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Contributors

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REPORT

ON THE

**Health of the Urban District of
Swinton and Pendlebury,**

FOR THE YEAR 1920,

TOGETHER WITH THE

Report on Medical Inspection of School Children.



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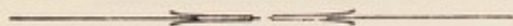


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Staff of Public Health Departmen



Medical Officer of Health and Medical Officer of the Maternity and Child Welfare Department :

W. STEWART STALKER, M.D. (Glas.), D.P.H. (Oxf.), Brevet-Major.

Medical Officer of Ante-natal Clinic :

C. RUSSELL CORFIELD, M.D. (Brux.), L.M.S.S.A. (Lond.).

Inspector of Nuisances :

ALBERT BLEAKLEY.

Assistant Sanitary Inspectors :

P. E. BERRY (Senior).

*L. A. MARSHALL.

A. S. KERSHAW.

*G. E. TAYLOR.

Clerk in Public Health Department :

¶J. FLOWER.

Health Visitors :

Miss E. ALLEN.

Miss K. DAVIES.

* Engaged on duties under Housing Acts.

¶ Has also duties in connection of Maternity and Child Welfare and School Medical Inspection.

Statistical Summary for 1920.

Area in Acres	.. .. .	2,292
Population at Census of 1911	.. .. .	30,759
*Estimated Population in July, 1920	.. .. .	30,900
*Registrar General's Estimation	.. .. .	29,265
Number of Houses in the District on December 31, 1920	..	6,708
Number of Persons in each inhabited house (at Census of 1911)		4.68
*Number of Births during 1920 : Male 311, Female 336	..	647
*Birth-rate per 1,000 of the Population	.. .. .	20.9
*Registrar General's Birth-rate	.. .. .	22.3
*Number of Deaths : Male 197, Female 186	.. .. .	383
*Death-rate per 1,000 of the Population	.. .. .	12.4
*Registrar General's Death-rate	.. .. .	13.08
*Natural Increase of the Population during the year	.. .. .	264
*Number of Deaths of Infants (under the age of one year)	..	67
*Infantile Mortality per 1,000 Births	.. .. .	103.5
*Registrar General's Infant Mortality Rate	.. .. .	102.5
Number of Uncertified Deaths	.. .. .	2
Death-rate from the seven principal Zymotic Diseases per 1,000 of the population	.. .. .	0.7
Death-rate from Diarrhoea and Enteritis, of Children under two, per 1,000 births	.. .. .	6.1
Death rate from Phthisis per 1,000 of the Population	.. .. .	0.80
Death-rate from all forms of Tuberculosis per 1,000 of the population	.. .. .	0.97
The Rateable Value of the District was	.. .. .	£124,842
Produce of a Penny Rate	.. .. .	£446

* It ought to be explained that not only is there considerable difference between the population estimate made locally and that made by the Registrar General, but that the period concerned with the locally registered births and deaths varies to some extent from that concerned with the Registrar General's figures.



To the Chairman and Members of the Swinton and Pendlebury Urban District Council

I have the honour to submit Swinton and Pendlebury Health Report of the year 1920.

As the report is valedictory it is not unfitting that a short review of the district's health during a period of transition and reform, should constitute its prelude.

Lest it be thought that I attribute improvement in proportion to the duration of my service, I have taken a period which embraces the years of the present century, a period during which many fresh activities were entered upon. It will be for you to judge whether these activities have been productive of results in proportion to effort and cost, or whether they have merely synchronised with a tendency towards improvement in response to some fundamental cyclic law which at any time may dissipate the belief that continued reform may be expected to produce still more favourable results.

Unfortunately, the Registrar General's department is a comparatively modern institution, and it cannot be stated with certainty whether or not birth and death rates rise and fall over lengthy periods, and that rise and fall of one is proportionate to that of the other.

There are, however, certain vital facts associated with certain activities which emerge from the obscurity of the past, and indisputably prove the value of certain works. The most convincing of these perhaps, as they come within the purview of modern sanitary reform, are the abolition of Cholera by the substitution of pure drinking water for polluted drinking water, and the stamping out of Typhus Fever by the provision of sanitary dwellings and the destruction of vermin haunts.

These effects, of course, were prior to the present century, which was entered upon with a scheme of things, in so far as sanitation is concerned, from which some of the crudities had been removed.

In 1900 the death rate for Swinton and Pendlebury was 20.2. To-day, it is 12.4. The lives spared have amounted to over 2,000.

At the beginning of the century 80 infants of every 100 born survived the first year of life. To-day 90 out of every 100 born survive. The number of infant lives saved since 1900 is now well over 600.

At the beginning of the century 90 persons per 30,000 population contracted typhoid fever. Last year of the 30,000 persons resident in the district, only 2 contracted typhoid fever.

