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County Palatine of Chester.

REPORT

OF THE

Medical Officer of Health,
FOR THE YEAR 1921.

BY

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

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

PRESENTED TO THE

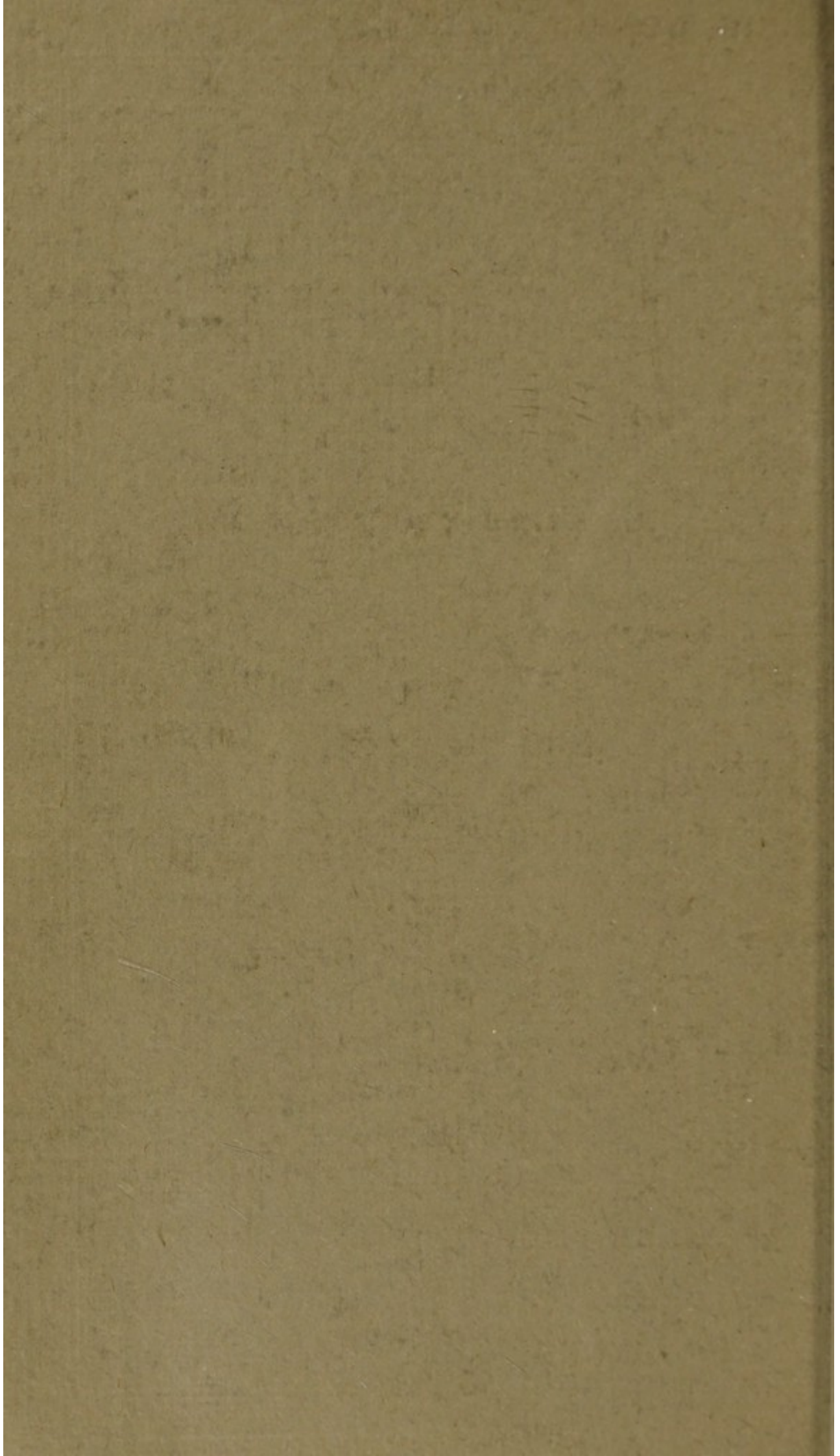
Public Health and Housing Committee

OF THE COUNTY COUNCIL,

October 20th, 1922.

CHESTER :

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





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General Statistics of Diseases

REPORT

Medical Officer of Health

FOR THE YEAR 1911

MEREDITH YOUNG, M.A., D.M.S.

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REPORT

OF THE

Medical Officer of Health

For the Year ending December 31st, 1921.

*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.*



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INTRODUCTION.

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

MR. CHAIRMAN AND GENTLEMEN,

In presenting you with this, my fourteenth Report, on the health and sanitary condition of the Administrative County, I should like to draw your attention in the first place to a few outstanding statistical details. The birth-rate shews a decrease of 2.8 per thousand on the previous year's record : the general death-rate remains at a low figure, namely, 11.4 per thousand : the zymotic death-rate is a very low one : the infant mortality rate is a shade higher than it was in 1920 but still remains low ; and outbreaks of serious infectious disease have been limited and speedily checked.

The Maternity and Child Welfare Scheme has I think proved to be one of the most successful public health measures ever adopted by your Council—an achievement chiefly due in my opinion to the splendid assistance rendered by numerous bands of voluntary helpers at all our Centres and to the intense interest and the gifted attention to detail exhibited by my colleague, Dr. Jean R. Shaw.

Amongst the chief activities of Local Authorities during 1921 has been the provision of housing accommodation for the working classes : a great number of useful houses have been built at a high cost to the State and yet the need is only less than half met.

The question of pollution of rivers is still causing me serious anxiety in a number of areas and if the time were opportune I should have an excellent case for asking for a skilled Inspector to be appointed to assist me in this work.

I have recognised for some time that I cannot hope to do this branch of my work justice for there are literally hundreds of potential sources of pollution, some of which require watching night and day if we are to preserve the natural beauty and purity of some of our best rivers and streams.

I have drawn attention in the text of this Report to a number of other matters of local and general interest, particularly to the problems of cancer, venereal disease and birth-control.

Professor Wm. T. Sedgwick, of Massachusetts, a few years ago wrote the following words in the preface to his book on the Principles of Sanitary Science and Public Health:—
 “Public hygiene and state medicine have become subjects compelling the attention of statesmen and affecting the welfare of nations. Sanitary law has been endowed with unusual privileges and powers and sanitary regulations controlling the commerce of the civilized world are debated in international congresses. Sanitary science and preventive medicine—terms practically unknown before this century—have become almost household words. Sanitary arts of great range and importance have grown up: vast sums are annually spent for private and especially for public sanitation: and human life has been made safer, longer and probably happier.”

The broad principles thus enunciated are apt to become obfuscated by the daily cloud of peppercorn details. It is wisdom to take one's eye from the microscope once in a while and adjust one's focus to the wider prospect. One gets a momentary qualm when the numerous forms of what the Poor Law Commission termed “public assistance” which are now within the legitimised range of a Public Health Authority are considered. During recent years such Authorities have been enabled by legislation—and most Authorities have cheerfully undertaken the responsibility—to assist out of public funds schemes providing for aid in maternity, infant and child welfare, the feeding and medical treatment of school children,

the institutional and domiciliary care of blind, deaf, epileptic and physically defective children and of blind and mentally defective persons of all ages, housing of the working classes, diagnosis and treatment of venereal diseases and of tuberculosis, the nursing of certain infectious diseases, and for the education by means of their medical staff and health visitors of a huge class of the public. Most Health Authorities could therefore without vanity adopt the designation *Amicus humani generis*. Whatever doubts one may occasionally have in connection with some of the schemes of "public assistance" enumerated above, there is one which stands entirely outside the realm of uncertainty and that is education: without this all the legislation in the world would be a mere scrawling in the sand.

But when we look back upon this recent enlargement of the scope of public health work one question naturally comes to the front and that is—What of the future? Eugenists of the sterner variety would have a state control of parenthood, others would have a state rearing of children, others again at least a municipilisation of housing, others a municipal milk supply, others a state control of voluntary hospitals and so forth. I may be conservative but if much more is done for the public on a non-contributory or only partially contributory basis so far as each individual is concerned I foretell a corrosion of self-reliance, initiative and real progress.

Though I have deferred the completion of my Report until a very late date it is regrettable to have to state that the Annual Report for the Alderley Edge Urban District only reached me on September 23rd and that for the Borough of Macclesfield has not yet been received. For several years in succession I have not received the Report from Macclesfield Borough in time to prepare my abstract of it for the consideration of your Committee though numerous reminders have been written. I consider that a strong representation should be made by your Committee to the Town Council on this default.

I have to thank your Committee, my Medical Colleagues, Health Visitors and Office Staff and all the Voluntary Helpers who have enlisted with us for kindly consideration, sympathetic appreciation of difficulties and hearty co-partnership in the numerous branches of work which have now to be administered from this Department.

I am,

Mr. Chairman and Gentlemen,

Your obedient Servant,

MEREDITH YOUNG,

County Medical Officer of Health.

43, Foregate Street,

Chester,

September, 1922.

INDEX.

| | PAGE |
|--|----------|
| Area and Population | 1 |
| Births and Deaths | 5 |
| Bacteriological Examinations | 15 |
| Blind Persons Act, 1920 | 42 |
| Cancer and Malignant Disease | 10 |
| Census, 1921 | 2 |
| Deaths | 6 |
| Deaths from Zymotic Disease | 8 |
| Diphtheria and Membranous Croup | 12 |
| Encephalitis Lethargica | 14 |
| Fever—Enteric | 13 |
| „ Puerperal | 13 |
| Housing | 35 |
| Infantile Mortality | 8 |
| Influenza | 12 |
| Maternity and Child Welfare | 19 |
| Midwives Acts | 20 |
| Milk Supply | 37 |
| Mortality Tables | Appendix |
| Pneumonia | 14 |
| Population | 1 |
| Pulmonary Tuberculosis | 11 |
| Rivers Pollution | 39 |
| Sewerage and Sewage Disposal | 38 |
| Small-pox | 14 |
| Tuberculosis, Deaths from | 11 |
| Venereal Diseases | 15 |
| Water Supply | 38 |
| Zymotic Deaths | 8 |

REPORTS OF MEDICAL OFFICERS OF HEALTH,
EXTRACTS FROM—

BOROUGHs—

| | |
|--------------------|----|
| Congleton | 47 |
| Crewe | 49 |
| Dukinfield | 52 |
| Hyde | 55 |
| Stalybridge | 57 |

URBAN DISTRICTS—

| | |
|----------------------|----|
| Alderley Edge | 59 |
| Alsager | 61 |
| Altrincham | 61 |

| | PAGE |
|---------------------------|------|
| Ashton-upon-Mersey | 65 |
| Bebington Higher | 67 |
| Bebington Lower | 68 |
| Bollington | 70 |
| Bowdon | 73 |
| Bredbury and Romiley | 74 |
| Bromborough | 75 |
| Buglawton | 77 |
| Cheadle and Gatley | 79 |
| Compstall | 81 |
| Ellesmere Port and Whitby | 83 |
| Hale | 85 |
| Handforth | 86 |
| Hazel Grove and Bramhall | 87 |
| Hollingworth | 89 |
| Hoole | 90 |
| Hoylake and West Kirby | 91 |
| Knutsford | 93 |
| Lymm | 96 |
| Marple | 97 |
| Middlewich | 100 |
| Mottram-in-Longdendale | 102 |
| Nantwich | 103 |
| Neston and Parkgate | 105 |
| Northwich | 107 |
| Runcorn | 110 |
| Sale | 114 |
| Sandbach | 114 |
| Tarporley | 116 |
| Wilmslow | 118 |
| Winsford | 119 |
| Yeardsley-cum-Whaley | 124 |

RURAL DISTRICTS—

| | |
|--------------|-----|
| Bucklow | 125 |
| Chester | 126 |
| Congleton | 128 |
| Disley | 130 |
| Macclesfield | 132 |
| Malpas | 134 |
| Nantwich | 135 |
| Northwich | 138 |
| Runcorn | 143 |
| Tarvin | 146 |
| Tintwistle | 149 |
| Wirral | 150 |

REPORT OF THE Medical Officer of Health,

For the Year ended December 31st, 1921.

Section I.—Area and Population.

Area.

In the Census Report of 1911 this is given as 640,823 acres and in the Preliminary Census Report 1921 as 640,791 acres.

This area is distributed as follows :—

| | | | |
|--------------------------|-----|-----|------------------|
| 6 Municipal Boroughs | ... | ... | 15,588 acres. |
| 36 other Urban Districts | .. | ... | 80,832 „ |
| 12 Rural Districts | ... | ... | 544,503 „ |
| Total | ... | ... | <u>640,823 „</u> |

Population.

The population of the Administrative County, as enumerated at the Census of 1911, was 597,771 and in the Preliminary Census Report of 1921 as 625,001, an increase of 27,230 in the decennial period.

This year the population is estimated as under :—

| | | | |
|--------------------------|-----|-----|----------------|
| 6 Municipal Boroughs | ... | ... | 173,330 |
| 35 other Urban Districts | ... | ... | 264,569 |
| 12 Rural Districts | ... | ... | 191,743 |
| Total | ... | ... | <u>629,642</u> |

The Registrar-General supplies this Department and the District Medical Officers of Health with certain figures direct and the information given in this Report is based on such

figures. His estimate of "present population" sometimes exceeds that of the Local Medical Officer of Health, with the result that the birth-rates in this return are in some cases lower than in the local Reports. Apparently some Medical Officers do not accept the figures supplied by the Registrar-General and their birth and death-rates do not coincide with the figures in my Reports, but I am, of course, bound to adopt the official figures.

The Registrar-General states that in 1920 demobilization had reached a stage at which it was felt that the distinction between 'birth-rate populations' and 'death-rate populations' made during the period when a large part of the male population was under arms, might in general be discontinued.

The figures for the several Districts are as under :—

| Municipal Boroughs. (6) | Population at Census, 1921. | Population supplied by Registrar General, 1922. |
|----------------------------|--------------------------------|--|
| Congleton | 11764 | 11910 |
| Crewe | 46477 | 47210 |
| Dukinfield | 19493 | 19940 |
| Hyde | 33437 | 34130 |
| Macclesfield | 33846 | 34380 |
| Stalybridge | 25233 | 25760 |
| | 170250 | 173330 |

| Urban Districts. (35) | Population at Census, 1921. | Population supplied by Registrar General, 1922. |
|-------------------------------------|--------------------------------|--|
| Alderley Edge | 3072 | 3068 |
| Alsager | 2693 | 2707 |
| Altrincham | 20461 | 20700 |
| Ashton-upon-Mersey | 7780 | 7840 |
| Higher Bebington | 1764 | 1784 |
| Lower Bebington | 14696 | 14940 |
| Bollington | 5094 | 5180 |
| Bowdon | 2967 | 2936 |
| Bredbury and Romiley | 9169 | 9260 |
| Bromborough | 2650 | 2649 |
| Buglawton | 1572 | 1576 |
| Cheadle and Gatley | 11036 | 11070 |
| Compstall | 944 | 934 |
| Ellesmere Port and Whitby | 13075 | 13350 |
| Hale | 9285 | 9210 |
| Handforth | 904 | 908 |
| Hazel Grove & Bramhall | 10125 | 10160 |
| Hollingworth | 2465 | 2499 |
| Hoole | 5990 | 6030 |
| Hoylake & West Kirby | 17055 | 16530 |
| Knutsford | 5411 | 5390 |
| Lymm | 5288 | 5300 |
| Marple | 6613 | 6610 |
| Middlewich | 5116 | 5190 |
| Mottram in Longdendale | 2882 | 2920 |
| Nantwich | 7296 | 7390 |
| Neston and Parkgate | 5191 | 5150 |
| Northwich | 18385 | 18650 |
| Runcorn | 18393 | 18730 |
| Sale | 16337 | 16440 |
| Sandbach | 5843 | 5920 |
| Tarporley | 2516 | 2512 |
| Wilmslow | 8286 | 8260 |
| Winsford | 10957 | 11100 |
| Yeardsley-cum-Whaley | 1698 | 1676 |
| | 263009 | 264569 |

| Rural Districts. (12) | Population at Census, 1921. | Population supplied by Registrar General, 1922. |
|---------------------------|--------------------------------|--|
| Bucklow | 22149 | 22240 |
| Chester | 13327 | 13360 |
| Congleton | 13217 | 13320 |
| Disley | 3024 | 2995 |
| Macclesfield | 17047 | 17000 |
| Malpas | 4464 | 4410 |
| Nantwich | 25013 | 25050 |
| Northwich | 24434 | 24550 |
| Runcorn | 28929 | 29170 |
| Tarvin | 13410 | 13370 |
| Tintwistle | 2071 | 2058 |
| Wirral | 24657 | 24220 |
| | 191742 | 191743 |
| Administrative County ... | 625001 | 629642 |

The Registrar- General in a Memorandum published in March, 1922, states :—

The Census of 1921, originally planned for the 24th April, was unavoidably postponed until the 19th June; and it is now clear that, while the latter date avoided the recognised programme of industrial holidays, some holiday movement was, largely owing to the abnormally fine weather, already then in progress. This is reflected in the Census returns by the inclusion in the case of the more popular holiday areas of varying and sometimes substantial proportions of visitors.

The use of local population figures which depart materially from the figures of normal resident populations would, of course, be unsuitable in connection with statistics of births and deaths classified according to area of residence; and it has been deemed necessary to make an adjustment for these purposes by measuring the extent of the non-resident population in certain areas and by effecting its re-distribution throughout the country.

Such an adjustment has accordingly been made by means of the best data available in the preparation of the estimated mid-yearly populations for 1921. Any

substantial difference between the population quoted and the corresponding Census figure should be attributed to this process of adjustment although its effect has been negligible in the majority of areas.

Section II.—Births and Deaths.

Births.

The total number of births registered in the Administrative County during 1921 was 12,440, equal to a birth-rate of 19.7 per 1,000 of the estimated population. This is a decrease from last year, when the number of births was 14,075, giving a rate of 22.5. Comparative statistics are:—

| | | |
|-----------------------|-----|------|
| England and Wales ... | ... | 22.4 |
| 96 Great Towns ... | ... | 23.3 |
| 148 Smaller Towns ... | ... | 22.7 |
| London ... | ... | 22.3 |

The highest birth-rates were:—

| | | |
|---------------------------|-----|------|
| Buglawton U.D. ... | ... | 31.6 |
| Ellesmere Port U.D. ... | ... | 29.8 |
| Higher Bebington U.D. ... | ... | 27.4 |

The lowest were:—

| | | |
|-------------------------------|-----|------|
| Marple U.D. ... | ... | 12.5 |
| Bowdon U.D. ... | ... | 13.9 |
| Alderley Edge U.D. ... | ... | 14.3 |
| Mottram U.D. ... | ... | 14.7 |
| Yeardsley-cum-Whaley U.D. ... | ... | 14.9 |

The total number of illegitimate births in the Administrative County was 510, as against 660 in 1920.

The birth-rate has shewn a decline for some years and there are many who will regard this as an evil. Some years ago I took this view myself but experience has led to a change of camp. One would like to see a high birth-rate if it meant a multiplication of the class of mental superiority, but in this country at all events such has not been the case for a good many years. The investigations of Bertillon, Heron and Newsholme,

all of which were carried out independently, shewed beyond any question that the very poor exhibited a high degree of fertility and the rich a low degree. The difference between the two classes would almost certainly be found to be more pronounced now than it was when these inquiries were pursued for no one can question the fact that the practice of birth-control is spreading amongst the lower middle classes and the upper part of the working classes, though it does not appear to have yet reached the lower working classes.

The only part of this argument which from its very nature is difficult to carry to a definite conclusion is that dealing with the relative physical and mental worth of the different classes of the population from which the Nation's population is being recruited. There are no statistics to shew this relative worth and one can only assert a probability based on general observation. This probability is, however, a fairly certain one and is to the effect that our population is being chiefly regenerated from the mentally inferior classes.

If we accept this then I think we are bound to consider as reasonable the propaganda of the Neo-Malthusians. Indeed anyone who attempted to stem the tide of public opinion in this matter at present would be entering on a truly desperate task. The case appears to me to have been carried beyond the stage of arguing for or against birth-control and to have reached the point at which legitimate birth-control is accepted as being for the National good and all that remains to be settled is the best means of control and the general education of the public on contraceptive methods. That is the position whether we accept it and like it or not. And our task as Medical Officers of Health is to accept what after all we have no power to alter and to concentrate more strongly still on reducing the mortality amongst those who are permitted by nature assisted by the "selective agencies" of civilisation to come into the world.

Deaths.

The total number of deaths occurring in the Administrative County during 1921 was 7,197, equal to a death-rate of 11.4 per 1,000 of the estimated population. In 1920 the death-rate was 11.5. Comparative statistics are:—

| | | |
|-------------------|-----|------|
| England and Wales | ... | 12.1 |
| 96 Great Towns | ... | 12.3 |
| 148 Smaller Towns | ... | 11.3 |
| London | ... | 12.4 |

The rates vary very considerably. The highest rates are recorded in the following districts:—

| | | | |
|------------------|-----|-----|------|
| Stalybridge M.B. | ... | ... | 16.3 |
| Dukinfield M.B. | ... | ... | 14.7 |
| Hyde M.B. | ... | ... | 14.2 |
| Wilmslow U.D. | ... | ... | 14.2 |
| Malpas R.D. | ... | ... | 14.2 |

The lowest rates are recorded in the following districts:—

| | | | |
|-----------------------|-----|-----|-----|
| Bromboro U.D. | ... | ... | 5.6 |
| Hale U.D. | ... | ... | 7.7 |
| Tarporley U.D. | ... | ... | 8.0 |
| Chester R.D. | ... | ... | 8.2 |
| Ellesmere Port U.D. | ... | ... | 8.3 |
| Wirral R.D. | ... | ... | 8.3 |
| Higher Bebington U.D. | ... | ... | 8.4 |
| Lower Bebington U.D. | ... | ... | 8.5 |
| Handforth U.D. | ... | ... | 8.8 |

Of these deaths 3,678 were males and 3,519 females. The most fatal age-period for both sexes was that from 45 to 65 years. No fewer than 612 males and 777 females passed away at ages later than 75 years. The most common causes of death were as under:—

| | M. | F. | Total. |
|----------------------------|-----|-----|--------|
| Heart Disease | 367 | 482 | 849 |
| Cancer (Malignant disease) | 338 | 411 | 749 |
| Pneumonia (all forms) | 317 | 225 | 542 |
| Bronchitis | 238 | 234 | 472 |
| Pulmonary Tuberculosis | 215 | 173 | 388 |
| Cerebral Hæmorrhage | 207 | 290 | 497 |
| Congenital Debility | 270 | 193 | 463 |

From diseases other than infectious ones to which separate reference is made the following deaths occurred:—

| | | | |
|------------------------------|-----|-----|-----|
| Rheumatic Fever | ... | ... | 32 |
| Diabetes | ... | ... | 80 |
| Arterio-sclerosis | ... | ... | 259 |
| Ulcer of Stomach or Duodenum | ... | ... | 40 |
| Appendicitis and Typhlitis | ... | ... | 41 |
| Cirrhosis of Liver | ... | ... | 32 |
| Suicides | ... | ... | 62 |
| Other deaths from violence | ... | ... | 213 |

The deaths from ill-defined or unknown causes only numbered 17 out of the total of 7,197.

Zymotic Diseases.

The deaths from this group of diseases during 1921 was 298, equal to a zymotic death-rate of 0.47 per 1,000 of the estimated population. Whooping-cough, diphtheria and scarlet fever were the chief contributing factors. There was no death from small-pox.

Infantile Mortality.

Your Council commenced their scheme of Maternity and Child Welfare on the 1st April, 1916. The larger portion of the County comes within the scheme, but there are a number of districts which are responsible for their own schemes.

There have been 991 deaths of infants under one year in the Administrative County during 1921, a number equivalent to 79 per 1,000 of the recorded births. In 1920 there were 1,011 deaths, the rate being 71 per 1,000.

Comparative statistics are (per 1,000 births):—

| | | | |
|--|-----|-----|----|
| England and Wales | ... | ... | 83 |
| 96 Great Towns, including London—(1911 Census population exceeding 50,000) | ... | ... | 87 |
| 148 Smaller Towns—(1911 Census population 20,000 to 50,000) | ... | ... | 84 |
| London | ... | ... | 80 |

The infant mortality rates have ruled highest in the following districts:—

| | | | |
|-------------------|-----|-----|-----|
| Tintwistle R.D. | ... | ... | 157 |
| Hollingworth U.D. | ... | ... | 121 |
| Macclesfield M.B. | ... | ... | 116 |
| Hyde M.B. | ... | ... | 113 |
| Stalybridge M.B. | ... | ... | 113 |
| Alsager U.D. | ... | ... | 113 |
| Dukinfield M.B. | ... | ... | 111 |
| Nantwich U.D. | ... | ... | 108 |

In Yeardsley Urban District there were no deaths under one year.

Low rates were recorded in the following districts:—

| | | | |
|-------------------------|-----|-----|----|
| Buglawton U.D. | ... | ... | 20 |
| Alderley Edge U.D. | ... | ... | 22 |
| Ashton-upon-Mersey U.D. | ... | ... | 29 |
| Malpas R.D. | ... | ... | 36 |
| Bromboro U.D. | ... | ... | 37 |
| Higher Bebington U.D. | ... | ... | 40 |
| Disley R.D. | ... | ... | 41 |

It is useful to compare the infant mortality rates for the six years during which the Council's Maternity and Child Welfare Scheme has been in operation with the rates which prevailed during the six years prior to this: they are as under:

| | | Rate per 1000 births. | | | Rate per 1000 births. |
|------|-----|--------------------------|------|-----|--------------------------|
| 1910 | ... | 93 | 1916 | ... | 75 |
| 1911 | ... | 121 | 1917 | .. | 86 |
| 1912 | ... | 89 | 1918 | ... | 85 |
| 1913 | ... | 104 | 1919 | ... | 83 |
| 1914 | ... | 94 | 1920 | ... | 71 |
| 1915 | ... | 98 | 1921 | ... | 79 |

In round figures, therefore, the average infantile death-rate for the six years preceding the initiation of the Child Welfare Scheme was 88 per 1,000 births, compared with an average figure under 80 during the six years during which efforts have been made to reduce it under a special scheme organised and operated as to the larger part of the County by your Council. Prior to 1916, however—indeed about 20 years ago, your Council took such steps as the legislation in force then empowered them to do to reduce infant mortality in certain Boroughs where it ruled exceptionally high. These measures were followed by a certain amount of success, but were rather in the nature of what in military language is termed a demonstration. Now that we are enabled to make a direct frontal attack on the enemy the success is greater and our position may be said to be well consolidated.

There are a few critics who assert that the improvement in the infant mortality rate would have come about without the administration of any special scheme—a very easy thing to say but a very difficult thing to either prove or disprove. But surely we are fairly entitled to say that it is because of our campaign against admitted causes of infant mortality that fewer babies now die in the early days of life. Everyone admits that the most potent dangers to infant life are such things as improper feeding, insanitary surroundings, bad ante-natal influences, inadequate attention at birth and so

forth. Dare anyone assert that all of these conditions have not been vastly improved as the direct result of action such as your Council has instituted? I think not. And if we admit this we are surely entitled to take credit for the result otherwise logic ceases to have any meaning.

The whole staff of Health Visitors have taken a live interest in this branch of their work and I think I am right in saying that they exhibit more zeal in the work of infant welfare than they do, for example, in dealing with tuberculosis or ailing school children. The explanation is a very simple one: the first part of it is that the Health Visitors are all women and every natural woman is a lover of babies: the second part of it is that in babies results are quickly achieved and are readily manifest. The right type of Health Visitor can achieve wonders with mothers and infants and I have a profound admiration for their work: I only wish their worth could be more fully recognised in the matter of their salaries.

Cancer (Malignant Disease).

The deaths ascribed to these forms of disease during 1921 amounted to 751, namely, 338 males and 413 females. This is equivalent to a death-rate of 1.20 per 1,000 of the population—a small decrease on the record of the past few years.

The death-toll from cancer taking the civilised world as a whole exceeds half a million per annum.

This increase in cancer mortality—or, in the particular case of Cheshire during 1921, the maintenance of a high mortality—has for many years given cause for grave anxiety. Theories of causation continue to deluge the medical world. That which in my opinion passes the point of merely presumptive evidence is the one advanced by Sir W. Arbuthnot Lane, namely, that the injury to the involved part (except in cases affecting the skin where mechanical or chemical irritation is conclusively proved to be the chief causal factor) arises from the formation of highly concentrated poisons (toxins) in the intestinal tract and their subsequent circulation in the system. These poisons are the result of stagnation of the intestinal contents and this stagnation is caused by improper or excessive diet. In support of this view Lane quotes several experiences notably that of Col. McCarrison, who during nine years as a Surgeon in a remote part of the Himalayas with an average operating list of four hundred major operations per annum, states that he never met with “a case of asthenic dyspepsia, of gastric or duodenal ulcer, of appendicitis, of mucous colitis or of cancer.” These natives, it has also been observed,

remain free from gastro-intestinal troubles and from cancer so long as they limit their diet to the primitive one of ground and roasted corn, rice and fruits, but when they become more prosperous and adopt the diet and habits of the white man "they pay for the privilege in the same disastrous manner with equal frequency."

Here then we have a soundly based theory which is surely worthy of being put to the test. We know that intestinal stagnation is the indirect cause of a multitude of ailments quite apart from cancer and we know that it can be prevented by reasonably careful diet—in particular by eating less meat and more vegetables and fruit—by regular exercise and by careful attention to the bowels so that anything approaching constipation is always avoided. We know that by systematic mouth hygiene a number of septic conditions and of their numerous progeny can be averted: precisely the same rule applies to the whole of the alimentary canal. I am not a great advocate of the use of antiseptics for securing hygienic conditions in the mouth—in fact I believe that quite a number of those which are extensively advertised and therefore extensively used are worse than useless: cleanliness of the mouth and teeth can be secured without them. In the same way I believe that gastric and intestinal antiseptics are frequently injurious. In any event they are mere palliatives and do not go to the root of the trouble: simple hygienic diet coupled with sensible exercise and the avoidance of constipation will do all that is required.

When once cancer has asserted itself it appears to be universally agreed that early and frank recognition followed by early operation offers the only hope. The day may arrive when we shall have cancer specialists placed at the service of the public in the same way as we now have specialists in tuberculosis and venereal disease. This is already warranted by the death-rate and if one needs a further argument in favour of it one has only to look at the endless suffering and the sacrifice of brilliant lives caused by cancer.

Tuberculosis.

As the County Tuberculosis Officer will be presenting a detailed report on this subject I will only give the bare statistics. The deaths have been as under:—

| | | Males. | | Females. | | Total. |
|-----------------|-----|--------|-----|----------|-----|--------|
| Pulmonary Forms | ... | 215 | ... | 173 | ... | 388 |
| Other Forms | ... | 82 | ... | 57 | ... | 139 |
| | | <hr/> | | <hr/> | | <hr/> |
| Total | ... | 297 | ... | 230 | ... | 527 |
| | | <hr/> | | <hr/> | | <hr/> |

Influenza.

This disease has been active in several districts during the year and has been directly responsible for 138 deaths. The disease has taken a somewhat heavy toll of those in the mid-period of life, about one-third of the deaths occurring between the ages of 25 and 45 years. Slightly more deaths have occurred in males than in females.

Diphtheria.

Forty-seven deaths have occurred from this disease. No outbreak of any note has taken place though certain districts have been living for some time on the verge of an outbreak—the Borough of Crewe, for example, which suffered severely from this disease a few years ago. The control of diphtheria has proved somewhat of a disappointment. We can readily diagnose it with certainty by bacteriological examination: we have an antitoxin which if applied early robs the disease of almost all its terrors: we possess the means, through an easily applied skin test (Schick) of separating those who are susceptible to its attack and those who are not: we can by means of a simple test on guinea-pigs separate the dangerous “carrier” from the innocuous one: and yet with all this scientific and well-established equipment the disease continues to come and go as it will. A healthy throat, just like a healthy skin or mucous membrane can resist attack by almost any microbe and in my opinion the most universally practicable method of minimising the effects of diphtheria (and at the same time of many other diseases which use the throat and nose as their portal of entry into the system) would be to educate the public on the hygiene of the throat and nose. By this I do not mean that we should advocate daily gargling or spraying with specific antiseptics, or the sucking of lozenges more or less heavily laden with similar substances, or the sniffing of such things as eucalyptus oil, for I think such measures in the hands of an uneducated person are harmful and likely to defeat their purpose. What I mean is that if a person’s throat or nose is unhealthy by reason of the presence of enlarged or septic tonsils, adenoid overgrowth, irregular or mal-formed nasal bones and so forth, means should be taken to have the unhealthy conditions removed. Thereafter all that need be done is a thorough cleansing of the throat *and nose* with some weak simple antiseptic such as chlorinated soda solution (20 drops of the official solution in a tumblerful of tepid water), with tepid water just tinged with Potassium permanganate (Condy’s Fluid), or with an extremely weak solution of boracic acid. When we know so definitely that quite a number of infectious diseases enter our systems through our noses and throats and when we realise

the amount of actual dirt intercepted therein it seems almost incredible that so very few people have adopted a simple habit of hygiene for these parts.

Enteric (Typhoid) Fever.

Only nine deaths are ascribed to this illness during the year. This disease is rapidly giving way to the advances of hygiene and in a few years time should be a thing of the past in this country.

Puerperal Sepsis.

The record of deaths from this group of conditions is an improvement on that for the previous year, only 18 deaths were due to them. Now that child-birth is treated on similar lines to a surgical operation so far as securing asepsis is concerned conditions such as puerperal fever should lead to a most searching inquiry into the matter which has gone wrong, for where puerperal fever has occurred it is certain that there has been some error or omission of a fairly serious character. An infection has been introduced from without (except in a percentage of cases so small as to be negligible) and it should be the business of the person in attendance to find out whence it has come.

Congenital Debility, Premature Birth, &c.

