses of this class were erected during the year. The Sanitary Inspector thinks that in the near future more houses will be required than are provided by private enterprise.

Hospital.—The Hyde Corporation Infectious Diseases Hospital is available for cases of infectious disease.

Tuberculosis.—There were six cases of tuberculosis; five of these occurred in Disley and one in Newtown. No cases were notified under the Tuberculosis (Poor Law) Regulations, 1908. Three cases were notified under the Tuberculosis (Hospital) Regulations, 1911.

MACCLESFIELD

Rural District.

Census population, 1901—15,775.

„ „ 1911—16,628.

Estimated population, 1915—16,680.

Births—270.

Birth-rate per 1,000 of estimated population—16.18.

Deaths—216.

Death-rate per 1,000 of estimated population—12.9.

Infantile Mortality per 1,000 births—81.

Death-rate from principal Zymotic diseases—.59.

Cerebro-Spinal Fever.—One case of cerebro-spinal fever was notified from Chorley. The notification was received on June 2nd and the patient died on June 7th. Some of the cerebro-spinal fluid was withdrawn by lumbar puncture and examined by the Clinical Research Association with the result that

Macclesfield Rural District.

the diplococcus was not found. The case was probably tuberculous.

Tuberculosis.—Ten cases of the pulmonary form of this disease were notified during the year—seven males and three females and four cases—3 males and one female of non-pulmonary tuberculosis have been notified. Of the latter the parts affected in each case were—glands of the neck three, pleura one. Three of these are now under treatment in hospital. Two cases of pulmonary tuberculosis were in persons belonging to other places, who had taken up their residence in this district temporarily. Each of these cases has been investigated by the Medical Officer of Health on receipt of the primary notifications; subsequent visits being paid where found necessary. Printed and verbal instructions have been given as to the means to be used to prevent the spread of the infection. In each case of the pulmonary disease the patient was occupying a separate bedroom and was exercising due care in the destruction of the sputum. Disinfectants are supplied by the Rural District Council, but no provision is made for the supply of sputum flasks, paper pocket handkerchiefs, extra nutriment, etc.

Infant Mortality.—The number of deaths occurring in infants under one year of age was 22—two of these being of illegitimate children. Eight deaths resulted from premature birth or allied conditions. The Notification of Births Act, 1907, came in force in the district on the 1st of April. 134 notifications were received as compared with 191 births registered during the same period. Provision has not yet been made for Health Visiting. At the November meeting of the Health Committee a Sub-Committee was appointed to inquire into the practicability of administering the Act locally either by this District Council alone or in combination with any other adjoining district or districts.

Housing.—The work of inspecting the houses of the district for the purposes of Section 17 of the Housing and Town Planning Act, 1909, has been curtailed to meet the requirements of the times in the matter of public and private expenditure.

Number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909—271.

The number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation—0.

Number of dwelling-houses the defects in which were remedied without the making of closing orders—67.

The Surveyor and Inspector reports as under :—

Water Supply.—Thirteen houses were newly supplied from the Council's Water Undertakings. The number of houses so supplied are as follows :—

Adlington 2, Butley 73, Prestbury 68, Taxal 144, Tytherington 23, Upton 49.

Lord Vernon's water works supply 566 houses in Poynton. The Stockport Corporation water works supply 18 houses in Poynton, 51 in Woodford 45 in Chorley, and 26 houses, a Convalescent Home for a Manchester Hospital and a number of Residential Schools in Great Warford. The Buglawton Urban District Council supply 30 houses in Eaton. Colonel Brocklehurst's water works supply 80 houses in Hurdsfield. Mr. Whiston's water works supply 104 houses in Sutton. Mr. Allen's water works supply 95 houses in Rainow.

Twelve samples of water from wells were analysed chemically, eight of which were reported as being in some degree unsafe for dietetic purposes. In each of these cases the occupier was at once warned of the danger attending the use of the water and steps were taken to either improve the supply or provide another one.

Housing.—The 1,052 general inspections of dwelling-houses included 271 which were for the purposes of the records required by Article III. of the Housing (Inspection of District) Regulations. This new series of records now includes 3,457 houses. Structural conditions, apart from drainage and conservancy methods, have occupied a good deal of attention. Extensive repairs and improvements have been effected without legal proceedings, without a Closing Order and without a statutory notice. Twenty-one sets of plans of Proposed New Buildings were deposited and approved. These provided for—*inter alia*--27 dwelling-houses, including 24 working class houses.

MALPAS

Rural District.

Census population, 1901—4,488.
 " " " 1911—4,643.
 Estimated population, 1915—4,330.
 Births—93.
 Birth-rate per 1,000 of estimated population—21.4.
 Deaths—56.
 Death-rate per 1,000 of estimated population—12.9.
 Infantile Mortality per 1,000 births—53.
 Death-rate from principal Zymotic diseases—1.38.

Water Supply.—Malpas Rural District is supplied largely from the Liverpool Corporation main. The main runs through the town of Malpas which it supplies, also the parish of Bickley. Other parishes are supplied from public and private wells. The supply is constant and there are no complaints as to action on lead. There is a sufficient supply and the wells are fairly free from the risk of pollution. Three samples of water were chemically analysed during the year.

Pollution of Rivers.—In the Malpas Rural District there seems to be little pollution of the streams except from house and farm drainage. The farm drainage and sewage is nearly all dealt with on the land. No manufacturing waste or effluents cause pollution.

Sewerage and Sewage Disposal.—No new works of sewerage have been carried out during 1915. The sewage for Malpas Town is disposed of by bacteriological treatment. There are three outfalls, one at Wells Lane, one at Whitchurch Road and one at Wrexham Road, each consisting of a sedimentation tank which empties on to three lots of filter beds, arranged in two tiers. No alterations or extensions have taken place in the disposal works during 1915.

The County Council complain of the effluent from the Whitchurch Road being unsatisfactory. This is the only complaint we have had. None of the district, except Malpas Town, has any system of sewers. In the small villages most of the houses have separate cesspools. Isolated cottages run their sewage into cesspools or into the nearest water-course. Most of the farms deposit their sewage on to the land. A farm at Chorlton has had a Dibdin's slate bed installation for the treatment of its sewage.

Closet Accommodation.—The following is the approximate number of various sanitary conveniences:—

Midden-privies	...	...	128
Dry Ashpits	...	...	40
Pail Closets	...	...	217
Dustbins ...	...	...	6
Cesspools	...	...	570

The present system seems fairly adequate, but improvements are needed and midden-privies ought to be abolished—pail-closets and covered dustbins or ashbins substituted.

Housing.—The following table shews the work done during 1915:—

Number of new houses built during 1915	...	...	0
Number of dwelling-houses inspected under Section 17 of Act of 1909	...	...	15
Number of such houses considered unfit for habitation			0
Number of representations made to Local Authority	...		0
Number of closing orders made by Local Authority	...		0
Number of houses where defects remedied <i>without</i> closing orders being made	...	...	7
Number of houses where defects remedied <i>after</i> closing orders made	...	...	0
Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909	...	...	873
Number of such houses in respect of which notice was served during 1915	...	...	7
Number of such houses closed after notice	...		0
Number of such houses where Local Authority has executed necessary repairs, &c.	...	...	0
Number of back-to-back houses in district	...		0
Number of cellar dwellings in district	...	...	0

The inspected houses were in Malpas, Marbury, Tushingham and Hampton.

Hospital.—The Isolation Hospital, Sealand, Chester. For small-pox arrangements are made with Whitchurch Small-pox Hospital. The Conjoint Hospital Board for infectious disease consists of Tarporley, Tarvin and Malpas districts.

Malpas Rural District.

Infectious Diseases.—There were 25 cases of infectious disease notified during the year 1915:—

Scarlet Fever	...	...	...	14
Diphtheria	...	...	...	7
Pulmonary Tuberculosis	...	...	...	3
Other Forms of Tuberculosis	...	...	...	1

Two cases of diphtheria were removed to the Chester Isolation Hospital at Sealand.