At the beginning of the century 60 persons per 30,000 population died of diarrhoea. Last year 4 persons in the total population of 30,000 died of diarrhoea.

These are outstanding facts, and if they do not bring conviction, then conviction is not desired. Expressed in terms of cash they mean that a saving of money—public money—has been effected, which outweighs by far expenditure which was incurred by the public purse in effecting the improvements which may be associated legitimately with their attainment.

The abolition of endemic typhoid fever and diarrhoea in Swinton and Pendlebury with a consequent diminution of deaths and invalidity, is as much due to the efforts of the sanitary reformers of the Council, as was due the abolition of cholera and typhus fever in England to the teaching and efforts of Chadwick, Southwood Smith, and kindred reformers.

It is only within the present century, and the latter half of last century, that sanitation has had due recognition, and it is instructive to note what has been the associated effect on mortality figures as the work developed and expanded.

The earliest figures available are too modern to be of much service, but the records show that in the year 1891 the death-rate was 21.9 per thousand. In 1901 it was 19.2, in 1911 it was 15.3, and in 1920 it was 12.4. It will be observed that in these three decades (the last is one year short), the descent of the death-rate was proportionate to the amount of reform effected in each period, for it was in the year 1900 that organised sanitary reform began to figure in the Council's scheme of work.

The district rate in 1900 was 3/-. In 1914 it was 4/-. During the time the district rate was rising 1/-, the death-rate fell more than a quarter, *i.e.*, from 19.2 to 13.3. Does anyone contend that a shilling rate was an excessive price to pay for the saving of 6 lives in every thousand, equaling at the present time 180 lives a year? The year's subsequent to the

outbreak of war are not brought into the comparison, for the altered value of money renders the comparison impossible, but the fact that during the war years the death-rate was uniformly higher than it had been for a number of years before the war, affords some proof that the cessation of sanitary supervision, with consequent defective hygiene, had far-reaching results.

I am inclined to the belief that the older methods of reducing death-rates have nearly attained what within their limit, is an irreducible minimum. Drainage and sewerage provision, paving, cleansing, abatement of nuisances, etc., have achieved a great amount of life-saving and to jettison any of these activities or even flag in carrying out requisite work, would be inexcusable. The work must proceed for purposes of life preservation, but it must also proceed for educative purposes, so that it will be possible for all to attain to some standard of refinement, in which the ugly and crude things of life do not figure.

To reduce death-rates further, what must be aimed at is the pursuit of a higher standard of life on the part of the individual. The higher standard attained, then automatically the slums and their unhealthy denizens, the infant doomed before birth, the alcoholic and syphilitic wastrel, and the unhealthy industry, will cease to contribute to a tragic procession towards preventable death. This ideal—it is idealistic I own—can only be attained by means of education of the broadest type, in which all are engaged, and in which the administering authorities are possessed of vision and imagination, and are dispossessed of the mind which can encompass no other problem than that of curtailment.

Public health and education, indissoluble partners, must expand, will expand; nothing must be static which tends towards the betterment of the people. Their application must be at the instance of the soundest judgment obtainable, so that avoidance of expenditure on unproductive enterprise may be ensured.

I have no doubt as to the need of the work in Swinton and Pendlebury with which I have been associated during the later years of the works development, and I have no doubt as to beneficial results. Assisted by a loyal and zealous staff I have tried, not always with unerring judgment, but always with the honest conviction that what I was doing was best for the people, to carry out a good and great work which had its initiation in the minds of men who served the public many years before my service commenced, and who believed as I believe, that

nothing promises greater security for the State than a healthy and contented people, and that individual health and content are approached by the highways of Public Health and Education.

I offer the Council a most cordial expression of my gratitude for many kindnesses to me.

I have the honour to be,

Mr. Chairman, Ladies, and Gentlemen,

Your obedient servant,

W. STEWART STALKER.

Council Offices, Swinton,
April, 1921.

1. The Urban District.

The Urban District of Swinton and Pendlebury lies W.N.W. of Manchester, from which it is separated by the County Borough of Salford. Tramway service owned by Salford Corporation connects both Swinton and Pendlebury with Salford and Manchester, and there are stations on the Lancashire and Yorkshire Railway, both at Swinton and Pendlebury.