The number of deaths from these conditions is a high one, viz., 463. Here is one of the most promising fields for investigation and both pathologists and ante-natal specialists have a great chance of lessening infant mortality. Malformations we cannot control—though one feels tempted to add the words 'as yet'—but surely some addition to our knowledge is possible in connection with congenital debility and premature birth. These two things have for years constituted the largest items in the infantile death-rate. Yet in spite of some advancement in knowledge and in spite of such ante-natal work as we have been able to carry out the number of deaths from this group of conditions is nearly double what it was in 1920.

Some of these deaths, if the truth could be known, are due to the use of abortifacients which have not been so effective as the users have desired but which have led to imperfect growth and development and the birth of an enfeebled or organically immature infant. Though legislation has virtually stopped the use of the most injurious of these drugs it is common knowledge that many drugs are still sold which, whilst not always inducing abortion, stunt the normal nutrition and development of the unborn babe.

Pneumonia (all forms).

There were 542 deaths ascribed to pneumonia, 409 in males and 133 in females. A considerable number of the deaths were due to the broncho-pneumonia of infancy and early childhood, but in both sexes most deaths occurred amongst adults—the apex of the curve being reached between the ages of 25 and 55.

The incidence of pneumonia appears to be chiefly on industrial districts. This is shewn in a rough way by the rates of mortality in the Urban and Rural districts. In the 41 Urban Areas the death-rate from pneumonia is 0.9 per 1,000, whilst in the 12 Rural Areas it is only 0.7 per 1,000. The difference would probably be greater but for the fact that some of our Rural districts are highly urbanised in part, *e.g.*, Northwich, Runcorn and Congleton.

Section III.—Infectious Diseases.

Small-pox.

An outbreak of four cases occurred in Northwich U.D. late in the year, the infection having been derived from Yorkshire. Prompt isolation of the sufferers and re-vaccination of all contacts prevented the spread of the disease with the exception of one un-vaccinated person who happened to assist in the nursing of the first four cases.

Encephalitis Lethargica.

This insidious disease was responsible for thirteen deaths in the following districts, viz. : Altrincham U.D. (1), Cheadle and Gatley U.D. (1), Hoylake and West Kirby U.D. (1), Knutsford U.D. (2), Sale U.D. (1), Wilmslow U.D. (1), Congleton R.D. (1), Disley R.D. (2), Macclesfield R.D. (2) and Runcorn R.D. (1).

I saw a few doubtful cases, one of which was probably a cerebral tumour and one of which was a somewhat anomalous enteric fever.

Meningococeal Meningitis.

This is the disease formerly known as cerebro-spinal fever or (popularly) as “spotted fever.” This was responsible for four deaths, one in Bollington, one in Knutsford, one in Bucklow R.D. and one in Runcorn R.D.

It will be seen therefore that though these cases naturally gave rise to considerable anxiety they were well controlled.

Bacteriological Examinations.

Exclusive of examinations carried out under the Venereal Diseases scheme the following specimens were examined during the year at the Public Health Laboratory, Manchester, for the County Council :—

| | | | | |
|----------------------------------|-----|-----|-----|---|
| Diphtheria | ... | ... | ... | 9 |
| Water | ... | ... | ... | 5 |
| Pillar of Fauces | ... | ... | ... | 1 |
| Hair and Hair Mortar for Anthrax | | | ... | 2 |

Though the Council have arranged to pay for the bacteriological examination of water in cases where the result of chemical analysis indicates that such further examination is desirable and though quite a number of cases have been reported where bacteriological aid was needed very few Local Authorities have taken advantage of the arrangement. Probably the trouble involved in collecting and transmitting samples of water for this purpose is the reason for this. If this be so I can only say that it denotes a poor spirit for where the health of the public is concerned trouble should not be allowed to count.

Section IV.—Venereal Diseases.

From the statement I give below, compiled from the returns received from the various Treatment Centres, the number and nature of the Cheshire cases dealt with during the year may be seen :—

| Institution. | Persons attending for first time at Out-Patient Clinic suffering from : | | | | Total attendances at Out-Patient Clinic. | Aggregate No. of In-Patient Days. | Doses of Salvarsan substitutes given. |
|---|---|--------------|-------------|-------------------------|--|-----------------------------------|---------------------------------------|
| | Syphilis. | Soft Chancre | Gonorrhoea. | Non-Veneral conditions. | | | |
| Ancoats Hospital, Salford ... | 33 | — | 12 | 12 | £40 | — | 111 |
| Manchester and Salford Skin Hospital ... | 36 | 2 | 9 | 7 | 798 | 13 | 145 |
| Warrington Infirmary ... | 10 | — | 4 | 3 | 326 | — | 121 |
| St. Luke's Hospital, Manchester ... | 21 | 3 | 31 | 22 | 619 | 674 | 180 |
| Manchester Royal Infirmary ... | 38 | — | 26 | 4 | 1090 | — | 207 |
| St. Mary's Hospital, Manchester ... | 3 | — | 2 | 11 | 156 | — | 39 |
| Liverpool Stanley Hospital ... | 2 | — | 5 | 1 | Not stated. | Not stated. | 13 |
| Liverpool Royal Infirmary ... | 23 | — | 21 | 5 | 701 | 3 | 120 |
| Royal Southern Hospital, Liverpool ... | — | — | 3 | — | 33 | — | — |
| David Lewis Northern Hospital, Liverpool ... | 5 | — | 4 | 2 | 155 | — | 51 |
| Ashton-under-Lyne District Infirmary ... | 39 | 5 | 31 | 24 | 1992 | — | 821 |
| Chester Royal Infirmary Treatment Centre, Stockport ... | 14 | 10 | 20 | 7 | 764 | 455 | 421 |
| Treatment Centre, Chinley (Derbyshire) ... | 8 | 1 | 10 | 6 | 322 | — | 62 |
| St. Paul's Hospital, London ... | — | — | 1 | — | 4 | — | — |
| Seamen's Hospital Society, Greenwich ... | — | — | 1 | — | 6 | — | — |
| TOTALS ... | 232 | 21 | 181 | 105 | 7521 | 1158 | 2291 |

It is the experience practically everywhere that patients and especially syphilitics cease attendance at the Centres before treatment is nearly complete. I have seen it stated that only 14 per cent. of the syphilitics attending the Liverpool Centres complete the course of treatment which means, of course, that 86 per cent. drift away partially cured. These drifters will, as everyone knows, only have to wait a comparatively short time before the disease re-asserts itself in a worse and in many cases a fatal form. One naturally asks the reason for this discontinuance of treatment. There is more than one, but that which appears to be the commonest is the abolition of visible signs and symptoms which followed the modern treatment of this condition. I have, however, both heard of and seen another

which has impressed me and which I only mention in this public manner in the hope that it may lead to improvement. Put briefly, and in a way I think most people will understand, it is the adoption of what has come to be known as the "Army method" of treating such patients as attend certain of the larger Treatment Centres. I could give details but I forbear. It is perhaps only natural that a Medical Officer with a queue of patients awaiting him should adopt a system which will enable him to deal quickly with them, but to adapt a remark made, I think, by Professor Budin, in connection with Maternity and Child Welfare Clinics, I would remind Medical Officers of Treatment Centres for venereal disease that the *value of each Centre is "precisely the value of the presiding physician."* It is not a pleasant thing to have to criticise one's professional colleagues but I have both the public health and the public money to consider.

This early cessation of treatment is paving the way to a system of compulsory notification of the defaulters such as is in operation in parts of Australia, New Brunswick, Denmark, Norway, parts of the United States, &c., &c., for it is a waste of public money to render patients non-infectious for a short period if they are to become a danger to the public again after a time. There are few sadder cases to be met with than those of persons innocently infected with venereal disease, and once public opinion is roused against social pests of the kind described it will demand that they shall be taken in hand by the State and not released until the public is safe from them.

Examination of Venereal Products.

The returns received from all the Hospitals and Infirmarys only shew the *total* number of specimens examined or sent for examination and do not distinguish those sent on behalf of the several Local Authorities using the Hospital. To reproduce these figures would therefore serve no useful purpose. The following statement refers only to specimens which can be identified as belonging to Cheshire cases :—

| Institutions. | Syphilis. | | Gonorrhœa. |
|---|---------------------|---------------|------------|
| | Wasserman Reaction. | Spirochaetal. | Total. |
| Pathological Department Manchester University... | 106 | — | 8 |
| Ashton-under-Lyne District Infirmary ... | 353 | 2 | 161 |
| Seamen's Hospital Society, Greenwich ... | — | — | 1 |

The statement is frequently made that general practitioners do not take full advantage of the facilities for diagnosis offered under this Scheme. Here I do not find that to be the case, so far as diagnostic specimens are concerned, though it probably is true of Wassermann tests and gonococcus examinations used as indications of the effect of treatment. Out of the 106 specimens sent for the Wassermann test during 1921 no fewer than 73 (roughly three-quarters of the whole) were sent by practitioners.

Cost of Scheme.

The following figures are taken from the County Accountant's Abstract of Accounts and relate to the financial year, April 1st, 1920, to March 31st, 1921 :—

| | | | | | | |
|---------------------------------|-----|-----|-----|-------|----|----|
| | | | | £ | s. | d. |
| Pathological Laboratories | ... | ... | ... | 73 | 18 | 0 |
| Treatment Centres | ... | ... | ... | 2230 | 19 | 7 |
| Supply of Salvarsan Substitutes | ... | ... | ... | 42 | 6 | 9 |
| Administration | ... | ... | ... | 146 | 6 | 11 |
| | | | | <hr/> | | |
| | | | | £2493 | 11 | 3 |
| | | | | <hr/> | | |

| | | | | | | | | | |
|----------------------------------|-----|-----|-----|-------|----|----|------|----|----|
| | | | | £ | s. | d. | £ | s. | d. |
| Receipts from Ministry of Health | ... | ... | ... | 1296 | 0 | 0 | | | |
| Sundry Receipts | ... | ... | ... | 5 | 3 | 3 | | | |
| | | | | <hr/> | | | 1301 | 3 | 3 |
| | | | | <hr/> | | | | | |

Net cost to County £1192 8 0

Compared with the figures for the same year for Derbyshire (which has a slightly smaller population) this cost appears to me very small. I give the main items of expenditure in that County, in round figures, by way of comparison:—

| | £ |
|--|------|
| Pathological Laboratories | 666 |
| Treatment Centres | 4800 |
| Approved Institutes | 775 |
| Administration (including Publicity arrangements) | 300 |
| Total | 6541 |

Section V.—Maternity and Child Welfare.

Note.—This Section, with the exception of the introductory paragraph, has been written by Dr. Jean R. Shaw.

Introductory.

This work has been well-maintained, but owing to our being under the thralldom of the Ministry of Health whose approval is necessary even for very small extensions it cannot be said to have materially advanced. In August, 1918, the then Local Government Board issued a Circular urging Local Authorities to take advantage of the Maternity and Child Welfare Act of that year, and pointing out numerous arrangements which were authorised by it. The policy then outlined however has been abrogated during recent years and proposals for new departures on previously approved lines have been countermanded by the Ministry. Any blame for restrictions of this scheme must not therefore be laid on your Committee or its officials.

The following districts are still outside the scheme of the County Council, viz.:—the Municipal Boroughs of Crewe, Hyde and Macclesfield, and the Urban Districts of Altrincham, Ellesmere Port, Lower Bebington, Hale, Knutsford, Middlewich, Northwich and Winsford.

In the case of some of the Urban Districts the alienation is, in my opinion, unfortunate, inasmuch as it leads to overlapping and some waste of money. This remark applies particularly to Hale, Northwich, Knutsford and Middlewich, though in the case of the two last-named districts an alteration

may shortly take place. Beyond this I have no criticism to offer of the work done in these "outside" areas.

In the introduction to this Report I have expressed our thanks to all the Voluntary Helpers who have done such splendid and steadily maintained work under this scheme. The County Nursing Association have also rendered valued assistance by arranging for the provision of District Nurse Midwives in districts where midwifery assistance has been badly needed. The Health Visitors have given of their very best, acting under the generalship of Dr. Jean R. Shaw, whose work has continued to deserve the very highest commendation.

The only regret one has in connection with this work is that the ante-natal part of the programme has had to be so much limited: what little has been done, however, has I think borne good fruit and when an opportunity for expansion occurs this is the branch which will need developing first of all. In the County of Bedford a small experiment in the organisation of ante-natal work has been sanctioned by the Ministry of Health which appears worthy of imitation. It consists in sending to each certified practising midwife an outfit for collecting a specimen of urine (to be forwarded to the Public Health Department for examination) and a card on which to register any ante-natal observations. The patient's name is indicated by initials only and the card is retained by the midwife until after the confinement, when it is sent in to the Public Health Department: if the card shews that useful ante-natal work has been done and the specimen has been sent in for examination the midwife is paid a fee of 5/-. If anything abnormal is found on examination of the urine the midwife is advised to call in medical aid. In this way some of the more serious complications of pregnancy are detected at an early stage and there is no interference between the midwife and her patient. In the absence of Ante-natal Clinics this is a safeguard against danger which I think would be well worth the small outlay involved.

The Midwives Acts.

Number in practice.

There were 343 midwives who notified their intention to practise in the County Area during the year 1921.

| | | |
|------------|---|---|
| Actually | } | 165 Trained Midwives. |
| Practising | | 84 Untrained Midwives. |
| | | 33 Monthly Nurses. |
| | | 22 Midwives living outside the County Area. |
| | | 1 Midwife died. |
| | | 38 Have not had any cases. |

The untrained midwives are gradually ceasing to practise and their places are being taken by trained women. The latter take special interest in the baby's welfare, insist on breast feeding, regular three-hourly feeds, no night feeding and a separate cot for the baby.

The County has at present only six County midwives, at Nantwich, Lymm, Tarvin, Scholar Green, Upton and Hollingworth. These midwives have a grant of £60 from the County and keep their own fees. In the case of the Tarvin midwife, owing to the small number of cases, her grant is £80 per annum. The County midwife at Hazel Grove resigned and the County Nursing Association appointed a District Nurse midwife. When the County Nurse at Timperley left the district it was decided not to make another appointment as midwives from Altrincham, &c., attended most of the cases. At Bollington a local trained midwife is now practising. The County midwife at Macclesfield wrote intimating that she was able to make a livelihood without a grant.

Inspections.

The inspections have been carried out as in previous years by the Lady Assistant Medical Officer of Health assisted by the Health Visitors. There have been 931 visits paid to midwives: 676 were formal inspections and the other 255 were paid to make enquiries *re* still-births, puerperal fever cases, infant deaths, &c.

Facts Ascertained on Inspection.

| | Bag. | | Register. | | Charts. | | Person. | | Home. | |
|------------------|----------|-------------|-----------|-------------|----------|-------------|----------|-------------|----------|-------------|
| | Trained. | Un-trained. | Trained. | Un-trained. | Trained. | Un-trained. | Trained. | Un-trained. | Trained. | Un-trained. |
| Satisfactory ... | 161 | 72 | 163 | 67 | 162 | 35 | 162 | 77 | 161 | 81 |
| Fair ... | 4 | 11 | 2 | 16 | 3 | 4 | 3 | 7 | 4 | 3 |
| Unsatisfactory | — | 1 | — | 1 | — | 10 | — | — | — | — |

Thirty-five midwives cannot take the temperature or pulse of their patients.

Fees.

There has been lately a feeling that the midwives' fees of 35/- and £2 2s. 0d. for multiparae and primiparae respectively are too high. Surely when it is considered how much more it costs to train as a midwife, the hours she may have to spend with her patient at the confinement, and the ten days daily visit of attention, which takes, at the least, one hour, the charge is not excessive.

Malpractice.

During the year two cases of malpractice were reported to the Committee, the midwives in each case being censured and warned.

Notifications under C.M.B. Rules.

Table showing number and nature of notifications received during 1921 :—

| | Medical Help. | Still-Births. | Death of a Child. | Laying out of the Dead. | Ophthalmia Neonatorum. | Source of Infection. | Artificial Feeding. |
|-----------|---------------|---------------|-------------------|-------------------------|------------------------|----------------------|---------------------|
| Trained | 634 | 97 | 6 | 26 | 25 | 10 | 58 |
| Untrained | 190 | 13 | 1 | 4 | 4 | — | 2 |

Births, &c., Visitations by Health Visitors.

Under the Notification of Births Act the visiting of births has been carried out as in previous years. All cases notified to the Chester Office have been written out on special forms and sent on daily to the Health Visitors of the district to which they belong. Cases attended by untrained midwives are visited as soon as possible after the birth, and those attended by a Doctor or a trained midwife are visited after the tenth day.

The Health Visitors send fortnightly to the County Medical Officer a report of every baby visited and re-visited. A duplicate of each form is kept and filed.

The number of visits to notified babies under one year has worked out at an average of five visits per child. As home visiting is the most important branch of the Health Visitors' Child Welfare Work it is disappointing to find the average number of visits per child is decreasing. Although from time to time smaller areas have been allotted to each nurse her work goes on increasing.

It is very gratifying to find how welcome the visits of the nurses are to the mothers. The tact and womanly sympathy, apart from their knowledge, that they have shown in their work is very evident from the way the mothers waylay them and seek their advice on all subjects pertaining to their children.

The following is a summary of visits paid by the Lady Assistant Medical Officer and Health Visitors during 1920 :—

| | | | |
|---|-----|-----|--------|
| First visits to infants under 1 year | ... | ... | 7,153 |
| Re-visits to children under 1 year (ophthalmia, &c.) | ... | ... | 36,984 |
| Re-visits to children over 1 year | ... | ... | 33,025 |
| Still-births and death enquiries | ... | ... | 652 |
| Visits to midwives | ... | ... | 931 |
| Visits to expectant mothers | ... | ... | 1,369 |

During 1921 the County became responsible for the Maternity and Child Welfare in Chester, Tarvin and Malpas Rural Areas. On this account two additional Health Visitors were appointed. The Staff now consists of a Lady Assistant Medical Officer, 30 whole-time Health Visitors and one part-time Visitor (Stalybridge). With three exceptions (Health Visitors at Stalybridge and Dukinfield) each Health Visitor is responsible for the visiting of all children under 5 years of age, the Schools and School children, tuberculosis cases, and attendance at the Tuberculosis Dispensaries and Maternity and Child Welfare Centre in her particular area.

Method of Feeding.

The following table shows the method of feeding of children over six months and under one year old. There were 1,134 rural cases and 1,516 urban cases :—

| | BREAST. | | | | | MIXED. | | | | | ARTIFICIAL. | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| | 1917 % | 1918 % | 1919 % | 1920 % | 1921 % | 1917 % | 1918 % | 1919 % | 1920 % | 1921 % | 1917 % | 1918 % | 1919 % | 1920 % | 1921 % |
| 1st Month— | | | | | | | | | | | | | | | |
| Rural | 78 | 81 | 84 | 84 | 81 | 4 | 3 | 3 | 2 | 4 | 18 | 16 | 13 | 14 | 15 |
| Urban | 80 | 82 | 83 | 77 | 80 | 4 | 3 | 2 | 4 | 5 | 16 | 15 | 15 | 19 | 15 |
| 2nd Month— | | | | | | | | | | | | | | | |
| Rural | 76 | 80 | 80 | 81 | 78 | 5 | 3 | 3 | 3 | 5 | 20 | 17 | 17 | 16 | 18 |
| Urban | 76 | 80 | 76 | 70 | 76 | 5 | 4 | 4 | 5 | 7 | 19 | 16 | 20 | 25 | 17 |
| 3rd Month— | | | | | | | | | | | | | | | |
| Rural | 73 | 79 | 74 | 77 | 74 | 5 | 5 | 6 | 4 | 7 | 22 | 17 | 20 | 19 | 20 |
| Urban | 72 | 73 | 70 | 65 | 72 | 6 | 5 | 6 | 6 | 9 | 22 | 19 | 24 | 29 | 21 |
| 4th Month— | | | | | | | | | | | | | | | |
| Rural | 70 | 75 | 70 | 70 | 70 | 6 | 5 | 7 | 7 | 9 | 24 | 20 | 23 | 23 | 23 |
| Urban | 69 | 72 | 65 | 63 | 67 | 6 | 6 | 6 | 6 | 10 | 25 | 22 | 29 | 31 | 24 |
| 5th Month— | | | | | | | | | | | | | | | |
| Rural | 69 | 74 | 66 | 69 | 67 | 6 | 5 | 8 | 7 | 9 | 25 | 21 | 26 | 24 | 24 |
| Urban | 66 | 68 | 62 | 60 | 65 | 6 | 7 | 6 | 7 | 10 | 27 | 25 | 32 | 33 | 25 |
| 6th Month— | | | | | | | | | | | | | | | |
| Rural | 68 | 73 | 63 | 67 | 66 | 6 | 5 | 9 | 8 | 9 | 26 | 22 | 31 | 25 | 25 |
| Urban | 63 | 67 | 60 | 58 | 64 | 7 | 7 | 7 | 8 | 10 | 30 | 26 | 33 | 34 | 26 |

Owing to much unemployment more mothers have been anxious to feed their babies naturally and the percentage is slightly higher in 1921 than in 1920. It has been a help to be able to give milk to some nursing mothers, but as only £2,000 was granted for free milk it has been possible to help only in extreme cases of poverty.

The method of feeding till six months old and health of child at twelve months is shown below (5,861 cases) :—

| | | HEALTH. | | |
|------------|-------------|---------|-------|-------|
| | | Good. | Fair. | Poor. |
| | | % | % | % |
| Breast | { Rural ... | 86 | 13 | 1 |
| | { Urban ... | 87 | 12 | 1 |
| Mixed | { Rural ... | 78 | 16 | 6 |
| | { Urban ... | 74 | 24 | 2 |
| Artificial | { Rural ... | 63 | 34 | 3 |
| | { Urban ... | 65 | 31 | 4 |

Health of Infants.

The illnesses from which the children 1—2 years of age have suffered during the first year of life are shewn in the following table and age at which they suffered from these illnesses :—

| | Total. | Birth | 3 months | 6 months | 9 months |
|---------------------|----------|-----------|-----------|-----------|------------|
| | | to | to | to | to |
| | | 3 months. | 6 months. | 9 months. | 12 months. |
| | | % | % | % | % |
| Respiratory Disease | ... 12% | ... 1 | ... 3 | ... 6 | ... 2 |
| Convulsions | ... 1% |1 |2 |4 |3 |
| Diarrhœa | ... 7% |5 | ... 1.5 | ... 2 | ... 3 |
| Measles | ... 2.5% |05 |4 | ... 1 | ... 1 |
| Whooping Cough | ... 6% |5 |5 | ... 2 | ... 3 |
| Marasmus | ... 2% |5 |6 |4 |5 |

This table is interesting as showing how many children come successfully through those illnesses when compared with a table lower down showing the number who succumb to them.

Health of the Older Children.

In the following table the health of the children at two years, at three years, and those at four years who have been visited in 1921 is shown (method of feeding during first six months of life) :—

| Feeding. | Health. 2 years. 4148 children. | | | Health. 3 years. 3237 children. | | | Health. 4 years. 2566 children. | | | |
|-------------|---------------------------------------|-------|-------|---------------------------------------|-------|-------|---------------------------------------|-------|-------|--|
| | Good. | Fair. | Poor. | Good. | Fair. | Poor. | Good. | Fair. | Poor. | |
| | % | % | % | % | % | % | % | % | % | |
| Breast— | | | | | | | | | | |
| Rural ... | 84 | 14 | 2 | 82 | 17 | 1 | 80 | 16 | 4 | |
| Urban ... | 86 | 12 | 2 | 83 | 15 | 2 | 81 | 18 | 1 | |
| Mixed— | | | | | | | | | | |
| Rural ... | 76 | 21 | 3 | 75 | 22 | 3 | 78 | 16 | 6 | |
| Urban ... | 74 | 22 | 4 | 70 | 28 | 2 | 74 | 24 | 2 | |
| Artificial— | | | | | | | | | | |
| Rural ... | 72 | 25 | 3 | 68 | 30 | 2 | 63 | 34 | 3 | |
| Urban ... | 67 | 27 | 5 | 60 | 36 | 4 | 65 | 31 | 4 | |

When comparing the above figures with those of 1920 the percentage of children in good condition is decidedly lower in all these classes. In so many homes the children have not been able to have sufficient food. There have been fewer mothers going out to work in the industrial parts of the County. It can easily be proved that poverty affects the health of the children much more than the absence of the mother from the home.

The illnesses from which these children aged 1—2 years, 2—3 years of age, and 3—4 years of age respectively are as follows :—

| | 2 years % | 3 years % | 4 years % |
|--------------------------|--------------|--------------|--------------|
| Respiratory Diseases ... | 6 | 3 | 1 |
| Measles ... | 1.5 | 3 | 3 |
| Convulsions ... | .1 | .1 | — |
| Diarrhœa ... | 3 | .8 | .7 |
| Whooping Cough ... | 7 | 6 | 5 |
| Chicken Pox ... | 1 | 1 | .07 |
| Scarlet Fever ... | .02 | .02 | .01 |

Of the children between 1—4 years of age who suffered from bronchitis 9 per cent. of them had repeated attacks.

There have been several epidemics of measles and whooping-cough, especially in the autumn of 1921. During the summer of 1921 there were a few more cases of diarrhœa than there have been since the work started in 1916, but there was no epidemic to cause any alarm. July was a dry hot month, but August and September had a considerable amount of rain.

Signs of rickets (early and late) were noted in 6 per cent. of the children between 1—4 years of age (5 per cent. slight and 1 per cent. marked).

Deaths of Infants under 1 year.

Table giving particulars of deaths of 272 children under 1 year and over 10 days old:—

| | Method of Feeding. | 10 days to 3 months | 3 months to 6 months | 6 months to 9 months | 9 months to 12 months |
|-----------------------|--------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| Respiratory Diseases | Breast | 18 | 7 | 11 | 9 |
| | Artificial | 6 | 15 | 18 | 6 |
| Convulsions | Breast | 14 | 3 | — | 1 |
| | Artificial | 10 | 3 | 5 | 2 |
| Marasmus | Breast | 1 | 1 | — | 1 |
| | Artificial | 8 | 4 | 1 | 1 |
| Whooping Cough | Breast | 4 | 5 | 3 | 2 |
| | Artificial | 1 | 2 | 1 | 2 |
| Gastro Enteritis | Breast | 6 | 2 | — | 1 |
| | Artificial | 8 | 8 | 5 | 4 |
| Malformation | Breast | 3 | 1 | — | — |
| | Artificial | 5 | — | — | — |
| Meningitis | Breast | — | 3 | 1 | 2 |
| | Artificial | 4 | 2 | 1 | 1 |
| Debility | Breast | 8 | — | — | — |
| | Artificial | 4 | — | — | — |
| Tabes Mesenterica | Artificial | 4 | 1 | 1 | — |
| Tubercular Meningitis | Breast | — | 1 | 1 | — |
| Diphtheria | Breast | — | — | 1 | — |
| Syphilis | Breast | 5 | 1 | — | — |
| Collapse (Operation) | Artificial | — | 1 | — | — |
| Prematurity | Breast | 5 | — | — | — |
| | Artificial | 11 | — | — | — |
| Nitis-susception | Breast | — | — | 1 | — |
| Scalds | Breast | — | — | — | 1 |
| Pyloric Stenosis | Artificial | — | 1 | — | — |
| Asphyxia (Inquest) | Breast | — | 1 | — | — |
| Starvation (Inquest) | Artificial | 1 | — | — | — |
| Tubercular Glands | Artificial | — | 1 | — | — |
| | | 126 | 63 | 50 | 33 |

Table giving some particulars of deaths of 107 children between 1 year and 5 years occurring during 1921:—

| | Total. | 1 year to 2 years. | 2 years to 3 years. | 3 years to 4 years. | 4 years to 5 years. |
|-----------------------|--------|-----------------------|------------------------|------------------------|------------------------|
| Respiratory Diseases | 50 | 40 | 5 | 3 | 2 |
| Convulsions | 6 | 6 | — | — | — |
| Whooping Cough | 2 | 2 | — | — | — |
| Gastro-Enteritis | 9 | 6 | 3 | — | — |
| Marasmus | 1 | 1 | — | — | — |
| Meningitis | 10 | 7 | 2 | 1 | — |
| Tubercular Meningitis | 7 | 3 | 2 | 2 | — |
| Tabes Mesenterica | 3 | 3 | — | — | — |
| Diphtheria | 1 | 1 | — | — | — |
| Membranous Croup | 1 | 1 | — | — | — |
| Accidental Death | 1 | — | — | — | 1 |
| Burnt or Scalded | 6 | 4 | 2 | — | — |
| Appendicitis | 4 | 1 | 2 | — | 1 |
| Laryngitis | 2 | 2 | — | — | — |
| Scarlet Fever | 3 | — | 3 | — | — |
| Mastoiditis | 1 | — | — | 1 | — |

Table giving some particulars of deaths of 123 children aged 10 days or less :—

| | | | | |
|---------------------|-----|-----|-------|----------------------------|
| Premature birth | ... | ... | 52—19 | births attended by Doctor. |
| | | | 33 | Midwife. |
| Difficult labour | ... | ... | 9—9 | Doctors' cases. |
| Atelectasis | ... | ... | 2—1 | case. |
| | | | 1 | Midwife's case. |
| Feebleness | ... | ... | 22—13 | Doctors' cases. |
| | | | 9 | Midwives' cases. |
| Convulsions | ... | ... | 19—10 | Doctors' cases. |
| | | | 9 | Midwives' cases. |
| Suffocation | ... | ... | 1—1 | Midwife's case (Inquest). |
| Malformation | ... | ... | 13—10 | Doctors' cases. |
| | | | 3 | Midwives' cases. |
| Internal Hemorrhage | ... | ... | 2—1 | Doctor's case. |
| | | | 1 | Midwife's case. |
| Neglect at Birth | ... | ... | 1—1 | Midwife's case (Inquest). |
| Syphilis | ... | ... | 2—2 | Doctors' case. |

In four of the above cases the mother had been working in a factory and two other mothers had followed other occupations during pregnancy. Eight of these infants were of illegitimate birth. Among the above deaths there were six twin babies.

Still-births.

The following table gives some particulars of 150 still-births that have been enquired into :—

| | | | | | |
|---|-----|-----|-----------|-----|----|
| History of Shock, fright or accident... | 17 | ... | Premature | ... | 8 |
| | | | Full-time | ... | 9 |
| Born before arrival | ... | ... | Premature | ... | 11 |
| | | | Full-time | ... | 4 |
| Malformation of child | ... | ... | | ... | — |
| Placenta Prævia | ... | ... | | ... | — |
| Antepartum Hemorrhage... | ... | ... | | ... | — |
| History of Ill-health of Mother | ... | ... | Premature | ... | 11 |
| | | | Full-time | ... | 8 |
| Malpresentation or difficult labour | ... | ... | | ... | 48 |
| No known cause | ... | ... | Premature | ... | 19 |
| | | | Full-time | ... | 13 |
| Eclampsia | ... | ... | Premature | ... | 4 |
| | | | Full-time | ... | 2 |
| Hydroamnios | ... | ... | Premature | ... | — |
| Cord round neck | ... | ... | Full-time | ... | 1 |

In four cases the still-births were illegitimate births. Forty-five cases occurred in primiparæ. In 19 cases there was a previous history of more than one miscarriage or still-birth and in 12 cases a history of one miscarriage or still-birth. In 10 cases of the 12 the still-birth occurred in the 2nd pregnancy so that the mother had not given birth to a live child. In 26 cases the child was said to be decomposed. Of the 150 mothers, 12 of them worked in a factory during pregnancy and five others followed other occupations.

Expectant Mothers.

During 1921 there were 1,369 visits and re-visits paid to expectant mothers. Of the 407 cases that were visited during 1921 (the baby being born within that year) the following are interesting points that have been noted :—

| | Good. | Fair. | Poor. |
|------------------|-------|-------|-------|
| Health of mother | 70% | 26% | 4% |

Six per cent. of the mothers were advised to seek medical aid, one per cent. of whom were advised on account of passing a scanty amount of urine; 24 per cent. suffered from constipation; 54 per cent. had carious teeth, and in 24 per cent. of the cases the teeth were noted to be in a very bad condition. Twenty-four women had a set or sets of artificial teeth.

Of the babies born of these mothers the following may be noted :—

| | | |
|-------------------|---|-----------------------|
| 90% Normal | { | 80% Breast fed. |
| | | 22% Artificially fed. |
| 3% Not strong. | | |
| 3.5% Still-born. | | |
| .5% Miscarriages. | | |

Among the 407 cases four of the mothers worked in factories and all their babies were normal.

Of the 19 primiparæ among these 407 mothers, 17 had normal babies, 13 of whom were fed naturally and four artificially; the two weakly babies were artificially fed.

Ophthalmia Neonatorum.

There have been 82 cases of inflammation of or discharge from the eyes in new-born babies notified. Forty-nine of these cases were only slight.

The ages of the infants on the day when the disease started ranged from one day to nine days; most of the cases occurred between the third and fifth days.

In 13 of the cases the birth was attended by doctors and 69 were attended by midwives. Fourteen of the cases attended by midwives were reported by Health Visitors, who also visited the midwife and warned her of her neglect to notify.

Description of cases :—

| | | | |
|-------------------------------|-----|-----|----|
| Slight cases—One eye affected | ... | ... | 5 |
| Both eyes ,, | ... | ... | 44 |
| Severe ,, —One eye ,, | .. | ... | 9 |
| Both eyes ,, | ... | ... | 24 |

All the slight cases recovered. Of the 32 severe cases 31 recovered and one case, where both eyes were affected, recovered with a slight scar on the left eye.

All midwives are now provided by the County with Collosol Argentum in a drop bottle and full instructions as to its use as a preventive of ophthalmia neonatorum.

Illegitimate Children.

Special enquiries have been made into the circumstances of 174 illegitimate children born in 1921 and living in Cheshire. Two of the children died.

In 95 of the cases the mothers were unemployed and in 79 instances they were employed. One hundred and fifty-seven of the homes were found to be quite satisfactory, and in two cases very unsatisfactory. One was put under the N.S.P.C.C. Inspector and in the other case the child was now attending a Day Nursery.

The father was known to be contributing in 92 cases and in 10 cases it was impossible to ascertain. Sixty-four fathers made no contribution to the upkeep of their child. Eight of the fathers had married the mothers.