Tuberculosis.—There were three cases of pulmonary and one of non-pulmonary tuberculosis notified during 1915.

There is no sanatorium or hospital accommodation for phthisis patients in your district.

NANTWICH**Rural District.**

Census population, 1901—23,197.

„ „ 1911—24,995.

Estimated population, 1915—24,572.

Births—515.

Birth-rate per 1,000 of estimated population—20.9.

Deaths—328.

Death-rate per 1,000 of estimated population—12.9

Infantile Mortality per 1,000 births—79.

Death-rate from principal Zymotic diseases—.65.

Cancer.—Thirty-seven deaths were ascribed to cancer. Thus 11.2 per cent. of the total deaths were caused by this group of diseases. This is a very high percentage. It is doubtless due largely to the large proportion of old persons living in the district.

Infectious Disease.—During the year 132 cases were reported. They were as follows:—

Smallpox	...	...	...	1 case
Diphtheria	...	...	...	27 cases
Erysipelas	...	...	...	7 „
Scarlet-Fever	...	...	...	67 „

Cerebro-Spinal Fever	...	...	1 case
Ophthalmia-Neonatorum	...	...	4 cases
Pulmonary Tuberculosis	...	14	„
Other forms of Tuberculosis	...	11	„

Small-pox.—One case of this disease occurred. It was that of a woman aged sixty-five years reported from the Workhouse Infirmary. She was removed to the Ravensmoor Small-pox Hospital, where she died. Arrangements were at once made for the vaccination of all contacts. No spread of infection took place.

Diphtheria.—Twenty-seven cases of this disease were reported, of which four proved fatal.

Scarlet Fever.—Sixty-seven cases of this disease were reported. No fatal cases occurred. The disease has been for the most part of a mild type.

Of these, 46 cases were removed to hospital, a percentage of 68.6.

Cerebro-spinal Fever.—One case of this disease occurred. It was that of a child aged seven years and was reported on November 27th from the Township of Dodcott. It was bacteriologically proved to be a genuine case. All contacts were isolated for the period laid down in the official instructions with regard to this disease. Careful disinfection was undertaken and no spread of infection took place. It was impossible to trace the source from which the case was infected.

Pulmonary Tuberculosis.—Fourteen cases of this disease were reported during the year. The Medical Officer of Health does not consider that the majority of cases are reported in their early stages, during which stage only can good results be expected from treatment. He looks forward to the time (after the conclusion of the war) when all advanced cases can be treated locally in a hospital properly suited to their treatment and where they will be prevented from spreading the infection to other members of their family.

Other Forms of Tuberculosis.—Eleven cases of this class were reported. They included four cases of tubercular meningitis.

Hospital.—During the year seventy-three cases of infectious

Nantwich Rural District.

disease belonging to the Rural District were treated at the Nantwich Joint Isolation Hospital. They were as follows:—

Scarlet Fever	...	... 52 cases
Diphtheria ...	...	... 21 ..

The value of the Isolation Hospital is very great and this Institution is greatly appreciated by the residents of the Rural District.

The Surveyor reports as under:—

Water Supply.—During the year water mains were laid in Ridley to supply the new small holdings belonging to the Cheshire County Council and also in Acton to the new Grammar School buildings. The total length of mains laid was 3,340 yards, which, added to 310,124 yards, the length previously laid, gives a total of 313,464 yards of water mains now laid in the Rural District.

In 1915 the number of houses connected to the water mains was 27, making the total number of houses now supplied by the water mains of this Council 3,846.

During the year tenders amounting to £20,370 were accepted and arrangements made for the commencement of the proposed water supply to Audlem and district, but the Local Government Board, after an enquiry made by one of their Inspectors, decided that the execution of these works must be deferred till after the war. A considerable quantity of the pipes, amounting to nearly half the contract, had been cast and were ready for delivery, but arrangements have been made for the War Office to take over the greater part of these.

Sewerage.—

WILLASTON.—The majority of the houses on the line of new sewers in Willaston and Wistaston have been connected up to the same and steps are being taken to get the remaining houses coupled up as soon as possible. The Disposal Works have been in operation some time and are giving satisfactory results. The Contract accounts have been made out and, subject to a few adjustments, are complete. Arrangements were made for the County Council to repair the main roads where sewers had been laid in Willaston and Wistaston and this work has been carried out.

LONDON ROAD.—An additional length of sewer has been laid in London Road, Willaston, as far as Willaston School, and the houses en route have been coupled up to the same.

The sewer from Willaston School has been diverted from the old sewage beds to the new sewer. These sewage beds, which received the whole of the sewage from the School and adjoined the main road, had at times proved a nuisance and it was therefore very desirable that they should be done away with.

HASLINGTON.—The Haslington Sewerage Works are proceeding slowly, but the work has been somewhat hampered by the bad weather and the difficulty in obtaining materials and labour. The whole of the 12-inch outfall sewer (together with the manholes on the same), part of the 10-inch and part of the 9-inch sewers have been laid. Good progress has been made with the building of the tanks and with the excavations for the filters and irrigation and sludge beds. The outfall drain and sludge pipes have also been put in.

The Inspector of Nuisances reports:—

Conversion of Privies.—

Privy cesspits converted into pail closets	...	13
Pail closets converted into water-closets	...	24
Privy cesspits converted into water-closets	...	4
Privy middens converted into dry ashpits	...	5
New pail-closets built	...	2
Ashbins provided	...	5

Ditches.—The ditch opposite the Crewe Green Day Schools has been cleaned out twice. The process will have to be repeated until the village of Haslington is properly sewered. The ditches in Broad Lane, Stapeley, continue to be offensive and will remain so until the houses in this vicinity are properly drained and sewered.

Housing.—The need for houses in your District is recognised, and it is to be hoped that the many difficulties will be successfully overcome at no distant date. In considering any housing scheme it is important to take a sufficiently long view and to arrange for future growth. More three-bedroom houses are required in the district. Several of the houses inspected contain only two bedrooms, in some cases one of the rooms being used by members of both sexes, a condition which cannot be considered consonant with sexual purity.

Canal Boats.—Forty-three boats were inspected, and with two exceptions, were found to be in a satisfactory condition.

The majority of the boats inspected belonged to the Shropshire Union Railway and Canal Company. The Company's boats generally speaking are kept in a satisfactory condition.

There were 52 men, 33 women and 40 children on the boats inspected. Of the latter 19 were boys and 21 were girls. Two of the boats carried offensive cargoes. The boats were all free from infectious diseases.

NORTHWICH

Rural District.

Census population, 1901—22,073.

„ „ 1911—23,270.

Estimated population, 1915—23,435.

Births—489.

Birth-rate per 1,000 of estimated population—22.7.

Deaths—291.

Death-rate per 1,000 of estimated population—12.4.

Infantile Mortality per 1,000 births—80.

Death-rate from principal Zymotic diseases—.85.

Infectious Disease.—The number of deaths from infectious diseases was 23, which gives a rate of .9 per 1,000. Seven deaths occurred in the Isolation Hospital.

Considering the widespread epidemic of measles which passed over the district during the year the sum of three deaths from that cause is satisfactory, but against that must be set 14 deaths from bronchitis and pneumonia of children under two years of age, which many of them were probably sequelae of measles.

There were 22 swabs from suspected diphtheric throats, examined at the Pathological Laboratory, eight giving a positive, eleven a negative and three a doubtful reaction. One sample of blood was examined for enteric fever, with a negative result. A sample of cerebro-spinal fluid was also examined, the report being, no meningococci, tubercle bacilli or other bacteria: no meningococci by culture. 222,000 Units of antitoxin were supplied by the Authority.

The incidence of infectious diseases was heavy during the year, 208 cases being notified.

There were 100 cases of scarlet fever, chiefly in the Weaverham sub-district and 85 were removed to hospital.

There were 51 cases of diphtheria notified of which 40 were removed to hospital: Moulton, Marston and Wincham being the places from which the greater number were sent.

Although there were 51 cases notified there were only eight confirmed by Professor Delépine. Certain practitioners who notify the largest numbers never sending a swab for verification.