The Local Government District was formed by union of the civil parish of Pendlebury, with the hamlets or places known as Swinton, Little Houghton, and the Lower Division of Worsley. The origin of the area was in a meeting convened September 26th, 1866, by the Salford Board of Guardians "to ask the inhabitants of the District to take into consideration the desirability of establishing a Local Board." The first meeting was held at the Royal Oak Inn. The resolution to form a Local Board was adopted at a meeting of ratepayers, held at St. Peter's School, where the subsequent meetings in connection with the Board's formation were held. The Order of the Secretary of State settling the boundaries of the area is dated 25th January, 1867. At a public meeting held on the 8th day of February, the Local Government Act 1858, was adopted in the Swinton District. The District was divided into two parts, one North of Bolton-road, the other South of Bolton-road, and each ward was given a representation of six members. The first rate was laid on August 12th, 1867, the estimate of expenditure being £1,420. The chief items of expenditure were Lighting £525, and Highways £400. The first loan was one of £1,000 for lighting, and was obtained on February 24th, 1868, and on June 7th 1868, a loan of £3,000 was obtained for sewerage purposes.

The area comprises 2,292 acres, of which 851 acres are built upon. Another 16½ acres will be built upon when the Temple Lodge estate municipal housing site has been covered. A further 25 acres are laid out as public parks and recreation grounds. Thus approximately three fifths of the district is unbuilt upon, and apart from colliery subsidence there would not appear to be great difficulty in securing building sites.

The highest and lowest points of the district are 286 feet and 99 feet respectively above sea level. The geological formation of the district is Coal Measures overlaid by Drift, chiefly glacial sand and gravel, and River Valley Gravel. The superficial layers in the Western part of the district are chiefly of clay, and in the Central and Eastern part dry sand.

The Urban District at present is divided into six wards.

The following institutions are within the district boundaries :—Poor Law Schools of the Manchester Guardians ; Manchester Children's Hospital ; Swinton House and Parkfield, Manchester Education Committee Cripple Schools.

POPULATION AND OCCUPATION.

The census of 1921 will supply definite information regarding the population of the district. At the present time it is impossible to say within an amount which is not capable of making any appreciable difference in the estimates of vital statistics, how many persons reside in the district, what is the real extent of overcrowding, whether the estimate of the census of 1911, *i.e.*, 30,759 will be exceeded, or whether the shortage of houses, the casualties of war, and other factors have combined to reduce the number of residents. The Registrar General's estimates for 1920* is not yet available, but for the middle of 1919 it was for births 29,318, a figure which presumably included any Service men then mobilised. The figure is a most surprising one, being 1441 less than that of 1911. The excess of births over deaths between 1911 and 1919 was well over 1,500. No curtailment of industry has occurred in the district since 1911. On the other hand certain concerns have expanded, calling for increase of labour. That labour admittedly will in later years have added to the district population only by way of overcrowding existing houses. If, therefore, the natural increase of population between 1911 and 1921 be added to the 1911 figure, a total of 32,800 is arrived at. It will be interesting to compare the figures with that obtained at the 1921 census.

For the purpose of estimation of vital statistical rates for 1920, a population figure has been constructed by adding the natural increase of 1920 to the population figure estimated for 1919. The figure arrived at is approximately 30,900. Birth rate, death rate, infectious disease rates are accordingly estimations on this figure, and not on that of the Registrar General. Ward rates are estimations on older figures, the accuracy of which for absolute purposes is in doubt. As ward rates, however, are introduced only for comparative purposes, the figures have a certain value.

The population is almost entirely industrial. The industries in which the people are concerned are cotton, coal, engineering. There are in the district about twelve cotton mills. Two coal pits are within

* The 1920 figure is 29,265.

the district, and two on the fringe of the district, and derive labour mostly from the district. There are several foundries and one large engineering firm, and one large firm of contractors. It is computed that 30 per cent. of the male population is engaged in coal mining, and that 8 per cent. of the male population and 20 per cent. of the female population is engaged in cotton spinning and weaving.

RELIEF AND UNEMPLOYMENT.

The district is represented in two Poor Law Unions, *i.e.*, Salford and Barton-upon-Irwell. The amount of relief in the two Townships, *i.e.*, Pendlebury (Salford Board of Guardians) and Swinton (Barton-upon-Irwell Board of Guardians), is subjoined, as is also the amount of unemployment registered at the local Employment Exchange of the Ministry of Labour.

Poor Law Relief in Pendlebury Township.

Total amount of Relief (Outdoor) for year 1920 £351 17 7

No. of persons for each month in receipt of Out-Relief :—

1920	Men.	Women.	Children.
January	3	8	11
February	3	8	8
March	5	6	19
April	3	9	15
May	2	9	13
June	2	12	11
July	1	11	8
August	1	12	11
September	4	13	17
October	3	13	15
November	3	11	18
December	3	11	20

Total number of cases admitted into the Workhouse .. 7

Do. do. do. Union Infirmary .. 39

Do. do. do. Cottage Homes .. 3

Poor Law Relief in Swinton Township.