Ninety-three of the babies were being cared for by the mother herself, 54 by the grandmother, eight by other relatives, one was in an Institution, 13 were cared for by neighbours, three were boarded out, and two adopted.

Maternity and Child Welfare Centres.

During 1921 no new Centres have been opened. It was suggested that Centres should be opened at Hazel Grove and at Sandbach respectively, but the Committee, in view of the Ministry's of Health recommendation not to increase expenditure at the present time, decided not to do so. As explained before each of our 17 Centres, with the exception of Nantwich, have three rooms in use—a large room where the mothers assemble, have talks, tea, &c., a small room where from three to six babies are undressed at a time and weighed, and a doctor's room.

With one exception a local doctor attends each Centre for consultations on the weighing days. The arrangements for the work at the Centres have been the same as in the previous years.

Each Centre has a Voluntary Committee who assist the County Health Visitor. Cheshire is very fortunate in having a band of enthusiastic Voluntary workers who come week after week and assist at the Centres.

In some Centres the same difficulty is still experienced, as before, in getting the mothers educated to the necessity of undressing their babies. In other Centres there is no difficulty because the Doctor and Voluntary Workers support the Nurse in this matter.

The amount of dried milk sold at the Centres is rather less than in previous years. There is no doubt that dried milk is a great boon to mothers who have no proper place to keep fresh milk.

The Mothers' welcome at Utkinton, maintained by one lady, continues to do good work among the mothers of that village. Its popularity is evident by the fact that every mother attends.

During 1921 the Cheshire Gold Cross Society met three times. As explained in a previous Report the object of this Society is to bring the Voluntary Workers together to discuss difficulties arising in the working of the Centres and exchange ideas. The Annual Meeting was to have been held in June, 1921, at Chester. Each Centre had arranged to send one or two charabancs with mothers to see an Exhibition but it had to be abandoned on account of the Coal Strike.

The Gold Cross Society's Shield which is competed for by the Centres annually was won in 1920-1921 by Marple Centre for the second year in succession.

At Hoylake and District Centre a Shield is competed for annually by the School Girls under 14 years of age attending the various Schools in the district. In 1921 this Shield was won by the girls attending Moreton Church of England School for the best set of first baby clothes.

Attendances at Centres.

| | Hoylake. | Runcorn. (2 days) | Sale. | Stalybridge. (2 days) | Nantwich. | Utkinton. | Whaley Bridge. | Marple. | Heswall. |
|---|----------|----------------------|-------|--------------------------|-----------|-----------|-------------------|---------|----------|
| consultations held ... | 1431 | 833 | 1099 | 2679 | 855 | — | 185 | 448 | 646 |
| Total Attendances made ... | 2720 | 2493 | 3102 | 5374 | 1504 | 225 | 452 | 602 | 646 |
| Average Attendance per Meeting .. | 55 | 25 | 66 | 56 | 31 | 9 | 20 | 24 | 30 |
| Attendances made by Ante-natal Mothers | 184 | 18 | 34 | 91 | 15 | 21 | 6 | 20 | 32 |

| | Congleton. | Dukinfield. (2 days) | Higher Bebington. | Lymm. | Neston. | Bollington. | Northwich Rural. | Disley. |
|---|------------|-------------------------|----------------------|-------|---------|-------------|---------------------|---------|
| Consultations held ... | 765 | 1394 | 463 | 387 | 705 | 537 | 489 | 252 |
| Total Attendances made ... | 1103 | 4126 | 1257 | 635 | 2161 | 615 | 1145 | 314 |
| Average Attendance per Meeting ... | 20 | 44 | 52 | 13 | 44 | 25 | 23 | 14 |
| Attendances made by Ante-natal Mothers | — | 12 | 22 | 17 | 10 | — | 5 | — |

Table shewing work of Health Visitors under the Maternity and Child Welfare Scheme:—

| Name. | Expectant Mothers. | | Babies under 1 year. | | No. of Visits to Children 1—5. |
|------------------------|--------------------|----------------|----------------------|----------------|---|
| | 1st Visits. | Re- Visits. | 1st Visits. | Re- Visits. | |
| Nurse E. S. Taylor ... | 7 | 21 | 151 | 988 | 685 |
| „ Reynolds ... | 1 | 4 | 174 | 1041 | 819 |
| „ Davies ... | 15 | 7 | 208 | 1297 | 761 |
| „ Willis ... | 51 | 85 | 318 | 1381 | 527 |
| „ Howard ... | 47 | 24 | 222 | 633 | 1693 |
| „ Owen ... | — | — | 341 | 1721 | 1326 |
| „ Ross ... | 34 | 13 | 231 | 792 | 752 |
| „ Rushton ... | 5 | 3 | 429 | 2169 | 1766 |
| „ Hanson ... | 9 | 19 | 306 | 2707 | 2055 |
| „ Jones ... | 15 | 30 | 166 | 994 | 601 |
| „ Turcan ... | 35 | 105 | 164 | 674 | 508 |
| „ Rose ... | 18 | 4 | 182 | 1326 | 1000 |
| „ Carr ... | 38 | 23 | 292 | 1002 | 947 |
| „ Carden ... | 14 | 18 | 209 | 678 | 1016 |
| „ M. Wilkinson... | 25 | 16 | 226 | 1806 | 1707 |
| „ Dickson ... | 21 | 45 | 187 | 1592 | 780 |
| „ Dobie ... | 29 | 42 | 130 | 537 | 739 |
| „ Meadows ... | 14 | — | 256 | 1059 | 1355 |
| „ Venables ... | 25 | 51 | 236 | 2130 | 1537 |
| „ L. E. Taylor ... | 10 | 6 | 198 | 1359 | 710 |
| „ Merry ... | 45 | — | 261 | 1261 | 1863 |
| „ Wells ... | 39 | 14 | 193 | 797 | 837 |
| „ Smith ... | — | — | 139 | 691 | 945 |
| „ Fox ... | 6 | 4 | 107 | 483 | 688 |
| „ Pritchard ... | 15 | 48 | 354 | 1694 | 950 |
| „ Esmé Owen ... | 15 | 24 | 328 | 1552 | 1190 |
| „ Bradley ... | 3 | 11 | 154 | 521 | 726 |
| „ Stead ... | 9 | 14 | 101 | 207 | 633 |
| „ G. Wilkinson... | 29 | 14 | 402 | 1002 | 1044 |
| „ Barker ... | 26 | 45 | 129 | 1546 | 859 |
| „ Finger ... | 49 | 25 | 359 | 1350 | 2006 |
| Totals ... | 649 | 720 | 7153 | 36984 | 33025 |

Stalybridge Ante-natal Clinic.

The following is a Report of the Ante-natal Clinic at Stalybridge by the Medical Officer, Dr. Corfield.

When he resigned the Committee decided that the general practitioners in the town should do this work. So far no nomination has been made and no Ante-natal Clinic has been held for some months.

If the general practitioners were willing an arrangement could easily be made whereby each doctor could see his ante-natal patients at the Centres on certain fixed days.

DR. CORFIELD'S REPORT.

In submitting a report on the last year's working of the Ante-natal Clinic I might say that I took over the work from Dr. Lacey on July 7th, 1920. The previous year's attendance as far as I can gather averaged about three patients per session. I am pleased to report that these figures have been slightly improved upon during the past year in that the average attendance worked out at 5.5 per session.

Patients are now coming forward voluntarily, showing that the Clinic is becoming more generally known.

One hundred and thirty individual Ante-natal cases have been dealt with.

There is always a little difficulty in starting these Clinics as it takes some time for the public to realise that they are instituted for their benefit.

The progress in Stalybridge compares favourably with that of other similar Clinics, but one would expect a rather larger attendance in a town with such a large industrial population.

The class of cases dealt with has been a good one in that they have all been genuine sufferers, and I am glad to say, have, without exception, benefited by their attendance at the Ante-natal Clinic.

Of the 130 cases reported, 86 after examination were passed as normal, and were eventually delivered without complication.

Eleven cases were of small measurement, the patients' medical man was notified of the condition. Subsequent instrumental history proved the usefulness of the Clinic.

In three cases hospital was advised, one for instrumental delivery and one for Caesarean section. In both cases the advice was acted upon and the necessity of same proved, one being admitted to St. Mary's and one to the Ashton Hospital.

Fifteen cases were gynæcological, and sent forward for further treatment to the Northern Hospital for Women and Children, Manchester. All were successfully dealt with and years of suffering prevented.

One advanced heart disease was notified to patient's medical man, case subsequently died three weeks after delivery.

Eight cases with definitely bad prognosis (pelvic abnormalities) were notified to their respective medical men. Subsequent history confirmed the great usefulness of the Clinic.

One case was purely a surgical condition and referred to a Surgeon for immediate attention. Case was admitted to Ashton Infirmary at once.

One case resided out of the district and was not dealt with.

Two venereal cases presented themselves and were dealt with accordingly.

Two cases kept under observation and relief for malnutrition.

SUMMARY.

| | | | | |
|---|-----|-----|-----|----|
| Normal cases | ... | ... | ... | 86 |
| Small measurement | ... | ... | ... | 11 |
| Sent to hospital for delivery | ... | ... | ... | 3 |
| Gynæcological cases | ... | ... | ... | 15 |
| Heart disease | ... | ... | ... | 1 |
| Definite pelvic abnormalities, rickets, T.B., &c. | ... | ... | ... | 8 |
| Surgical | ... | ... | ... | 1 |
| Out of district | ... | ... | ... | 1 |
| Venereal disease | ... | ... | ... | 2 |
| Malnutrition | ... | ... | ... | 2 |

130

I consider the year's work very satisfactory and am sure that with the continued loyal support of the Midwives and Nurses, who have already done so much, we can confidently look forward to a very much busier coming year.

C. RUSSELL CORFIELD, M.D.,

Medical Officer of Clinic.

Section VI.—Miscellaneous.

Housing.

There has been a considerable amount of good work done by Local Authorities throughout the County in the inspection of existing houses and in securing the remedy of undesirable conditions.

The Table I append gives an indication of the steps which have been taken to remedy the housing shortage. It is some satisfaction to be able to record the fact that 539 houses have been provided under the Ministry's housing schemes during the year. The side of this question which is far from satisfactory is the high cost of these houses and the consequent very high rental which has had to be fixed in order to make them an economic proposition. In one district I am informed the rent had to be fixed at such a high figure that some of the houses are still untenanted.

Private enterprise has led to the building of some 825 houses a fair number of which have been "subsidy" houses.

The Local Authorities which have been particularly active in the provision of houses are Congleton M.B., Hyde M.B., Altrincham U.D., Bredbury and Romiley U.D., Cheadle and Gatley U.D., Ellesmere Port and Whitby U.D., Lymm U.D., Middlewich U.D., Northwich U.D., Wilmslow U.D., Congleton R.D., Macclesfield R.D., Northwich R.D. and Runcorn R.D.

Private enterprise would seem to have been most active in the Urban areas of Lower Bebington, Bollington, Bromborough, Hale, Hazel Grove and Bramhall, Hoyle and West Kirby, Wilmslow and the Rural districts of Bucklow, Chester, Macclesfield, Nantwich, Northwich and Wirral.

My own view is that we shall have to look to private enterprise for the relief of the housing shortage which has only been mitigated and not cured so far as this County is concerned. And until we do get a complete remedy effected we are to some extent at all events wasting money on the treatment of tuberculosis and on the amelioration of a number of other social evils.

Number of new houses erected during 1921 :—

| District. | No. of New Houses erected during 1921. | |
|--------------------------------------|--|--|
| | Total. | As part of a Municipal Housing Scheme. |
| Congleton M.B. | 19 | 14 |
| Crewe M.B. | ...Not stated: 69 Housing Cer- tificates granted. | |
| Dukinfield M.B. | | Nil. |
| Hyde M.B. | 45 | 34 |
| Stalybridge M.B. | 2 | — |
| Alsager U.D. | 2 | — |
| Altrincham U.D. | 19 | 16 |
| Higher Bebington | 2 | — |
| Lower Bebington | 27 | — |
| Bollington U.D. | 23 | — |
| Bowdon U.D. | 6 | — |
| Bredbury and Romiley U.D. | 5 | 39 in course of erection. |
| Bromborough | 38 | — |
| Cheadle and Gatley U.D. | 30 | 122 in course of erection. |
| Compstall U.D. | 3 | — |
| Ellesmere Port U.D. | 48 | 47 |
| Hale U.D. | 28 | — |
| Handforth U.D. | | Not stated. |
| Hazel Grove and Bramhall U.D. | 47 | — |
| Hollingworth U.D. | | Not stated. |
| Hoole U.D. | 1 | — |
| Hoylake and West Kirby U.D. | 33 | — |
| Knutsford U.D. | 2 | — |
| Lymm U.D. | 50 | 30 |
| Marple U.D. | 6 | — |
| Middlewich U.D. | 12 | 12 |
| Mottram-in-Longdendale U.D. | | Nil. |
| Nantwich U.D. | | Nil. |
| Neston and Parkgate U.D. | 9 | — |
| Northwich U.D. | 12 | 12 |
| Runcorn U.D. | 59 | — |
| Sale U.D. | | Not stated. |
| Sandbach U.D. | 2 | 6 |
| Tarporley U.D. | — | — |
| Yeardsley-cum-Whaley U.D. | | Not stated. |
| Wilmslow U.D. | 68 | 36 |
| Winsford U.D. | 11 | 10 |
| Bucklow R.D. | 20 | — |
| Chester R.D. | 22 | — |
| Congleton R.D. | 32 | 28 |
| Disley R.D. | 4 | 4 |
| Macclesfield R.D. | 55 | 23 |
| Malpas R.D. | 28 | 26 |
| Nantwich R.D. | 15 | — |
| Northwich R.D. | 282 | 66 |
| Runcorn R.D. | 56 | 32 |
| Tarvin R.D. | 10 | 8 |
| Tintwistle R.D. | | Nil. |
| Wirral R.D. | 149 | — |

In most districts the housing inspection has been active, but in several it is noticeable that the Local Authorities have

been somewhat slow in putting into action the powers to compel repairs with which they are abundantly endowed.

In the Borough of Dukinfield a new housing scheme is said to have been held up by the Housing Commissioners and in the Neston and Parkgate U.D. the failure to carry out a municipal housing scheme over which the Council devoted much time is stated to have been "due entirely to the lack of action by the Central Authority." Although houses are urgently needed there is said to have been "a considerable wastage of public money and no houses were built." The Northwich Rural District Council have been particularly active in this respect.

Milk Supply.

Not quite so many instances have occurred of tuberculous milk from Cheshire farms being discovered in Manchester, Liverpool, &c. At those farms which I have inspected the old faults of defective lighting, ventilation and cleanliness were still apparent. The remedy of defects in lighting and ventilation is still an expensive matter and one does not care to press for serious structural alterations. But cleanliness is less costly and no excuse should be accepted for its absence. It is the cardinal virtue of the production and distribution of milk.

I regard the policy of the Ministry of Health in the grading of milk as radically wrong. Any milk which is specially labelled under licence from the Ministry will naturally be sold at a higher price than other milk and this price will probably be such as the poorer classes cannot afford. The poor will thus continue to get milk of the same quality as before and will derive no benefit from the new Act except possibly that they will not have their milk quite so much infected with tuberculosis or coloured with annatto or fortified with dried or condensed milk.

Local Authorities have already got ample powers to ensure a clean milk supply: with few exceptions in this County—which ought to lead in such a matter—these powers are not used as they should be. The reason given to me in several districts is that where farmers and estate agents are strongly represented on a District Council it is difficult for the officials concerned to press for such amendments of undesirable conditions as they feel are really required and they have to be content with a lower standard than they know to be the proper one. I have only hearsay evidence for this, but to be quite candid I do not disbelieve it. In my experience the bodies which do most good with defaulting farmers in this County are

the large Corporations such as Manchester and Liverpool acting under what are known as the "model milk clauses" of their Special Acts. And I always feel that it is a distinct reproach when foreign Authorities such as those named have to step in and put our farms in order for us. The County Council of course have no direct powers in this matter or things might be different. The Milk and Dairies (Amendment) Bill proposes to authorise the transfer of the powers and duties of a defaulting Local Authority to the County Council, but one has come to regard provisions of this sort as more or less empty threats which will not materialise unless some egregious and persistent negligence can be demonstrated.

Water Supply.

There are still many districts in parts of which the supply of water is inadequate. In Buglawton U.D. it is insufficient in Rainow, Havannah and Higher Dane-in-Shaw: the higher parts of Bollington U.D. (Kerridge) are badly supplied: there is no proper supply in Marple U.D. (Dooley Lane), Bucklow R.D. (Mobberley and Carrington), Congleton R.D. (Mow Cop, Mount Pleasant, Mow Bank, Hassall Green and part of Astbury), Disley R.D. (Higher Disley), Nantwich R.D. (Audlem and a number of surrounding townships), and Northwich R.D. (Allostock, Byley, Whatcroft, Marbury, Cogshall, &c.)

There is need of improvement in the Borough of Macclesfield and in the Nantwich U.D.

Extensions have recently taken place in the Chester R.D. at Mollington, in the Runcorn R.D. at Halton, Stockton Heath and Great Budworth, in the Northwich R.D. at Weaverham (Owley Wood) and Rudheath and further extensions are being pressed forward for the townships of Winnington, Barnton, Anderton, Little Leigh, Comberbach, Cogshall and Marbury. Some extensions have also been carried out in the townships of Moreton and Irby (Wirral R.D.) .

Sewerage and Sewage Disposal.

There has not been a great deal of work done under this heading during the year presumably because of the high cost of labour and materials.

New disposal works have been carried out in the Northwich R.D. for 250 new houses at Owley Wood, Weaverham, and plans have been prepared for new works for 455 houses at Rudheath. In the Wirral R.D. extensions of sewers have been carried out at Frankby, Prenton, Noctorum, Moreton, Willaston and Gayton.

In Congleton R.D. a system of sewerage and sewage disposal is needed for Thurlwood, Mow Bank, Wheelock and Holmes Chapel and in the Nantwich R.D. similar schemes are required for Shavington and Bunbury and for parts of Audlem, Stapeley and Wybunbury.

Newtown in the Disley R.D. also stands in similar need and there are several other villages in the Tarvin R.D. (notably Farndon and Tattenhall), Chester R.D. (Great Saughall) and in the Runcorn R.D. (Kingsley) where action to this end will shortly have to be pressed.

Rivers Pollution.

This part of my work is rapidly increasing and though I have only three main watersheds to watch (the Dee, the Dane and the Weaver) the amount of time which has to be spent in so doing is a serious item. The River Dane is one which is open to sudden pollution by colour works, chemical works and bleach and dye works and despite arrangements I have made locally for information to be transmitted to me immediately any obvious pollution takes place it is a very difficult matter to detect offenders. Some of these pollutions occur suddenly and all traces of them have disappeared in an hour or less. The damage done by them is sometimes such that it cannot be repaired for many months.

The River Dee which is the source of water supply to the City of Chester and a large area of the County in this neighbourhood is polluted in numerous ways. The following is a fairly complete list of actual or potential pollutions:—

- Corwen sewage,
- Llangollen sewage and refuse,
- Chemical Works, Acrefair,
- Wynnstay Colliery,
- Terra Cotta Works, Trefynant,
- Bangor-on-Dee sewage,
- Wrexham sewage,
- Holt sewage,
- Farndon sewage,
- Chester Gas Works,
- Chester sewage,
- West Saltney sewage,
- Shotton sewage,
- Connah's Quay sewage,
- Summers Ironworks (Shotton).
- North Wales Paper Mills,
- Courtald's Works (Flint),

Holywell Mercerisers Co. effluent.
 Malpas sewage effluent,
 Edge—cattle market and house drainage,
 Great Saughall sewage,
 Pulford sewage works effluent,
 Aldford sewage works effluent,
 Eccleston Ferry sewage works effluent,
 Eccleston Village sewage works effluent,
 Tattenhall (creamery and house drainage),
 Piper's Ash sewage (21 houses),
 Churton-by-Farndon sewage,

This is a formidable enough list and unfortunately most of the serious pollutions are outside the Administrative County. In my opinion nothing but the formation of a Joint Committee with powers similar to those possessed by the Mersey and Irwell Joint Committee will be effective in controlling these sources of pollution.

The question of the disposal of waste from cheese factories and creameries is one which has always been a difficult one. With creamery waste the chief trouble is that the greatest quantity of strong sewage is turned out during the summer months when the streams receiving it are usually at their lowest flow.

The usual method of disposing of waste of this kind is by means of septic tanks and open bacteria beds. The septic tanks are generally a source of great nuisance owing to the smell which originates in them and even covering them with boards, &c., does not mitigate this nuisance sufficiently. Sludge removal and disposal is also attended by considerable nuisance though when it is done during the winter months this is not such a serious matter.

Experiments at Ballyrashane in Ireland have shewn that the activated sludge process can deal with creamery waste whether containing whey or not in an effective manner without any fear of nuisance and so as to comply with the standards suggested by the Royal Commission on sewage disposal provided this process is combined with septic tank or bacterial filtration methods.

The problem of the disposal of ammonium sulphate spent liquor continues unsolved. Quite a number of suggestions have been made but all have failed to give universal satisfaction. The activated sludge process as tried experimentally at Birchenwood Colliery under the supervision of the County Analyst promised exceedingly well, but unfortunately War

conditions compelled the experiments to be abandoned. Further experiments on this and other lines are badly needed and should be carried out. The problem affects a huge number of industries in this country and this coupled with the injurious effects of this trade waste on many rivers and streams and on cattle should call for a conference of all those interested.

I am frequently told by manufacturers that our insistence on the purification of trade waste prior to its discharge into streams is a serious handicap to industry and that the sooner we recognise the fact that rivers and streams in industrial areas are meant to be trade sewers the better it will be for the country. Statements of this kind carry their own refutation for instances are all too common of one manufacturer complaining (and with fairness too) that another manufacturer higher up the stream is fouling his natural water supply and ruining his trade. Such arguments as this were all brought forward at the time of the passing of the Rivers Pollution Prevention Acts, but the common sense and justice of Parliament did not allow them to prevent the passing of these Acts. There are many other interests which take precedence over those of the manufacturer—the farmer and the riparian owner to mention only two—and these interests call for protection.

Sanitary Conveniences.

Fair progress has been made in most districts in the abolition of those foul and insanitary structures known as privy-middens. But it is rather deplorable to have to record the fact that there are still 101 in Crewe, 1,501 in Dukinfield, 157 in Hyde, 656 in Stalybridge, 700 in Lymm, 343 in Marple and so on. The Urban districts of Salé and Altrincham are preparing to tackle this problem in a wholesale manner by borrowing money and contributing towards the cost—a plan which will save the ratepayers' money in the end.

At Winsford the problem is complicated by the shortage of water supply but is receiving earnest consideration.

Laboratory Work.

There is practically no district in the County where facilities for the free examination of pathological material is not provided by the District Council. The rapid extension of this most useful service during recent years demonstrates that it is not only a great convenience and help to the general practitioner but that its beneficial effects on the health of the public have been fully realised. One would like to see an extension of it to the examination of material from suspected

malignant disease at least for, as pointed out elsewhere in this Report, this can claim to be a matter affecting the public as well as the individual health. In process of time we shall probably see a wide extension of this system of aiding clinical diagnosis.

Blind Persons Act, 1920.

As this Act has fallen to be administered by my Department a very short account of the scheme now in operation may be given. The number of blind persons in the Administrative County is approximately 410. There are five Home Teaching Societies at work in the County and it has been decided to utilise their valuable services in carrying out the following scheme which was prepared in mid-year 1921 but only came into operation on April 1st, 1922. The scheme is as under and has received the sanction of the Ministry of Health:—

1. That the following duties of the Council under the Act, viz. :—
 - (a) The augmentation of earnings of blind persons, such augmentation to be as far as possible in accordance with the Scale of Grants recommended by the Ministry of Health;
 - (b) The giving of extra relief to persons in receipt of old age pensions in cases where such relief is genuinely required and is not being granted by the Poor Law Guardians;
 - (c) The provisions of tools and equipment for persons who have received training and are about to start to earn their own living;
 - (d) The provision of outfits for persons about to be received into Institutions for training, or travelling expenses of necessitous cases who have to attend Hospitals;
 - (e) The systematic visitation of blind persons in their own homes;
 - (f) The keeping of Records in relation to each blind person as recommended by the Ministry of Health;
 be performed through the agency of the several Voluntary Societies hereafter referred to.

2. That in consideration of such Voluntary Societies performing to the satisfaction of the County Council and the Ministry of Health the duties hereinbefore set out, the County

Council will pay to them respectively a sum calculated at the rate of £2 10s. 0d. per annum for each blind person ordinarily resident within their respective areas as hereinafter defined and in respect of whom such duties are undertaken, such payments to be made by equal quarterly instalments.

3. That the following Societies be the Societies referred to, and the following Areas of the County the Areas in respect of which the duties before-mentioned will be undertaken by such Societies respectively, viz. :—

(a) *Liverpool Society for the Home Teaching of the Blind.*

All the areas in the Wirral north of a line across the Peninsula from Neston to Port Sunlight, excluding Neston and Parkgate Urban District, but including the new district of Higher and Lower Bebington and Bromborough.

(b) *Stockport Society for the Home Teaching of the Blind.*

Marple Urban District (High Lane portion).
 Cheadle and Gatley Urban District.
 Hazel Grove and Bramhall Urban District.
 Bredbury and Romiley Urban District.
 Compstall Urban District.
 Macclesfield Rural District (Woodford portion).

(c) *Ashton-under-Lyne Society for the Home Teaching of the Blind.*

The Municipal Boroughs of Hyde, Dukinfield and Stalybridge.
 Mottram-in-Longdendale Urban District.
 Hollingworth Urban District.
 Tintwistle Rural District.

(d) *Macclesfield Society for the Home Teaching of the Blind.*

Macclesfield Municipal Borough.
 Macclesfield Rural District (except Woodford).
 Disley Rural District.
 Wilmslow Urban District.
 Alderley Edge Urban District.
 Congleton Rural District.
 Bollington Urban District.
 Handforth Urban District.
 Bucklow Rural District (Styal).

(e) *Chester Society for the Home Teaching of the Blind.*

The remainder of the Administrative County.

4. That the County Council be accorded such representation as they may reasonably require upon the Committee or Governing Body of each of the said Societies.

5. That this Scheme shall not apply to blind persons in receipt of assistance by Poor Law Authorities or Local Education Authorities.

6. That each of the said Voluntary Societies shall submit to the County Council within three months from the termination of their respective financial years an audited statement of account showing their receipts and expenditure for such financial year.

7. That this Scheme be subject to termination by the County Council at any time giving six calendar months' Notice in writing to all or any of the Societies expiring on the 30th September or 31st March in any year.

8. That this Scheme operate as from the 1st April, 1922.

It is possible that clause 5 of the above Scheme may be amended so as to permit of assistance being given to blind persons in receipt of out-door relief. As time goes on other modifications may be found desirable. In particular there is urgent need for some institutional accommodation for blind mentally defective persons.

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

County Medical Officer of Health.

October, 1922.

Administrative County of Chester.

SUMMARY

OF

R E P O R T S

OF

District Medical Officers of Health,

FOR THE YEAR

1921.

The following table shows the number of cases of smallpox reported in the County of Chester during the year 1921.

The total number of cases reported during the year 1921 was 1,234.

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Administrative County of Chester

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SUMMARY

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FOR THE YEAR

1921

SUMMARY OF REPORTS

OF

District Medical Officers of Health

FOR THE YEAR 1921.

CONGLETON.

Municipal Borough.

General Statistics.—Population (1921) 11,910. Number of inhabited houses (1921) 2,810. Birth-rate 22.5 Death-rate 12.0. Deaths of infants under one year of age: legitimate 17; illegitimate, 2; total, 19. Infantile mortality rate per 1,000 births (1921) 70.8.

Tuberculosis.—Strictly following out the Tuberculosis Regulations, a person once notified as suffering from tuberculosis remains in the Tuberculosis Register, even though he or she may have completely recovered from pulmonary tuberculosis, or in the case of surgical tuberculosis have been cured by operation a great many years previously; and to keep the register carefully revised as enjoined by the 1921 Regulations, a domiciliary visit must be made each year by the Medical Officer of Health or Sanitary Inspector, and if a case moves into a new district a notification is immediately forwarded to the Medical Officer of that district.

This seemed so unsatisfactory that I wrote to the Chief Medical Officer of the Ministry of Health, who kindly replied most fully on the subject, and, following suggestions made by him, the following procedure has been carried out in Congleton.

(1) Cases of surgical tuberculosis, in which cure has been effected or in which complete arrest of the disease has been observed over a period of, say, three years, are crossed out of the Register if their medical attendants approve.

(2) Cases notified, where diagnosis is afterwards found to have been erroneous, are removed with the consent of the notifying practitioners.

(3) Cases of pulmonary tuberculosis are crossed off if the doctors attending them consider that they are cured, but in no

Congleton Municipal Borough.

case until five years have elapsed from the date of notification, or say three years after symptoms have disappeared.

(4) None of these cases, after having been crossed off, will be reported, in the event of removal from the district.

Sanitary Conveniences.—Conversion of closets: pail closets to water closets, 13; privy middens to water closets, 12; privy middens to pail closets, 42 (in outlying districts).

Number of each type of closet and also of dry ashpits at end of 1921: water closets, 1,089, an increase of 52; pail closets, 2,416, a decrease of 22; privy middens, 73, a decrease of 112; dry ashpits, 39, a decrease of 58.

Housing.—Number of new houses erected during the year:—

(a) Total—19.

(b) As part of a municipal housing scheme—14.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—946.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—122.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—17.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—237.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—63.

Number of dwelling-houses in respect of which notices were served requiring repairs—27.

Number of dwelling-houses which were rendered fit:—

(a) by owners—12.

(b) by Local Authority in default of owners—None.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—None.

Congleton Municipal Borough.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—219.

Number of dwelling-houses in which defects were remedied

(a) by owners—191.

(b) by Local Authority in default of owners—None.

Water Supply.—The extensions carried out during 1921 consist of 380 yards of 3 inch and 480 yards of 6 inch mains laid in Lion Street, Booth Street, Crescent Road and The Crescent.

Number of samples analysed during 1921—chemically, 8; bacteriologically, None.

Congleton Edge and some outlying districts are still without a proper supply of water.

Sewerage.—The new works of sewerage carried out during 1921 consist of 579 yards of 9 inch sewer laid in Crescent Road, The Crescent, Lion Street and Booth Street.

The following parts of your district are still without a proper system of sewers: Astbury Marsh, Dane-in-Shaw, Congleton Edge and West Heath.

CREWE

Municipal Borough.

General Statistics.—Population (1921) 47,210. Number of inhabited houses (1921) 10,589. Births, legitimate, males, 453, females, 445, total, 898; illegitimate, males, 15, females, 6, total, 21. Birth-rate, 19.4. Deaths, males, 259, females, 260, total, 519. Death-rate, 11.

Deaths of infants under one year of age per 1,000 births: legitimate, 80; illegitimate, 4; total, 84.

Maternity and Child Welfare.—The infantile mortality rate in the Borough for the year 1921 was 91 per 1,000 births, an increase of 6 per 1,000 on the preceding year. The greater part of the deaths occur in the first month of life, prematurity and congenital defects being the commonest causes of death in this period.

Crewe Municipal Borough.

During the year 929 births were notified and 10 were ascertained from other sources of information, giving a total number of 939 births, or 20 more than were registered.

Under the **Milk (Mothers and Children) Order, 1918**, 115 families were supplied with 4,304 gallons, 1 quart, 1 pint of milk. 106 families were supplied with 2,623 gallons, 1 quart, 1 pint of milk free of charge, and 9 families with 1,681 gallons of milk at half cost.

Laboratory Work.

THE MUNICIPAL LABORATORY.

| | Positive. | Negative. | Total. |
|-----------------------------|-----------|-----------|--------|
| Diphtheria swabs | 152 | 382 | 534 |
| Sputum for tubercle bacilli | 3 | 33 | 36 |
| Hairs for ringworm | 9 | — | 9 |

CLINICAL RESEARCH LABORATORY.

Diphtheria swab—one specimen, negative.

CHESHIRE COUNTY LABORATORY, CHESTER.

| | Positive. | Negative. | Total. |
|-----------------------------|-----------|-----------|--------|
| Sputum for tubercle bacilli | 26 | 129 | 155 |

PUBLIC HEALTH LABORATORY, MANCHESTER UNIVERSITY.

Blood (Enteric Fever)—One specimen, negative.

The Cheshire County Council have made provision for the examination of blood in cases of syphilis.

Diphtheria Antitoxin.—Diphtheria antitoxin is available for use in all cases, whether treated at home or at the Isolation Hospital. During 1921, 31 vials containing a total dosage of 98,000 units were supplied to the general practitioners of the town.

Sanitary Arrangements.—The following table gives approximately the number and the kinds of closet accommodation in the town at the end of 1921:—

| | | | |
|-----------------------|-----|-----|---------------|
| Water closets | ... | ... | 7,908 |
| Waste water closets | ... | ... | 1,002 |
| Pail closets | ... | ... | 2,782 |
| Covered privy middens | ... | ... | 101 |
| Total | ... | ... | <u>11,793</u> |

Crewe Municipal Borough.

During the past year a Bye-law has been passed requiring the provision of properly galvanized iron dustbins, thus prohibiting the installation of wooden tubs. This Bye-law will be of great assistance in the proper storage of refuse and in the collection of same.

Housing.—The number of housing certificates granted during the year was 69.

The amount of work done under the Housing and Town Planning Acts during the year was as follows:—

| | | | |
|---------------------------------|-----|-----|-----|
| Number of notices served | ... | ... | 430 |
| Number of notices complied with | | ... | 419 |

Housing.

I. Inspection.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—903.

(2) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—69.

II. Remedy of defects without service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—292.

III. Action under Statutory Powers.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs—69.

(2) Number of dwelling-houses which were rendered fit:—

(a) by owners—60.

(b) by Local Authority in default of owners—None.

DUKINFIELD

Municipal Borough.

Housing.—The house accommodation, owing to the scarcity of new buildings in recent years, is not sufficient. Of a total of 4,774 houses, practically all are occupied. 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. No plans were submitted and passed for new houses during the years 1915 to 1921.