There were 14 cases of erysipelas notified, one of enteric fever, one puerperal fever and one from anthrax.

The case of enteric fever, one of diphtheria, one of erysipelas and one of phthisis were notified from the Isolation Hospital.

Tuberculosis.—There were 40 notifications received: 29 being phthisis, thirteen of which were notified from Sanatoria and one from the Isolation Hospital. Thirteen were tubercle of glands, skin and joints, and of these four were notified from General Hospitals. All cases are visited by the Inspector, separate bed and room advocated and arranged for if possible. The number of deaths registered from phthisis was nine and from other forms of tuberculosis three.

Water Supply.—Considerable additions to existing schemes has been executed and are set forth in detail in the Inspector's report. The supplying of water to a district is one of the most essential and at the same time most paying improvements which a Sanitary Authority can perform. The water is sold and consequently a good scheme soon begins to pay its way, and it is a distinct inducement to the erection of houses and works and increases the rateable value, and lastly it is a distinct prevention from outbreak of disease, infectious and other, and is in fact a real economy. When considering extensions the comprehensive scheme of bringing water from the forest to supply Barnton, Byley and Kinderton should be viewed as a possible objective and worked accordingly. The demand for houses and water in various directions having grown so rapidly of late years it seems probable that this big scheme will be cheaper than a perpetually expanding small one.

Housing.—Only 37 new houses have been built this year against 77 last year. The erection of 22 just over the boundary in an adjoining area is some relief, but the enlargement

Northwich Rural District.

of works and erection of new ones has created great demand for cottages. In one part of the district the erection of wooden huts for some 400 men is in progress. The six houses erected by the Council at Delamere have been occupied during the year.

They are inhabited by families as follows:—

No. 1—2 adults.

„ 2—2 „ and 1 child.

„ 3—2 „ 1 child.

„ 4—1 „ 4 „ (husband on military service).

„ 5—2 „ 1 daughter (son recently joined army).

„ 6—1 „ 5 children (husband recently killed in action).

In the list Nos. 1 to 4 are three bedroomed houses and Nos. 5 and 6 are two bedroomed houses and it illustrates how little need there was to erect three bedroomed houses when those with two bedrooms would have sufficed. The only objection to the erection of these cottages was made by the County Medical Officer of Health on the ground that they ought all to have three bedrooms. Truly the way of practical sanitary improvement is hard.

The Surveyor reports as under:—

Water Supply.—The following water main extensions have been carried out during the year:—

160 yards 1in. main for eight cottages and one chapel, Shipbrook Road, Rudheath.

380 yards 3in. main for eight cottages and some works, Rudheath.

660 yards 3in. main in substitution for 2in. main, Middlewich Road, Rudheath.

245 yards 2in. main off Middlewich Road, Rudheath, for a number of new dwellings in course of erection.

700 yards 3in. main from Chester Road, Delamere, for Rectory and Rectory Farm.

130 yards 2in. main for six new (Council's) cottages, Eddisbury.

70 yards 1in. main for six new houses, Leftwich Green.

80 yards 3in. main for Huts, Marston.

180 yards 3in. main to serve Huts at Rudheath. 2,605 yards total.

Owing to a serious increase in the demand at Lostock Gralam due to several causes, it has been necessary to bring into use two new sources of supply referred to in the 1914 Report. The work was carried through expeditiously and the temporary trouble overcome, since when the supply has been very satisfactory.

In addition the extension referred to above the work is in hand for the extension of the Council's water supply in the adjoining district of Plumbley to serve barracks for 200 men and 26 new dwelling houses, requiring about 120 yards of 2in. main.

The question of affording a better supply to that part of the township of Rudheath adjoining the Urban District of Northwich is receiving the consideration of the Council in view of the large demand for water which, in the near future, is bound to be a serious matter. To meet this contingency it is expected that the size of the "feeder" main, which is only 3in. diameter, will be increased and negotiations to that end will shortly take place.

Sewerage and Sewage Disposal.—With the exception of the laying of new irrigation channels at the Moulton Disposal Works, no extensions or improvements have been carried out at any of the sewage disposal works although plans and estimates have been prepared for the reconstruction of Hartford, Gunnersclough (Barnton) and Lostock Gralam Disposal Works and also for the abolition of an existing outfall tank at Hartford Beach by the laying of a new sewer to connect to the Urban Council's sewerage system in the vicinity.

At Rudheath 773 lineal yards of 12in., 9in. and 6in. sewers have been laid to provide a means of drainage for an important building estate and to abolish an old outfall tank. The work was made financially practicable by the help of Messrs. Brunner, Mond & Co., who contributed the major portion of the outlay.

By an arrangement made with the Urban Council of Northwich some 20 yards of 9in. and 80 yards of 6in. sewers have been connected to their sewerage system at Leftwich. This has thus avoided the laying down of a new sewerage scheme and provided a system of drainage for a building site where it is expected to build not less than 16 houses.

Owing to complaints from residents in the vicinity of a foul ditch at Acton, the Council negotiated with the land owner

and carried out the work of piping the ditch for a distance of about 90 yards since when no further trouble has arisen.

At Lostock Green, Lostock Gralam, the Council have laid over 600 yards of 9in. effluent sewer.

The Davenham and Leftwich main sewer in Church Street, Davenham, was found to be constructed in culvert fashion at a dangerous turn in the sewer and was practically inaccessible for cleansing purposes. The old culvert has been removed and proper manholes constructed. The flooding of the basements of certain houses connected to the sewer has not since occurred.

Two new ventilating columns or shafts have been fixed on the Moulton sewerage system and the existing shafts (most of which were found to be choked) cleansed and repaired.

In connection with the new dwelling-houses at Eddisbury recently erected by the Council a sewerage system consisting of about 280 yards of 6in. main sewer and outfall tank in a wood some 150 yards from the main road and considerably further from any dwelling-house has been laid down.

Housing.—The Council have approved 37 dwelling houses for habitation during the year as compared with 77 last year and in addition to the above figure the Council's dwellings at Eddisbury have been occupied, making a total of 43.

Plans for the erection of 48 new dwelling-houses have been approved during the year as compared with 106 last year. Also plans for additions to five dwelling-houses have been approved and two other erections (including shippon). Plans for one slaughter-house were rejected.

Ten large workmen's huts, Y.M.C.A. Pavilion, &c., are in course of erection at Rudheath, capable of accommodating 400 men. Plans for the erection of these were (providing the Surveyor's requirements were complied with) not pressed for the time being, owing to the urgent demand for housing accommodation due to extension of works. These plans will be furnished in due course.

The estimated number of dwelling-houses within limits of rent in Section 14 of the Act of 1909 is 4,408. Four hundred and seventy-one inspections of dwelling-houses have been made and 217 informal and eight statutory notices served. One hundred and forty-nine of such notices are known to have been complied with, but owing to the depletion in the staff and the abnormal amount of work in connection with infectious dis-

ease, &c., opportunity had not been offered by the end of the year for the work of re-visiting the remaining 76 cases. In no case has it been necessary to issue Closing Orders, the work having been carried out by the owners to avoid this course being taken.

It must be pointed out that generally speaking only matters of sanitary defects have been dealt with, some consideration having to be made for the exceptional conditions prevailing. Nevertheless some important re-constructions have been carried through in spite of the abnormal prices prevailing in the building and allied trades. In other cases the important defects only have been dealt with, on the understanding that in the near future more extensive improvements will have to be executed.

RUNCORN

Rural District.

Census population, 1901—23,244.

„ „ 1911—28,216.

Estimated population, 1915—28,405.

Births—540.

Birth-rate per 1,000 of estimated population—19.0.

Deaths—309.

Death-rate per 1,000 of estimated population—10.8.

Infantile Mortality per 1,000 births—59.

Death-rate from principal Zymotic diseases—.45.