Total amount of Out-Relief for year ending Dec. 31st, 1920 £905 16 0

No. of Persons for each month in receipt of Out-Relief :—

1920	Men.	Women.	Children
January	8	34	51
February	7	34	48
March	9	36	54
April	9	37	51
May	10	37	49
June	9	37	52
July	10	37	57
August	12	38	56
September	10	39	46
October	9	37	45
November	7	37	47
December	5	34	37

Total number of cases admitted into Institution ..	..	..	6
Do. do. do. Infirmary ..	..	..	50

II. Vital Statistics.

BIRTHS.—

The total number of births in 1920 was 647, an increase of 97 of the 1919 figure. The birth-rate of 1920 was 20.9. That for England and Wales was 25.4. In the preceding year it was 17.9. Not since 1915 has the number of births been exceeded. It is interesting to observe the comparative fertility increases of the Wards; thus in comparing the birth-rate of 1920 with that of 1919 it is found that increases range from one birth per thousand of population in Newtown Ward to over six per thousand population in East Ward. To what factor or factors is the greater fertility of East Ward to be attributed? Broadly speaking, the social conditions are not dissimilar, and the houses to a great extent are of the industrial class. Whereas, however, the birth-rate in Newtown Ward last year was 16.7, in East Ward it was 28.2. If reference be made to former years it will be found that in Newtown Ward and East Ward the birth-rates since 1918, were as follows:—

	1918.		1919.		1920.
Newtown	13.4	....	15.7	....	16.7
East	22.2	....	22.2	....	28.4

The explanation of this disparity is by no means clear. There may be some gross error in the calculation of the Newtown Population in the shape of over estimation. If such an error has occurred the census figures of 1921 will afford the necessary correction. However, it is a recognised fact that Market Ward and East Ward have always been more prolific than have the other wards. The infant death-rate of Newtown Ward and East Ward may now be contrasted for in the same period. The figures are as follows:—

	1918.		1919.		1920.
Newtown	69	....	55	....	41
East	100	....	150	....	102

That is to say that whereas in Newtown Ward the average annual death-rate of 1,000 babies born is 55; it is 117 in East Ward. However, the excess of East Ward births over Newtown Ward births is not dissipated in the higher infant death rate of East Ward, for if a population of 100,000 for each ward be imagined, the number of babies surviving in Newtown Ward and East Ward at the end of a year would

be 1465 and 2137 respectively. If East Ward mortality figures were that of Newtown, the number surviving in East Ward would be 2286. It is by the application of vital processes to larger figures that there comes proper realization of what birth-rates and death-rates mean.

It is within the knowledge of all who have applied themselves to vital statistics, that there is a constant relationship between high birth-rates and high infant death-rates on the one hand, and low birth rates and low infant mortality figures on the other hand. It is also known to students of social problems that the long continued diminution of birth-rates has been more marked the higher investigation has extended in the social scale. A few years before the war it was stated authoratively that the only social classes which showed increased fertility were pauper and criminal classes, and to-day it requires only a little investigation to show that the more irresponsible and casual a community, the greater its birth-rate. If the records of the slums of any big cities are investigated the proportion of infants per total population is found to be higher than that of any other area, be it artisan dwellings or suburbia. Plato and Aristotle regarded this "excess" in a somewhat less humane way than do modern legislators, but then, Plato and Aristotle were philosophers, not politicians. Malthus laid down certain principles, one of which was that population has a constant tendency to increase beyond means of subsistence. His contention has since been shown to be erroneous, but it is in the very communities in which subsistence is depleted to a perilous degree that population tends to increase most, and it can be no other than the resourcefulness of nature that associates high infant mortality with high birth-rates amongst classes which can neither afford nor assume properly the responsibilities of parentage.

If the populations of Newtown and East Ward be compared as already said, they are not dissimilar. But if a more searching investigation be made into social conditions, there will be found fundamental differences. East Ward is possessed of housing which unfortunately attracts by cheapness, a type of person whose habit of life is casual. The responsibilities of life have not the same appeal to him. He is gregarious and his associations tend towards his progressive dependence. Sooner or later, through one of the many agencies, he, or his dependents, become proteges of the State. Now it is this very type of person who multiplies in much greater proportion than does the industrious artisan, who marries later in life and before doing so, has regard to his ability to meet the dues of matrimony. The cause of divergence in the birth rate of Newtown and East Ward is bound up to a very great extent in the different conceptions of citizenship of the respective populations.

I quote from an address by Dean Inge to the Eugenic Education Society. Speaking of the subject of over-population of slums the Dean said: "The slums are the chief breeding ground of undesirable citizens. Since their inhabitants could not be got rid of, it was better that attempts should be made to raise them to a position of self respect in which they would probably not breed so fast. It was usually only in the lowest strata that the worst specimens got married. In the higher ranks a thoroughly degenerate stock tended to die out unless there was great beauty or wealth, or a title to act as a makeweight."