Water Supply.—The water is derived entirely from the Swineshaw Valley. It is brought by means of a 12-in. main through Stalybridge to the Borough, and is supplied direct to a portion of the district and to the other portions through the existing high level reservoirs which originally belonged to the Dukinfield Waterworks Company.

Closet Accommodation.—There are at the present time four systems of closets in the Borough, viz., ashpit privies, pails, automatic flush closets and fresh water closets.

The following table shows a comparison of the various systems :—

| | | | | |
|----------------------|-----|-----|-----|--------------|
| Ashpit privies | ... | ... | ... | 1,501 |
| Pails | ... | ... | ... | 427 |
| Automatic flush w.c. | ... | ... | ... | 1,463 |
| Fresh water closet | ... | ... | ... | 1,051 |
| Total | ... | ... | ... | <u>4,442</u> |

During the year 140 houses were dealt with, compared with 44 in 1920. The number of midden closets dispensed with was 96—or 48 middens. The number of fresh water closets erected in conversion was 130, compared with 35 in 1920. In 1919, 33 closets were converted to fresh water system.

Infectious Diseases.—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.

Dukinfield Municipal Borough.

Housing.—(a) Total number of houses, 4,774, in 125 streets. (Including shops 4,882).

(b) Houses for working classes, 4,200 (estimated).

(c) New houses for same erected during the year, Nil.

In 308 houses in the Borough, in 1920, it was found that two families resided.

The Town Council's Housing Scheme should to some extent remedy the shortage.

(1) Back-to-back houses—234.

(2) Houses lacking in proper sanitary conveniences, *i.e.*, separate sanitary accommodation—405.

(3) Insanitary dwellings (requiring repair)—81.

A scheme has been prepared and submitted to the Housing Commissioners, who, after inspecting certain unhealthy areas, advised us to withhold our action for the present owing to shortage of houses and money.

The only scheme of Town Planning which has been put forward during 1921 for the district is that dealing with the Lakes Lane site. Area, 6 acres 0 roods 6 perches 5 yards. Population, 546 approximately. Plans and lay-out scheme have been approved and quantities prepared. No tenders received as yet.

Housing.—No new houses were erected during the year.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—600.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—213.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—9.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—378.

Dukinfield Municipal Borough.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—100.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—12.

Number of dwelling-houses which were rendered fit :—

(a) by owners—12.

(b) by Local Authority in default of owners—None.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—None.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—371.

Number of dwelling-houses in which defects were remedied

(a) by owners—155.

(b) by Local Authority in default of owners—15.

Proceedings under Section 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—3.

Number of dwelling-houses in respect of which Closing Orders were made—17.

Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit—10.

Number of dwelling-houses in respect of which Demolition Orders were made—None.

Number of dwelling-houses demolished in pursuance of Demolition Orders—None.

HYDE

Municipal Borough.

Statistics.—Amended population (Census, 1921), 34,130.
No. of inhabited houses, 1921, 7,400.

Bacteriological Examinations.

| Diphtheria | | Typhoid Fever | | Human Tuberculosis Sputum | | Bovine Tuberculosis Milk | | Water Bacteriological |
|------------|----------|---------------|----------|---------------------------|----------|--------------------------|----------|-----------------------|
| Total | Positive | Total | Positive | Total | Positive | Total | Positive | Total |
| 98 | 18 | 3 | — | 25 | — | 16 | 1 | 5 |

The following specimens of sputum have been sent to the County Laboratory at Chester :—

| Total. | Positive. | Negative. |
|--------|-----------|-----------|
| 243 | 112 | 131 |

Infectious Diseases.—Total number of cases admitted to hospital, 184.

ANALYSIS.

| Disease | Total | Hyde District | Outside Districts | Deaths | |
|-------------------|-------|---------------|-------------------|---------|---------|
| | | | | Locally | Outside |
| Scarlet Fever ... | 113 | 64 | 49 | 4 | — |
| Enteric ... | 6 | 2 | 4 | 1 | — |
| Diphtheria ... | 53 | 34 | 19 | 5 | 4 |
| Observation ... | 3 | 3 | — | — | — |
| Erysipelas ... | 5 | 5 | 1 | — | — |
| Encephalitis | | | | | |
| Lethargica ... | 1 | 1 | — | — | — |
| Puerperal Fever | 1 | 1 | — | — | — |
| Mumps ... | 1 | 1 | — | — | — |
| Marasmus ... | 1 | 1 | — | 1 | — |
| | 184 | 112 | 73 | 11 | 4 |

Maternity and Child Welfare.—The following is a record of work done during 1921 :—

First visits paid by the Health Visitors to infants under one year—699.

Re-visits—4,709.

First visits to expectant mothers—112.

Re-visits—270.

Other visits (children under 5, etc.)—506. Total—6,296.

Babies weighed (new) at Mechanics' Institute Centre—334

Hyde Municipal Borough.

Babies weighed (new) at Rosemount Centre—94.

Re-visits of same (old cases)—4,332.

Children between 1 and 5 years (new)—135.

Total number of attendances during the year 1921—5,020.

Housing.—Number of new houses erected during the year :

(a) Total—45.

(b) As part of a Municipal Housing Scheme—34.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—1,566.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District Regulations), 1910—403.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—1,003.

Number of defective dwelling-houses in respect of which informal intimation was served—104.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority of their Officers—69.

Number of dwelling-houses in respect of which repairs are outstanding—35.

Number of dwelling-houses in respect of which notices were served requiring repairs, etc.—1,003.

Number of dwelling-houses which were rendered fit :—

(a) by owners—597.

(b) by Local Authority in default of owners—None.

(c) Outstanding—406.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—None.

*Hyde Municipal Borough.**Proceedings under Public Health Acts.*

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—4.

Number of dwelling-houses in which defects were remedied :

(a) by owners—3.

(b) by Local Authority in default of owners—None.

(c) Outstanding—1.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

STALYBRIDGE.**Municipal Borough.**

Statistics.—At the Census in June, 1921, the total population of the Borough was 25,233.

The number of inhabited houses at that time was 6,531, with 6,607 separate occupiers.

Birth-rate 21.23. Death-rate 16.4. Deaths of infants under one year of age per 1,000 births, 115.

Midwives.—Only three practising. More are needed. They are under the control of the County Council.

Isolation Hospital Accommodation.—We are still without Isolation Hospital accommodation for infectious diseases other than small-pox.

For small-pox we are sufficiently provided, along with the neighbouring Authorities of Ashton-under-Lyne, Hurst, Limehurst and Audenshaw, at Hartshead.

The site at Hartshead belonging to the Joint Small-pox Hospital Board is an extensive one, comprising several plots and measuring in all some 40 acres, and only a small portion of it is occupied by the Small-pox Hospital with its administrative block and out-buildings.

Stalybridge Municipal Borough.

The Ashton-under-Lyne Public Health Authority for many years past have very kindly allowed us to send cases of typhoid fever or of scarlet fever into their Borough Hospital for Infectious Diseases whenever they have had accommodation available, but at times—and often this occurs when our need is the more urgent—there is no available accommodation and the patients have had to be retained at home under very disadvantageous conditions.

Housing.—The house to house inspection of the Borough has been continued. 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 under the Housing Act, and 137 informal notices have been served for necessary repairs to make certain houses reasonably fit for habitation; 45 of these have been complied with. In a number of instances repairs have been carried out to houses, but not all the defects requiring attention have been remedied. Besides these, 44 dwellings were inspected under the Public Health Acts, and notices have been served for various repairs and alterations. Of these 43 have been complied with.

With respect to various premises where abatement of nuisances have not been complied with after service of preliminary notices, the Public Health (Visiting) Sub-Committee have made several visits to these properties and have recommended that statutory notices should be served. Some of these nuisances have received attention and in one case legal proceedings had to be taken.

Closet Accommodation.—Conversions from the privy and pail systems which to a great extent have been curtailed during the War are now steadily proceeding—55 privies have been removed and town's water closets have taken their place. Also there have been 11 additional town's water closets erected at factories and dwelling-houses.

ALDERLEY EDGE

Urban District.

Statistics.—Population, 3,068. Number of inhabited houses, 737. Number of families or separate occupiers, approximate, 737.

Birth-rate, 13.68. Death-rate, 8.47.

Births, legitimate, 42; illegitimate, Nil.

Deaths of infants under one year of age per 1,000 births: legitimate, 1; illegitimate, Nil; Total, 1.

Notifiable Diseases during the year.

| Disease. | Total cases notified. | Cases admitted to Hospital. | Total Deaths. |
|----------------------------|-----------------------|-----------------------------|---------------|
| Scarlet Fever | 5 | 3 | nil |
| Pneumonia | 3 | — | 1 |
| Acute Poliomyelitis | 1 | 1 | nil |
| Tuberculosis— | | | |
| (a) Pulmonary | 7* | — | 3 |
| (b) Non-Pulmonary—none. | | | |

*Four of these were patients residing in the area. The remaining three were inhabitants of the area residing temporarily outside the district.

Water Supply.—The water supply was limited and of inferior quality for a period, but apparently had no detrimental effect.

Laboratory Work.—There have been 13 specimens from suspected cases of diphtheria, tuberculosis and enteric fever sent for bacteriological examination at the County Council Laboratory and at the Public Health Laboratory, Manchester University.

| | Positive. | Negative. |
|---------------------------|-----------|-----------|
| Sputum examination | 2 | 3 |
| Diphtheria | — | 6 |
| Enteric fever | — | 2 |

The necessary facilities for collecting specimens to be sent for examination and a supply of antitoxin are always available at the Council Offices for the use of the local medicos.

Alderley Edge Urban District.

Sanitary Conveniences.—There have been four dry pits altered to covered bins and one privy altered to a water closet.

There are 13 pits and 13 privies, leaving 74 as the percentage of dry bins.

Housing.—Number of new houses erected during the year, 12. Inspections, 27. Unfit for human habitation, nil. Partially fit, nil. Remedy of defects without formal notices, 9. Action under Statutory Powers, nil. Proceedings under Public Health Acts, nil. Notices served, nil. Defects remedied by owners, 4. Proceedings under Sections 17 and 18, Housing, Town Planning, &c., Act, 1909, nil.

ALSAGER

Urban District.

Statistics.—Estimated population, 2,892. Registered deaths, 31. Inhabited houses, 672. Death-rate, 10.71 per 1,000. Infant mortality, 118.57 per 1,000 births. Birth-rate, 14.52 per 1,000 inhabitants.

Hospitals.—There is only one—the West Heath Isolation Hospital—for contagious diseases. It is situated near Congleton, and contains 30 beds and provides ambulance facilities for the removal of patients.

Laboratory Work.—Your Council provides for pathological and bacteriological examinations and for the supply of serums and vaccines as required.

Housing.—Number of new houses erected during the year :

(a) Total—2.

(b) As part of a Municipal Housing Scheme—None.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—60.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—17.

Alsager Urban District.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—47.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—40.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919—Nil.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—7.

Number of dwelling-houses in which defects were remedied :

(a) by owners—7.

(b) by Local Authority in default of owners—None.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909—Nil.

ALTRINCHAM

Urban District.

Statistics.—The area of your district comprises 1,330 acres, with a population at the Census, 1921, of 20,461. On this basis the estimated population at 31st December, 1921, was 20,550. The Census figure was 535 less than the estimated population at date of Census.

The number of inhabited houses in 1921 was 4,812.

The births registered during the year and those allocated to the district by the Registrar-General amount to 435, equivalent to a birth-rate per 1,000 of the population of 21.0.

The number of deaths registered in and corrected for the district is 222, being a death-rate per 1,000 of 10.7.

Altrincham Urban District.

Deaths of infants under 1 year of age per 1,000 births :— legitimate, 29; illegitimate, 5; total, 34; representing an annual infantile mortality rate of 78.1 per 1,000 births.

Notifiable Diseases.

| Disease | Total Cases notified | Cases admitted to Hospital |
|---------------------------------------|----------------------|----------------------------|
| Diphtheria | 33 | 32 |
| Scarlet Fever | 112 | 104 |
| Enteric Fever (including paratyphoid) | 7 | 6 |
| Puerperal Fever | 1 | — |
| Erysipelas | 9 | — |
| Encephalitis Lethargica | 1 | — |
| Tuberculosis | 34 | — |
| (a) Pulmonary | 26 | |
| (b) Non-Pulmonary | 8 | |

Maternity and Child Welfare.—A Centre is maintained by the Urban District Council, being under the direction of the Medical Officer of Health and the Health Visitor, assisted by a staff of voluntary helpers, three of whom are co-opted on the Maternity and Child Welfare Committee of the Council. The Centre is opened on Wednesdays, when babies are weighed and examined by the nurse, the Medical Officer attending for consultation on those cases referred to him by the nurse. The nurse also on Thursdays holds a class for mothers—for needlework and health talks.

During the year 616 cases were referred to me by the nurse, the first visit of all new babies being included in this total. By arrangement with the Board of Management of the Altrincham Hospital, minor operative procedure, such as for phimosis, adenoids, naevi, etc., is carried out at the Hospital. Individuals resident in adjoining Local Authorities have taken advantage of the Centre as follows :—

- Hale—53 medical consultations.
- Timperley—34 medical consultations.
- Bowdon—14 medical consultations.
- Warburton—1 medical consultation.

A day nursery is established at Carradale, Norman's Place, Altrincham, admitting on an average 23 children per day, maintained by weekly or daily charges per child, and by voluntary subscriptions, a grant being made by the Ministry of Health.

Altrincham Urban District.

Laboratory Work.—Arrangements exist between the Council and the Victoria University of Manchester for pathological and bacteriological examinations. During 1921 a total of 27 specimens were sent for examination.

Diphtheria, 15, of which 6 were positive.

Typhoid, 10, of which 6 were positive.

Bacteriological examination of water sample, 1.

Paratyphoid A. and B., 1.

During 1921 70 samples of sputa from this district were sent to Chester and reported upon; 21 of these being positive.

A supply of concentrated diphtheria antitoxin is kept at the Town Hall, to be issued on the application of a Medical Practitioner for the initial treatment of suspected diphtheria. All medical men practising in the district have been notified of this provision.

Housing.—Number of new houses erected during the year :

(a) Total—19.

(b) As part of a Municipal Housing Scheme—16.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Act)—154.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—110.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—65.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—57.

Number of dwelling-houses in respect of which notices were served requiring repairs—65.

Altrincham Urban District.

Number of dwelling-houses which were rendered fit:—

(a) by owners—57.

(b) by Local Authority in default of owners—None.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—None.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—25.

Number of dwelling-houses in which defects were remedied:

(a) by owners—19.

(b) by Local Authority in default of owners—None.

No proceedings were taken under Section 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Water Supply.—The water is supplied on the constant system by the Manchester Corporation, and has been plentiful and pure.

The water supply at Brookside Cottages, in the Dunham Ward, has been investigated. A chemical analysis proved the water from the well to be unfit for drinking purposes. Arrangements were made with the occupier of Brookside Farm for the tenants of the cottages to obtain their supply of water from the well at the farm. A bacteriological examination of this water was made by the late Professor Delépine at the Public Health Laboratory, University of Manchester, and the water certified to be fit for dietetic purposes.

Conversion of Privies into Water Closets.—The Council have adopted a scheme, which has received the approval of the Ministry of Health, for the conversion of 300 privies into fresh water closets. The Council proceed under Section 39, Public Health Acts (Amendment) Act, 1907, by serving notice upon the owners. Tenders for the work are invited from contractors, and the work executed under the directions of the Council's Surveyor. The Council contribute one-half of the actual cost of the conversion. The work under the scheme was not commenced until late in the year, but 23 privies were converted into fresh water closets. Every effort is being made to rid the town of privies, the dangers of which to public health

Altrincham Urban District.

cannot be over emphasised, and even part payment of the cost now, will in the end, no doubt prove to be true economy, and of the highest value to the community.

Privies converted to water closets, Public Health Acts (Amendment) Act, 1907, (out of revenue)—31.

Privies converted to water closets, Public Health Acts (Amendment) Act, 1907, (out of loan)—23.

A house register of the sanitary accommodation has been prepared. This gives the total accommodation in the district, including the Dunham Ward, which was incorporated in Altrincham by order of the County Council in October, 1920.

| | | | |
|----------------------------------|-----|-----|-------|
| Privies with fixed receptacles | ... | ... | 1,772 |
| Privies with movable receptacles | ... | ... | 25 |
| Fresh water closets | ... | ... | 3,470 |
| Waste water closets | ... | ... | 230 |

ASHTON-UPON-MERSEY**Urban District.**

Statistics.—The population at the Census of 1921 was 7,780, but as it was taken in June, when many residents were away on holiday, the estimated population is 8,000.

Number of inhabited houses (1921), 2,000.

Births.—Legitimate, 138; illegitimate, 3. Death-rate, 9.7 per 1,000. Infant mortality, 28.3 per 1,000 births.

Notifiable Diseases.

| Disease. | Total Cases Notified. | Cases admitted to Hospital. |
|----------------|-----------------------|-----------------------------|
| Diphtheria | 2 | 1 |
| Scarlet Fever | 47 | 10 |
| Typhoid | 1 | 1 |
| Whooping Cough | 41 | — |
| Erysipelas | 1 | — |

Ashton-upon-Mersey Urban District.

Tuberculosis, pulmonary, 6; non-pulmonary, 6. Ophthalmia neonatorum, 1.

Hospitals.—As a Constituent Authority of the Bucklow Joint Hospital Board, we send infectious cases to the Monsall Hospital, Manchester.

Pathological and Bacteriological examinations are made by arrangement with the Public Health Laboratory of Manchester, and the Local Authority supplies diphtheria antitoxin and other sera, &c., as necessity arises.

Flooding of District.—I wish to draw the attention of the Council to the very serious nuisance and damage to health caused through the flooding of that part of the district near Crossford Bridge.

When the River Mersey is in flood, the water pours through the breach in the bank in the adjoining Urban District and floods the cellars of 13 houses in this district. Until the flood subsides the closet accommodation is inaccessible and the deposit left on the cellar floor is very injurious to health.

Closet Accommodation.—Two conversions have been made during the year, and the total number of privy middens is now 118; of this number 40 are chiefly used as dry ashpits and 24 (mostly farms) are situated in the outlying districts. The remainder of the houses are provided with water closets except in a few cases where waste water closets are in use.

Dry ashpits number 364 and ashbins 1,093.

Housing.—During the year 62 houses have been built. Of this number 48 are part of the Council's Housing Scheme.

The total number of houses in the district is 2,008, of which 1,064 are for the working classes.

Housing Inspection.—This work is quite up-to-date. 35 houses have been visited as a result of complaints. These have received attention. In one case proceedings had to be taken, but I am glad to say this property is now receiving the owner's attention and the necessary repairs are practically completed.

The housing generally throughout the district is good and there is no unhealthy area.

HIGHER BEBINGTON

Urban District.

Statistics.—Population (1921) 1,764. Number of inhabited houses (1921) 381. Number of families or separate occupiers (1921) None. These statistics are calculated on the amended population of 1,784, supplied by the Registrar-General.

Birth-rate (Registrar-General) 27.4. The average number of births during the previous five years was 37.4 per annum. Death-rate (Registrar-General) 8.4. Deaths of infants under one year of age per 1,000 births, 40.8. Legitimate, 2; illegitimate, None; total, 2.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases admitted to Hospital. |
|----------------------------|----------------------|-----------------------------|
| Diphtheria | 1 | 1 |
| Scarlet Fever | 4 | 3 |
| Tuberculosis—(a) Pulmonary | 4 | 5 |
| (b) Non-Pulmonary | 2 | 1 |

Laboratory Work.—Pathological and bacteriological examinations. Ten specimens for tubercle bacilli; one specimen for diphtheria. Issue of diphtheria antitoxin, none; other sera or vaccines, none.

Closest Accommodation.—Fourteen privy middens and six pail closets. All the other houses have water carriage.

No conversions took place. All the privy middens are in the more rural part of the district.

Housing.—Number of new houses erected during the year :

(a) total—2.

(b) as part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—135.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—85.

Higher Bebington Urban District.

Number of dwelling-houses found to be in a state so injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—52.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—52.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

No statutory notices were served requiring defects to be remedied.

Number of dwelling-houses in which defects were remedied

(a) by owners—52.

(v) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

LOWER BEBINGTON**Urban District.**

Statistics.—Population (1921) 14,696. Number of inhabited houses (1921) 2,959. These statistics are calculated on the amended population of 14,940, supplied by the Registrar-General.

Death-rate (Registrar-General) 18.5 The average number of births per annum in the years 1916-1920 was 332.8.

Death-rate (Registrar-General) 8.5. Deaths of infants under one year of age per 1,000 births, 75.8. Legitimate, 20; illegitimate, 1; total 21.

*Lower Bebington Urban District.***Notifiable Diseases.**

| Disease | Total Cases Notified | Cases admitted to Hospital |
|------------------------------|-------------------------|-------------------------------|
| Diphtheria (2 withdrawn) ... | 22 | 18 |
| Scarlet Fever ... | 63 | 57 |
| Erysipelas ... | 11 | 2 |
| Pneumonia ... | 4 | — |
| Tuberculosis—(a) Pulmonary | 11 | 12 |
| (b) Non-Pulmonary | 6 | 0 |

| Disease | Cases Notified | Cases Treated at Home | Cases Treated in Hospital | Vision unimpaired | Vision impaired | Total Blindness | Death |
|------------------------------|-------------------|--------------------------------|------------------------------------|----------------------|--------------------|--------------------|-------|
| Ophthalmia Neonatorum ... | 4 | 2 | 2 | 4 | Nil | Nil | Nil |

Laboratory Work.—Four examinations for tubercle bacilli. Four examinations for diphtheria. Issue of diphtheria antitoxin, None. Other sera or vaccines, None.

Closet Accommodation.—Water carriage is in use everywhere, with the exception of five outlying cottages. One privy midden was converted to w.c.

Housing.—Number of new houses erected during the year :

(a) Total (26 received the subsidy)—27.

(b) As part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—797.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—38.

Number of dwelling-houses found to be in a state so injurious to health as to be unfit for human habitation—2.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—400.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—400.

Lower Bebington Urban District.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—386.

Number of dwelling-houses in which defects were remedied

(a) by owners—331.

(b) by Local Authority in default of owners—Nil.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—2.

Number of dwelling-houses in respect of which Closing Orders were made—2.

BOLLINGTON**Urban District.**

Statistics.—Population, 5,094. Number of inhabited houses, 1,303. Number of working-class dwellings, 1,220.

Birth-rate, 19.4 per 1,000. Death-rate, 11.1 per 1,000. Deaths of infants under one year of age per 1,000 births, 61.2.

Infectious Diseases.

| Disease | Total Cases Notified | Cases admitted to Hospital |
|----------------------------|----------------------|----------------------------|
| Diphtheria | 34 | 32 |
| Scarlet Fever | 6 | 3 |
| Pneumonia | 14 | 4 |
| | | (1 with Whooping Cough) |
| Erysipelas | 4 | — |
| Tuberculosis—(a) Pulmonary | 9 | — |
| (b) Non-Pulmonary | — | — |
| Ophthalmia Neonatorum .. | — | — |

Bollington Urban District.

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

Bacteriological Examinations.—Arrangements are made with the Public Health Department, Chester, and with Evans Sons, Lescher, Webb and Co., Limited, Runcorn.

Over 40 swabs from suspicious throats have been examined at Runcorn.

The Medical Officer of Health has a supply of anti-diphtheritic serum, but owing to the number of children in most of the houses it is not safe to wait two days for the result of the test, and so risk infecting the whole household.

Closet Accommodation.—32 Water closets supplying 48 houses have been put in during the year.

Twenty-three new houses have each been supplied with a water closet.

Dry ashpits and dustbins have been provided for the above-mentioned houses.

The total number of houses with water closets is 787.

The total number of houses with privy closets is 417.

The total number of houses with privy middens is 252.

The work of conversion from privy middens to water closets is still exceedingly slow, and with conditions now improving I must beg you to very seriously consider this most important question, and proceed with the conversions more rapidly.

Water Supply.—The water supply is obtained from two works—Lowerhouse and Danebent, in the neighbouring township of Rainow some two to three miles away. The supply is constant.

1. **LOWERHOUSE.**—The water is obtained from these works from three boreholes and adits driven in the millstone grit.

2. **DANESENT.**—The water at these works is obtained from a boring 427 feet deep in the millstone grit. When the supply from Lowerhouse fails during the periods of drought the water is raised from the borehole at these works (Danebent) by air lift and pumped into the distribution main by a force pump.

Bollington Urban District.

The quality of the water is on the whole excellent, a liquid Chlorine Plant having been installed during the year to deal with the intermittent pollution at the Lowerbrook Works. This plant has been working for about six months and has given every satisfaction.

The samples of chlorinated water which have been forwarded to the Public Health Laboratory for bacteriological examination have been good, and no complaints have been made to me by the inhabitants of the water tasting of chlorine.

New works have been in course of construction at Millbrook, in the Parish of Rainow, to augment the present supply, and I hope that the work will be completed in time to meet the demands of the new houses that have been built, those that will be completed during the coming year, and to supply my demands for the conversion of privy middens.

Housing.—Number of houses erected during the year :—

(a) Total—23.

(b) As part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of houses inspected for housing defects (under Public Health or Housing Acts)—38.

Number of dwelling-houses which were inspected under the Housing (Inspection of District) Regulations, 1920—38.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—16.

Number of dwelling-houses in respect of which notices were served requiring repairs (Housing Act)—22.

Number of dwelling-houses which were rendered fit :—

(a) by owners—10.

(b) by Local Authority in default of owners—1.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

Bollington Urban District.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied (Public Health Acts)—80.

Number of dwelling-houses in which defects were remedied
(a) by owners—51.

(b) by Local Authority in default of owners—4.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

BOWDON**Urban District.**

Statistics.—The district has an area of 850 acres and a population (1921) of 2,936. The number of inhabited houses is 712, which are occupied by 718 families.

Births numbered 41, giving a birth-rate of 13.9 per 1,000. Of these cases one was illegitimate.

There were 40 deaths, giving a death-rate of 13.6 per 1,000. There was one death under 1 year, giving a death-rate of 25 per 1,000 births. There was no death of an illegitimate child.

Infectious Disease.—There have been 12 cases of infectious disease notified, viz.:—diphtheria, one; scarlet fever, six; puerperal fever, one; influenzal pneumonia, one; erysipelas, one; pulmonary tubercle, two.

Of these cases one of diphtheria and two of scarlet fever were admitted into the Isolation Hospital; one case of pulmonary tuberculosis was admitted into the Liverpool Sanatorium, Delamere Forest.

Hospitals.—Tuberculosis cases are provided for by the County Authority. Fever cases are sent to the Altrincham Fever Hospital, where the Bowdon Authority retains three beds. Arrangements are in force for the admission of small-pox cases to the Manchester Small-pox Hospital.

Laboratory Work.—Sputum examinations are made by the County Tuberculosis Officer. Diphtheria, typhoid and water examinations are made by the Public Health Laboratory, Manchester; thirteen specimens were examined during the year.

Bowdon Urban District.

Sanitation.—The sanitary condition of the district has been satisfactory and the scavenging efficiently carried out. There have been 207 inspections made; 11 informal notices were served which were all complied with. There have been no prosecutions. There are remaining 54 closets on the conservancy system which have not been converted to the water carriage system. None were converted during the past year. There are no slaughter houses in the district. The dairies, cowsheds, milk shops and places where food is prepared were inspected and found in good order. No action was taken in respect of these.

Housing.—There were six new houses erected in the district during the year, but none under a Municipal Housing Scheme. There were no dwelling-houses found on inspection to be unfit and no action was taken under Statutory Powers.

BREDBURY AND ROMILEY

Urban District.

Statistics.—Number of inhabited houses, 2,337. Number of families or separate occupiers, 2,337. Population, 9,169.

The Registrar-General has adjusted these numbers to allow for persons away on the day the Census was taken, and has estimated the total population at 9,260, thus adding 91 to our figures.

Birth-rate, 15.11. Death-rate, 11.4 per 1,000. Infant mortality rate, 57 per 1,000 registered births.

Laboratory Work.—This has been done at the Cheshire County Laboratory and by the Staff at the Manchester Public Health Laboratory.

Housing.—Under Section 28 of the 1919 Housing Act, 51 houses have been inspected and reported to your Sanitary Committee, and 51 Statutory Notices to make the houses reasonably fit for habitation have had to be served. Thirty-nine of these notices have been complied with and 12 remained outstanding at the end of the year. These outstanding notices

Bredbury and Romiley Urban District.

are being dealt with and pressed with a view to the work being carried out.

During the year plans have been submitted and approved for five new houses, all of which have been completed and occupied. Thirty-nine houses are now in course of erection by your Council, and when completed will considerably relieve the house shortage in the district.

Water Supply.—The district is well supplied through the Council's own water system with a wholesome supply of water for domestic and industrial purposes. In the outlying portions of the district, however, the water is supplied by means of wells which are kept under observation. One sample of water has been analysed by the Public Analyst, and reported to be pure, wholesome, and fit for domestic use.

Sanitary Conveniences.—The following list shews the number of different sanitary conveniences in the district as prevailing in 1919, and at the end of the year 1921 :—

| | 1921 | | 1919 |
|---------------------------------|------|-----|------|
| Flush water closets ... | 1908 | ... | 1679 |
| Waste water and tippler closets | 406 | ... | 439 |
| Pail closets ... | 120 | ... | 194 |
| Privy closets ... | 472 | ... | 572 |
| Privy ashpits ... | 330 | ... | 379 |
| Dry ashpits ... | 293 | ... | 299 |
| Sanitary dust bins ... | 1282 | ... | 1166 |

BROMBOROUGH**Urban District.**

Statistics.—Population (1921) 2,650. Number of inhabited houses (1921) 629. Number of families or separate occupiers (1921) None.

Birth-rate (Registrar-General) 20. Death-rate (Registrar-General) 5.6. Deaths of infants under one year of age per 1,000 births, 37.7. Legitimate, 2; illegitimate, 0; total, 2.

*Bromborough Urban District.***Notifiable Diseases.**

| Disease | Total Cases Notified | Cases admitted to Hospital |
|---|----------------------|----------------------------|
| Diphtheria ... | 1 | 1 |
| | (Negative) | |
| Scarlet Fever ... | 9 | 9 |
| Enteric Fever (including Paratyphoid) — | — | — |
| Erysipelas ... | 2 | 2 |
| Pneumonia ... | 1 | — |
| Tuberculosis—(a) Pulmonary | 1 | 2 |
| (b) Non-Pulmonary | — | — |

Laboratory Work.—Three specimens of sputum examined for tubercle bacilli. Issue of diphtheria antitoxin, no issue required. Other sera or vaccines, Nil.

Closet Accommodation.—There are still about 20 privies in the district. Conversions during 1921—Nil.

Housing.—Number of new houses erected during the year :

(a) Total—38 (18 received the subsidy).

(b) As part of a Municipal Housing Scheme—None.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—457.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—1.

Number of dwelling-houses found to be in a state so injurious to health as to be unfit for human habitation—1.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—Nil.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—7.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—14.

Bromborough Urban District.

Number of dwelling-houses in which defects were remedied

(a) by owners—14.

(b) by Local Authority in default of owners—Nil.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—2.

Number of dwelling-houses in respect of which Closing Orders were made—1.

Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-house having been rendered fit—Nil.

Number of dwelling-houses in respect of which Demolition Orders were made—Nil.

BUGLAWTON

Urban District.

Water Supply.—The exceptional scarcity of water during the latter half of 1921 can be largely explained by the abnormal meteorological conditions last summer, but the water supply of the district, even in normal seasons, cannot be considered to be satisfactory. At present you do not by any means supply all the houses in the district; some years the amount of water has sufficed, though you have not sufficient storage, even if other springs were taken in, to make the supply really satisfactory. You have lately been considering plans for remedying this shortage, and I strongly advise you to augment your water supply, even in view of your present needs, also bearing in mind the supply of the houses now building, the probable necessity of supplying a number of the houses at present using their own or neighbour's wells, and the possibility of a demand for more water for trade purposes.

Statistics.—Population (1921) 1,576. Number of inhabited houses (1921) 353.

Buglawton Urban District.

Birth-rate, 31.7. Death-rate, 12.0. Deaths of children under one year of age, legitimate, 1; illegitimate, 0; total, 1. 1921 infantile mortality rate per 1,000 births, 20.

Notifiable Diseases.

| Disease. | Total Cases Notified. | Cases admitted to Hospital. | Total Deaths. |
|----------------------------|-----------------------|-----------------------------|---------------|
| Scarlet Fever ... | 1 | — | — |
| Pneumonia ... | 2 | — | — |
| Ophthalmia Neonatorum ... | 2 | — | — |
| Pulmonary Tuberculosis ... | 2 | — | 2 |

Laboratory Work.—Specimens from suspected cases of diphtheria and cerebro-spinal meningitis, and blood specimens from suspected typhoid cases are examined at the Manchester University, and sputum from suspected cases of pulmonary tuberculosis at the County Laboratory, Chester.

| Suspected Disease. | Number of Specimens Examined. | Positive Results. |
|------------------------|-------------------------------|-------------------|
| Diphtheria ... | 1 | — |
| Pulmonary Tuberculosis | 3 | 1 |

Diphtheria antitoxin is supplied to any medical practitioner applying for it.

Closet Accommodation.—Water closets 93, pail closets 231, privy middens 94. During 1921, 7 privy middens have been converted to pail closets, and there is one additional w.c., but this was not a conversion.

Housing.—No new houses were erected during the year.

UNFIT DWELLING-HOUSES.**Inspection.**

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—226.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—16.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—17.

Buglawton Urban District.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—7.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—17.

Number of dwelling-houses in which defects were remedied
(a) by owners—16.

(b) by Local Authority in default of owners—None.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

CHEADLE AND GATLEY

Urban District.

Statistics.—Population (1921) 11,026. Number of inhabited houses (1921) 2,711. Number of families or separate occupiers (1921) 2,711.

Birth-rate, 17.3. Death-rate, 10.7.

Deaths of infants under one year of age, legitimate, 10; illegitimate, 0; total, 10. Infant mortality per 1,000 births registered, 61.