Infectious Disease.—The total number of cases of Infectious diseases, excluding 29 from tuberculous diseases, notified during 1915 was 280, which was made up of the following diseases:—

Diphtheria	...	...	51 cases
Erysipelas	...	...	11 „
Scarlet Fever	...	...	207 „
Typhoid (Enteric)	...	...	7 „
Puerperal Fever	...	...	1 „
Cerebro-spinal Meningitis	...	...	0 „
Poliomyelitis	...	...	0 „
Ophthalmia Neonatorum	...	...	2 „
Anthrax	...	...	1 „

It will be understood that the accommodation at the Isolation Hospital, Dutton, was taxed to its uttermost but it was only on a very few occasions that no beds were available for notified cases and some of these were taken in at a later date, when room could be found—so that the value of the new ward erected a few years ago has been very great. In all 210 cases were admitted to hospital, compared with 115 in 1914 and 77 in 1913, and I may add that the admissions in 1913 were the largest number which up to then had been admitted in any one year; the admissions in 1915 are therefore almost three times as many as were admitted two years ago.

It is a matter for congratulation that out of this great total of 210 admissions only two deaths occurred, one from scarlet fever and one from diphtheria.

As further proof of the great value to the community of the enlarged hospital, I would point out that out of a total of 51 cases of diphtheria which were notified, 44 cases were admitted to hospital, a percentage of 86.3, (compared with 70 per cent. in 1914); out of 207 cases of scarlet fever which were notified, 161 were admitted to hospital, a percentage of 77.7 (compared with 93 in 1914), while five out of the seven cases of typhoid fever which were notified were admitted—or, if we add the totals of these three diseases together, out of 265 cases notified 210 were removed to hospital, or a percentage of 79.2, and this would have been increased but for the occasional failure of accommodation.

Sewage Disposal.—The Township of Moore at present contributes a degree of pollution to streams. Since my former Report a scheme has been adopted and is at present in course of construction; the greater portion has been completed.

Housing.—The action undertaken by your Council, acting on the various recommendations of the strong Housing and Town Planning Committee which you appointed to receive the reports of your Medical Officer and Inspector and Surveyors has been already alluded to, and the figures relating to these are embraced in the Tabular Statements appearing in this and previous Reports. One thousand six hundred and twenty-three houses have been inspected during 1915 and extensive alterations and improvements have been carried out in all the Townships which we have, up to the present, been able to visit and inspect. We are dealing with the various properties more or less in order of their importance or their necessities, the

TARVIN

Rural District.

Death-rate from principal Zymotic diseases—.38.

Seven samples of water were taken and analysed chemically, none bacteriologically.

Two houses at Woodside, Ashton, are without a proper supply and two houses at Mouldsworth. These houses could easily be supplied from the water main, the same owner owning cottages and main, but at present it is too expensive. Several houses at the higher parts of Kelsall have no supply and the Ashton Lane well is polluted. This question of supply has been before you, but until the war is over it is impossible to favourably consider a scheme. Farndon water supply you have again had before you for consideration. Two cottages at Horton have no water supply—the owner has promised it at an early date. The existing supplies are fairly free from the risks of pollution and no contamination by lead has occurred.

Pollution of Rivers.—In the Tarvin Rural Districts all the tributary streams of the Gowy are more or less polluted by farm sewage, which should be dealt with on the land. Public Sewage Disposal Works are likely to pollute the Dee and Aldford Brook. Private Sewage Disposal Works are likely to pollute the brook at Tattenhall and the Dee at Farndon. Solid matters, accumulation of cinders, refuse, sludge, &c.:—The River Dee at Farndon, the brook at Tattenhall, Tilston brook. House drainage:—The River Dee at Farndon, Tilston brook, Churton Heath, Tattenhall, Milton brook at Barrow, Clotton brook from farm and house sewage, at Clotton, Guilden Sutton, from house drainage. Manufacturing Waste or Effluents:—The Bone and Glue Works, Tattenhall Road, pollute the Gowy; the Creamery, Tattenhall; and a Cheese Factory at Churton Heath.

Sewerage and Sewage Disposal.—No new works of sewerage have been carried out in your district during 1915. Farndon, Tattenhall and Churton are still without a proper system of sewerage and are still before you for consideration. The sewage is disposed of in most cases into the nearest water-course in a crude state. In some cases it is filtered before entering the stream; in other cases it is deposited on the land. There have been no complaints during 1915 as to the disposal of sewage. No extensions have taken place in disposal works during 1915.

Aldford village is the only village with a proper system of sewers. This has been examined and several ventilators added. Premises at Horton, Shocklach, Stretton and Caldecott are defective in sewage disposal. The owners have promised to remedy after the war.

Closet Accommodation.—Approximately there are about 1,900 midden-privies, 500 dry ashpits, 1,000 pail-closets (emptied weekly), no record of dustbins and 1,100 cesspools. There are too many midden-privies in your district. These are being condemned and the pail-closet system introduced whenever opportunity offers.

Housing.—The following statement shews the work done during 1915 :—

Number of new houses built during 1915	...	3
Number of dwelling-houses inspected under Section 17, Act of 1909	... ..	165
Number of such houses considered unfit for habitation		4
Number of representations made to Local Authority	...	1
Number of closing orders made by Local Authority	...	0
Number of houses where defects remedied <i>without</i> closing orders being made	... ..	50
Number of houses where defects remedied <i>after</i> closing orders made	... ..	0
Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909	... ..	1750
Number of such houses in respect of which notice was served during 1915	... ..	6
Number of such houses closed after notice	...	2
Number of such houses where Local Authority has executed necessary repairs, &c.	... ..	0
Number of back-to-back houses in district	...	0
Number of cellar dwellings in district	... ..	0

With regard to the deficiency of accommodation of the housing of the working-classes it is difficult to say to what extent this exists. The parishes of Caldecott, Coddington, Golborn David, Hockenhull, Huntington, Newton and Tattenhall are all in want of further cottage accommodation. You have had before you and decided to build cottages in Newton and Tattenhall, but owing to shortage of labour and extra expense on building materials this has been deferred.

Hospital.—The Fever Hospital at Sealand, Chester, Tarvin, constituting one of the Conjoint Hospital Board. Thirty-four cases in all were sent to the Fever Hospital during 1915, 32 of these being scarlet fever and two diphtheria.

Tarvin Rural District.

Infectious Diseases.—There were 48 cases of infectious disease notified during the year 1915, viz.:—

Diphtheria (including Membranous Croup)	3
Scarlet Fever	38
Pulmonary Tuberculosis	4
Other Forms of Tuberculosis	3

There were 15 deaths from phthisis and none from "other tuberculous diseases," three from whooping-cough and two from diphtheria.

Tuberculosis.—There were four cases of pulmonary tuberculosis notified and three of non-pulmonary during 1915. There were sanitary inspections of patients' houses and disinfections done. Printed forms, fumigating material, disinfectants and sputum flasks are issued to all consumptive patients notified, advising them how to live hygienically and prevent further infection in others.

TINTWISTLE

Rural District.

Census population, 1901—2,105.
 " " 1911—2,193.
 Estimated population, 1915—2,193.
 Births—33.
 Birth-rate per 1,000 of estimated population—15.04.
 Deaths—34.
 Death-rate per 1,000 of estimated population—15.5.
 Infantile Mortality per 1,000 births—90.
 Death-rate from principal Zymotic diseases—.91.

Infectious Diseases.—Only four cases of infectious diseases were reported in your district during 1915, as compared with 35 during 1914. Diphtheria (including membranous croup) one, scarlet fever one, erysipelas one, enteric fever one.

Tuberculosis.—One case of pulmonary tuberculosis was reported from the Tintwistle portion of your district. Three other cases of tuberculous disease affecting glands and face were notified.

Midwives.—There is only one resident midwife in the district, but several others who reside in Derbyshire also practice in Tintwistle. There have been no cases of puerperal septicæmia nor has it been necessary for a midwife to attend a case after the 10th day.

River Pollution.—Complaints were made by some farmers residing in Hattersley of pollution of a stream running through their farms. The pollution was caused by a Tannery at Spout Green, in the Mottram Urban District. The matter was brought to the notice of the Inspector to the River Irwell and Mersey Board. They have the complaint in hand and are experimenting as to the best means of treating the effluent.