I have laboured this subject somewhat, but I am concerned to see the birth-rate of East Ward outstripping that of the other Wards to a quite remarkable extent, knowing as I do that many of the lives are precarious both from hereditary and social standpoints.

The subjoined table gives the ward birth-rates for the year 1920 :—

Ward.	No. of Births.	Rate.
Victoria Park	125	20·2
Old Park	92	17·1
Moorside	85	19·8
Newtown	96	16·7
Market	113	22·5
East	136	28·4

DEATHS.—

383 persons died during 1920, of whom 197 were males and 186 were females. The death rate is 12·4, and is exactly that of England and Wales. The death-rate is therefore the same as that of the preceding year, and ranks with it as the lowest recorded. It is, however, subject to variation by corrected population figures. This adjustment will be possible before the end of the present year.

The numbers of births and deaths, the birth-rates and death-rates, and the amounts of natural increase for the wards are given in the sub-joined table :—

	No. of Births.	Birth Rate.	No. of Deaths.	Death Rate.	Natural Increase.
Victoria Park	125	20·2	67	10·8	58
Old Park	92	17·1	61	11·3	31
Moorside	85	19·8	44	10·2	41
Newtown	96	16·7	62	10·8	34
Market	113	22·5	78	15·5	35
East	136	28·4	71	14·8	65

Satisfactory as is the total death-rate, it cannot be said to be so flattering as that of 1919, for it must be remembered that in the spring of 1919 a wave of influenza affected the district, and increased what would have been a remarkable death-rate in the absence of such visitation; had no influenza epidemic occurred in 1919 the death-rate would have been under 12 per thousand population.

To what figure is the death-rate of such a town and population as this capable of reduction, may well be asked. Put in another way the question comes to be, to what extent does avoidable death expand the total of unavoidable death. It may at once be said that no answer can be given which is other than speculative. Diminishing expectation of life, powerlessness of modern prevention to cope with pandemic affection, variability in seasonal influence, and many other factors known and unknown, render the problem of elucidation of what is and what is not avoidable, well-nigh insoluble.

That certain affections by their greater occurrence in circumscribed areas and in definite seasons, afford scope for profitable inquiry, aimed at diminution, in their incidence, and consequent lessening of death, seems fairly certain.

To what factor or factors may be assigned the great disproportion between the death-rates of early spring and the death-rates of summer? Why should the people of a community die at the rate of 14 to 16 per thousand in February and March and at the rate of 4 to 5 per thousand in July and August, even in years of absence of influenza or other pandemic pestilence?

Is it possible to approximate the conditions of February and March to those of July and August?

In this typical Lancashire industrial town, people in the early spring die at the rate of 14 to 16 per thousand population per annum. During summer the death rate sinks to 4 to 5 per thousand per annum. Examining the causes of death during these periods one finds that half the spring deaths are due to affections of the respiratory organs, and of the greatly lessened summer deaths less than one fourth are due to the same cause. In spring, of the total deaths, one fourth are those of infants less than a year old, and of those spring infant deaths, three-fourths are due to respiratory disease. Another one-fourth of spring deaths occur amongst people over 65 years of age, and of these deaths three-fourths are due to respiratory disease. In a summer characterised by absence of epidemic diarrhoea, deaths of infants constitute one-eighth of total

deaths, and of these summer infant deaths none are attributable to respiratory disease. One half of the total summer deaths are those of persons over 65 years of age, and of these deaths one-fourth are attributable to disease of the respiratory organs.

It is manifest therefore, that in so far as the respiratory organs are concerned, early spring is a critical time for very young and very old. What then can be done to approximate the unhealthy conditions of spring to the comparative health of summer? I hazard the opinion that the pursuit of this very ideal in some measure accounts for the spring incidence of respiratory affection. In these bleak, cold, and wet regions the production of warmth generally means the deduction of oxygen. The industrial worker's cottage window, sometimes, and the door always, open in summer, are tightly shut in winter, to give a sense (artificial, it is true), of comfort which the inhospitable climate denies. And it is in overcrowded, stuffy, dirty rooms, that there is the greatest mortality from respiratory disease. The approximation of winter health to summer health cannot be achieved by the cultivation of greater impurity of atmosphere. Fogs, atmospheric pollution from industrial processes, humidity, and low temperature, tend towards lowered resistance, and the deprivation of oxygen accentuates the depression of the respiratory system to the extent of disease and death. This is a deduction, but a permissible one. The approximation of winter to summer for those who cannot afford to go to the shores of the Mediterranean, consists of no diminution of oxygen, an unpolluted atmosphere, increase of fats in the diet, increase of clothing proportionate to a lowered atmospheric temperature, and abstention from excesses, and from overcrowded houses and halls. This does not appear to be régime altogether prohibitive.