Hospitals.—Fever and small-pox. Your Council has made arrangements with the Manchester Corporation for the treatment of cases of scarlet fever, diphtheria and enteric fever at the Monsall Fever Hospital. Three beds have been reserved for the district which so far has been sufficient for its needs. The Corporation has also undertaken to take cases of small-pox if occasion should arise.

Laboratory Work.—Arrangements have been made with the Manchester University Public Health Laboratory for bac-

Cheadle and Gatley Urban District.

teriological examinations. During the year 48 specimens were sent.

| | | | |
|-------------------------|-----|-------------|------------|
| Diphtheria ... | ... | 37 swabs | 9 positive |
| Typhoid Fever ... | ... | 3 specimens | — „ |
| Tuberculosis Sputum ... | ... | 8 „ | 1 „ |

Human tuberculosis sputum specimens have been sent to the County Tuberculosis Laboratory for examination. Twenty-three specimens were examined, five gave a positive result and 18 a negative result. Most of these specimens were sent from the Tuberculosis Dispensary. Diphtheria antitoxin is supplied by your Council free of cost in necessitous cases.

Closets and Privy Middens.—At the end of last year your Council were engaged on the conversion of a large number of privies and ashpits, and a full report was made by your Inspector on the most urgent cases. Twelve conversions were ordered by your Council who have defrayed half the cost.

There are 605 privies in the district, 7 pail closets and 2,099 water closets (not including new houses built and occupied).

Housing.—Number of new houses erected during the year :

(a) Total—30.

(b) As part of a Municipal Housing Scheme, 122 are in progress of erection.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—265.

Number of dwelling-houses which were inspected under the Housing (Inspection of District) Regulations, 1910—175.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for habitation—None.

Proceedings under Section 28 of the Housing Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—1.

Number of dwelling-houses which were rendered fit:—

(a) by owners—1.

(b) by Local Authority in default of owners—None.

Cheadle and Gatley Urban District.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations of owner's intention to close—None.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—19.

Number of dwelling-houses in which defects were remedied :

(a) by owner—19.

(b) by Local Authority—None.

Proceedings under Sections 17 and 18 of the Housing and Town Planning, &c., Act, 1909.

Number of representations made with a view of the making of Closing Orders—None.

Number of dwelling-houses in respect of which Closing Orders were made—None.

Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses have been remedied—1.

Number of dwelling-houses in respect of which Demolition Orders were made—None.

Your Council, after many unavoidable delays, are erecting 122 new houses in four different areas of the district, which will be tenanted very shortly. They are wanted badly so as to prevent overcrowding.

COMPSTALL
Urban District.

Statistics.—Population, 934. Number of inhabited houses, 243. Number of families or separate occupiers, 243.

Birth-rate, 22.5 per 1,000. Death-rate, 11.8 per 1,000. Deaths of infants under one year of age:—legitimate, 1; illegitimate, nil; total, 1.

*Compstall Urban District.***Notifiable Diseases.**

| Disease | Cases Notified | Cases admitted to Hospita |
|-------------------------------|----------------|---------------------------|
| Diphtheria | 2 | 2 |
| Scarlet Fever | 1 | — |
| Pneumonia | 1 | — |
| Tuberculosis—Pulmonary | — | 1 |

(20-35 years)

Laboratory Work.—The Local Authority are subscribers to the Manchester Public Health Laboratory, who conduct all the pathological and bacteriological investigations required. Four such investigations were undertaken during the year. A stock of anti-diphtheritic serum is held by the Medical Officer, and issued under his control.

Sanitary Administration.

TABULAR SUMMARY.

| | | |
|---|-----|---|
| Dwelling Houses (including 6 back to back houses) | 36 | — |
| Tents, Vans, Sheds, &c. | 20 | — |
| Midden Privies, Pail Closets, &c. | 52 | — |
| Cesspools | 4 | 2 |
| Bakehouses, General Stores | 3 | — |
| Cowsheds | 10 | — |
| Total | 125 | 2 |

| | |
|---|----|
| Number of midden privies converted to pail closets during 1921 | 3 |
| Total number of midden privies | 67 |
| Total number of pail closets | 75 |

Housing.—Number of new houses erected during the year—3.

UNFIT DWELLING-HOUSES.

Inspection.—Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—73.

ELLESMERE PORT AND WHITBY

Urban District.

Statistics.—Population (1921) 13,075. Number of inhabited houses (1921) 2,316. These statistics are calculated on the amended population of 13,350 supplied by the Registrar-General.

Birth-rate (Registrar-General) 29.8. Death-rate (Registrar-General) 8.3.

Deaths of infants under one year of age per 1,000 births, 77.9; legitimate, 30; illegitimate, 1; total, 31.

Notifiable Diseases.

| Disease. | Cases Notified. | Cases admitted to Hospital. |
|------------------------------|-----------------|-----------------------------|
| Diphtheria (5 withdrawn) ... | 32 | 21 |
| Scarlet Fever | 11 | 11 |
| Erysipelas | 2 | — |
| Malaria | 3 | — |
| Pneumonia | 26 | — |
| Tuberculosis—(a) Pulmonary | 20 | 19 |
| (b) Non-Pulmonary | 12 | 5 |

Laboratory Work.—Thirty-eight specimens of sputum were sent for examination to the County Laboratory; seven of these contained tubercle bacilli. Eleven specimens of diphtheria were examined; seven gave a positive result. Fourteen patients received free antitoxin.

Housing.—Number of new houses erected during the year :

(a) Total—48.

(b) As part of a Municipal Housing Scheme—47.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—411.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—68.

Ellesmere Port and Whitby Urban District.

Number of dwelling-houses found to be in a state so injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—68.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—68.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—informal, 332 ; statutory, 11 ; total, 343.

Number of dwelling-houses in which defects were remedied
 (a) by owners—337.
 (b) by Local Authority in default of owners—Nil.
 Work in progress—6. Total, 343.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Acts, 1909.

HALE

Urban District.

Laboratory Work.—During the year nine throat swabs were submitted from suspected diphtheria cases, two of which were positive. Two specimens of sputum were submitted from suspected tuberculosis cases, both of which were positive.

In addition examinations are made by the Cheshire County Council for tuberculosis. Twenty-two such examinations were made during the year, eight of which were positive.

Hale Urban District.

Closet Accommodation.—The provision in the district is as follows:—

| | | | |
|----------------------|-----|-------|----------------|
| Double Privy Ashpits | ... | 15 | } = 68 houses. |
| Single " " | ... | 38 | |
| Privy Pails | ... | 7 | " |
| Water Closets | ... | 2283 | " |
| | | <hr/> | |
| | | 2358 | |
| | | <hr/> | |

Of the above privy ashpits five are at houses which have no other closet accommodation, the remainder being at houses in which there is also a water closet, and a number of them are used for dry refuse only.

Housing.—No new houses were erected during the year by the Council, the Housing Scheme having been abandoned by Order of the Ministry of Health, but 21 "subsidy" houses and seven larger houses have been completed by private builders.

The work done in connection with existing houses is shown below:—

- (1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—757.
- (2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—342.
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.
- (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—73.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—46.

A.—Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

- (1) Number of dwelling-houses in respect of which notices were served requiring repairs—27.

Hale Urban District.

(2) Number of dwelling-houses which were rendered fit :—

(a) by owners—27.

B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—63.

(2) Number of dwelling-houses in which defects were remedied :—

(a) by owners—59.

(b) by Local Authority in default of owners—4.

C.—Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909—Nil.

HANDFORTH

Urban District.

Statistics.—The area of the district is 1,311 acres; estimated population (1921) 982. Number of inhabited houses, 220.

Birth-rate, 11.02. Death-rate, 7.14. Deaths of infants under one year, one.

Diphtheria.—The year was remarkable on account of the unusual prevalence for this district of diphtheria; during the last ten years this disease has been mainly noticeable here by reason of its absence, but in 1921 there were 16 cases—the first being notified in May and the last in December, and the majority of the cases, which were all of a mild type and not attended by any mortality, occurred in July and June, *i.e.*, in warm and dry weather. There was a good deal of diphtheria in the surrounding and more populous districts, and I think the sources of infection came from these.

The Council supply antitoxin free, and arrangements have been made for bacteriological examinations at the Public Health Laboratory in Manchester.

HAZEL GROVE AND BRAMHALL

Urban District.

Statistics.—Population, 10,125. Number of inhabited houses, 2,617.

Birth-rate, 14.8 per 1,000. Death-rate, 11.06 per 1,000. Infantile death-rate, 86.6 per 1,000 births.

Infectious Diseases.—The Council have two beds reserved at the Hyde Isolation Hospital, and cases which cannot satisfactorily be isolated are sent there.

Laboratory Work.—Pathological and bacteriological examinations are made by the Clinical Research Laboratories, London. Antitoxin serum for diphtheria is supplied by the Council.

Housing.—Number of new houses erected during the year was 47. Seventeen of these were in Hazel Grove and thirty in Bramhall. Nothing has been done in connection with the Housing Scheme further than purchase of sites.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—343.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—20.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—79.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—38.

(A.) Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs—22.

Hazel Grove and Bramhall Urban District.

(2) Number of dwelling-houses which were rendered fit :—

(a) by owners—2.

(b) by Local Authority in default of owners—Nil.

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

(B.) Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—57.

(2) Number of dwelling-houses in which defects were remedied :—

(a) by owners—38.

(b) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

House Refuse.—The following are approximate numbers of the various types of sanitary conveniences and ashpits within the district :—

| Pail Closets | Privies Ashpits | Privies Closets | Dry Ashpits | Metal Bins | Other Receptacles | W.C.'s |
|-----------------|--------------------|--------------------|----------------|---------------|----------------------|--------|
| 9 | 621 | 1128 | 733 | 404 | 36 | 1929 |

During the year 17 privies have been converted into 17 w.c's.

The house refuse after collection is carted and deposited on low lying land, acquired for that purpose.

The refuse tips rented by the Council are four in number, viz. :—

No. 1 Macclesfield Road tip (nearly exhausted).

No. 2 Macclesfield Road tip (old gravel hole newly acquired).

No. 3 Robins Lane tip.

No. 4 Linney Road tip.

During the year a large quantity has been tipped on low lying land forming an open space called Wesley Park.

HOLLINGWORTH

Urban District.

Statistics.—Population, Census, 1922, 2,499. Number of inhabited houses, 634. Nett birth-rate for 1,000 living, 16.4. Nett death-rate for 1,000 living, 14. Nett death-rate under one year per 1,000 nett births, 121.

Water Supply.—This is a constant public service. The water is obtained from a spring rising high up the Arnfield Clough. Analysis has repeatedly shown the water to be of exceptional purity. It is slightly acid, and no doubt must to some degree possess plumbo-solvent properties. The short service pipes in use are well tinned and no trace of lead has ever been detected in this water. In parts not supplied with this public service I know of no instance nor isolated dwelling not in possession of a proper private supply of pure drinking water.

Drainage.—The district is well equipped with a good main sewer which has an ample fall and flush. House drains and sewers are now nearly all connected with the main sewer. Two cesspools are still in use. These latter are regularly inspected and emptied. The farmsteads on the hill-sides have their own proper systems of sewers. Their drains mostly empty into cesspools, well removed from the buildings. The farmers themselves periodically cleanse these receptacles and spread the contents as manure on the land.

Closet Accommodation.—The approximate numbers are :

| | | | | |
|---------------------|-----|-----|-----|-----|
| Midden privies | ... | ... | ... | 200 |
| Dry ashpits | ... | ... | ... | 168 |
| Pail closets | ... | ... | ... | 136 |
| Dust bins | ... | ... | ... | 56 |
| Cesspools | ... | ... | ... | 2 |
| Waste water closets | ... | ... | ... | 54 |
| Town water closets | ... | ... | ... | 68 |

Infectious Diseases.—Except for an epidemic of whooping cough, the district has been remarkably free from infectious disease during the past year. One case of scarlet fever was reported and one of enteric fever, which was fatal—there was no evidence as regards the source of infection in this case.

There was one case of erysipelas.

Hollingworth Urban District.

One case of tuberculosis was reported—tubercular meningitis in a child 10 months old which was fatal.

Hospital Accommodation for Infectious Diseases.—There is an Isolation Hospital for small-pox situated on Mottram Moor, the ownership being vested in the three Councils of Mottram, Hollingworth and Tintwistle.

Housing.—The proposal for erecting houses on land in Green Lane has been abandoned—at least for the present.

There are no unhealthy areas.

There are 22 back-to-back houses which are well built and kept in a fair state of repair, but are distinctly undesirable.

HOOLE**Urban District.**

Statistics.—Area (acres) 334. Population at Census, 1921, 5,990, which includes 331, the population of the Chester Workhouse. Number of inhabited houses, 1921, 1,280. Birth-rate, 22.4. Death-rate, 10.3 per 1,000. Deaths of infants under one year of age per 1,000 births, 85.0.

Notifiable Diseases.

| | | | Total Cases Notified. | | Cases admitted to Hospital. |
|---------------------------------------|-----|-----|--------------------------|-----|--------------------------------|
| Diphtheria | ... | ... | 16 | ... | 14 |
| Scarlet Fever | ... | ... | 27 | ... | 19 |
| Enteric Fever (including Paratyphoid) | ... | ... | 1 | ... | 1 |
| Others | ... | ... | 28 | ... | 11 |

Laboratory Work.—One specimen of blood was examined at the Manchester Public Health Laboratory for the typhoid re-action with a negative result. The thanks of the District Council are due to Dr. Rennet for examining swabs for diphtheria. Forty were examined during this year, 32 of which were negative and 8 positive. Fourteen specimens of sputum were examined for the tubercle bacillus at the Cheshire County Laboratory, 3 of which were positive and 11 negative. Diphtheria antitoxin is kept for necessitous cases, but none was applied for during the year.

Hoole Urban District.

Housing.—One new house was erected during the year and three others are in the course of erection. No houses were erected as part of a Municipal Housing Scheme. The Council have purchased over eight acres of land for this purpose, but owing to the high cost of building material, the Housing Commission declined to approve the estimates that were submitted and the scheme is accordingly in abeyance.

Total number of houses inspected for housing defects—19.

Number of dwelling-houses inspected under the Housing (Inspection of District) Regulations—316.

Number of houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of houses (exclusive of those referred to under preceding sub-heading) found not to be in all respects reasonably fit for human habitation—29.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—29.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—19.

Number of dwelling-houses in which defects were remedied by owners—19.

HOYLAKE AND WEST KIRBY

Urban District.

Statistics.—Population (1921) 17,055. Number of inhabited houses (1921) 3,317. Number of families or separate occupiers (1921) 3,666. These statistics are calculated on the amended population of 16,530, supplied by the Registrar-General.

Birth-rate (Registrar-General) 15.9. The average number of births per annum during the period 1916-1920 was 214.8. Death-rate (Registrar-General) 10.2. Deaths of infants under one year of age per 1,000 births, 57; legitimate, 14; illegitimate, 1; total, 15.

*Hoyle and West Kirby Urban District.***Notifiable Diseases.**

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|---------------------------------------|----------------------|----------------------------|
| Diphtheria | 44 | 20 |
| Scarlet Fever | 24 | 18 |
| Enteric Fever (including Paratyphoid) | 1 | 1 |
| Erysipelas | 2 | — |
| Puerperal Fever | 2 | — |
| Encephalitis Lethargica | 1 | — |
| Pneumonia | 3 | — |
| Tuberculosis—(a) Pulmonary | 20 | 12 |
| (b) Non-Pulmonary | 5 | — |

Laboratory Work.—Pathological and bacteriological examinations. Twenty-eight examinations for tubercle bacilli. Eighteen examinations for diphtheria.

Housing.—Number of new houses erected during the year :

(a) total—33 (21 received the subsidy).

(b) as part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—707.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—Nil.

Number of dwelling-houses found to be in a state so injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—6.

Number of dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—346.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Hoyle and West Kirby Urban District.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—71.

Number of dwelling-houses in which defects were remedied

(a) by owners—66.

(b) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

KNUTSFORD**Urban District.**

Statistics.—Estimated population, 1921, 5,390. Number of inhabited houses, 1,245. Number of working-class houses, 760. Birth-rate per 1,000 living, 18.6. Death-rate per 1,000 living, 12.0. Deaths under one year in proportion to 1,000 births, 79.

Housing.—Number of new houses erected during the year, 2.

Inspection.

- (1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—123.
- (2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—Nil.
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—5.
- (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—12.
- (5) Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—12.

Knutsford Urban District.

- (6) Number of dwelling-houses in respect of which notices were served requiring repairs—4.
- (7) Number of dwelling-houses which were rendered fit by owners—4.
- (8) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—317.
- (9) Number of dwelling-houses in which defects were remedied by owners—244.

Fifty houses, which are being erected under the Council's Scheme, are nearing completion at the time of writing (April, 1922). As regards convenience, and suitability of site, they leave little to be desired.

Water Supply.—The source of pollution within the area of the Bucklow Rural Council, referred to in last year's Report, has been entirely removed.

The source of pollution within the Knutsford Council's area has, consequent upon legal proceedings, been satisfactorily dealt with as regards about half the trouble, but the remainder is at present held up pending an extensive scheme for re-building as well as re-draining.

As regards the sources of pollution in the Macclesfield Rural District, these have formed the subject of a complaint to the Ministry of Health by the Knutsford Council, followed by a conference between representatives of the Knutsford and Macclesfield Councils, and I hope that as a result some improvement will be brought about.

Infectious Diseases.—One case of encaphalitis lethargica occurred. There were really two cases belonging to Knutsford, but one was notified in Manchester, after removal to a hospital there, so does not appear as a notification in Knutsford. No connection could be traced between the two cases. Information concerning them was furnished to the Ministry.

A visitor for cases of measles and whooping cough is retained by the Council for employment when necessary.

Knutsford shares in the scheme of the County Council for cases of tuberculosis, but in addition, as a constituent authority of the Bucklow Joint Hospital Board, can send suitable cases to Baguley Sanatorium. In practice, for obvious, financial,

Knutsford Urban District.

reasons, all cases are dealt with through the County Council, whether they go to Baguley or any other Sanatorium.

Laboratory Work.—This is most satisfactorily carried out by the Manchester Public Health Laboratory. During 1921 nine specimens were examined from cases of suspected diphtheria, of which three gave positive results, and one from a suspected case of typhoid fever, which gave a negative result. Diphtheria antitoxin is available day and night at the Council Office and at the Inspector's residence.

(The Council have decided that after February, 1922, a fee of five shillings per specimen shall be paid to Medical Practitioners for obtaining and forwarding bacteriological specimens to the Laboratory).

Maternity and Child Welfare.—Except that the day for the Centre being open has been changed from alternate Mondays to alternate Wednesdays, the arrangements are unaltered.—(See previous Reports).

The Council have decided in future to supply Glaxo at cost price at the Centre, having been partly led to this decision by the stipulations and difficulties put in the way of granting free milk, or half-free milk, by the Ministry on the score of, doubtless, necessary economy. Personally I think the stipulations of the Ministry and the decision of the Council are wise. Half-free milk is only equal to half the quantity of milk free, and free milk is really only a matter of out-door relief, and is properly the business of the Guardians, and it is of course quite impossible for the Officers of the Council to make certain that it is consumed by those for whom it is intended, or even that it is not re-sold.

Dr. Lees has been re-appointed Medical Officer to the Centre for another three years. He reports for the year ending March 31st, 1922, 227 attendances at the Centre by 54 children, being an average of 8.7 per session, also that many mothers were advised as to their own health. The Health Visitor paid 966 visits to children under one year old, and 728 to children between one and five years old.—Total 1,694.

Closet Accommodation.—There are approximately 64 privies, 132 pail closets, 149 waste water closets, and 906 water closets in the district. There has been practically no change in these numbers during the year, much to my regret, but the Council are now dealing with the matter of conversions.

LYMM

Urban District.

Statistics.—The population for 1921 (Census) is 5,288. The birth-rate for 1921 is 19.9. The death-rate for 1921 is 10.2 per 1,000. Infant mortality 57 per 1,000 births.

Infant Welfare.—For the prevention of infant mortality, and consequently for the furtherance of infant health and well-being, Infant Welfare Centres have been provided throughout the kingdom. The County of Cheshire has established one for us in Lymm. That the object for which these Centres is established is not only worthy of our support but an obligatory duty upon every citizen and civilized human being must pass unchallenged. Do Infant Welfare Centres fulfil or tend to fulfil their object? The highest social, scientific and medical authorities have put them upon trial. Personally, I think they are the best, if not the only way, if well worked, of overcoming the ignorance and indifference of mothers whose maternal love instinct needs directing into channels less dangerous than the dogmatic ignorance of Mrs. Gamp, Bumble and Company. The Centres are worked from a large unit (the County) which allows of a maximum efficiency at a minimum rate of cost. The absolute cost is reduced to its lowest effective rate.

Infectious Diseases, &c.—During 1921 only 19 cases of infectious disease were notified. The death-rate from the seven principal zymotic diseases for 1921 was .6 per thousand population.

Bacteriological Work.—The following bacteriological work was done for the Authority during 1920 by the Manchester Public Health Authority:—

Diphtheria—4 specimens; 0 positive.
 Typhoid—3 cases; 2 positive.
 Sputum for Tuberculosis—3 cases; 0 positive.
 Water—1 for bacteriological analysis.

Water Supply.—Owned and managed by the local authority, water is laid on throughout the district where possible. A few outlying farms and cottages cannot be connected. The supply is constant. The water is pumped up from Artesian borings to a water tower and reservoirs for

Lymm Urban District.

delivery under pressure. The water is hard (both temporary and permanent hardness), but is bacteriologically pure on analysis.

Housing.—Fifty new houses are erected or in course of erection.

There is overcrowding, but with the 50 now complete, 50 more suitable in rent and accommodation, should entirely relieve this, both at present and probably for some time to come. Thirty out of the 50 new houses built by the Council are now in occupation.

Closet Accommodation.—The approximate number of sanitary conveniences is as follows:—

| | | | | |
|------------------------------|-----|-----|-----|-----|
| Water closets | ... | ... | ... | 725 |
| Privies and ashpits combined | ... | ... | ... | 700 |
| Dry ashpits | ... | ... | ... | 350 |
| Pail closets | ... | ... | ... | 30 |
| Dustbins | ... | ... | ... | 150 |
| Cesspools | ... | ... | ... | 50 |

MARPLE
Urban District.

Statistics.—Population (1921 Census) 6,613. Number of inhabited houses, 1,699. Birth-rate, 12.5. Death-rate, 11.4. Deaths of infants under one year of age per 1,000 births:—legitimate, 5; illegitimate, 1; total, 6.

Water Supply.—The water supply of Marple is obtained from the Stockport Corporation from the Kinder reservoirs, and is good in quality.

Notifiable Diseases.

| Disease. | Total Cases Notified. | Cases admitted to Hospital. |
|---------------------------------------|-----------------------|-----------------------------|
| Diphtheria | 8 | 1 |
| Scarlet Fever | 10 | 3 |
| Enteric Fever (including Paratyphoid) | 1 | 1 |
| Erysipelas | 2 | — |
| Tuberculosis— | | |
| (a) Pulmonary | 7 | 4 |
| (b) Non-Pulmonary | 2 | 1 |

Marple Urban District.

Isolation Hospital.—There is no hospital in the district for the treatment of infectious diseases; the Local Authority retain two beds at the Hyde Isolation Hospital, to which all necessary cases are removed.

Housing.—Number of new houses built during 1921—6.

Number of dwelling-houses inspected under Section 17, Act of 1909—None.

Number of such houses considered unfit for habitation—None.

Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909—1,394.

Number of such houses in respect of which notice was served during 1921—154.

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—42.

Approximate number of cellar dwellings in district—None.

Number of new houses erected during the year :—

(a) Total—6.

(b) As part of a Municipal Housing Scheme—Nil.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—154.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—Nil.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—154.

Marple Urban District.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—125.

Action under Statutory Powers—Nil.

Closet Accommodation.—Particular attention has been directed to the conversion of privy middens into water closets, with the result that 32 privy middens have been converted into water closets.

In connection with the conversion of privies to water closets, Miss E. Kellett, of Stockport Road, Marple, appealed to the Ministry of Health against the decision of the Council to recover the sum of £216 incurred by the Council in the converting of privies to water closets at Nos. 52 and 54, Church Lane, 17 and 19, Station Road, and houses occupied by Messrs. Dobson, Harrop, Marlow and Johnson, in Stockport Road.

In consequence of this appeal Mr. J. Dawes, one of the Ministry's Inspectors, held a Local Inquiry on June 22nd, 1921, the decision of the Ministry being as follows:—

(Extract from M.O.H's. Order.)

“The Minister of Health, in pursuance of powers given to him by the Statutes in that behalf, hereby confirms the decision of the Council with respect to aforesaid expenses; and the Minister hereby orders that the Appellant shall pay to the Council the sum demanded as aforesaid; and the Minister further orders that the Appellant shall pay the Council the sum of £10 10s. in respect to the costs incurred by the Council in relation to the aforesaid Inquiry, and that the payment be made forthwith.

Given under the Official Seal of the Ministry of Health this Ninth day of September, in the Year One Thousand Nine Hundred and Twenty-one.”

A. B. MACLACHLAN,
Assistant Secretary, Minister of Health.

The number of water closets and other sanitary conveniences in the district are as follows:—

Marple Urban District.

| | | | |
|--------------------|-----|-----|----------|
| Water closets | ... | ... | ... 1037 |
| Slop water closets | ... | ... | ... 309 |
| Privy middens | ... | ... | ... 343 |
| Pail closets | ... | ... | ... 44 |
| Dry ash pits | ... | ... | ... 160 |
| Ash bins | ... | ... | ... 1215 |
| Cesspools | ... | ... | ... 22 |

MIDDLEWICH**Urban District.**

Statistics.—Population—The estimate of 5,190 is based on the Registrar-General's Report. Births, total, 121; rate, 23.3. Illegitimate infants, 5, no deaths. Deaths, total, 57; rate, 10.98. Infantile mortality, the number of deaths numbered 7; rate per 1,000 births, 57; three due to premature birth.

Notification of Infectious Diseases.—These numbered 48.

Isolation Hospital.—Davenham.

Bacteriological Examinations made during the year:—29 specimens of diphtheria examined, 15 positive; 7 specimens of tuberculosis examined, 0 positive.

House Accommodation is fair, about 12 houses required. Number of separate occupiers 1,114. The houses of the working-classes are good structurally and sanitary. Inspections, 410. Rate of inhabitants per house, 4.65. Houses being built by private persons.

Water Supply.—There is a good and plentiful supply of excellent water to nearly every house in the district. Only four houses, situate a long way from mains, are not supplied with water from the town's supply.

Sanitary Conveniences.

Conversions during 1921:—4 pails, 25 privies, to 40 water closets.

Middlewich Urban District.

Sanitary conveniences at end of 1921 :—

Peat moss pails :—

| | | | | | |
|---------------|-----|-----|-------|-----|-----|
| Houses | ... | 479 | Pails | ... | 489 |
| Institutions | | 2 | " | ... | 3 |
| Lock-up Shops | | 1 | " | ... | 1 |
| Factories | ... | 16 | " | ... | 25 |

Total number of Peat Moss Pails in use... 518

Privies :—

| | | | | |
|---|-----|-----|-----|-----|
| Number of houses with privy accommodation | | | | 363 |
| Institutions | ... | ... | ... | 3 |
| Lock-up shops | ... | ... | ... | — |
| Factories | ... | ... | ... | 5 |
| Total | ... | ... | ... | 371 |

Housing.—Number of new houses erected during the year :

(a) Total—12.

(b) As part of a Municipal Housing Scheme—12.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—410.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—24.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—2.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—2.

No action was taken under the Statutory Powers of the Housing and Town Planning Act or Public Health Act.

MOTTRAM-IN-LONGDENDALE.

Urban District.

Statistics.—Population (1921) Census, 2,884. Population (1921) (Registrar-General) 2,920. No. of inhabited houses (1921) 789. No. of families or separate occupiers, 801 approximately. Birth-rate (Registrar-General) 14.7. Death-rate (Registrar-General) 13.7. Deaths of infants under one year of age per 1,000 births, 69; legitimate, 2; illegitimate, 1.

Isolation Hospital.—One hospital is provided for infectious diseases. It contains eight beds—four male and four female, and is situated in Mottram Moor. The Council has an arrangement to send cases of diphtheria and croup to the Hyde Borough Hospital and small-pox to Hartshead, near Oldham.

Laboratory Work.—Pathological examination and swabs (throat) are examined at the Public Health Laboratory, York Place, Manchester, at the Council's expense. Sputum for T.B. is examined at the County Tuberculosis Laboratory, Chester, at the County's expense. Diphtheria antitoxin is supplied by the Council.

Housing.—No new houses have been erected during the year.

Five hundred and six houses were inspected for housing defects (under Public Health or Housing Acts), under the Housing (Inspection of District) Regulations, 1910. Seventeen houses were inspected. No houses were found in such a state as to make them injurious to health.

Eleven houses (exclusive of those referred to under the preceding paragraphs) were found not to be in all respects reasonably fit for human habitation.

Eleven defective dwelling-houses were rendered fit in consequence of informal action by the Local Authority.

Notices were served under the Public Health Acts in respect to seven cases, and the work in connection with same is in hand.

No proceedings under Sections 17 and 18 of the Housing, Town Planning Act, 1909, have been taken.

Mottram-in-Longdendale Urban District.

Sanitary Conveniences.—Number of privies with fixed receptacles, 374; number of privies with moveable receptacles, 225; number of fresh water closets, 120; number of waste water closets, 26.

The conversions from one type of sanitary convenience to another were :—privies fixed to movable receptacles, 2.

Cellar Dwellings.—There are four cellar dwellings in the district, and they have been inspected eight times during the year.

Back-to-back Houses.—There are six back-to-back houses in the district, and they have been inspected twelve times during the year.

During the year seven houses have been reported upon as defective, but could be made habitable. Statutory notices have been served on the owners of the property to remedy the defects, and the required works are now in hand.

Structural defects in eleven houses have been voluntarily remedied.

NANTWICH**Urban District.**

Vital Statistics.—Births : 89 males, 83 females, total 172; legitimate, 166; illegitimate, 6. Birth-rate, 23.5. Deaths, 94. Death-rate, 12.8. Deaths of infants under one year of age per 1,000 births : legitimate, 93; illegitimate, 17.4; total, 110.4.

Laboratory Work.—Bacteriological examinations are made at the Public Health Laboratory, Manchester, the number of examinations being as follows :—diphtheria, 28; typhoid fever, 2; human tuberculosis sputum, 13.

Diphtheria antitoxin is supplied by the Council free for necessitous cases.

Water Supply.—Owing to the long drought, the water in the Mere was the lowest on record. At the end of December

Nantwich Urban District.

the water was down 25 feet below normal, being 9 feet lower than in the year 1911. Pumping operations commenced on the 17th of June and continued until the 17th of January, 1922. From the 5th of August until the 13th of December the water in the district was turned off at 5 p.m. until 7-30 a.m., and from the 13th December until the 18th of January, 1922, at 3 p.m. until 7-30 a.m. Notices were distributed throughout the district in September, advising the public to boil all water before using same for drinking purposes.

The storage capacity of the Mere has been considerably increased during the year, and the whole question of water supply is at the present time receiving very careful attention with a view to improving same.

Sanitary Inspections.

| | | |
|--|--------|------|
| Dwelling-houses (general inspections) | ... | 201 |
| Back-to-back houses | | 4 |
| Privy middens, earth or pail closets | ... | 1849 |
| Ashpits | | 1231 |
| House drainage (in course of construction) | ... | 392 |
| &c. | | |

Housing.—Number of new houses erected during year—
Nil.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—578.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—40.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—54.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—10.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Nantwich Urban District.

Number of dwelling-houses in respect of which notices were served requiring repairs—3.

Number of dwelling-houses which were rendered fit (by owners)—3.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—192.

Number of dwelling-houses in which defects were remedied (by owners)—160.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—Nil.

NESTON AND PARKGATE

Urban District.

Statistics.—Population (1921) 5,191. Number of inhabited houses (1921) 1,025. Number of families or separate occupiers (1921) 1,065. These statistics are calculated on the amended population of 5,150, supplied by the Registrar-General. Birth-rate (Registrar-General) 23.8. The average number of births in the preceding five years was 107.8 per annum. Death-rate (Registrar-General) 9.5. Deaths of infants under one year of age per 1,000 births, 56.9; legitimate, 6; illegitimate, 1; total, 7.

*Neston and Parkgate Urban District.***Notifiable Diseases.**

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|---------------------------------------|----------------------|----------------------------|
| Diphtheria (1 withdrawn) ... | 11 | 10 |
| Scarlet Fever ... | 7 | 4 |
| Enteric Fever (including Paratyphoid) | 1 | — |
| Erysipelas ... | 1 | — |
| Pneumonia .. | 4 | — |
| Dysentery ... | 1 | — |
| Tuberculosis—(a) Pulmonary | 7 | 1 |
| (b) Non-Pulmonary | 2 | — |

| Disease | Cases Notified | Cases Treated at Home | Cases Treated in Hospital | Vision unimpaired | Vision impaired | Total Blindness | Deaths |
|---------------------------|----------------|-----------------------|---------------------------|-------------------|-----------------|-----------------|--------|
| Ophthalmia Neonatorum ... | 4 | 4 | — | 4 | — | — | — |

Laboratory Work.—Pathological and bacteriological examinations. Three examinations for tubercle bacilli. Two examinations for diphtheria. Issue of diphtheria antitoxin, Nil. Other sera or vaccines, Nil.

Closet Accommodation.—Sixty-seven notices were served under Section 39 Public Health Act (Amendment Act), 1907, requiring the conversion of midden privies in the central portion of the district. Eight conversions were made, and the Council is now receiving tenders for the conversion of the remainder.

Housing.—Number of new houses erected during the year :

(a) Total (8 received the subsidy)—9.

(b) As part of a Municipal Housing Scheme—Nil.

The Local Authority desires that this Report should contain a statement that the failure to carry out a Municipal Housing Scheme over which it devoted much time was due entirely to the lack of action by the Central Authority. Although houses are urgently needed, there was a considerable wastage of public money, and no houses were built.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—115.