Housing.—The work has been carried out under the above Act by order of the Council. The Council was of opinion that owing to the war the cost of materials had increased so greatly and labour so short it would not be right to compel property owners to expend money which might be more usefully employed.

Two new houses were erected during the year. Certificates for habitation were given in each case. The number of houses in the district within limits of rent in Section 14 of the Act of 1909 is 442.

The Sanitary Inspector reports as under:—

Housing.—Acting upon your instructions, there have not been any inspections under the above Act. During the year improvements have been carried out to three houses in connection with notices served during the latter part of the previous year. Two houses have been erected during the year, for which plans were approved in 1914 and certificates for habitation have been given for each. No plans have been submitted to you during the year. There are 578 houses in the district and 145 general inspections have been made. The houses on the whole are kept in a satisfactory condition and have large open yards with plenty of air space all round. There is practically no overcrowding, the average persons per house being well under four. There are no cellar dwellings and only two back-to-back houses.

Sanitary Conveniences of each type in the District.—

Number of Privies with Fixed Receptacles	...	285
„ „ Privies with Moveable Receptacles	...	69
„ „ Fresh Water Closets	...	83
„ „ Waste-water and Hand-flushed Closets		13

Sewage Disposal.—The Sewage Disposal Works for Tintwistle have been working since August, 1913, and have been very satisfactory. Two samples have been taken by the Rivers Mersey and Irwell Joint Committee and reported as good effluents and being placed well up the list. A new scheme for the treatment of a portion of Matley sewage has been submitted to the Local Government Board, but owing to the war the Board has adjourned the matter. The present works are kept as clean and worked as satisfactorily as it is possible under the circumstances, seeing that they are too small. Several short lengths of sewers have been laid and repaired in Hattersley and Tintwistle and are now working satisfactorily.

WIRRAL

Rural District.

Census population, 1901—14,017.

„ „ 1911—19,022.

Estimated population, 1915—20,119.

Births—391.

Birth-rate per 1,000 of estimated population—19.4.

Deaths—235.

Death-rate per 1,000 of estimated population—11.6.

Infantile Mortality per 1,000 births—94.

Death-rate from principal Zymotic diseases—.74.

Housing.—The scheme of town planning is in abeyance. Very little building has been done owing to prevailing circumstances but the Surveyor supplies the following information with regard to new structures erected during the year:—

New Houses	...	...	...	52
Alterations	...	...	...	4
Streets and Sewers	...	...	...	2
Institutional Buildings	...	...	...	2
Picture House	...	...	...	1
Piggeries (Blocks)	...	...	...	3

The following statement shews the Housing Inspections during the year:—

Number of dwelling-houses inspected under Section 17, Act of 1909	75
Number of such houses considered unfit for habitation	0
Number of representations made to Local Authority ...	69
Number of closing orders made by Local Authority ...	0
Number of houses where defects remedied without closing orders being made	56
	(11 proceeding)
Number of houses where defects remedied after closing orders made	0
Number of representations made informally to owners with a view to getting the necessary repairs executed	69
Dwelling-houses where Local Authority have executed the necessary repairs	0
Back-to-back houses in district	0
Cellar dwellings in district	0

Hospital.—The Wirral Joint Hospital Board supply the necessary isolation accommodation for infectious diseases.

Infectious Disease.—Twenty-eight cases of diphtheria were notified in 14 townships, 16 of which were removed and treated in hospital and death resulted in five instances. A bacteriological examination for diphtheria was made by the Clinical Research Association of eleven swabs, six positive and five negative results were given.

Thirty-three cases of scarlet fever were notified, affecting 15 townships, 26 received hospital treatment. No death took place.

Nine cases of enteric fever were notified, six were treated in hospital, three were confirmed by bacteriological examination. Three deaths occurred.

Five cases of erysipelas were notified, one of which was treated in hospital.

One case of ophthalmia neonatorum was notified.

Tuberculosis.—Fifteen cases of tuberculosis, 14 pulmonary and one other form were notified from 12 townships. The statement made by your Medical Officer of Health in previous

Wirral Rural District.

years still holds good that the number is greatly increased by those who wish to derive climatic benefit having taken up their residence in the district. Seventeen deaths were attributed to this disease.

Midwives.—The registered midwives attended 259 births. There were four still-births. The Notification of Births Act is in force and the work has been deputed to the County Council.

Administrative County of Chester

APPENDIX OF STATISTICS

FOR 1915.

TABLE I.—Population, Area, Births, Deaths, &c.—

Showing enumerated and estimated population, area, persons per acre, births and deaths, birth-rates, and death-rates, proportion of deaths of infants to births, deaths from seven principal zymotic diseases and corresponding death-rates.

TABLE II.—Mortality—

Showing deaths from certain causes, classified according to Diseases, Ages and Localities.

TABLE III.—Infectious Disease—

Showing new cases notified and new cases removed to Hospital classified according to Diseases and Localities and giving particulars as to Isolation Hospital Provision.

NOTE.—The information in these Tables is derived from the returns made by the District Medical Officers of Health on Forms supplied to them by the Local Government Board. The proportion of persons per acre, the deaths from the seven principal zymotic diseases and corresponding death-rates have been added. The population in 1911 and the areas, are from the Report of the Census, 1911.

TABLE I. STATEMENT
 prepared from the Reports of Medical Officers of Health of Sanitary Districts in the Administrative County of Chester,
 for the year ending 31st December, 1915.