If reference be made to the general death table at the end of this report the fact will be established that if deaths from respiratory disease, tuberculosis, and the prenatal causes of death be eliminated, the death-rate would be reduced by nearly one half. Other contributory causes of death which are relatively large, are organic heart disease and senility. Reference has already been made to the possibility of reduction of the respiratory death-rates. The tuberculosis death-rate has shown fluctuations during the last ten years, which at first had a tendency towards increase, but recently have been towards decrease. The national campaign may not have achieved as yet, what it set out to do. Nevertheless, the figures for the last year or two are not without encouragement. The factors in general producing organic heart disease have yet to be co-ordinated. The relative importance of specific poisons of the rheumatic, and syphilitic, and alcoholic types, and occupation, have yet

to be worked out on inter-dependent and independent bases. It might be expected that in an industrial district such as this, the influence of occupation in the production of cardio-vascular morbidity is great. The prenatal causes of death are dealt with in the part of the report, devoted to maternity and child welfare.

Apart from affections which result in death, the medical officer of health has limited opportunity of investigation. Divorced as he is to a large extent from clinical medicine, the present possibilities are within the narrow scope embraced by a study of death rates and infective rates. He has little or no opportunity to study the large incidence of morbid processes which reduce the capacity for wage-earning on the one hand and emburden the State on the other hand. After all a dead man is less of a liability than a man in a state of chronic illness. Many affections which have a great cumulative effect in incapacitating, have little representation in bills of mortality. The National Insurance organisation in connection with the latest scheme of disease recording, will no doubt be in a position to supply bills of invalidity, but they will be for the country as a whole. It would appear to be but common sense that there should be collation of the findings for the different public health administrative areas, with a view to investigation of special incidence, and conditions of life and employment associated with special incidence. The work of the general practitioner and the medical officer of health must be brought into more intimate relationship, but until a recasting of the office of the latter and a status of state service be introduced for the former, little effective collaboration may be expected.

Infant Mortality.—

The rate of infant mortality per 1000 births was 103·5 last year. The rate for England and Wales was 80 and that for the 148 smaller towns with populations of from 20,000 to 50,000, was also 80. It will therefore be seen that not only is the infant death rate less favourable than in 1919 when it was 98·1, but that although by comparison with rates of twenty years ago it is comforting, by comparison with the general country rate, it is anything but flattering.

I have indicated in previous reports what are, broadly speaking, the factors which tend to maintain the elevated rates. They are respiratory disease and prematurity, atrophy, debility, etc., a group of conditions which is fruitful in infant mortality to the extent of having in 1920 contributed 55 per cent. of the total infant deaths. Respiratory disease contributed 25 per cent. Had no death occurred from these causes the infant mortality rate of 1920 would have been 20 per 1000 births instead of 103. It is of course only in the imagination that one can figure the

abolition of those causes of death, but such figures as I have indicated are helpful in directing the mind towards the lines on which preservation activities should proceed.

Ward infant mortality rates were as under :—

Wards.	Boys.	Rates per 1000 Births.	
		Girls.	Combined.
Victoria Park.....	220	90	152
Old Park	92	105	97
Moorside	25	108	70
Newtown	63	20	41
Market	160	105	132
East	160	62	102
Totals	128	80	103

Of 40 males who died four were members of twin births, both children in two twin births having succumbed, in one case a few minutes after birth, and in the other case a few days after birth. Of 27 female deaths two were the product of one twin birth and survived their birth three weeks.

The following table shows the position in the family occupied by each male and female infant who died and by each male and female still birth

	Total Deaths.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Over 10th
Males	40	10	5	5	2	4	1	2	3	1	1	6
Male Still Births	10	4	1	2	1	1	—	—	1	—	—	—
Females	27	10	3	7	2	—	—	—	1	1	1	2
Female Still Births	12	4	2	—	2	1	—	1	—	—	—	2

The number of previous infant deaths and still births in the families in which the above deaths and still births occurred is indicated below.