Neston and Parkgate Urban District.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—95.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—1.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—83.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—68.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—15.

Number of dwelling-houses in which defects were remedied :

(a) by owners—15.

(b) by Local Authority in default of owners—Nil.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to making of Closing Orders—1.

Number of dwelling-houses in respect of which Closing Orders were made—1.

NORTHWICH

Urban District.

Statistics.—Area, 1,398 acres. Population (Census) 18,385. The number of inhabited houses was 4,059, while the number of separate occupiers was 4,259, showing that housing accommodation is required for some 200 families. Birth-rate

Northwich Urban District.

per 1,000 is 21.8, and is calculated upon a population of 18,650. Death-rate, 11.3.

Infantile Mortality.—The total number of infants who did not survive for one year was 34.

The figures of the Registrar-General show one death of an illegitimate child, making 35 for the total, and giving a rate of 82 per 1,000 births.

Small-pox.—The outbreak of small-pox consisted of an infection of four children out of a family of five, the four not having been vaccinated, while the fifth with four vaccination scars entirely escaped. The disease was clearly brought home by the father who worked away in Yorkshire and came home ill "with a rash." He recovered and returned to work.

The isolation of the four cases and re-vaccination of all contacts so far as could be found, checked the spread of infection, only one other case occurring (during 1922). This was the unvaccinated daughter of a neighbour who helped to nurse the four first cases. Up to date this closes the epidemic, and although prompt and energetic measures were taken to deal with the outbreak it is no doubt largely owing to the efficient vaccination which has been a feature of the district until the last few years that more cases did not occur. Unfortunately there has been a lamentable decrease in vaccination during the last few years.

Maternity and Child Welfare.—The premises at present in use are commodious and well-situated for the district. There is a whole-time Health Visitor. Sessions are held weekly, and a rota of ladies of the Committee attend and assist. The Medical Officer is present at each session. No medicinal treatment is carried out, a rule which is uniform throughout the County.

The number of first visits paid by the Health Visitor was 400, the number to children under one year was 2,340, and to children between the ages of one and five was 2,030, making a total of 4,410. To expectant mothers 72 visits were paid. The number of children on the books of the Centre is 437, and the average attendance is 24—25.

Laboratory Work.—Arrangements are made with the Public Health Laboratory, Manchester.

Northwich Urban District.

The examinations during the year were as follows:—

| | Positive. | Negative. | Total. |
|--------------------------|-----------|-----------|--------|
| Tubercle bacilli ... | 16 | 42 | 58 |
| Diphtheria ... | 6 | 19 | 25 |
| Enteric fever ... | — | 4 | 4 |
| Cerebro-spinal fluid ... | — | 1 | 1 |
| | — | — | — |
| Total ... | 22 | 66 | 88 |
| | — | — | — |

The County Council arrangements for tuberculosis were responsible for all the sputum examinations except two, these were mostly from dispensary cases.

For the treatment of diphtheria 32,000 units of antitoxin were requisitioned for and supplied to Local Practitioners.

Closest Accommodation.—There has been a marked improvement in the scavenging of the town of late, and the conversion of conservancy to water closets is being pushed along. There are 169 cesspools in the district, 33 less than last year, this number having been converted to the water carriage system. There are 1,521 pail closets, a decrease of 10 owing to conversion to w.c's. There are 1,307 ashpits, a decrease of 33 during the year. There are 1,648 ash bins, an increase of 33 during the year.

Housing.—During the year 12 new houses have been completed, all being part of the Housing Scheme; 76 others are in course of erection.

The following table gives particulars concerning action taken under this heading:—

Number of new houses erected during the year:—

(a) Total—12.

(b) As part of a Municipal Housing Scheme—12.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—516.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—516.

Northwich Urban District.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—4.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—512.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—503.

No proceedings were taken under the Housing, Town Planning, &c., Act, 1919, or under the Public Health Acts.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—4.

Number of dwelling-houses in respect of which Closing Orders were made—4.

Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit—Nil.

Number of dwelling-houses in respect of which Demolition Orders were made—4.

Number of dwelling-houses demolished in pursuance of Demolition Orders—4.

RUNCORN

Urban District.

Statistics.—Estimated population, 18,610. Population at Census, 1921, 18,393. Density of population, (*i.e.*, number of persons per acre), 14.9. Birth-rate per 1,000 of the population, 23.4. Death-rate per 1,000 of the population, 12.1. Zymotic death-rate, 0. Infantile mortality rate (per 1,000 births), 94.0.

Runcorn Urban District.

Measles.—The Notification and Treatment of Measles and German Measles Order of 27th November, 1915, came into force on January 1st, 1916.

Article VI. required notification by Medical Practitioners in the Form set out in the Schedule to the Order, of cases in households or Institutions in which no case of measles has been notified within a period of two months.

Article IX. empowered Local Authorities to make arrangements for the provision of medical assistance, including nursing and hospital accommodation, for the poorer inhabitants of the district.

Notifications Received.

During the year 1916 the number of cases of measles notified was 780.

During the year 1917 the number of cases of measles notified was 48.

During the year 1918 the number of cases of measles notified was 371.

During the year 1919 the number of cases of measles notified was 135.

These cases were notified or reported by :—

| | 1916 | 1917 | 1918 | 1919 | Totals |
|---|------|------|------|------|--------|
| Total number of Cases ... | 780 | 48 | 371 | 135 | 1334 |
| Medical Practitioners ... | 498 | 24 | 217 | 59 | 798 |
| Parents or Guardians ... | 135 | 9 | 24 | 3 | 171 |
| Head Teachers of Schools (verified by Sanitary Inspector) ... | 147 | 15 | 130 | 73 | 365 |
| Health Visitors ... | — | — | — | — | — |
| School Nurses ... | — | — | — | — | — |

From the figures above the percentage of cases notified or reported are as follows :—

| | |
|--|------|
| By Medical Practitioners (1st cases only)... | 59.8 |
| By Parents or Guardians ... | 12.8 |
| By Head Teachers ... | 27.4 |

Runcorn Urban District.

It should be pointed out :—

1. That during the period 1916-1919 the proportion of cases reported by parents and guardians gradually decreased from about 18 per cent. in 1916 (during a severe epidemic) to about 0.5 per cent. in 1919.
2. The reports of cases by Head Teachers reach the Medical Officer of Health most frequently from 7 to 14 days after the onset of the disease : and in some cases reports are still longer delayed.

The Measles Notification Rescission Order, 1919, which came into force on January 1st, 1920, will thus destroy the source of information of about 60 per cent. of measles cases—namely, the notifications of medical men : and a further 12 per cent. by parents or guardians : while those cases reported by Head Teachers reach the Medical Officer too late to be of much use in the control of an epidemic.

The Circular of information regarding the Rescission Order, issued by the Ministry of Health, suggests that information regarding the occurrence of measles cases can now be obtained through the reports of :—

1. Health Visitors.
2. School Nurses and School Attendance Officers.
3. Parents and Guardians by voluntary report.

During the period 1916-1919 not a single notification or report was received from either Health Visitors or from School Nurses. The duties of School Nurses in this district do not include visits to the homes of sick children—in fact their visits to the schools are irregular and generally only twice or thrice a year : while the duties of the existing Health Visitors appointed by the County Council do not include visits to measles cases.

So that the only source of reliable and prompt information as to the outbreak of measles in the Council's district are now such as are obtained by voluntary reports from Medical practitioners and from parents or guardians, together with belated reports of suspected cases from the Head Teachers of Schools.

On these grounds it is therefore recommended that the Council make application to the Ministry of Health for an order making the compulsory notification of measles and german

Runcorn Urban District.

measles applicable to cases of these diseases occurring in the Runcorn Urban District.

Such application will only be granted, provided that the Council possesses and is prepared to utilize a satisfactory organisation for dealing with cases of measles.

The Council's Infectious Diseases Hospital and its staff, with the assistance of specially engaged nurses to attend to such cases as could not be taken into the Infectious Diseases Hospital; with the additional accommodation which could be arranged for in the Cottage Hospital, should the extent of an epidemic require it, would in my opinion constitute a satisfactory organisation to combat an epidemic such as was experienced during the year 1916.

Isolation Hospital.—During the year systematic bacteriological examinations of the throat swabs of scarlet fever cases in hospital were made, 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*.

Bacteriological Examinations.—Numerous examinations of sputa for tubercle bacilli, throat swabs for diphtheria bacilli, and for streptococci in cases of scarlet fever, have been conducted in the private Laboratory of the Medical Officer of Health.

Housing.

No. of new houses built—59.

No. of dwelling-houses inspected—669.

No. of Closing Orders made by Local Authority—0.

No. of houses where defects were remedied after Closing Order made—0.

No. of houses where defects were remedied without Closing Orders being made—34.

No. of houses where Authority executed the necessary repairs—0.

No. of houses demolished (Water Street)—6.

No. of back-to-back houses—130.

No. of cellar dwellings—0.

SALE

Urban District.

Statistics.—Birth-rate, 18.7 per 1,000. Death-rate, 11.12 per 1,000. Zymotic death-rate, .29 per 1,000. Infantile mortality of 71.6.

Infectious Diseases.—122 cases of infectious diseases were notified during the year, viz. :—scarlet fever 103, diphtheria 8 (one death), erysipelas 7 (one death), puerperal fever 1 (death), encephalitis lethargica 1 (death), and ophthalmia neonatorum 2. Scarlet fever was rather prevalent during the summer.

Housing.—120 houses were inspected, 6 statutory and 20 informal notices were served on property owners, and all were complied with. Houses are steadily being built.

In some areas (Egerton Street and Hyde Grove) several houses were overcrowded, but it is very difficult to find house room for excess of people.

Town Planning.—Plans passed and submitted in 1920 and under consideration.

Closet Accommodation.—An Inquiry was held by H. E. Byrne, Esq., M.Inst.C.E., at the Town Hall, Sale, on the 14th April last, as to the sanction to borrow £13,750 for the conversion of privy ashpits and sewerage works connected therewith. The Roebuck Lane main sewer is to be enlarged and re-tiled in February.

The Council have in hand the conversion of 143 privy ashpits into water closets and dust bins. During the year 1922 the remainder of the ashpits—560—will receive attention.

SANDBACH

Urban District.

Statistics.—Area in acres is 2,693. Population at the last Census 5,843. There are 1,430 inhabited houses with probably about 50 double families, making a total of 1,480 families. Birth-rate per 1,000, 27.8. Death-rate, 14 per 1,000. Infantile mortality, 49 per 1,000.

Sandbach Urban District.

Infectious Disease.—There were 35 cases notified: diphtheria 7, scarlet fever 11, typhoid 1, tuberculosis 14, ophthalmia neonatorum 2.

Isolation Hospital.—Small-pox—We have a very useful hospital at Arclid for small-pox in constant working order under the supervision of a Caretaker. Ten beds, five for each sex, supported partly by the Council.

Fever Sanatorium at West Heath, Congleton, conjoint with other bodies for scarlet, typhoid and diphtheria, and is a very efficient and well conducted hospital.

Pathological Examination.—Sputum for examination for tubercle bacilli is sent to the County Council's Tuberculosis Officer at Chester. Other specimens are sent to York Place, Manchester. Diphtheria antitoxin is provided by the Council on application. Other vaccines are sent if necessary.

Housing.—There have been eight new houses added during the year, six of those as part of the Municipal Housing Scheme.

There have been 670 inspections of houses for minor defects and 128 houses inspected and recorded under Inspection of District Regulations.

Three houses are not reasonably fit for habitation.

Thirty defects have been remedied without action being required.

Five notices have been served with regard to repairs, and those are now in hand.

Twenty-four notices were served under the Public Health Acts requiring defects to be remedied, and these were all attended to and put in order by the owners.

Closet Accommodation.—Conversion to the water carriage system are not as numerous as could be desired. Seven earth closets have been converted with proper flushing apparatus.

I hope that as the cost of materials are reduced the conversions to the water carriage system will be accelerated. Every effort is being made to effectually remove the refuse and cleanse the privies as often as is necessary.

Sandbach Urban District.

The number and different types of closets are as follows :—

| | | | | |
|---------------|-----|-----|-----|-----|
| Water closets | ... | ... | ... | 304 |
| Pail closets | ... | ... | ... | 659 |
| Earthenware | ... | ... | ... | 21 |
| Privies | ... | ... | ... | 381 |

TARPORLEY

Urban District.

Statistics.—Census population, 1911, 2,604. Census population, 1921, 2,512, decrease of 92. Births, 55. Birth-rate, 21.8 per 1,000. Deaths, 24. Death-rate, 9.5. Infantile mortality, 6 under one year or 109.0 per 1,000 births.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|------------------------|----------------------|----------------------------|
| Diphtheria | — | — |
| Scarlet Fever | 2 | 1 |
| Tuberculosis—Pulmonary | 2 | — |

Hospitals.—Fever cases are sent to the Fever Hospital at Sealand, Chester. Tarporley constituting one of the conjoint Hospital Board with Tarvin Rural District and Malpas Rural District.

There is a temporary wooden building at Tiverton for small-pox: arrangements could be made in a few hours for receiving patients in conjunction with the Tarvin Rural District.

Laboratory Work.—There were no samples of water analysed during 1921, either bacteriologically or chemically.

Two specimens of sputum were examined at the County Laboratory, one was positive and one was negative.

Diphtheria antitoxin is supplied by the Council on application from the doctor in attendance in necessitous cases.

Housing.—Number of new houses erected during the year—None.

Tarporley Urban District.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—96.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—None.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—2.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—None.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—9.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—6.

Number of dwelling-houses which were rendered fit:—

(a) by owners—11.

(b) by Local Authority in default of owners—None.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—None.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—24.

Number of dwelling-houses in which defects were remedied

(a) by owners—11.

(b) by Local Authority in default of owners—None.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

WILMSLOW

Urban District.

Statistics.—Population (1921) 8,260. Number of inhabited houses (1921) 2,093. Number of families or separate occupiers (1921) 2,104. Birth-rate (Registrar-General) 15.9. Death-rate (Registrar-General) 14.2. Deaths of infants under one year of age per 1,000 births: legitimate, 53; illegitimate, 7.5; total, 60.5.

Notifiable Diseases.

| | | Total Cases Notified. | | Cases admitted to Hospital. |
|-------------------|-----|--------------------------|-----|--------------------------------|
| Diphtheria | ... | 26 | ... | 13 |
| Scarlet Fever | ... | 11 | ... | 3 |
| Enteric Fever | .. | 1 | ... | 1 |
| Puerperal Fever | ... | 3 | ... | — |
| Pneumonia | ... | 8 | ... | — |
| Tuberculosis— | | | | |
| (a) Pulmonary | ... | 5 | ... | — |
| (b) Non-Pulmonary | | 3 | ... | — |

Isolation Hospital.—Fever and small-pox cases are admitted to Monsall Hospital by arrangement between the Bucklow Joint Hospital Board and the Manchester Corporation.

Laboratory Work.—Pathological and bacteriological examinations, &c. The Local Authority has arranged for the examination of pathological material at the Manchester Public Health Laboratory. During 1921 seventy-seven throat swabs were sent for bacteriological examination. Of these, 25 were positive. Two specimens of sputum were examined: both positive for tuberculosis. Diphtheria antitoxin was provided by the Council.

Closet Accommodation.—This consists of 1,151 water closets and 850 privies, 25 per cent. of the latter being in the rural area. Forty privies were converted into water closets during the year.

Housing.—Number of new houses erected during the year :

(a) Total—68.

(b) As part of a Municipal Housing Scheme—36.

Wilmslow Urban District.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—34.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—157.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—25.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—9.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—8.

Number of dwelling-houses which were rendered fit:—

(a) by owners—8.

(b) by Local Authority in default of owners—None.

Number of dwelling-houses in respect of which Closing Orders become operative in pursuance of declarations by owners of intention to close—None.

No proceedings were taken under Public Health Acts or Housing and Town Planning Act, 1909.

WINSFORD

Urban District.

Statistics.—Population, 1921 Census, 10,957, including 5,419 males and 5,538 females. Number of inhabited houses, 2,439. Number of families or separate occupiers, 2,439. Birth-rate, 24.3. Death-rate, 12.3. Deaths of infants under

Winsford Urban District.

one year of age: legitimate, 26; illegitimate, 1; total, 27. Deaths under one year to 1,000 births, 97.

Maternity and Child Welfare.—The Centre was open each Friday afternoon during the year with the exception of Good Friday.

The usual routine examination was carried out on each visit of a child, viz., the child was stripped, weighed, measured and clinically examined. Each doctor received a list of his patients who attended the Centre, together with a resumé of any advice given or diseased condition found.

I notice that lately we have had a few cases attending the Centre from Minshull Vernon and Clive, districts which are outside the Urban Area. I suggest that the Council might approach the County Medical Officer of Health with regard to payment for such cases.

The following is a statistical record of the work :—

| | | | | |
|--|-----|-----|-----|-----|
| No. of times Centre was open | ... | ... | ... | 51 |
| No. of children on the register during the year... | | | | 196 |
| Total number of attendances | ... | ... | ... | 668 |
| Average weekly attendance | ... | ... | ... | 13 |
| No. of new cases under 12 months of age at their first visit | ... | ... | ... | 79 |
| No. of new cases over 12 months of age at their first visit | ... | ... | ... | 9 |

Of the new cases under 12 months :—

| | | | | |
|---|-----|-----|-----|----|
| The number who were being or had been entirely breast fed was | ... | ... | ... | 52 |
| The number who were being or had been partly breast and partly bottle fed was | ... | ... | ... | 11 |
| The number who were being or had been entirely bottle fed was | ... | ... | ... | 16 |
| The number of children in whom diseased conditions were found was | ... | ... | ... | 53 |

Nurse Joynson as usual attended each sitting, and generally supervised the mothers and children. She also during

Winsford Urban District.

the week visited the necessary cases to see that any advice given was, as far as possible, carried out.

The Nursing Association kindly arranges for their nurses to attend and help at the Centre each week.

Bacteriological Examinations.—During the year 1921 the following examinations were made by the Laboratory of Public Health, York Place, Manchester :—

| Date | Refer. No. | Nature | No of Samples |
|----------|----------------|-------------------------------------|---------------|
| April | ... L.B. 13438 | Growth from Iliac Fossa | ... 1 |
| May | ... „ 13576 | Tumour of Lip | ... 1 |
| June | ... „ 13749 | Abdominal Tumour | ... 1 |
| July | ... „ 13859 | Faeces for Typhoid and Dysentery | ... 1 |
| August | ... „ 13892 | „ „ | ... 1 |
| „ | „ 13978 | Tumour of Breast | ... 1 |
| November | „ 14349 | „ „ | ... 1 |

The following were made by the County Laboratory attached to the Office of the Chief Tuberculosis Officer, Chester.

Report on specimens of sputum :—

| | | | | |
|----------|-----|-----|-----|----|
| Positive | ... | ... | ... | 3 |
| Negative | ... | ... | ... | 24 |

Closet Accommodation.—Remaining at the end of the year :—

| | | | | |
|------------------|-----|-----|-----|-----|
| Cesspool privies | ... | ... | ... | 959 |
| Peat pails | ... | ... | ... | 533 |

Converted to the water-carriage system during the year :

| | | | | |
|-----------------------|-----|-----|-----|----|
| From cesspool privies | ... | ... | ... | 16 |
| From peat pails | ... | ... | ... | 4 |

(The number of water closets is 1,190).

Number of cesspool privies converted during the year to peat pail closets, 26.

These privies are insanitary. They pollute the sub-soil, and in heavy rain often overflow on to the surface of the ground.

Are we to convert them to pail closets or to w.c.'s. ?

If to the latter we shall require additional water supplies. The amount required would be :—the population affected

Winsford Urban District.

which, at 4.5 per house, would be 4,500, multiplied by the water required per head for flushing w.c., estimated at 5 gallons; *i.e.*, 22,500 gallons of water per day more would be required if we converted the privies to the water carriage system.

But it would be unreasonable to go so far with the water carriage system, and to leave houses which have pail closets, but which are otherwise a precisely similar class of property to the houses with privies, to continue on the conservancy system. If we took the step of obtaining enough water to deal with the one type of closet, we would be well advised to convert the 533 peat pails to the water carriage system too, and that would require about 11,250 gallons a day more water.

Thus if the whole town were converted to the water carriage system, 33,750 gallons a day extra water would be required.

Something else would be required too, to put the town into good order for the water carriage system, *i.e.*, a fairly thorough overhauling of the sewerage system, and of the sewage disposal arrangements.

The very great expense of these proposals is prohibitive, both now and for years to come.

Piece-meal and tentative action alone seems open to us. So far as possible it would be wise to *organise* this by pre-determining which streets or which districts should be dealt with on the conservancy system, and which on the water carriage system.

Meadow Bank and outlying parts of the town should be dealt with on the peat pail system. Any owners installing water closets in those neighbourhoods ought to return a purified effluent to water courses.

On the other hand it would be unreasonable to refuse water carriage to the houses with access to the good impervious modern sewer in Station Road.

The most difficult problem occurs in the more closely built parts of Over, especially the length of High Street just below Dean Street, and in the adjacent side streets, John Street, Well Street, etc. Water carriage is the only simple solution, but would be likely to involve much expense in sewerage.

In the higher parts of Over the policy of conversion to peat pails has already been taken in hand, to wit at Town Fields, Greenfield Cottages (which is the spot where diphtheria

Winsford Urban District.

was endemic), and the Victoria Terrace, where the enteric case occurred last year.

Progress on these lines must be recognised to be more difficult, however, to negotiate with owners than when water carriage can be pressed whole-heartedly. When the Inspector can point out to an owner that he can 'scrap' his stinking privy at the bottom of the garden, install a good w.c. adjacent to the back kitchen with a coal house adjoining, improve the wash house, lay down an impervious yard, and generally convert a tumble-down hovel into a respectable artizan's dwelling, commanding a higher rent, then the owner is tempted to agree. The mere conversion of a privy to a pail does not make the same appeal to him, and, even if he agree to do it, the *general* improvement of the property does not eventuate.

The conservancy system is not, however, to be disparaged. If properly managed it is admirably suited to smaller houses in open neighbourhoods when surrounded by gardens in which the contents of the earth closets can be systematically and frequently used as manure. The idea of digging a *deep* hole and burying the stuff *deep* is a dangerous fallacy. That method contaminates the sub-soil. The excreta should receive shallow burial in cultivated soil at frequent intervals. In other words it should be used almost as a gardener would use a mulch of horse manure, but with a light coating of soil. The reason for this is that the soil acts as both filter and disinfectant. Incidentally the soil, though spoiled by stale night-soil, is greatly enriched by fresh night-soil applied in this way.

Housing.—Number of new houses erected during the year :

(a) Total—11.

(b) As part of a Municipal Housing Scheme—10.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—44.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—Nil.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Winsford Urban District.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—11.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—31.

YEARDSLEY-CUM-WHALEY

Urban District.

Statistics.—Population (1921) 1,676. Number of inhabited houses (1921) 434.

| Births. | Total. | Males. | Females. | |
|--------------|------------|--------|----------|-------------------|
| Legitimate | ... 24 .. | 10 | ... 14 | } Birth-rate 14.9 |
| Illegitimate | ... 1 ... | 1 | ... — | |
| | Total. | Males. | Females. | |
| Deaths | ... 19 ... | 11 | ... 8 | Death-rate 11.3 |

Infectious Diseases.—Fever and diphtheria cases are sent to the Hyde Isolation Hospital, and the High Peak Hospital, and the Council retains two beds at the Hyde Isolation Hospital for small-pox cases.

Laboratory Work.—The Council have made arrangements with the Clinical Research Association for pathological and bacteriological examinations. Three cases have been reported upon during the year. Seven specimens of sputum were sent to the County Laboratory during the year, one positive and six negative. The Council provides diphtheria antitoxin but none has been issued during the year.

Closet Accommodation.—Privies, 216 ; water closets, 216 ; total, 432. Sixty-one converted during 1921 to water carriage system.

BUCKLOW

Rural District.

Statistics.—Estimated population, 1921, 22,240. Number of inhabited houses, 4,968. Number of working-class houses, 3,139. Birth-rate per 1,000 living, 15.1. Death-rate per 1,000 living, 10.1. Deaths under one year in proportion to 1,000 births, 53.

Housing.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—375.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—140.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—56.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—32.

Number of dwelling-houses in respect of which notices were served requiring repairs—5.

Number of dwelling-houses which were rendered fit by owners—5.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—220.

Number of dwelling-houses in which defects were remedied :

(a) by owners—184.

(b) by Local Authority in default of owners—Nil.

Water Supply.—Twenty-one water certificates were granted for new houses when a wholesome supply of water had been provided in accordance with the provisions of the Public Health Water Act, 1878, Section 6. Eight were supplied with

Bucklow Rural District.

a pipe service from the mains of the Manchester Corporation, four from the Stockport mains, four from the Peover Hall mains, two from well water, and three from rain water tanks.

Seventeen samples of water were submitted to the County Analyst for analysis during the year.

Six were returned as satisfactory supplies and eleven unsatisfactory. Action was taken in the case of unsatisfactory supplies to improve the supply or obtain a supply from a new source. The consideration of a public supply for the townships of Carrington and Mobberley has been proceeded with, but up to the present no progress has been made. Boring was carried out in Wood Lane, Mobberley, with a view to obtaining a supply for that area. Plenty of water was obtained, but it was so hard as to be unusable.

Closet Accommodation.—The following figures are as close an estimate as possible:—water closets, 3,084; waste water closets, 12; pails, 723; privies, 883; dry ashpits, 584; dustbins, 1,748; cesspools, 1,047.

Scavenging and Removal of Refuse.—The scavenging of Dunham Massey and Timperley has been carried out by the Council's own staff of workmen, and in the townships of Northenden, Northen Etchells, Mobberley and Styal, by contract.

Diphtheria.—Diphtheria antitoxin in 8,000 unit phials is available day and night for practitioners who require it. Supplies are kept at the Altrincham Office at the residence of the Medical Officer of Health, and at that of the Sanitary Inspector.

The Council have decided that after February, 1922, a fee of five shillings per specimen shall be paid to Medical Practitioners for obtaining and forwarding bacteriological specimens to the Laboratory.

CHESTER

Rural District.

Statistics.—Census population, 1911, 12,447. Census population, 1921, 13,360. Census (for deaths) 12,944.

Bucklow Rural District.

Births, 215. Birth-rate, 16.0. Deaths, 110. Death-rate, 8.4. Infantile mortality, 11 under one year or 51.1 per 1,000 births.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|----------------------------|----------------------|----------------------------|
| Diphtheria | 11 | 7 |
| Scarlet Fever | 27 | 28 |
| Pneumonia | 5 | — |
| Erysipelas | 1 | — |
| Ophthalmia | 1 | — |
| Tuberculosis—(a) Pulmonary | 6 | — |
| (b) Non-Pulmonary | 3 | — |

| | Cases Notified | Cases Treated at Home | Cases Treated in Hospital | Vision unimpaired | Vision impaired | Total Blindness |
|------------|----------------|-----------------------|---------------------------|-------------------|-----------------|-----------------|
| Ophthalmia | | | | | | |
| Neonatorum | 1 | 1 | — | 1 | — | — |

Laboratory Work.—Twenty specimens of sputum were examined at the County Laboratory in 1921; five were positive and fifteen negative.

Diphtheria antitoxin is issued by your Council to doctors applying for same in necessitous cases.

No samples of water were analysed chemically or bacteriologically during 1921.

Housing.—Number of new houses erected during the year 1921: 7 houses and 15 bungalows.

(a) Total—22.

(b) As part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—83.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—83.

Chester Rural District.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—71.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—41.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—30.

Number of dwelling-houses which were rendered fit :—

(a) by owners—30.

(b) by Local Authority in default of owners—Nil.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

No proceedings were taken under Public Health Acts.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

CONGLETON

Rural District.

Statistics.—Population at Census, 1921, 13,217. Birth-rate per 1,000, 25.42. Death-rate per 1,000, 11.5. Deaths under one year per 1,000 births, 74.4. Death-rate from seven principal Zymotic diseases—.30. Number of inhabited houses, 2,937. Number of families and separate occupiers, 2,987.

Infectious Disease.—I have been notified of 176 cases of infectious disease, of which 47 were scarlatina, one typhoid, 35 diphtheria, 11 whooping-cough, 53 chicken-pox, 12 pneu-

Congleton Rural District.

monia, 10 measles, 4 erysipelas, 2 ophthalmia neonatorum, 1 sleeping sickness.

Of the 82 cases of scarlatina and diphtheria, 71 were sent to the sanatorium and 11 were treated at home.

Water Supply.—Some parts of the district are poorly supplied with water. Mow Cop is short, Betchton and Hassall Green have not a satisfactory supply, at Holmes Chapel the pressure of the Middlewich water main is much too low. Cranage has to rely on wells which are insufficient, Astbury is also poorly supplied.

Sewage Disposal.—I have inspected the irrigation grounds frequently and found them in good working order.

The Elworth scheme is being attended to and I hope to have better results in the future as now we are keeping the trade refuse out which caused the failure.

Mow Bank and Brake Village require sewerage.

Thurlwood is very bad and I am frequently receiving complaints of this ditch and pond.

Pollution of Rivers.—This still goes on and I do not think can be avoided. The chief offender is the Birchenwood Colliery, which discharges trade waste into the Wheelock, and Brunner Mond's make things worse at Malkin's Bank. It does not seem to be offensive but the water is unfit for the cattle to drink. I believe the Birchenwood Colliery have tried their best to stop the pollution and have spent large sums of money in vain, and I do not see how we are to prevent this going on. The River Dane is fairly pure just now and I hope will not be contaminated again.

I believe a good stock of fish is now in that River, a good sign of purity from chemicals.

Isolation Hospitals.—The Sanatorium at West Heath gives every satisfaction, and though towards the end of the year we rather strained its resources in our calls upon it, no case was ever refused admittance.

For small-pox the hospital at Arclid is kept in readiness, a permanent Caretaker is there and it is in perfect order.

Congleton Rural District.

Laboratory Work.—The Council have arranged with the Manchester Pathological Institute to examine any specimens the medical men like to send from this district. This last year 61 specimens were sent, viz., 36 swabs from throats for diphtheria, 1 blood for typhoid, 8 sputum for tubercle, 1 pus from gland, 1 urine for tubercle, and 14 swabs from contacts cerebro spinal meningitis.

The Cheshire County Laboratory have examined sputum for tubercle in many cases and have given me outfits for distribution to the medical men in the district.

Housing.—Thirty-two houses have been erected this year, four by Messrs. Foden, at Elworth, and 28 by the District Council. There is still a shortage of houses in the district.

A scheme of Town Planning has been put forward during 1921 for Holmes Chapel, Wheelock and Lawton.

The scheme provided for 10 houses at Holmes Chapel, 12 houses at Wheelock, and 6 houses at Lawton. The scheme is now finished owing to the action of the Ministry of Health.

DISLEY.

Rural District.

Statistics.—Population, 1921, males, 1,420; females, 1,604; total, 3,024. Number of inhabited houses, 648 working-class dwellings. Deaths, males, 23; females, 13; total, 36. Death-rate, 11.9. Number of women dying in, or in consequence of child-birth, 0. Deaths of infants under one year of age per 1,000 births, 41.6. There were two deaths from encephalitis lethargica.

Notifiable Diseases during the Year.

| Disease. | Total Cases notified. | Cases admitted to Hospital. | Total Deaths. |
|-----------------------------|-----------------------|-----------------------------|---------------|
| Diphtheria ... | 4 | 4 | 1 |
| Scarlet Fever ... | 2 | 1 | — |
| Encephalitis Lethargica ... | 3 | — | 2 |
| Tuberculosis— | | | |
| (a) Pulmonary { M. ... | 2 | — | 1 |
| { F. ... | 1 | — | 2 |
| (b) Non-Pulmonary F. ... | 2 | — | 1 |

Disley Rural District.

Sanitary Administration.—In the district there are 665 privy middens and earth closets. Six only were converted into water closets. I would again urge the Council to accelerate the conversion to water closets. These middens are a menace to the public health.

The provision of a proper system of sewers at Newtown should at once be proceeded with.

Housing.—Number of new houses erected during the year :

(a) Total—4.

(b) As part of a Municipal Housing Scheme—4.

Total number of dwelling-houses inspected for housing defects (under Public Health and Housing Acts)—45.

Number of dwelling-houses found not to be in all respects reasonably fit for human habitation—10.

Remedy of defects without service of formal notices—11.

Number of dwelling-houses in respect of which notices were served requiring repairs—7.

Number of dwelling-houses which were rendered fit :—

(a) by Owners—4.

(b) by Local Authority—Nil.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served for remedy of defects—17.

Number of dwelling-houses in which defects were remedied by owners—14.

Proceedings under Sections 17 and 18 of the Housing Town Planning Act.

Number of dwelling-houses in which Closing Orders were made—1.

Number of dwelling-houses demolished in pursuance of Demolition Orders—1.

MACCLESFIELD

Rural District.

Statistics.—The population of the Macclesfield Rural District at the Census of 19th June, 1921, was 17,047.

The total number of births notified by Registrars during the year was : males, 132, of whom 2 were illegitimate ; females, 127, of whom 4 were illegitimate, making a total of 259.

The birth-rate for the district with these higher figures is 15.94—a decrease of 3.79 per 1,000 compared with 1920.

The gross total deaths registered within the district during 1921 amounted to 170, from which have to be deducted 12 deaths of non-residents, and to which 30 deaths of residents—not registered in the district—have to be added : thus giving a total nett number of deaths of all ages for the year of 188.

The death-rate for the year is 11.00, a slight reduction upon the previous year.

During the year 142 cases of infectious disease have been notified as having occurred in this district.

There is a considerable increase in the number of cases of tuberculosis notified during the year. This is largely accounted for by the fact that cases—chiefly of surgical tuberculosis—received at the Ancoats Auxiliary Hospital, Great Warford, for convalescent treatment, are now, under the instruction of the Minister of Health, notified to me, although they are not actually cases of tuberculosis occurring within the district but come mainly from Manchester.