SANITARY DISTRICTS		Population at Census, 1911.	Estimated Population in middle of 1915.	Area in Acres.	Persons to an Acre.	Births.	Deaths.	Death- rate per 1000 Living.	Deaths from										Deaths under one year.	Deaths under one year to 1000 Births.	Is Hospital Isolation for Infectious Diseases provided?	Name of Medical Officer of Health.		
Column Number	1	2	3	4	5	6	7	8	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Deaths from Principal Zymotic Diseases.	Principal Diseases.	Principal Diseases.	Principal Diseases.	17	18	19	20	21
MUNICIPAL BOROUGH.																								
Congleton	11899	11310	2572	4.39	235	29.7	179	15.8	15	34	3	4	9	31	82	1.32	25	106	Yes.	West Heath Joint	Dr. P. M. Davidson.			
Croft	44860	45825	2184	20.98	1042	22.6	602	14.4	1	5	3	4	9	31	82	1.78	124	119	Yes.	Croft.	Dr. A. B. McMaster.			
Dukinfield	19422	20000	1407	14.21	461	23.05	305	15.25	5	5	3	4	3	2	4	14	1.0	61	132	Yes.	Hyde.	Dr. J. R. S. Park.		
Hyde	33437	32665	3079	10.60	610	18.67	626	19.16	39	5	4	3	11	2	9	62	1.55	86	141	Yes.	Hyde.	Dr. J. Bennett.		
Macclesfield	34797	33639	3214	10.46	639	18.4	551	15.6	12	3	3	11	12	38	112	1.12	87	140	Yes.	Macclesfield.	Dr. J. H. Marsh.			
Stalybridge	26515	26905	2132	8.59	549	20.37	491	18.2	10	3	4	4	25	46	170	1.70	81	147	Yes.	Small-pox only, Hartshead.	Dr. W. J. Hancock.			
	170438	170344	15588	10.92	3517	26.4	2814	16.51	1	115	11	18	3	8	81	257	1.50	464	151					
OTHER URBAN DISTRICTS.																								
Alderley Edge	3143	2985	678	4.40	38	12.7	27	9.04										1	26	Yes.	Monsall.	Dr. G. W. Dowling.		
Alainger	2743	2743	2241	1.22	36	13.12	44	16.4										2	55	Yes.	West Heath Joint.	Dr. H. F. Kingston.		
Altrincham	17813	17407	662	27.50	376	20.4	218	11.3	4	1								7	74	Yes.	Altrincham.	Dr. A. Golland.		
Ashton-upon-Mersey	7234	7750	1623	4.78	163	21	96	12.3	2	1								4	7	Yes.	Monsall.	Dr. C. J. Renshaw.		
Higher Bebington	1889	1628	699	2.32	43	26.41	27	15.68										1	92	Yes.	Wirral Joint.	Dr. J. B. Yeoman.		
Lower Bebington	11401	12118	1051	12.48	250	22.1	143	11.1	2	1	2	9	1	5	0	132	29	100	Yes.	Ditto.	Dr. J. B. Yeoman.			
Bollington	5224	5001	1291	3.87	91	18.2	88	17.2	4	1	1							7	88	Yes.	Macclesfield.	Dr. D. W. Main.		
Bowdon	3044	3050	850	3.58	35	11.1	34	11.1											2	68	Yes.	Altrincham.	Dr. M. Duggan.	
Bredbury and Romiley	8683	9168	2990	2.99	138	15	127	13.8	1					1	1	3	32	13	93	Yes.	Hyde.	Dr. F. Cant.		
Brentham	1974	2178	1678	1.29	43	19.7	15	6.8										1	45	Yes.	Wirral Jt. and Pool Works.	Dr. J. B. Yeoman.		
Baglawton	1438	1439	2911	4.0	35	24.3	15	10.4										2	138	Yes.	West Heath Joint.	Dr. P. M. Davidson.		
Cheadle and Gatley	9915	11685	5037	2.29	182	16.97	98	9.14	1	1								2	17	Yes.	Monsall and Small-pox Hospital.	Dr. J. H. Godson.		
Compstall	908	900	903	5.0	19	21.0	14	16.0										2	222	Yes.	Hyde.	Dr. C. H. Hibbert.		
Ellesmere Port & Whiteby	10268	12151	5151	3.81	367	27.9	126	9.5	2	1	1	3		4	11	53	32	87	Yes.	Wirral Joint.	Dr. J. B. Yeoman.			
Hale	8351	9800	1388	7.22	124	13.3	88	9.46										1	10	Yes.	Monsall.	Dr. T. A. Rothwell.		
Handforth	954	940	1811	7.2	18	19.1	12	12.7										1	71	No.		Dr. A. Nowell.		
Hazel Grove and Bramhall	9631	10817	5447	1.98	169	15.6	116	10.7	1						1	2	18	12	209	Yes.	Hyde.	Dr. R. Thom.		
Hollingsworth	3580	2581	2086	1.23	49	15.4	35	13.5										1	38	Yes.	Small-pox, Mottram Moor.	Dr. R. Pomfret Wyde		
Hooton	5929	6911	834	7.69	123	22.1	73	13.0			1	3		1	4	67	16	130	Yes.	Chester.	Dr. F. J. Butt.			
Hoylake and West Kirby	14029	13971	2066	6.61	230	16.8	163	11.1	1					1	2	4	29	11	47	Yes.	Wirral Joint.	Dr. J. B. Yeoman.		
Knutsford	5760	4917	1760	2.79	91	19.1	62	12.3						2				6	64	Yes.	Monsall.	Dr. T. W. H. Garstang.		
Lymm	4989	5028	4374	1.14	114	22.7	66	18.1							3	3	45	12	135	Yes.	Lyman.	Dr. E. M. de Jong.		
Middlewich	4909	4860	1082	4.49	133	26.6	57	11.4	2					1	3	3	61	14	103	Yes.	Hyde.	Dr. H. Burton.		
Mottram	3049	3049	1084	2.81	33	10.8	48	15.7										10	127	Yes.	Northwich Joint and Marbury.	Dr. S. L. Melville.		
Nantwich	7815	7850	703	11.16	141	17.9	121	15.4							5	10	137	18	127	Yes.	Hyde and Small-pox, Mottram Moor.	Dr. G. J. Awburn.		
Neston and Parkgate	4596	4570	3297	1.39	127	27.7	80	17.5							4	3	7	153	17	134	Yes.	Altrincham Joint.	Dr. J. D. Munro.	
Northwich	18151	14027	1398	12.91	424	23.5	297	14.2	7	1	2	5		12	27	149	47	116	Yes.	Wirral Joint.	Dr. J. B. Yeoman.			
Runcorn	17353	16540	1275	12.97	462	27.9	262	17.0							1	9	15	90	61	Yes.	Northwich Joint and Marbury.	Dr. H. E. Gough.		
Sale	15044	16200	2906	7.71	301	18.88	214	13.2	14	1	3	2		1	23	148	24	80	Yes.	Runcorn.	Dr. H. E. Gough.			
Sandbach	5729	5723	2594	2.12	147	20.6	89	15.5						1	2	4	69	9	61	Yes.	Monsall.	Dr. H. E. Gough.		
Tarpotley	3604	2492	6195	3.8	46	19.1	32	13.3							1	1			2	83	Yes.	West Heath Jt. & Arclid for Small-pox.	Dr. R. Riddell.	
Widnes	8153	8131	5090	1.59	139	17.0	108	13.2											10	72	Yes.	Chester.	Dr. W. E. Burton.	
Wimbor	10770	10150	5779	1.75	234	23.1	144	13.4	3					2	6	59	26	111	Yes.	Monsall.	Dr. A. Byers.			
Yarldley-cum-Whaley	1659	1720	1323	1.30	21	12.7	19	11.0										1	58	Yes.	Davenham and Marbury.	Dr. T. W. H. Garstang.		
																				Yes.	Hyde and High Peak.	Dr. F. G. Allan.		
	244085	252230	80732	3.12	5074	20.1	3222	12.7	45	10	20	41	6	64	186	73	456	89						
RURAL DISTRICTS																								
Bucklow	22868	22462	57556	3.8	360	16.0	269	12.4	2	3	4	3			12	33	39	108	Yes.	Monsall.	Dr. T. W. H. Garstang.			
Chester	12447	11091	34266	3.2	226	20.3	188	12.4	1	1	2				1	5	45	18	79	Yes.	Chester.	Dr. W. E. Burton.		
Congleton	12821	12845	46152	3.1	254	20.5	156	12.3							1	4	31	22	86	Yes.	West Heath Joint.	Dr. C. H. Wentworth-Bennett.		
Disley	2058	2272	2466	1.20	35	18.5	34	11.4	1	2	1								4	72	Yes.	Hyde.	Dr. G. B. Pemberton.	
Macclesfield	16622	16650	79453	2.0	270	16.18	216	12.9	2		2	2			4	10	59	22	81	Yes.	Macclesfield and Higher Sutton	Dr. R. Proudfoot.		
Malpas	4643	4330	21406	2.0	93	21.4	56	12.9	4		2	2				6	138	5	53	Yes.	Chester	Dr. R. T. Turner.		
Nantwich	24955	24572	98467	2.4	515	20.9	328	12.9	7		4	2		3	16	85	41	79	Yes.	Nantwich Joint and Small-pox.	Dr. H. E. Gough.			
Northwich	23270	23435	54908	4.3	489	22.7	201	12.4	3	4	6	1		6	30	85	39	80	Yes.	Northwich Joint.	Dr. J. Adams.			
Runcorn	28216	28405	49139	5.7	540	19.0	309	10.8	3	2	1	3	1	3	13	45	32	59	Yes.	Dutton. Moore (Small-pox).	Dr. G. J. Awburn.			
Tarvin	13157	12359	56574	3.2	261	20.3	184	14.3											2	91	Yes.	Chester	Dr. G. J. Awburn.	
Tintwistle	2193	2198	13619	1.16	33	15.04	34	15.5						1	1				2	50	Yes.	Mottram Moor.	Dr. J. B. Yeoman.	
Wirral	19022	20119	36655	1.64	391	19.4	235	11.6	2		1	3	3	2	15	74	37	94	Yes.	Wirral Joint.				
	183248	181954	544503	3.3	3487	19.1	2250	12.4	25	12	27	20	5	20	109	59	270	77						
Administrative County	597771	604128	640823	9.4	12078	19.9	8286	13.7	1	185	33	65	84	19	165	552	91	1100	98					

TABLE III.—INFECTIOUS DISEASE.

Showing cases notified and cases removed to Hospital during the year ending December 31st, 1915, classified according to Diseases and Localities, and giving particulars as to Isolation Hospital Provision.