	Total Deaths.	No. of previous Infant Deaths and Still-Births.											
		1		2		3		4		5		Over 5	
		I.D.	S.B.	I.D.	S.B.	I.D.	S.B.	I.D.	S.B.	I.D.	S.B.	I.D.	S.B.
Male	40	6	3	6	3	—	—	2	—	3	—	—	1
Male Still Births	10	1	1	—	—	1	1	—	—	—	—	—	—
Females	27	4	2	4	1	—	—	1	—	—	—	—	—
Female Still Births	12	2	1	1	—	—	—	—	—	1	1	—	—

The remarkable difference between the death-rates of male and female infants is brought out in the foregoing figures. In Victoria Park Ward 22 out of every 100 boys born died in infancy, whereas only 9 girls out of every 100 born died in infancy. Over the whole district the

difference between male and female infant deaths was 48 per 1,000 births in favour of females. The deaths of earlier male members of families did not exceed those of earlier females, but in later members of families male deaths were far in excess of females. 67 infant deaths were associated with 57 antecedent infant deaths in 26 instances the largest number having been 5 previous infant deaths in two instances and 4 previous infant deaths in three instances. 22 still births occurred (10 male and 12 female), bringing the infant death-rate for males to 160 per one thousand births, and for females to 116 per one thousand births. The previous history with regard to still births was signally different from that of 1919. In 1919, in every case of still birth with one exception, there had been at least one earlier still birth. Last year, in only four instances had there been previous still births, in two instances, one still birth; in one, three; and in one, five. With 67 infant deaths there were associated 10 antecedent still births, as many as 6 of such having preceded the death of an infant which survived twenty-seven days and died of weakness from birth.

In no instance was an infant death associated with a mother under 20 years of age, and in three instances only was the mother over 40. Women between the ages of 20 and 40 gave birth to 64 of the 67 infants who failed to survive for a year after birth. With regard to still births one woman over 40 years of age was delivered at the seventh month of a still born child. She had previously had 10 confinements, and seven children are now alive. All the other still births were to women between the ages of 20 and 40.

In 13 instances of infant deaths and in 7 instances of still births were mothers occupied during and after pregnancy. It will be observed in the case of still births the proportion is large, *i.e.*, 31 per cent.

In 10 boy deaths and 4 girl deaths the health of the mother before and during pregnancy was poor, and in 3 boy still births and 6 girl still births the health of the mother was impaired both before and during pregnancy.

There was no evidence to show that family distress was contributory to any death. The fathers* were in constant employment, with the following exceptions:—One father was irregularly employed, two were unemployed (in one case the mother worked), and one was dead. The food provision of maternity and child welfare was available to obviate any hurt to infants arising out of poverty.

* One death from pneumonia was of an illegitimate child, and the father did not contribute towards maintenance. This child was in receipt of milk at public expense.

Overcrowding in connection with infant deaths was evident in only one instance.

Errors of rest and lack of exercise were not in conspicuous evidence, but dirty houses and unprotected food were unfortunately too prevalent. Of the former condition more than a quarter of all the homes in which deaths took place were described as dirty, a condition attributable more often to tenant than landlord, although evidence of dereliction on the part of the latter was not wanting. The condition for storage of milk for bottle-fed infants has been commented on in earlier reports. Any attempt to purify milk for half the householders in the district other than boiling immediately before use, would be a superfluous undertaking.

The evidence of the infant death investigations is to the effect that, preventive hygiene is a subject of paramount importance, and that its influence is needed amongst a class of person, which up to the present repudiates any association with such work from reasons, one fears, which are anti-sympathetic to its aims.

Prevention of Infant Mortality.

HEALTH VISITORS' WORK IN 1920.

Total Infant visits	4688
Total visits to children (1-5 group)	1548
Total Infant Death visits	67
Total Measles visits	61
Total Pneumonia visits	10
Total Ante-natal visits	160
Total home treatments	430
Total visits to home helps	3
Total Ophthalmia Neonatorum visits	60
Total Still Birth visits	22

The above record of work was accomplished by the health visitors. Considering that two half-days per week and an extra half day per month, they were occupied with clinic work, the record of visiting in a district so scattered as this, and denied as they are, either bicycle allowance or tram fares, is one which reflects not a little credit upon their energies. It must be known to all that mere visiting and recording findings is not the sole work of a health visitor in a district of cottage houses. Her energies in so far as infant welfare work is concerned are directed mainly towards eliminating as far as possible, the many hygienic errors associated with infant management in industrial homes. Tactfulness, in order to get a footing and win the confidence of mothers, who, as a rule are tractable, although there are many exceptions, must

be a qualification developed in the highest degree. Many hours, which often look to be wasted, judging by results, are spent in reiteration of elementary aphorisms and re-demonstration of elementary hygienic principles. The health visitor introduces the mother to the centres. Thereafter, the mother knows that twice a week she may bring her infant, sickly or sound, to the centre, and have it weighed, and have a medical opinion respecting progress, should she be desirous of such.

In former years it was the practice in this report to present in tabular form a statement of the findings of the health visitors at various periods throughout the first year of life.