Isolation Hospital.—The hospital accommodation available for infectious diseases consists of :—

- (a) Fourteen beds at the Macclesfield Corporation Isolation Hospital for ordinary cases.
- (b) Two beds in the Hyde Corporation Small-pox Hospital for cases of small-pox, with further provision if necessary.

Laboratory Work.—Under provisions made with the Clinical Research Association, 34 specimens were submitted for examination during the year. These comprised 6 specimens of sputum, 1 of which was found to contain tubercle bacilli,

Macclesfield Rural District.

and 28 throat swabs, 5 of which contained the bacilli of diphtheria.

Housing.—During the year 55 new houses were erected, 23 of these being part of the Housing Scheme. A summary of the work of housing inspection is appended.

Number of new houses erected during the year :—

(a) Total—55.

(b) As part of a Municipal Housing Scheme—23.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—804.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—386.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—None.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—138.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—138.

Water Supply.—Extensions carried out during 1920 :—water mains extended 220 yards in Dumbah Lane, Butley, and 270 yards in Alderley Road, Prestbury.

Number of samples analysed during 1921 :—chemically, 11 ; bacteriologically, 1.

No part of the district is still without a proper supply of water.

Sewage Disposal, &c.—No new works of sewerage carried out during 1921.

No part of the district is still without a proper system of sewers.

There have been no complaints to my knowledge during 1921 as to the disposal works.

MALPAS

Rural District.

Statistics.—Census population, 1911, 4,643. Population, Census, 1921, 4,410. Births, 109. Birth-rate, 24.7. Deaths, 67. Death-rate, 15.1. Infant mortality, 4 under one year or 36.7 per 1,000 births.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|--|----------------------|----------------------------|
| Diphtheria | 36 | 9 |
| Scarlet Fever | 20 | 2 |
| Other Diseases generally notifiable (specify disease)—Ophthalmia ... | 1 | — |
| Tuberculosis—(a) Pulmonary ... | 4 | — |
| (b) Non-Pulmonary ... | 1 | — |

| Disease | Cases Notified | Cases Treated at Home | Cases Treated in Hospital | Vision unimpaired | Vision impaired | Total Blindness |
|--------------------------|----------------|-----------------------|---------------------------|-------------------|-----------------|-----------------|
| Ophthalmia Neonatorum .. | 1 | 1 | — | 1 | — | — |

Fever cases to Sealand Fever Hospital, Malpas constituting one of the conjoint Hospital Boards with Tarporley and Tarvin.

Small-pox cases can be sent to the small-pox hospital in the Whitchurch area.

Laboratory Work.—There were five samples of water analysed chemically during the year ; none bacteriologically.

Twelve specimens of sputum were examined at the County Laboratory, Chester ; one was positive and eleven were negative.

Diphtheria antitoxin is provided by your Council on application from the doctor in necessitous cases.

Housing.—Number of new houses erected during the year :

(a) Total—28.

(b) As part of a Municipal Housing Scheme—26.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts—Nil.

Malpas Rural District.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—3.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—3.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—3.

Number of dwelling-houses in which defects were remedied—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

NANTWICH

Rural District.

Statistics.—Population at Census, 1921, 25,050. Number of inhabited houses, 1921* Number of families or separate occupiers, 1921* .

Birth-rate per 1,000, 19.2. Death-rate per 1,000, 12.4.
Deaths of infants under one year per 1,000 births: legitimate, 64; illegitimate, 151.

* Census information not yet to hand.

*Nantwich Rural District.***Notifiable Diseases.**

| Disease. | Total Cases Notified. | Cases removed to Hospital. |
|-----------------------------|--------------------------|-------------------------------|
| Diphtheria | 83 | 74 |
| Scarlet Fever | 67 | 44 |
| Pneumonia | 12 | — |
| Ophthalmia Neonatorum... | 1 | — |
| Encephalitis Lethargica ... | 1 | — |
| Tuberculosis— | | |
| (a) Pulmonary | 25 | 1 |
| (b) Non-Pulmonary | 5 | — |

The fact that twenty-one deaths occurred from pneumonia, whereas only twelve cases were notified, shows that the notification of this disease is not regularly carried out.

The case notified as encephalitis lethargica was subsequently diagnosed as tubercular meningitis.

Sewerage.—The drainage of Shavington, Bunbury, and parts of Audlem, Stapeley and Wybunbury merits the early attention of the Rural District Council. The condition of these Townships in this particular can by no means be considered satisfactory. The dryness of 1921 minimised the nuisances commonly to be found in these places, but in a year of ordinary rainfall it is impossible with present facilities to avoid grave cause of offence.

Water Supply.—It is nothing short of a disaster that the Rural District Council did not proceed with the water supply of Audlem and surrounding townships at the time when the loan had been sanctioned, and the pipes obtained. I look forward to the time when the scheme can be revived.

Isolation Hospitals.—An isolation hospital for the treatment of diphtheria, scarlet fever and enteric fever has been in existence at Worleston, in the Rural District, for the past 14 years. A hospital for small-pox also is provided at Ravensmoor, in the Rural District. Both these hospitals are under the control of the Nantwich Joint Hospital Board, and are available for cases from the Nantwich Rural and Urban Districts.

The Worleston hospital has accommodation for 20 adult patients, and can accommodate 30 children. The Ravensmoor small-pox hospital has accommodation for four adult cases.

Nantwich Rural District.

Laboratory Work.—Arrangements are in existence with the Manchester Public Health Laboratory for the examination of bacteriological specimens. These facilities are largely made use of by the medical men practising in the district. Diphtheria antitoxin is issued gratis by the Medical Officer of Health for the treatment of necessitous cases. No other sera or vaccines are kept in stock; but, if cases of cerebro-spinal fever should arise, the Medical Officer of Health has power to provide the requisite serum.

Housing.—Fifteen new houses were erected during the year, of which five were wooden bungalows and ten were brick houses. In addition to these a number of cottages were built in the township of Shavington-cum-Gresty, immediately over the border of the Borough of Crewe, by the Crewe Corporation as part of their Municipal Housing Scheme. These houses are drained, supplied with water, and lighted by the Crewe Corporation.

No new houses have been erected by the Rural District Council either in 1921 or previously. The Council's scheme, from which at one time so much was hoped, and on which so much time and thought was spent, has ended in complete failure.

There is no doubt that the 308 houses which it was proposed to build could readily have found occupants; but there is equally no doubt that agricultural workers, even in good times, could not have afforded to pay an economic rent for houses built at such a cost, and in the lean years which seem to lie ahead for agriculture they would be even less likely to be able to afford such a rent.

There is undoubted overcrowding in some areas at the present time. This is especially the case in parts of the township of Church Coppenhall, where at present small cottages, suitable at the best for a small family only, are occupied in some cases by two families at the expense of decency and good health. The present shortage of houses renders it impossible to deal with this state of things, as there is no place for these people if they are turned out of their present abodes.

The housing shortage also renders it almost impossible to deal with the problem of the unsatisfactory tenant, which is a really grave one in some parts of the district, and this difficulty is rendered greater by the operation of the Restriction of Rents Acts, which have placed tenants, even bad ones, in a highly

Nantwich Rural District.

privileged position, and have removed the fear that, if they do not conduct themselves properly, they will be turned out of their houses.

These Acts, necessary though they appear to be, undoubtedly discourage the building of houses by private enterprise, for it is only natural that people with money with which to build hesitate to build houses over which (once they have let them to a tenant) they have practically no further control.

Subsidised municipal building having (at least as far as this district is concerned) proved a costly failure, private enterprise appears to be the only alternative means of providing houses, and private enterprise can only provide houses if the owning of houses becomes again a paying proposition, which it can never be until the cost of building is very greatly lessened.

In conclusion I must again reiterate the opinion that the provision of houses is the most urgent of present Public Health problems, for without a sufficiency of decent dwellings no real advance can be made in the preventing of avoidable disease, especially of tuberculosis.

NORTHWICH

Rural District.

Statistics.—Population at Census, 24,432. Registrar-General (corrected for absentees), 24,550.

The population has increased during the past decade by 1,162, and the area of the district as given by the Ordnance Survey as 54,303 acres.

The number of inhabited houses was 5,460 at Census, but 216 more by the end of the year, giving approximately 4.3 per house and more than two acres per person.

The number of births registered was 530—261 being of males and 269 of females, while 17 were of illegitimate children.

The death-rate (Registrar-General) is 10.1 per 1,000 of the population.

The number of deaths of infants is 33, being two more than the number which occurred within the district although belonging thereto.

Northwich Rural District.

The corrected figures of the Registrar-General show 36 deaths of infants, of which two were illegitimate, which gives the following:—

1. A rate of 1.4 per 1,000 of the population.
2. 5 per cent. of children born die before attaining one year of age.
3. An illegitimate death-rate of .13.

Infectious Disease.—Of infectious diseases there were 131 notifications received during the year, 25 being diphtheria, 61 scarlet fever, 5 erysipelas, 8 pneumonia, 30 tuberculosis, 1 puerperal fever and 1 cerebro-spinal meningitis.

Of these 15 diphtheria and 52 scarlet fever cases were removed to hospital.

Laboratory Work.—In addition to the County Council provision for the examination of sputum, arrangements are made by which any practitioner can send for a report from the Public Health Laboratory in Manchester, upon the blood for typhoid reaction, throat swabs for diphtheria test, or sputum for the tubercle bacillus, and during the year under review, the following were reported upon:—

| | Positive. | Negative. | Total. |
|------------------|-----------|-----------|--------|
| Tuberculosis ... | 10 ... | 45 ... | 55 |
| Diphtheria ... | 3 ... | 9 ... | 12 |
| Enteric ... | 0 ... | 2 ... | 2 |
| | — | — | — |
| | 13 ... | 56 ... | 69 |

Fifty-four of the tubercular reports were from the County Laboratory.

Samples of water, milk, or any morbid products can be submitted by the Medical Officer of Health at his discretion.

Diphtheric antitoxin is procured free for any doctor requiring it, and 23,000 units have been applied for and supplied.

Water Supplies.—A new scheme of water works has been installed at Owley Wood, Weaverham, to supply the model village of 250 houses newly erected there. This is a supply tapping a natural spring in Owley Wood, which is pumped to

Northwich Rural District.

a water tower, which gives pressure to the whole settlement, every house of which has a bathroom with a supply of hot and cold water.

Extensions of water mains at Rudheath, to supply the Rural District Housing Scheme of 158 houses, the same bathroom accommodation is furnished as at the Owley Wood Scheme.

The parts of the district without a proper water supply are Allostock, Lach Dennis, Nether Peover, Byley, Whatcroft, Rudheath (part), Little Budworth, Crowton, Comberbach, Little Leigh, Marbury, Cogshall, Anderton and Barnton, which (save the two last named) are mostly served by shallow wells.

Application for a loan of £18,500 has been made to the Ministry of Health, to construct water works for the townships of Winnington, Barnton, Anderton, Little Leigh, Comberbach, Cogshall and Marbury.

Certificates under the Public Health (Water) Act, 1878, have been permitted in respect of 282 houses occupied during the year.

Rivers and Streams.—The pollution of Crowton Brook referred to in my last report remains as it was. The reply of the neighbouring Sanitary Authority not being satisfactory the correspondence together with the County Analyst's report was sent to the County Council, with a view to action being taken by them.

Sewerage and Sewage Disposal.—At Moulton an extension of the sewage works has been made, additional land being leased for the purpose.

New sewage disposal works have been constructed for the 250 houses erected at Owley Wood.

Plans are in course of preparation for a new works at Rudheath for a total of 455 houses, 375 of which are already connected to the sewerage system.

Many parts of this Rural District are of necessity without a system of sewers, the neighbourhood of Sandiway being a growing place where better sewage accommodation is becoming necessary.

Housing.—During the year 282 new houses were completed, 66 being part of the Rural District Housing Scheme at Rudheath and 192 being a part of the model village at Owley Wood, in course of erection by Brunner, Mond & Co., under the State Subsidy Scheme. The remaining 24 are seven converted buildings (one grammar school, one farm house, one larger house, and some old stables, each being transformed into two cottages), twelve were private houses erected under the State Subsidy Scheme, three were bungalows that did not meet the standard required for the subsidy, and three were cottages built by the Warrington Corporation in connection with their Sanatorium at Weaverham.

There is a real need for the Sanitary Authority to have power to permit the erection of structures which are "temporary," and retain the power to end their existence when necessary. There are many structures in a rural district which are built for temporary premises and such are no nuisance, *e.g.*, wooden motor garages, tool sheds, implement sheds, lock-up shops (open perhaps two or three days a week), and more especially bungalows. In the beautiful districts of Delamere and Eddisbury, and adjoining Pickmere (lake), many town-dwellers erect very "temporary" structures for week end and summer holiday residence which of course are lacking in the amenities regarding sanitation and water supply which a permanent residence would call for. It may be argued that such structures should comply with the building bye-laws, but a condition of that nature would render them so costly as to prohibit most townspeople from attaining their desire of leading an out-door country life. It is the wish of this Rural Sanitary Authority to encourage this legitimate aspiration, but the number of bungalows is increasing so much and sub-letting so common that they become permanent residences; they also tend to congregate much in the same locality, and it can readily be seen that where one such "bungalow" in the middle of a ten acre field is quite allowable it becomes wholly inadmissible on sanitary grounds when ten bungalows more or less permanently inhabited stand in a one acre field.

It does seem that the only method of meeting this healthy need and at the same time preserve a wholesome sanitation, is for the Rural Sanitary Authority to relax their bye-laws for a definite period in each case and to allow them temporarily.

It has happened that on more than one occasion such places having by years of temporary occupation been sold and

Northwich Rural District.

occupied as residences that the Medical Officer has been obliged to condemn them altogether. By allowing them for a fixed period only these cases of undoubted hardship would not occur.

Housing.—Number of new houses erected during the year :

(a) Total—282.

(b) As part of a Municipal Housing Scheme—66.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—154.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—54.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—9.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—54.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—54.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders—9.

Number of dwelling-houses in respect of which Closing Orders were made—9.

Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit—4.

Number of dwelling-houses in respect of which Demolition Orders were made—Nil.

Demolished without Orders—4.

RUNCORN

Rural District.

Statistics.—Population, 29,170, estimated to the middle of 1921. Number of inhabited houses (Census, 1911), 6,490; built since 1911, 219; total, 6,709. Birth-rate (Registrar-General) 17.6. Death-rate (Registrar-General) 9.9. Deaths of infants under one year of age per 1,000 births, legitimate 72.1; illegitimate, 5.8; total, 77.9.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|-----------------------------------|----------------------------|----------------------------------|
| Diphtheria | 37 | 26 |
| Scarlet Fever | 52 | 32 |
| Puerperal Fever | 1 | 1 |
| Pneumonia | 16 | — |
| Encephalitis Lethargica | 1 | 1 |
| Cerebro-Spinal Meningitis | 1 | 1 |
| Tuberculosis—(a) Pulmonary | 32 | — |
| (b) Non-Pulmonary... .. | 24 | — |

Hospitals.—Isolation Hospital at Dutton with accommodation for 36 patients, supported by the Council.

The small-pox hospital at Moore has been closed, but arrangements have been made with the Warrington Corporation to take patients from this area into their small-pox hospital at Sankey.

Laboratory Work.—Cheshire County Laboratory, sputum examinations, 72; positive, 18; negative, 54.

Examination of throat swabs for diphtheria: Manchester Public Health Laboratory, 2; Runcorn Research Laboratory, positive, 27; negative, 60; sterile, 4; total, 91.

Widal test for typhoid fever, 1; sputum examination for T.B., 1.

Diphtheria antitoxin is available for practitioners on demand at the local chemists for cases of diphtheria in the district.

Water.—The supplies are as described in the 1920 report, and in addition there has been an extension of the main to 14

Runcorn Rural District.

houses at Halton. Service pipe has been enlarged to supply 29 houses at Stockton Heath. Great Budworth has been served by a wholesome estate supply and also a part of Grappenhall village. North View, Townfield Lane, Frodsham Lordship, has been connected to the Frodsham main.

Middleton Grange cottages, Aston, have had an alternate supply provided from Parkside Farm, Aston. The joint water scheme for this and neighbouring areas to arrange a supply from Lake Ceriog, in Wales, is still under discussion.

Rivers and Streams.—Complaints have been made about the pollution of Crowton brook, and it was suggested by the County Medical Officer of Health that Kingsley should be drained and sewered.

Owing to the abnormally dry year complaints came because of the smells from ditches and brooks, and at Preston Brook the stream was flushed out by the Canal Co.

Closet Accommodation.

| | | | Pail Closets. | Privies. | |
|-----------------------------------|-----|--------------|---------------|------------|-------------|
| Stockton Heath | ... | ... | 740 | — | |
| Grappenhall | ... | ... | 250 | 20 | |
| Latchford Without | ... | ... | 10 | 12 | |
| Walton Inferior | ... | ... | 40 | 101 | |
| | | Total | 1040 | 133 | |
| | | | Pail Closets. | Privies. | W.C's. |
| Frodsham | ... | ... | 23 | 166 | 484 |
| Frodsham Lordship | ... | ... | 26 | 165 | 161 |
| Halton | ... | ... | 23 | 93 | 196 |
| Helsby | ... | ... | 12 | 53 | 360 |
| Weston... | ... | ... | 16 | 44 | 420 |
| | | Total | 100 | 471 | 1621 |
| Conversions of w.c's. during 1921 | | | | ... | 169 |

Housing.—The Medical Officer of Health inspected various houses at Alvanley, Frodsham and Great Budworth, with the view of suggesting such repairs and improvements as would allow the withdrawal of closing orders until more housing accommodation is available. As seen from the subjoined table 56 new houses were built and occupied during the year, of which 32 were built under the District Council scheme. More

Runcorn Rural District.

houses are being built, and it is anticipated that with the lower costs of building now obtaining that still more will be built during the year 1922.

Number of new houses erected during the year :—

(a) Total—56.

(b) As part of a District Council Housing Scheme—32.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—778.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—449.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—258.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—15.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses to which notices were served requiring repairs—146.

Number of dwelling-houses which were rendered fit :—

(a) by Owners—170.

(b) by Local Authority in default of Owners—8.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—128.

Runcorn Rural District.

Number of dwelling-houses in which defects were remedied :

(a) by Owners—120.

(b) by Local Authority in default of owners—4.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

TARVIN**Rural District.**

Statistics.—Census population, 1911, 13,187. Census population, 1921, 13,370, increase 183. Births, 294. Birth-rate, 21.9. Deaths, 147. Death-rate, 10.9. Infant mortality, 14 under one year or 47.6 per 1,000 births.

Notifiable Diseases.

| Diseases | Total Cases Notified | Cases Admitted to Hospital | |
|--|-------------------------|-------------------------------|----|
| | | N. | S. |
| Diphtheria | 10 | 1 | 5 |
| Scarlet Fever | 25 | 13 | 3 |
| Pneumonia | 3 | — | — |
| Other Diseases generally notifiable (specify disease)—Poliomyelitis ... | 1 | — | — |
| Tuberculosis—(a) Pulmonary ... | — | 5 | — |
| (b) Non-Pulmonary ... | — | — | — |

Hospitals.—Fever cases are sent to Sealand Fever Hospital, Tarvin constituting one of the conjoint Hospital Boards with Tarporley and Malpas. There is a temporary building at Tiverton as an emergency hospital for small-pox.

Laboratory Work.—There were three samples of water analysed chemically, but none bacteriologically.

Sixteen specimens of sputum were examined at the County Laboratory, Chester. Seven were positive and nine were negative.

Diphtheria antitoxin is provided by the Council on application from the doctor in attendance in necessitous cases.

*Tarvin Rural District.***Housing.**

TARVIN NORTH.

Number of new houses erected during the year :—

- (a) Total—10.
- (b) As part of a Municipal Scheme—8.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—66.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—66.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—12.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—54.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—34.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—36.

Number of dwelling-houses in which defects were remedied :

- (a) by Owners—34.
- (b) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

TARVIN SOUTH.

Number of new houses erected during the year :—

- (a) Total—1.
- (b) As part of a Municipal Housing Scheme—Nil.

Tarvin Rural District.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—152.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—19.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—4.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—78.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—54.

Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs—4

Number of dwelling-houses which were rendered fit :—

(a) by Owners—4.

(b) by Local Authority in default of owners—Nil.

Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close—Nil.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—68.

Number of dwelling-houses in which defects were remedied after notices :—

(a) by Owners—43.

(b) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

TINTWISTLE

Rural District.

Statistics.—Population (1921) Census, 1,983. Population (1921) (Registrar-General) 2,058. Number of inhabited houses (1921) 571. Number of families or separate occupiers (1921) 581 approximate. Birth-rate (Registrar-General) 18.4. Death-rate (Registrar-General) 13.1. Deaths of infants under one year of age per 1,000 births, 157; legitimate, 4; illegitimate, 2; total, 6.

Notifiable Diseases.—One case of diphtheria occurred in the Matley portion of your district. The case was removed to the Hyde Fever Hospital, and recovered.

Two cases of pulmonary tuberculosis were notified. One case was sent to a Sanatorium, and the other died at home, aged 57 years.

A case of acute pneumonia in a youth 19 years proved fatal.

Hospitals.—Only one hospital is provided for infectious diseases. It contains eight beds—four male and four female, and is situated in Mottram Moor. The Council have the right to send cases of diphtheria to Hyde Borough Hospital, and small-pox to Harts Head, near Oldham.

Laboratory Work.—Pathological examinations and swabs (throat) are examined at the Public Health Laboratory, Manchester, at the Council's expense. Sputum for (T.B.) is examined at the County Tuberculosis Laboratory, Chester, at the County's expense. Diphtheria antitoxin is supplied by the Council.

Housing.—No new houses have been erected during the year.

Sixty-six houses were inspected for housing defects (under Public Health or Housing Acts).

Under the Housing (Inspection of District) Regulations, 1910, fourteen houses were inspected. No houses were found in such a state as to make them injurious to health. Six houses (exclusive of those referred to under the preceding paragraph) were found not to be in all respects reasonably fit for human habitation.

Tintwistle Rural District.

Remedy of defects without service of formal notice : None.

Action under Statutory Power : None.

Notices were served under the Public Health Acts in respect to eight houses. In one case the owners remedied the defects. The Local Authority have not yet taken action in the other cases.

No proceedings under Section 17 and 18 of the Housing, Town Planning, &c., Act, 1909, have been taken.

WIRRAL

Rural District.

Statistics.—Population (1921) 24,657. Number of inhabited houses (1921) 4,593. These statistics are calculated on the amended population of 24,220, supplied by the Registrar-General. Birth-rate (Registrar-General) 17.7. The average number of births per annum during the preceding five years was 338.4. Death-rate (Registrar-General) 8.3. Deaths of infants under one year of age per 1,000 births, 55.9; legitimate, 24; illegitimate, 0; total, 24.

Notifiable Diseases.

| Disease | Total Cases Notified | Cases Admitted to Hospital |
|---------------------------------------|----------------------|----------------------------|
| Diphtheria | 21 | 16 |
| Scarlet Fever | 55 | 39 |
| Enteric Fever (including Paratyphoid) | 6 | 6 |
| Erysipelas | 3 | 2 |
| Poliomyelitis | 1 | 1 |
| Malaria | 1 | — |
| Pneumonia | 1 | — |
| Tuberculosis—(a) Pulmonary | 21 | 8 |
| (b) Non-Pulmonary | 7 | 2 |

| Disease | Cases Notified | Cases Treated at Home | Cases Treated in Hospital | Vision unimpaired | Vision impaired | Total Blindness | Deaths |
|---------------------------|----------------|-----------------------|---------------------------|-------------------|-----------------|-----------------|--------|
| Ophthalmia Neonatorum ... | 1 | 1 | — | 1 | — | — | — |

Wirral Rural District.

Laboratory Work.—Nine examinations were made for diphtheria. Twenty-five examinations were made for tubercle bacilli. Issue of diphtheria antitoxin, none. Other sera or vaccines, no issue.

Sewerage.—Sewers and water mains have been extended in consequence of building operations in the area.

The principal sewer extensions were:—

Frankby, 880 yards.
 Prenton, 250 yards.
 Noctorum, 1,320 yards.
 Moreton, 650 yards.
 Willaston, 375 yards.
 Gayton, 75 yards.

Water Supply.—The principal extensions of water mains were, 1,125 yards in Moreton and 450 yards in Irby.

Housing.—Number of new houses erected during the year :

- (a) Total (146 received the subsidy)—149.
- (b) As part of a Municipal Housing Scheme—Nil.

Inspection.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)—4,270.

Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910—104.

Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation—Nil.

Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation—9.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers—15.

No proceedings were taken under Section 28 of the Housing, Town Planning, &c., Act, 1919.

Wirral Rural District.

Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied—12.

Number of dwelling-houses in which defects were remedied

(a) by owners—21.

(b) by Local Authority in default of owners—Nil.

No proceedings were taken under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Administrative County of Chester.

APPENDIX TO STATISTICS

FOR 1921.

TABLE A.—Vital Statistics for all Districts in the Administrative County of Chester.

TABLE B.—Causes of Death at Different Periods of Life in the Administrative County of Chester, 1921.

TABLE C.—Population, Area, Births, Deaths, &c.—

Showing enumerated and estimated population, area, 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.

Administrative County of Chester

APPENDIX TO STATISTICS

FOR 1921

TABLE A—Vital Statistics for all Burials in the Administrative County of Chester

TABLE B—Cause of Death at Different Periods of Life in the Administrative County of Chester 1921

TABLE C—Population Area Burial Deaths

These figures are based on the Registrar General's returns and are subject to the usual errors of ascertainment. The figures for the administrative county of Chester are based on the Registrar General's returns for the administrative county of Chester and do not include the figures for the parishes of St. Andrew and St. Mary, which are included in the figures for the administrative county of Liverpool.

TABLE A.

VITAL STATISTICS FOR ALL DISTRICTS IN ADMINISTRATIVE COUNTY OF CHESTER, 1921.

| CAUSES OF DEATH. (Civilians only) | Alderley Edge U.D. | | Alsager U.D. | | Altrincham U.D. | | Ashton-upon-Mersey U.D. | | Bollington U.D. | | Bowdon U.D. | | Hirelbury and Romiley U.D. | | Bromborough U.D. | | Baglawton U.D. | | Cheadle and Gatley U.D. | | Compstall U.D. | | Congleton M.B. | | Crewe M.B. | | Dukinfield M.B. | | Ellesmere Port and Whitby U.D. | | Hale U.D. | | Handforth U.D. | | Hazel Grove and Bramhall U.D. | | | | | |
|--|--------------------|----|--------------|----|-----------------|-----|-------------------------|----|-----------------|----|-------------|----|----------------------------|----|------------------|----|----------------|----|-------------------------|----|----------------|----|----------------|-----|------------|-----|-----------------|-----|--------------------------------|-----|-----------|----|----------------|----|-------------------------------|----|----|----|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | | |
| ALL CAUSES | 15 | 16 | 10 | 21 | 112 | 110 | 30 | 46 | 30 | 27 | 21 | 19 | 47 | 59 | 11 | 4 | 8 | 11 | 49 | 60 | 2 | 9 | 75 | 69 | 260 | 261 | 152 | 143 | 62 | 49 | 27 | 44 | 4 | 4 | 54 | 55 | | | | |
| 1 Enteric Fever | | | | | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Small-pox | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 Measles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Scarlet Fever | 2 | | | | 1 | | 1 | | | | | | | | | | | | 3 | | | | 2 | | 1 | 1 | | | | | | | | | | | | | | |
| 5 Whooping Cough | | | | | 2 | 3 | | | 1 | | | | | | | | | | | | | | 2 | 3 | 6 | 3 | 1 | | 1 | | | | | | | | | 1 | | |
| 6 Diphtheria | | | | | 1 | | | | | | | | 3 | | | | | | | | | | 1 | | | | 2 | | | | | | | | | | | | | |
| 7 Influenza | | | 1 | | 3 | | 2 | | | 2 | | | | | | | 2 | 2 | | | | | 3 | 5 | 5 | 4 | 1 | 3 | | 1 | 2 | 1 | | | | 1 | | 3 | | |
| 8 Encephalitis lethargica | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 Meningococcal meningitis | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 Tuberculosis of respiratory system | 2 | 2 | | | 10 | 6 | 1 | 3 | 3 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | | 2 | 2 | 1 | | 1 | 4 | 3 | 18 | 16 | 7 | 15 | 5 | 2 | 4 | 1 | | | | 2 | 1 | | | |
| 11 Other Tuberculous Diseases | | | 2 | 1 | 1 | 2 | 2 | | 1 | | | | | | | | | 2 | | | | | 1 | | 4 | 6 | 3 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | | |
| 12 Cancer, Malignant Disease | 1 | 1 | 2 | 3 | 8 | 14 | 5 | 8 | 2 | 2 | 2 | 2 | 4 | 9 | | | 1 | 6 | 8 | 1 | 1 | 1 | 5 | 18 | 24 | 11 | 15 | 5 | 6 | 1 | 7 | | 1 | 6 | 5 | 5 | | | | |
| 13 Rheumatic Fever | | | 1 | 1 | | | | | | | 1 | | 1 | | | | | | 1 | | | | 2 | 1 | 1 | | 2 | | | | | | | | | | | | | |
| 14 Diabetes | | | | | 3 | 1 | | | | 1 | 1 | 1 | | | | | | 2 | 1 | | | | 2 | 1 | 1 | 2 | | 1 | | 2 | 1 | | | | | | | 2 | | |
| 15 Cerebral hemorrhage, &c. | 2 | | 1 | 5 | 8 | | 1 | 3 | 3 | 3 | 3 | 1 | 8 | | | | | 2 | 2 | | | | 2 | 10 | 18 | 20 | 9 | 8 | 4 | 4 | 5 | 4 | | | | 6 | | | | |
| 16 Heart Disease | 2 | 5 | 1 | 2 | 9 | 15 | 2 | 9 | 5 | 3 | | 3 | 1 | 9 | 3 | 1 | 3 | 2 | 8 | 13 | | | 3 | 6 | 7 | 24 | 41 | 18 | 19 | 3 | 4 | 2 | 7 | 1 | | 5 | 10 | | | |
| 17 Arterio-sclerosis | | 1 | | 1 | 2 | | 3 | | | 1 | 1 | 1 | 3 | | | 1 | | 6 | 3 | | 1 | 4 | 2 | 10 | 3 | 8 | 2 | 1 | | | | 1 | | | | 2 | 1 | | | |
| 18 Bronchitis | 2 | | 1 | 2 | 7 | 7 | 3 | 3 | 2 | 3 | 1 | 7 | 3 | | 1 | 2 | 1 | 1 | 3 | | | | 11 | 13 | 18 | 16 | 3 | 11 | 5 | 4 | 1 | | | | | 6 | 4 | | | |
| 19 Pneumonia (all forms) | 1 | | | 1 | 9 | 7 | 3 | 2 | | 3 | 1 | 1 | 1 | 3 | 1 | | | 1 | 2 | | | 1 | 6 | 1 | 25 | 14 | 19 | 8 | 9 | 5 | 1 | 3 | | | | 2 | 2 | | | |
| 20 Other Respiratory Diseases | | | | | 1 | | | | 1 | | 3 | 1 | 1 | | | | | | | | | | | | 6 | 11 | 1 | 3 | | 1 | | | | | | 1 | 1 | | | |
| 21 Ulcer of Stomach or Duodenum | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | 2 | 3 | 1 | | 1 | | | | | | | | | 1 | 1 | |
| 22 Diarrhoea, &c. (under 2 years) | | | | | 3 | 3 | | 1 | 2 | | 1 | | 2 | 1 | 1 | | | | | | | | 3 | | 6 | 7 | 7 | 3 | 3 | 1 | | | | | | | | 1 | | |
| 23 Appendicitis and Typhlitis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | | | | | | | | | | 1 | | |
| 24 Cirrhosis of Liver | | | | | 1 | | 1 | | 1 | | | | | | | | | | 1 | | | | | | 3 | 2 | 1 | 1 | | | | | | | | | | 1 | | |
| 25 Acute and Chronic Nephritis | 1 | | | | 4 | 3 | 2 | 3 | 2 | | 1 | | 2 | 3 | | | | 1 | | | 1 | | | | 3 | 2 | 3 | 5 | 8 | 3 | | | | | | | | 2 | 1 | |
| 26 Puerperal Sepsis | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 3 | | | | | | | | | | | 1 | | 1 |
| 27 Other accidents and diseases of pregnancy and parturition | | | 1 | 1 | 9 | 5 | 2 | 1 | | 2 | 1 | | 2 | 1 | | | | 1 | 3 | 1 | | | 7 | 4 | 30 | 17 | 16 | 7 | 7 | 7 | 1 | 9 | 1 | | | 2 | 3 | | | |
| 28 Congenital debility and malformation, premature birth | 1 | | | 2 | 1 | | | 1 | | 2 | | | 1 | | | | | | 1 | | | | 4 | | 2 | 4 | 2 | 2 | 1 | | | | | | | | | 2 | | |
| 29 Suicide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 Other Deaths from Violence | | | | | 7 | 4 | 4 | 1 | | 1 | 1 | | 2 | | | 1 | | | | | | | 2 | | 10 | 4 | 4 | 2 | 1 | 2 | 1 | 1 | | | | | | 3 | | |
| 31 Other Defined Diseases | 1 | 6 | 2 | 5 | 30 | 22 | 3 | 6 | 6 | 7 | 3 | 4 | 12 | 12 | 5 | | 2 | 1 | 11 | 14 | | | 1 | 19 | 13 | 49 | 56 | 25 | 22 | 8 | 6 | 4 | 7 | | | | 15 | 11 | | |
| 32 Causes Ill-defined or Unknown | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Causes (included above)— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polio-myelitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polio-encephalitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deaths of Infants under 1 year of age | 1 | | 3 | 2 | 20 | 14 | 2 | 2 | 3 | 3 | 2 | | 5 | 3 | 1 | 1 | | 1 | 6 | 5 | | | 1 | 14 | 5 | 51 | 33 | 34 | 15 | 18 | 13 | 2 | 10 | 1 | | | 9 | 7 | | |
| Total Illegitimate | | | | | 5 | | | | | | | | 1 | | | | | | | | | | 1 | 1 | 5 | 1 | | | | | | | | | | | | | | |
| TOTAL BIRTHS | 16 | 28 | 20 | 21 | 230 | 205 | 73 | 65 | 49 | 50 | 18 | 23 | 80 | 60 | 23 | 30 | 22 | 28 | 95 | 80 | 7 | 14 | 141 | 127 | 466 | 450 | 231 | 200 | 210 | 198 | 67 | 72 | 8 | 7 | 72 | 81 | | | | |
| Legitimate | 16 | 28 | 18 | 24 | 216 | 196 | 72 | 64 | 48 | 49 | 18 | 22 | 78 | 57 | 22 | 29 | 22 | 27 | 92 | 75 | 7 | 14 | 134 | 119 | 449 | 444 | 221 | 187 | 206 | 182 | 63 | 71 | 8 | 5 | 70 | 80 | | | | |
| Illegitimate | | | 2 | | 14 | 9 | 1 | 1 | 1 | 1 | | 1 | 2 | 3 | 1 | 1 | | 1 | 3 | 5 | | | 7 | 8 | 17 | 6 | 10 | 13 | 4 | 6 | 4 | 1 | | | 2 | 2 | 1 | | | |
| POPULATION | 3063 | | 2707 | | 20700 | | 7840 | | 5180 | | 2936 | | 9260 | | 2649 | | 1576 | | 11070 | | 934 | | 11910 | | 47210 | | 19940 | | 13350 | | 9210 | | 908 | | 10160 | | | | | |

| Disease | Cases of Disease | | Deaths | | Total |
|---------------------------------------|------------------|-----|--------|-----|-------|
| | M | F | M | F | |
| 1 Typhoid fever | ... | ... | ... | ... | ... |
| 2 Small-pox | ... | ... | ... | ... | ... |
| 3 Measles | ... | ... | ... | ... | ... |
| 4 Scarlet fever | ... | ... | ... | ... | ... |
| 5 Whooping cough | 1 | 1 | ... | ... | ... |
| 6 Diphtheria | ... | ... | ... | ... | ... |
| 7 Influenza | ... | ... | ... | ... | ... |
| 8 Pneumonia (all forms) | ... | ... | ... | ... | ... |
| 9 Tuberculosis | ... | ... | ... | ... | ... |
| 10 Tuberculosis of respiratory system | ... | ... | ... | ... | ... |
| 11 Other tuberculous diseases | 1 | ... | ... | ... | ... |
| 12 Cancer, malignant diseases | 1 | 2 | 1 | ... | ... |
| 13 Rheumatic fever | ... | ... | ... | ... | ... |
| 14 Typhus | 1 | 1 | ... | ... | ... |
| 15 Cerebral hemorrhage, &c. | 2 | 2 | ... | ... | ... |
| 16 Heart disease | 1 | 1 | 2 | ... | ... |
| 17 Arterio-sclerosis | 1 | 1 | ... | ... | ... |
| 18 Bronchitis | ... | 2 | ... | ... | ... |
| 19 Pneumonia (all forms) | ... | ... | 2 | ... | ... |
| 20 Other respiratory diseases | 1 | ... | ... | ... | ... |
| 21 Liver of alcohol or druggists | 1 | ... | ... | ... | ... |
| 22 Diabetes, &c. (under 2 years) | ... | ... | ... | ... | ... |
| 23 Alzheimers and epilepsy | ... | ... | ... | ... | ... |
| 24 Diseases of eye | ... | ... | ... | ... | ... |
| 25 Acute and chronic nephritis | ... | ... | ... | ... | ... |
| 26 Urinary system | ... | ... | ... | ... | ... |

TABLE A.—Continued.