SANITARY DISTRICTS.	Number of cases notified in each District.											Number of cases removed to Hospital from each District.											Is Hospital Isolation provided?			
	Diphtheria including Membranous Group.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Ophthalmia Neonatorum.	TOTAL.	Diphtheria including Membranous Group.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.		Ophthalmia Neonatorum.	TOTAL.	
Municipal Boroughs.																										
Congleton	6	8	44			1			19	9	4	91	1		33										34	Yes. West Heath Joint.
Crewe	76	24	181	3		1		1	86	29	8	409	73	6	156	2		1			5			2	245	Yes. Crewe.
Dakinfield	6	20	34	8		1			46	9		124	2		2	1									5	Yes. Hyde.
Hyde	15	49	114	4		6	1		51	18	3	261	10		106	1		1	1						119	Yes. Ditto.
Macclesfield	19	13	65	5		3			61	29	3	198	16		52						2				70	Yes. Macclesfield.
Stalybridge	7	14	79	7		2			43	5	2	159			5										5	Small-pox only, Hartshead.
	129	128	517	27		14	1	1	306	99	20	1242	102	6	354	4		2	1		7		2		478	
Other Urban Districts.																										
Alderley Edge	1	1	4						3			9	1		4										5	Yes. Mossall.
Alaeger	6	3	2	2					4			17	4		2						4				10	Yes. West Heath Joint.
Altrincham	10	10	27	1		2	2		32	9	1	94	10		26	1		1	1						39	Yes. Altrincham.
Ashton-upon-Mersey	18	6	15									40	4												4	Yes. Mossall.
Higher Bebington		1	1						2			4			1										1	Yes. Wirral Joint.
Lower Bebington	30	12	28	4				1	17	10	3	105	27		28	4									59	Yes. Ditto.
Bollington	2		37	1					4	1		45	1		12										13	Yes. Macclesfield.
Bowdon	1	1	3				1		2	1		9														Yes. Altrincham.
Bredbury and Romiley	8	10	77						9	9		113	3		17						4	2			26	Yes. Hyde.
Bromborough		3	19			1			4			27		1	13			1							21	Yes. Wirral Joint and Pool Works.
Buglawton	1		10									11			2										2	Yes. West Heath Joint.
Cheadle and Gatley	9	12	25						14	3	1	64	2	7	13										22	Yes. Mossall and Small-pox Hospital.
Compstall		1	1						2			4									2				2	Yes. Hyde.
Ellesmere Port and Whiteby	8	5	54						28	6	5	106	5		46										51	Yes. Wirral Joint.
Hale	3	1	38						12	7		61	2		27										29	Yes. Mossall.
Handforth	1		1	1					1	1		5														No.
Hazel Grove and Bramhall	2	1	13						11	5		32			3										3	Yes. Hyde.
Hollingsworth	2	2	1							2	1	8														Small-pox, Mottram Moor.
Hoole		6										6														Yes. Chester.
Hoylake and West Kirby	10	5	36	1					23	9	1	85	8	1	25	1									35	Yes. Wirral Joint.
Knutsford	4	3	9	1					6	6		29	4		9	1									14	Yes. Mossall.
Lymm	34	1	20						4	2		61	25		10										35	Yes. Lymm.
Marple	1	2	31						2	1		37			10										10	Yes. Hyde.
Middlewich	2	1	1						3	5	1	13	1		1										2	Yes. Northwich Joint and Marbury.
Mottram		1	1						3			5														Yes. Hyde and Small-pox, Mottram Moor.
Nantwich	22	6	25	1					10	3	1	68	20		14	1									35	Yes. Alvaiston Joint.
Neston and Parkgate	2		3					1	6	4		16	1												1	Yes. Wirral Joint.
Northwich	15	7	23			1			25	8		79	8		12						7	5			32	Yes. Northwich Joint and Marbury.
Runcorn	15	18	245	6		1			26	30	5	346			130										130	Yes. Runcorn.
Sale	37	4	61	2			2				1	107	2		15	2			1		12	3			35	Yes. Mossall.
Sandbach	3		12			1			4	1		21	3		6										9	Yes. West Heath Joint, Arolid for Small-pox.
Tarporley			16						1			17			7										7	Yes. Chester.
Wilmslow	3		5	3				1			1	13			3	1									4	Yes. Mossall.
Winsford	49	6	13	8		1			16	11	2	106	46	1	12	8									67	Yes. Davenham and Marbury.
Yarldley-cum-Whaley	3		1						6			10			1										1	Yes. Hyde and High Peak.
	302	129	859	31		7	5	3	280	134	23	1773	177	10	455	19		2	2		29	10			704	
Rural Districts.																										
Bucklow	33	17	67	2		2	1	1	26	9	1	159	6	6	27	2			1	1	4	1			48	Yes. Mossall.
Chester	14	1	35	4					11	7		72	9		22	1									32	Yes. Chester.
Congleton	16	6	33			1					1	57	10		14										24	Yes. West Heath Joint.
Disley		3	9	1					2	4		19				1									1	Yes. Hyde.
Macclesfield	16	6	31	1		2	1					57	8		15	1									24	Yes. Macclesfield and Higher Sutton for Small-pox.
Malpas	7		14						3	1		25	2												2	Yes. Chester.
Nantwich	27	7	67				1		14	11	4	131	21		46										67	Yes. Nantwich Joint and Small-pox.
Northwich	51	14	100	1		1			27	13		207	40		85						13	4			142	Yes. Northwich Joint.
Runcorn	51	11	207	7		1			17	11	2	307	44		161	5									210	Yes. Dutton, Moore (Small-pox).
Tarrin	3		38						4	3		48	2		32										34	Yes. Chester.
Intwistle	1	1	1	1					1	3		8														Yes. Mottram Moor.
Wirral	28	5	33	9					14	1	1	91	16	1	26	6									49	Yes. Wirral Joint.
	247	71	635	26		7	3	1	119	63	9	1181	158	7	429	15			1	1	17	5			633	
Administrative County.	678	328	2011	84		28	9	5	705	296	52	4196	437	23	1238	38		4	4	1	53	15	2		1815	

SARVARY DISTRICT			
Ward	Population	Number of cases notified	Number of cases
Municipal Boroughs			
Albany	8	8	46
Albany	24	24	101
Albany	20	20	94
Albany	40	40	114
Albany	12	12	62
Albany	7	7	28
	128	128	317
Other Urban Districts			
Albany	1	1	4
Albany	3	3	2
Albany	10	10	27
Albany	18	18	18
Albany	1	1	1
Albany	12	12	28
Albany	2	2	2
Albany	1	1	3
Albany	10	10	1
Albany	8	8	19
Albany	1	1	10
Albany	12	12	1
Albany	1	1	1
Albany	8	8	1

TABLE II.—MORTALITY.

Showing deaths from subjoined causes during the year ending December 31st, 1915, classified according to Diseases and Localities.