VITAL STATISTICS FOR ALL DISTRICTS IN ADMINISTRATIVE COUNTY OF CHESTER, 1921.

| CAUSES OF DEATH. | Higher Bebington U.D. | | Hollingworth U.D. | | Hoole U.D. | | Hoylake and West Kirby U.D. | | Hyde M.B. | | Knutsford U.D. | | Lower Bebington U.D. | | Lymm U.D. | | Macclesfield M.B. | | Marple U.D. | | Middlewich U.D. | | Mottram-in-Longdendale U.D. | | Nantwich U.D. | | Neston and Parkgate U.D. | | Northwich U.D. | | Kuncorn U.D. | | Sale U.D. | | Sandbach U.D. | | | | | |
|--|-----------------------|----|-------------------|----|------------|----|-----------------------------|-----|-----------|-----|----------------|----|----------------------|-----|-----------|----|-------------------|-----|-------------|----|-----------------|----|-----------------------------|----|---------------|----|--------------------------|----|----------------|-----|--------------|-----|-----------|-----|---------------|----|---|---|---|--|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | | | | | | |
| (Civilians only) | 8 | 7 | 11 | 24 | 32 | 26 | 78 | 92 | 223 | 263 | 34 | 32 | 69 | 59 | 26 | 28 | 241 | 231 | 40 | 36 | 34 | 23 | 21 | 19 | 60 | 33 | 22 | 27 | 128 | 84 | 122 | 104 | 94 | 90 | 44 | 40 | | | | |
| ALL CAUSES | 8 | 7 | 11 | 24 | 32 | 26 | 78 | 92 | 223 | 263 | 34 | 32 | 69 | 59 | 26 | 28 | 241 | 231 | 40 | 36 | 34 | 23 | 21 | 19 | 60 | 33 | 22 | 27 | 128 | 84 | 122 | 104 | 94 | 90 | 44 | 40 | | | | |
| 1 Enteric Fever | | | 1 | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Small-pox | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 Measles | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Scarlet Fever | | | | | 1 | | | | 1 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 Whooping Cough | | 1 | | 1 | 1 | | | 1 | 2 | | | | 1 | 2 | 1 | 2 | | | | | | 1 | 3 | | | 1 | 1 | | | 8 | 5 | | | 2 | 1 | | 1 | | | |
| 6 Diphtheria | | | | | | | | 1 | | | | | 2 | 4 | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 7 Influenza | | | | | 1 | | | 1 | 2 | 7 | 8 | | | 1 | 1 | 2 | | | | | | | | | | | | | | | | 1 | 3 | 4 | 1 | 1 | 4 | 1 | 1 | |
| 8 Encephalitis lethargica | | | | | | | | 1 | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 Meningococcal meningitis | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 Tuberculosis of respiratory system | | | 3 | 2 | 3 | | 10 | 4 | 12 | 11 | 2 | 2 | 7 | 3 | 3 | 1 | 18 | 10 | 4 | 1 | 1 | | 2 | 1 | 3 | | 2 | 1 | 9 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | | | | |
| 11 Other tuberculous diseases | | | 1 | | | | 3 | 2 | 6 | 2 | 1 | 1 | 4 | | 3 | 1 | 2 | 9 | | 1 | 1 | | 2 | | 2 | | | | 2 | 1 | 3 | 3 | 1 | 2 | 1 | | | | | |
| 12 Cancer, malignant disease | 1 | 2 | 1 | | 1 | 6 | 5 | 15 | 18 | 25 | 5 | 6 | 5 | 7 | 1 | 1 | 29 | 31 | 5 | 9 | 2 | 1 | 2 | 3 | 3 | 3 | 4 | 2 | 10 | 10 | 14 | 11 | 20 | 10 | 6 | 3 | | | | |
| 13 Rheumatic fever | | | | | | | | | | | | | | | | | 1 | 2 | | | | | 1 | | | | | | | | | | | | | | | | | |
| 14 Diabetes | | | 1 | 1 | | | 1 | 1 | 2 | 2 | | | 1 | 1 | | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 15 Cerebral hemorrhage, &c. | | | 2 | 2 | 2 | 4 | 2 | 8 | 14 | 22 | 3 | 3 | 1 | 5 | 2 | 1 | 8 | 11 | | 1 | 1 | | 2 | 3 | 4 | 2 | 2 | 4 | 9 | 10 | 3 | 11 | 4 | 7 | 3 | 5 | | | | |
| 16 Heart disease | 2 | 1 | 1 | 3 | 4 | 7 | 11 | 10 | 20 | 30 | 5 | 2 | 7 | 15 | 1 | 7 | 16 | 33 | 5 | 4 | 5 | 3 | 2 | 3 | 6 | 6 | 1 | 7 | 13 | 9 | 10 | 5 | 6 | 8 | 3 | 6 | | | | |
| 17 Arterio-sclerosis | | 1 | | | 1 | | | 3 | 6 | 11 | 7 | 1 | | 2 | 6 | 1 | 8 | 4 | | 3 | 2 | | | | | | | | | 5 | 2 | 6 | 7 | 4 | 2 | | | | | |
| 18 Bronchitis | | | 2 | | 2 | 1 | 1 | 1 | 3 | 15 | 28 | | 1 | 1 | | 2 | | 18 | 17 | 3 | 5 | 4 | 4 | 2 | | 2 | 2 | 1 | 1 | 8 | 2 | 7 | 4 | 4 | 6 | 3 | 1 | | | |
| 19 Pneumonia (all forms) | 3 | | | 1 | 4 | | 8 | 4 | 19 | 26 | 3 | 2 | 2 | 1 | 4 | 2 | 21 | 7 | 6 | 2 | 2 | 1 | 1 | 1 | 10 | 8 | 1 | 1 | 9 | 4 | 15 | 16 | 2 | 2 | 3 | 4 | | | | |
| 20 Other respiratory diseases | | | | 1 | 1 | | | 3 | 1 | 3 | | | | 1 | | | 4 | 1 | | | | | | | | | | | 2 | 2 | 4 | 2 | 1 | 1 | 1 | 1 | | | | |
| 21 Ulcer of stomach or duodenum | | | 1 | | | | 1 | 1 | 3 | 1 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | 1 | 1 | 1 | 1 | | | | | | | |
| 22 Diarrhoea, &c. (under 2 years) | | | | | 1 | | | 1 | | 6 | 2 | | 1 | 3 | 2 | | | 8 | 7 | | | | | | | 2 | 1 | 1 | | 4 | 3 | 5 | 2 | 2 | 1 | | | | | |
| 23 Appendicitis and typhlitis | | | | | | | | 2 | 3 | | | | 3 | | 1 | | 1 | 1 | | | | | | | | | | | 1 | 1 | | | 2 | 1 | 1 | | | | | |
| 24 Cirrhosis of liver | | | | | | | 2 | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 25 Acute and chronic nephritis | | | 1 | 1 | 1 | | 5 | 1 | 8 | 6 | | 1 | 3 | 1 | | 1 | 6 | 8 | 1 | | 1 | 2 | 1 | | 1 | 1 | 2 | 1 | 7 | 2 | 6 | 3 | 2 | 3 | | | | | | |
| 26 Puerperal sepsis | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | |
| 27 Other accidents and diseases of pregnancy and parturition | | | 1 | | | | 1 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 Congenital debility and malformation, premature birth | | | 1 | 3 | 1 | | 5 | 1 | 21 | 21 | 3 | 2 | 6 | 7 | | 1 | 22 | 12 | | | | 3 | | | | 4 | 3 | 2 | 2 | 6 | 5 | 13 | 7 | 5 | 6 | 1 | 1 | | | |
| 29 Suicide | | | | | | | 2 | 1 | 1 | 2 | | | | | | | 4 | 2 | | | | | | | | | | | | | | | | | | | | | | |
| 30 Other deaths from violence | 2 | | 1 | | | | 2 | 1 | 4 | 2 | 1 | | 5 | | 2 | 3 | 7 | 4 | 2 | 1 | 5 | 3 | | | 4 | 1 | 1 | 1 | 6 | 3 | 10 | 1 | 2 | 2 | 1 | | | | | |
| 31 Other defined diseases | | | 2 | 7 | 8 | 1 | 16 | 17 | 45 | 55 | 8 | 9 | 11 | 7 | 3 | 5 | 55 | 61 | 8 | 9 | 6 | 3 | 7 | 8 | 15 | 5 | 3 | 4 | 24 | 11 | 15 | 22 | 28 | 23 | 14 | 13 | | | | |
| 32 Causes ill-defined or unknown | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Causes (included above)— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polio-myelitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polio-encephalitis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Anthrax | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deaths of Infants under 1 year of age | 2 | 1 | 4 | 10 | 1 | 10 | 5 | 45 | 35 | 4 | 4 | 10 | 10 | 2 | 4 | 52 | 29 | 5 | 1 | 4 | 3 | 3 | | | 11 | 8 | 5 | 2 | 18 | 17 | 26 | 14 | 13 | 12 | 3 | 5 | | | | |
| Total Illegitimate | | | 1 | 1 | | | 1 | 4 | 2 | 1 | | 1 | | | | 3 | 2 | | | | | | | | | | 3 | 1 | | 1 | | | | | | | | | | |
| TOTAL BIRTHS | 25 | 24 | 14 | 27 | 73 | 55 | 120 | 143 | 344 | 360 | 55 | 33 | 138 | 139 | 46 | 64 | 364 | 341 | 41 | 42 | 60 | 61 | 15 | 28 | 90 | 85 | 63 | 60 | 208 | 199 | 234 | 211 | 175 | 173 | 79 | 87 | | | | |
| Legitimate | 25 | 24 | 13 | 26 | 70 | 53 | 115 | 137 | 329 | 351 | 49 | 38 | 133 | 133 | 43 | 62 | 331 | 323 | 40 | 41 | 57 | 59 | 14 | 28 | 86 | 80 | 60 | 59 | 201 | 194 | 229 | 204 | 166 | 165 | 77 | 84 | | | | |
| Illegitimate | | | 1 | 1 | 3 | 2 | 5 | 6 | 15 | 9 | 6 | | 5 | 6 | 3 | 2 | 23 | 18 | 1 | 1 | 3 | 2 | 1 | | 4 | 5 | 3 | 1 | 7 | 5 | 5 | 7 | 9 | 8 | 2 | 3 | | | | |
| POPULATION | 1784 | | 2499 | | 6030 | | 16530 | | 34130 | | 5390 | | 14940 | | 5300 | | 34380 | | 6610 | | 5190 | | 2920 | | 7390 | | 5150 | | 16650 | | 16730 | | 16440 | | 5920 | | | | | |

| State | Graves or Deaths | |
|-------|------------------|-----|
| | M. | F. |
| 1 | ... | ... |
| 2 | ... | ... |
| 3 | ... | ... |
| 4 | ... | ... |
| 5 | ... | ... |
| 6 | ... | ... |
| 7 | ... | ... |
| 8 | ... | ... |
| 9 | ... | ... |
| 10 | ... | ... |
| 11 | ... | ... |
| 12 | ... | ... |
| 13 | ... | ... |
| 14 | ... | ... |
| 15 | ... | ... |
| 16 | ... | ... |
| 17 | ... | ... |
| 18 | ... | ... |
| 19 | ... | ... |
| 20 | ... | ... |
| 21 | ... | ... |
| 22 | ... | ... |
| 23 | ... | ... |
| 24 | ... | ... |
| 25 | ... | ... |
| 26 | ... | ... |
| 27 | ... | ... |
| 28 | ... | ... |
| 29 | ... | ... |
| 30 | ... | ... |

TABLE 3

CAUSES OF DEATH AT THE
 ...

| No. | CAUSES OF DEATH | | Males | Females | Total |
|-----|-----------------|-----|-------|---------|-------|
| | ... | ... | | | |
| 1 | ... | ... | ... | ... | ... |
| 2 | ... | ... | ... | ... | ... |
| 3 | ... | ... | ... | ... | ... |
| 4 | ... | ... | ... | ... | ... |
| 5 | ... | ... | ... | ... | ... |
| 6 | ... | ... | ... | ... | ... |
| 7 | ... | ... | ... | ... | ... |
| 8 | ... | ... | ... | ... | ... |
| 9 | ... | ... | ... | ... | ... |
| 10 | ... | ... | ... | ... | ... |
| 11 | ... | ... | ... | ... | ... |
| 12 | ... | ... | ... | ... | ... |
| 13 | ... | ... | ... | ... | ... |
| 14 | ... | ... | ... | ... | ... |
| 15 | ... | ... | ... | ... | ... |
| 16 | ... | ... | ... | ... | ... |
| 17 | ... | ... | ... | ... | ... |

TABLE B.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF CHESTER, 1921.

| CAUSES OF DEATH. | Sex. | AGGREGATE OF URBAN DISTRICTS. | | | | | | | | | | AGGREGATE OF RURAL DISTRICTS. | | | | | | | | | |
|--|------|-------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|
| | | All Ages | 0— | 1— | 2— | 5— | 15— | 25— | 45— | 65— | 75— | All Ages | 0— | 1— | 2— | 5— | 15— | 25— | 45— | 65— | 75— |
| | | ALL CAUSES | M | 2621 | 453 | 73 | 50 | 95 | 107 | 329 | 668 | 464 | 382 | 1057 | 137 | 23 | 19 | 34 | 40 | 124 | 242 |
| | F | 2577 | 313 | 48 | 47 | 74 | 110 | 343 | 637 | 480 | 525 | 942 | 88 | 16 | 16 | 24 | 44 | 89 | 220 | 193 | 252 |
| Enteric fever | M | 5 | ... | ... | ... | ... | ... | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | F | 4 | ... | ... | ... | 2 | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Small-pox | M | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | F | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Measles | M | 3 | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | F | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Scarlet fever | M | 10 | ... | ... | 4 | 3 | 3 | ... | ... | ... | ... | 4 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | F | 9 | ... | ... | 4 | 4 | 1 | ... | ... | ... | ... | 3 | ... | ... | 2 | ... | 1 | ... | ... | ... | ... |
| Whooping cough | M | 31 | 20 | 5 | 4 | 1 | 1 | ... | ... | ... | ... | 3 | 1 | 2 | ... | ... | ... | ... | ... | ... | ... |
| | F | 32 | 21 | 4 | 5 | 2 | ... | ... | ... | ... | ... | 11 | 7 | 4 | ... | ... | ... | ... | ... | ... | ... |
| Diphtheria | M | 19 | 1 | 1 | 3 | 14 | ... | ... | ... | ... | ... | 8 | ... | ... | 1 | 6 | 1 | ... | ... | ... | ... |
| | F | 13 | ... | 2 | 4 | 6 | 1 | ... | ... | ... | ... | 7 | ... | ... | 1 | 6 | ... | ... | ... | ... | ... |
| Influenza | M | 49 | 2 | 1 | 1 | 2 | 7 | 15 | 16 | 4 | 1 | 23 | ... | ... | 2 | ... | 2 | 6 | 7 | 3 | 3 |
| | F | 54 | ... | ... | 2 | 1 | 4 | 20 | 15 | 10 | 2 | 12 | 2 | ... | ... | 1 | 2 | 2 | 2 | 2 | 3 |
| Encephalitis lethargica | M | 2 | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | 4 | ... | ... | ... | ... | ... | 2 | 2 | ... | ... |
| | F | 5 | ... | ... | ... | ... | ... | 4 | 1 | ... | ... | 2 | ... | ... | ... | 1 | 1 | ... | ... | ... | ... |
| Meningococcal meningitis | M | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... |
| | F | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... |
| Tuberculosis of respiratory system | M | 170 | ... | ... | 2 | 1 | 19 | 78 | 63 | 7 | ... | 45 | ... | ... | ... | 6 | 23 | 16 | ... | ... | ... |
| | F | 130 | ... | ... | ... | 3 | 30 | 58 | 32 | 5 | 2 | 43 | ... | ... | 1 | 11 | 17 | 12 | 2 | ... | ... |
| Other tuberculous diseases | M | 59 | 10 | 6 | 8 | 15 | 5 | 10 | 2 | 2 | 1 | 23 | 4 | 5 | 3 | 3 | 2 | 3 | 2 | ... | 1 |
| | F | 48 | 10 | 2 | 4 | 6 | 7 | 8 | 8 | 3 | ... | 9 | 1 | 1 | 2 | 2 | ... | 1 | ... | ... | ... |
| Cancer, malignant disease | M | 238 | ... | ... | ... | 2 | ... | 19 | 129 | 57 | 31 | 100 | ... | ... | ... | ... | 1 | 8 | 36 | 38 | 17 |
| | F | 292 | ... | ... | ... | ... | ... | 30 | 160 | 67 | 35 | 121 | ... | ... | ... | ... | 12 | 58 | 27 | 24 | ... |
| Rheumatic fever | M | 7 | ... | ... | ... | 2 | 1 | 1 | 3 | ... | ... | 2 | ... | ... | ... | ... | ... | 1 | 1 | ... | ... |
| | F | 18 | ... | ... | ... | 2 | 6 | 5 | 4 | ... | ... | 5 | ... | ... | ... | ... | 2 | 1 | 2 | ... | ... |
| Diabetes | M | 22 | ... | ... | ... | ... | ... | 4 | 8 | 7 | 3 | 16 | ... | ... | ... | ... | 2 | 2 | 8 | 3 | 1 |
| | F | 33 | ... | ... | 1 | 1 | 2 | 4 | 12 | 11 | 2 | 9 | ... | ... | ... | 1 | 2 | 1 | 3 | 2 | 2 |
| Cerebral hæmorrhage, &c. | M | 138 | ... | ... | ... | ... | 1 | 2 | 51 | 43 | 41 | 69 | ... | ... | ... | ... | ... | ... | 15 | 23 | 31 |
| | F | 207 | ... | ... | ... | ... | 1 | 13 | 59 | 79 | 55 | 83 | ... | ... | ... | ... | ... | 1 | 26 | 24 | 32 |
| Heart disease | M | 247 | ... | ... | ... | 4 | 10 | 32 | 80 | 81 | 40 | 120 | ... | ... | 1 | 1 | 2 | 10 | 35 | 41 | 30 |
| | F | 348 | ... | ... | ... | 3 | 12 | 37 | 115 | 96 | 85 | 134 | ... | ... | 2 | 3 | 10 | 34 | 47 | 38 | ... |
| Arterio-sclerosis | M | 89 | ... | ... | ... | ... | ... | ... | 27 | 37 | 25 | 39 | ... | ... | ... | ... | ... | ... | 10 | 8 | 20 |
| | F | 60 | ... | ... | ... | ... | ... | 2 | 7 | 16 | 35 | 23 | ... | ... | ... | ... | ... | 2 | 9 | 17 | ... |
| Bronchitis | M | 179 | 18 | 6 | 2 | 2 | 1 | 12 | 34 | 60 | 44 | 59 | 7 | 1 | ... | ... | 2 | 7 | 14 | 28 | ... |
| | F | 183 | 27 | 3 | 3 | 2 | ... | 7 | 30 | 44 | 67 | 51 | 7 | 2 | 1 | ... | ... | 7 | 15 | 19 | ... |
| Pneumonia (all forms) | M | 238 | 50 | 34 | 7 | 4 | 12 | 41 | 46 | 25 | 19 | 79 | 16 | 3 | 3 | 1 | 8 | 10 | 17 | 15 | 6 |
| | F | 171 | 36 | 16 | 11 | 9 | 7 | 28 | 31 | 21 | 12 | 54 | 9 | 5 | 4 | 1 | 4 | 6 | 6 | 11 | 8 |
| Other respiratory diseases | M | 34 | 2 | 2 | 1 | 1 | 1 | 3 | 16 | 5 | 3 | 14 | ... | ... | 1 | ... | ... | 4 | 2 | 5 | 2 |
| | F | 41 | 3 | 2 | 1 | 1 | 2 | 7 | 11 | 7 | 7 | 6 | ... | ... | 1 | 1 | 1 | 2 | 1 | ... | ... |
| Ulcer of stomach or duodenum | M | 20 | ... | ... | ... | ... | ... | 9 | 10 | 1 | ... | 3 | ... | ... | ... | 1 | 1 | ... | ... | ... | 1 |
| | F | 8 | ... | ... | ... | ... | 1 | 1 | 4 | 2 | ... | 9 | ... | ... | ... | 1 | 2 | 4 | 2 | ... | ... |
| Diarrhoea, &c. | M | 91 | 64 | 5 | 3 | 1 | 2 | 2 | 2 | 6 | 6 | 22 | 13 | 3 | ... | 2 | 1 | 2 | ... | 1 | ... |
| | F | 67 | 39 | 6 | 3 | 2 | ... | 8 | 4 | 1 | 4 | 11 | 5 | ... | ... | ... | ... | 1 | 3 | 2 | ... |
| Appendicitis and typhlitis | M | 19 | ... | ... | ... | 8 | 3 | 5 | 3 | 2 | ... | 7 | ... | ... | 1 | 1 | 3 | 2 | ... | ... | 1 |
| | F | 8 | ... | ... | ... | 3 | ... | 1 | 2 | ... | ... | 7 | ... | ... | 1 | ... | 1 | 1 | ... | ... | ... |
| Cirrhosis of liver | M | 15 | ... | ... | ... | ... | ... | 1 | 8 | 6 | ... | 6 | ... | ... | ... | ... | 1 | 4 | ... | ... | 1 |
| | F | 8 | ... | ... | ... | ... | ... | 3 | 4 | ... | ... | 3 | ... | ... | ... | ... | 3 | ... | ... | ... | ... |
| Acute and chronic nephritis | M | 84 | 1 | ... | ... | 3 | 4 | 19 | 32 | 15 | 10 | 27 | ... | ... | ... | ... | 3 | 16 | 6 | 2 | ... |
| | F | 76 | ... | ... | ... | 3 | 3 | 15 | 37 | 11 | 7 | 26 | ... | ... | 1 | ... | 1 | 14 | 7 | 3 | ... |
| Puerperal sepsis | M | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 | ... | ... | ... | ... | 3 | ... | ... | ... | ... |
| | F | 15 | ... | ... | ... | ... | 5 | 10 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other accidents & diseases of pregnancy & parturition | M | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12 | ... | ... | ... | 3 | ... | ... | ... | ... | ... |
| | F | 22 | ... | ... | ... | ... | 4 | 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Congenital debility and alformation, premature birth. | M | 204 | 199 | 1 | 1 | 1 | 1 | ... | 1 | ... | ... | 66 | 63 | ... | 1 | 1 | 1 | ... | ... | ... | ... |
| | F | 145 | 142 | ... | ... | 2 | 1 | ... | ... | ... | ... | 48 | 46 | ... | 2 | ... | ... | ... | ... | ... | ... |
| Suicide | M | 31 | ... | ... | ... | ... | ... | 9 | 14 | 5 | 3 | 12 | ... | ... | ... | ... | ... | 3 | 5 | 3 | 1 |
| | F | 17 | ... | ... | ... | ... | 2 | 7 | 7 | ... | 1 | 2 | ... | ... | ... | ... | ... | 2 | ... | ... | ... |
| Other deaths from violence | M | 98 | 5 | 3 | 7 | 13 | 15 | 16 | 27 | 8 | 4 | 53 | 2 | 2 | 3 | 5 | 5 | 15 | 16 | 3 | 2 |
| | F | 42 | 4 | 1 | 2 | 6 | 3 | 8 | 8 | 1 | 9 | 20 | 2 | 1 | 2 | 1 | 1 | 2 | 6 | 3 | 2 |
| Other defined diseases | M | 515 | 77 | 7 | 6 | 18 | 21 | 46 | 94 | 95 | 151 | 244 | 31 | 7 | 3 | 9 | 7 | 23 | 40 | 40 | 84 |
| | F | 517 | 31 | 10 | 6 | 16 | 18 | 49 | 83 | 104 | 200 | 219 | 9 | 3 | 3 | 4 | 10 | 19 | 33 | 38 | 100 |
| Causes, ill-defined or unknown | M | 2 | ... | 1 | ... | ... | ... | ... | 1 | ... | ... | 9 | ... | ... | ... | ... | 1 | 3 | 1 | 4 | ... |
| | F | 3 | ... | 1 | 1 | ... | ... | ... | 1 | ... | ... | 3 | ... | ... | 1 | ... | ... | 1 | ... | ... | 1 |

prepared from figures supplied

| Municipal Boroughs | | Other Urban Districts | | Rural Districts | |
|--------------------|------|-----------------------|------|-----------------|------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1904 | 1903 | 1904 | 1903 | 1904 | 1903 |
| 1905 | 1904 | 1905 | 1904 | 1905 | 1904 |
| 1906 | 1905 | 1906 | 1905 | 1906 | 1905 |
| 1907 | 1906 | 1907 | 1906 | 1907 | 1906 |
| 1908 | 1907 | 1908 | 1907 | 1908 | 1907 |
| 1909 | 1908 | 1909 | 1908 | 1909 | 1908 |
| 1910 | 1909 | 1910 | 1909 | 1910 | 1909 |
| 1911 | 1910 | 1911 | 1910 | 1911 | 1910 |
| 1912 | 1911 | 1912 | 1911 | 1912 | 1911 |
| 1913 | 1912 | 1913 | 1912 | 1913 | 1912 |
| 1914 | 1913 | 1914 | 1913 | 1914 | 1913 |
| 1915 | 1914 | 1915 | 1914 | 1915 | 1914 |
| 1916 | 1915 | 1916 | 1915 | 1916 | 1915 |
| 1917 | 1916 | 1917 | 1916 | 1917 | 1916 |
| 1918 | 1917 | 1918 | 1917 | 1918 | 1917 |
| 1919 | 1918 | 1919 | 1918 | 1919 | 1918 |
| 1920 | 1919 | 1920 | 1919 | 1920 | 1919 |
| 1921 | 1920 | 1921 | 1920 | 1921 | 1920 |
| 1922 | 1921 | 1922 | 1921 | 1922 | 1921 |
| 1923 | 1922 | 1923 | 1922 | 1923 | 1922 |
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| 1927 | 1926 | 1927 | 1926 | 1927 | 1926 |
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| 1930 | 1929 | 1930 | 1929 | 1930 | 1929 |
| 1931 | 1930 | 1931 | 1930 | 1931 | 1930 |
| 1932 | 1931 | 1932 | 1931 | 1932 | 1931 |
| 1933 | 1932 | 1933 | 1932 | 1933 | 1932 |
| 1934 | 1933 | 1934 | 1933 | 1934 | 1933 |
| 1935 | 1934 | 1935 | 1934 | 1935 | 1934 |
| 1936 | 1935 | 1936 | 1935 | 1936 | 1935 |
| 1937 | 1936 | 1937 | 1936 | 1937 | 1936 |
| 1938 | 1937 | 1938 | 1937 | 1938 | 1937 |
| 1939 | 1938 | 1939 | 1938 | 1939 | 1938 |
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| 1943 | 1942 | 1943 | 1942 | 1943 | 1942 |
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| 1945 | 1944 | 1945 | 1944 | 1945 | 1944 |
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| 1947 | 1946 | 1947 | 1946 | 1947 | 1946 |
| 1948 | 1947 | 1948 | 1947 | 1948 | 1947 |
| 1949 | 1948 | 1949 | 1948 | 1949 | 1948 |
| 1950 | 1949 | 1950 | 1949 | 1950 | 1949 |
| 1951 | 1950 | 1951 | 1950 | 1951 | 1950 |
| 1952 | 1951 | 1952 | 1951 | 1952 | 1951 |
| 1953 | 1952 | 1953 | 1952 | 1953 | 1952 |
| 1954 | 1953 | 1954 | 1953 | 1954 | 1953 |
| 1955 | 1954 | 1955 | 1954 | 1955 | 1954 |
| 1956 | 1955 | 1956 | 1955 | 1956 | 1955 |
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| 1958 | 1957 | 1958 | 1957 | 1958 | 1957 |
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| 1960 | 1959 | 1960 | 1959 | 1960 | 1959 |
| 1961 | 1960 | 1961 | 1960 | 1961 | 1960 |
| 1962 | 1961 | 1962 | 1961 | 1962 | 1961 |
| 1963 | 1962 | 1963 | 1962 | 1963 | 1962 |
| 1964 | 1963 | 1964 | 1963 | 1964 | 1963 |
| 1965 | 1964 | 1965 | 1964 | 1965 | 1964 |
| 1966 | 1965 | 1966 | 1965 | 1966 | 1965 |
| 1967 | 1966 | 1967 | 1966 | 1967 | 1966 |
| 1968 | 1967 | 1968 | 1967 | 1968 | 1967 |
| 1969 | 1968 | 1969 | 1968 | 1969 | 1968 |
| 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| 1971 | 1970 | 1971 | 1970 | 1971 | 1970 |
| 1972 | 1971 | 1972 | 1971 | 1972 | 1971 |
| 1973 | 1972 | 1973 | 1972 | 1973 | 1972 |
| 1974 | 1973 | 1974 | 1973 | 1974 | 1973 |
| 1975 | 1974 | 1975 | 1974 | 1975 | 1974 |
| 1976 | 1975 | 1976 | 1975 | 1976 | 1975 |
| 1977 | 1976 | 1977 | 1976 | 1977 | 1976 |
| 1978 | 1977 | 1978 | 1977 | 1978 | 1977 |
| 1979 | 1978 | 1979 | 1978 | 1979 | 1978 |
| 1980 | 1979 | 1980 | 1979 | 1980 | 1979 |
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| 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| 1984 | 1983 | 1984 | 1983 | 1984 | 1983 |
| 1985 | 1984 | 1985 | 1984 | 1985 | 1984 |
| 1986 | 1985 | 1986 | 1985 | 1986 | 1985 |
| 1987 | 1986 | 1987 | 1986 | 1987 | 1986 |
| 1988 | 1987 | 1988 | 1987 | 1988 | 1987 |
| 1989 | 1988 | 1989 | 1988 | 1989 | 1988 |
| 1990 | 1989 | 1990 | 1989 | 1990 | 1989 |
| 1991 | 1990 | 1991 | 1990 | 1991 | 1990 |
| 1992 | 1991 | 1992 | 1991 | 1992 | 1991 |
| 1993 | 1992 | 1993 | 1992 | 1993 | 1992 |
| 1994 | 1993 | 1994 | 1993 | 1994 | 1993 |
| 1995 | 1994 | 1995 | 1994 | 1995 | 1994 |
| 1996 | 1995 | 1996 | 1995 | 1996 | 1995 |
| 1997 | 1996 | 1997 | 1996 | 1997 | 1996 |
| 1998 | 1997 | 1998 | 1997 | 1998 | 1997 |
| 1999 | 1998 | 1999 | 1998 | 1999 | 1998 |
| 2000 | 1999 | 2000 | 1999 | 2000 | 1999 |