DISEASES.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping cough.	Diphtheria and Croup.	Infan- taria.	Erysipelas.	Pathosis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tubercu- losis Diseases.	Cancer Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (All forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhilitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Parasitic Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Deformities Malformation Including Premature Birth.	Violent Deaths exceeding Suicides.	Suicide.	Other Defined Diseases.	Diseases Undefined or Unknown.	Cerebro-Spinal Meningitis.	Senile Decay.		
SANITARY DISTRICTS.																																		
Municipal Boroughs.																																		
Congleton .....	...	...	15	...	...	...	3	...	6	1	3	12	...	...	21	19	17	2	...	2	1	...	7	1	...	1	12	...	...	55	1	...	...
Crewe	1	34	3	9	4	7	3	46	7	8	52	2	4	52	57	60	17	31	3	6	1	12	...	1	48	19	4	168	3	...	...	...
Dukinfield	2	5	...	...	5	4	...	24	5	5	19	1	...	46	34	40	4	18	...	2	...	12	2	7	26	5	2	76	1	...	...	...
Hyde	2	39	5	3	4	11	1	42	4	6	61	3	9	64	77	56	7	9	1	3	1	14	1	2	30	16	4	140	11	...	...	...
Macclesfield .....	...	12	...	11	3	9	...	38	7	5	33	1	4	75	56	41	7	12	3	5	3	30	...	2	24	10	2	144	14	...	...	...
Stalybridge	4	...	10	3	...	4	1	...	35	6	7	42	...	7	47	77	27	2	25	4	5	...	18	...	2	20	11	9	124	...	1	...		
	8	1	115	11	23	20	35	4	191	30	34	219	7	24	305	320	241	39	95	13	22	5	93	4	15	160	61	21	707	30	1	...		
Other Urban Districts.																																		
Alderley Edge .....	...	...	...	...	...	...	...	...	1	...	...	5	...	...	1	1	4	2	...	...	1	...	4	...	...	...	...	...	8	...	...	...	...
Alsager .....	...	...	...	...	...	2	...	2	1	3	2	...	...	6	4	3	...	...	...	...	3	...	...	...	...	2	...	1	15	...	...	...	...
Altrincham .....	...	4	...	...	1	4	...	11	4	2	14	3	1	25	22	19	2	2	4	2	1	1	...	1	8	10	3	42	16	...	...	...
Ashton-upon-Mersey .....	...	2	...	...	1	2	...	3	4	...	12	2	...	5	10	8	3	4	2	...	...	4	...	...	...	5	4	1	8	16	...	...	...
Higher Bebington .....	...	...	...	3	...	...	...	2	...	...	...	...	...	6	3	1	...	...	...	...	2	...	...	...	...	2	2	...	6	...	...	...	...
Lower Bebington	1	...	2	1	9	2	2	10	2	7	4	...	1	15	10	17	4	5	...	...	2	3	...	2	8	3	...	29	4	...	...	...
Bollington .....	...	4	1	...	1	4	...	2	1	1	6	...	...	10	13	9	...	1	1	...	3	...	...	3	...	4	1	1	22	2	...	...	...
Bondor .....	...	...	...	...	...	...	...	...	...	3	...	...	...	1	4	5	3	...	...	1	...	...	3	...	...	1	...	...	9	...	...	...	...
Bresbury and Romiley .....	...	1	...	1	...	3	...	4	5	1	11	...	1	19	6	10	...	1	...	...	...	8	...	...	...	5	6	2	35	8	...	...	...
Bromborough .....	...	...	...	1	...	1	...	...	...	...	...	...	...	3	2	...	1	...	...	...	...	...	...	...	...	3	1	...	3	...	...	...	...
Englawton .....	...	...	...	...	...	...	...	...	...	2	...	...	...	1	1	2	...	2	...	...	...	...	...	...	...	2	...	...	5	...	...	...	...
Cheadle and Gatley .....	...	1	1	...	...	5	...	2	2	12	...	1	8	19	4	...	...	2	...	1	...	7	...	...	...	6	1	1	25	1	...	...	...
Compstall .....	...	...	...	...	...	...	...	2	...	...	3	...	...	2	1	...	...	2	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...
Ellesmere Port and Whitby .....	...	2	1	3	1	1	...	9	3	...	5	2	...	4	18	11	1	4	2	2	...	2	...	2	11	10	...	25	6	...	...	...
Hale	1	...	3	...	4	...	1	11	...	1	13	10	5	2	...	2	1	...	2	2	2	21	7	...
Handforth .....	...	...	...	...	...	...	...	1	1	...	...	...	...	2	...	3	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...
Hazel Grove and Branshall .....	...	1	...	...	...	3	...	9	4	3	9	...	2	7	16	11	...	1	...	1	...	7	...	...	...	4	4	1	33	...	...	...	...
Hollingsworth	1	4	1	3	4	1	3	5	...	11	2	...
Hoole .....	...	...	...	3	...	2	1	5	...	...	5	...	5	3	4	5	...	1	...	...	...	1	...	...	2	5	1	...	27	3	...	...	...
Hoylake and West Kirby .....	...	1	...	1	...	6	...	7	1	6	16	2	...	23	9	13	4	2	...	2	1	4	...	2	3	10	...	42	8	...	...	...
Knutsford	3	1	2	5	5	7	3	2	2	1	...	3	1	...	3	1	...	2	3	...	20
Lymm	3	3	...	9	...	1	2	3	4	4	...	3	1	...	1	3	...	1	3	...	1	3	...	18	8
Marple .....	...	...	...	...	...	2	...	4	...	2	9	1	...	11	13	3	...	3	1	...	...	4	...	...	...	2	3	1	27	...	...	...	...
Middlewich .....	...	2	...	1	...	...	...	1	1	2	3	...	...	5	3	5	1	...	1	1	...	1	...	...	...	5	4	...	21	...	...	...	...
Mottram .....	...	...	...	...	...	...	...	4	...	...	3	...	...	10	5	2	1	...	...	...	...	...	...	3	...	2	2	...	7	...	...	...	...
Nantwich .....	...	...	4	1	...	...	...	11	2	3	11	...	3	12	13	14	2	5	1	...	1	2	...	...	...	5	...	...	31	...	...	...	...
Neston and Parkgate .....	...	...	4	...	2	...	...	9	1	1	5	...	2	10	8	5	...	3	...	...	1	...	...	...	...	4	...	...	14	11	...	...	...
Northwich .....	...	7	1	5	2	8	...	10	4	4	13	1	1	32	28	18	4	12	1	3	2	5	2	1	9	6	3	86	...	...	...	...	...
Runcorn	1	...	3	...	2	2	1	14	2	5	13	1	...	18	43	26	3	9	1	2	...	3	1	3	30	18	1	43	43	1	...	...	...
Sale	1	14	1	2	3	1	...	18	1	5	22	...	3	19	20	14	4	5	...	2	1	4	...	...	...	5	3	3	56	5	...	...	...
Sandbach	1	...	1	...	...	4	...	2	...	1	5	4	2	7	14	9	3	2	...	...	...	4	1	...	...	5	1	1	21	1	...	...	...
Tarporley .....	...	...	1	1	...	...	...	2	1	...	1	...	...	1	7	5	...	...	...	...	1	...	...	...	...	...	1	...	11	...	...	...	...
Wilmaloe .....	...	...	...	...	...	4	...	3	...	...	16	...	3	11	16	6	...	...	2	...	...	...	5	...	1	5	2	1	24	9	...	...	...
Winsford	2	...	3	...	1	1	1	5	...	3	11	...	...	13	19	9	...	5	...	2	...	3	...	...	...	9	6	...	51	...	...	...	...
Yardsley-cum-Whaley	1	1	1	1	4	2	1	2	1	1	2
	6	...	45	10	41	20	65	3	172	43	56	243	16	27	319	359	254	40	74	22	20	12	95	4	17	159	109	22	806	141	1	11	...	
Rural Districts.																																		
Bucklow	2	3	3	4	4	...	13	5	1	19	2	4	25	23	16	3	7	8	...	3	6	1	2	20	12	1	80
Chester .....	...	1	1	2	...	1	...	10	1	2	8	...	1	16	12	14	4	1	1	...	6	...	...	...	1	6	3	1	41	5	...	...	...
Congleton .....	...	...	2	1	...	4	1	9	2	3	12	2	...	21	8	9	...	1	1	...	1	3	...	...	...	13	5	2	31	25	...	...	...
Dialley .....	...	1	...	...	...	1	1	2	...	1	3	...	...	3	5	3	1	...	...	...	2	...	...	...	...	2	...	1	6	2	...	...	...
Macclesfield .....	...	2	...	2	2	7	...	6	1	2	16	...	3	32	20	13	...	4	3	1	1	10	1	5	8	12	1	63	1	...	...	...
Malpas .....	...	4	...	...	2	1	...	4	...	1	3	...	...	11	2	2	2	...	...	...	...	...	...	...	...	2	2	...	19	1	...	...	...
Nantwich .....	...	7	...	2	4	8	...	9	4	5	37	1	3	46	21	24	3	3	1	1	...	4	...	...	2	14	11	1	83	34	...	...	...</