This practice has been abandoned in the present report for a general survey of the results of a line of investigation which was pursued in every case. The information in the tables of former reports was limited to a few headings of unsatisfactory management and conditions associated with management. In the present investigation a wider view has been taken of the circumstances surrounding the life of each infant.

It will be understood that the difference in numbers between infants concerned in the investigation and infants registered, is accounted for by the fact that the investigation and registration periods are different.

The investigations included 704 births, 14 of which were illegitimate.

262 were first births.

Eighty-three per cent. were of families of five or under.

In 28 instances the birth was the tenth (or higher number) birth.

The number of antecedent infant deaths and still births in connection with the 704 births, was greater in proportion than was the number of antecedent infant deaths and still births associated with the infant deaths and still births of 1919, a fact which tends to disprove, so far as the material under consideration is concerned, that the past history connected with infant deaths is worse than that connected with the mass of births.

The size of families living at the time of investigation is indicated in the following figures. It is interesting, as being indicative of the size of families in the district in general.

One child	..	..	283 families.
Two children	..	..	162 ..
Three	..	..	89 ..
Four	..	..	51 ..
Five	..	..	41 ..
Six	..	..	37 ..
Seven	..	..	17 ..
Eight	..	..	8 ..
Nine	..	..	6 ..
Ten	..	..	1 family.
Over ten children	..	..	5 families.

Diminished productivity is vigorously combated by some mothers, and not a little credit is due to those who can provide 10 or more healthy children to the State without subsidy.

The age of mothers at birth of the infants was as under :—

1% under	20
22%	20—25
30%	25—30
22%	30—35
15%	35—40
6% over	40

The married mother's age at marriage was :—

Under 20	12%
20—25	63%
25—30	21%
Over 30	3%

113 women were occupied in duties other than household work during pregnancy. The number applied to the number of births investigated, constitutes 16 per cent. It is just half the proportion associated with infant deaths and still births.

The condition recorded at birth as regards the father's employment was :—

83%	constant employment.
13%	casual employment.
1%	no employment (or dead).

Eighty-nine babies, or 12 per cent, were of subnormal weight at birth.

Irregularity of feeding was noted in 7 per cent. of cases.

Eighty per cent. of the babies were denied separate sleeping accommodation.

Dirty houses due to parents' neglect were noted in 10 per cent. of cases investigated, and general insanitation in 20 per cent.

In 16 per cent. of cases the baby was provided with an insufficiency of fresh air.

Investigation showed that at the end of three and six months the proportion of bottle and breast-fed babies was as under :—

Three months	2	.....	1
Six months	1	.....	1

During the year under review the health visitors paid 1548 visits to children between the ages of 1 and 5 years. These visits were in the great majority of cases made in following up children who had been visited from birth, and their records were passed on to the School Medical Service when they were examined in school as entrants; the system adopted being that lists of entrants were supplied by teachers to the school medical officer, who obtained from the child welfare department the necessary records.

CENTRES.—

During 1920 two meetings were held per week for child welfare and during part of the year, one meeting a month was held for ante-natal welfare.

The child welfare work accomplished was as under :—

No. of clinics held	102
Total attendances	4007
No. of infant attendances	3080
No. of fresh infant enrolments	310
No. of attendances of 1-5 Age Group	927
No. of fresh enrolments	152
Total no. of medical consultations	950

The number of infants who were enrolled as having attended the clinics was 47 per cent. of the total birth registration. This cannot be

regarded as satisfactory. In such a district as this practically all the babies should be in regular attendance at the clinics. The 50 per cent. defect in attendance must be attributed largely to the impracticability of bringing infants from such remote parts as the outlying districts of Moorside, Newtown and East Wards. To encourage the attendance at centres of infants in these districts, centres would have to be opened there, and the existing medical staff could not cope with the medical consultative work of extra centres. The services for these outlying districts have been therefore, mainly confined to health visiting, which has, of course, been greater in proportion than to parts of the district from which infants can readily be brought to the clinics for weighing, advice, and medical consultation.

It will be observed that the average attendance at the clinics was 39. It is found that the number is as large as can be dealt with adequately at a session of two hours, and the period has to be exceeded when the average attendance is exceeded. The average attendance would have been exceeded last year, were it not for the fact that during the year undressing for weighing purposes was resorted to with an immediate setback in attendance. However, the recuperative power of the clinic is excellent.

The attendance of all children who were in receipt of food or other supply, was secured as far as possible. The supply of fresh cow's milk and dried milk was as follows :—

	Free.		Reduced Price.	
	No. of Persons.	Amount.	No. of Persons.	Amount.
Fresh cow's milk.	81	243 quarts.	39	125 quarts.
Dried milk	47	600 lbs.	26	445 lbs.

During the time of the Colliers' Strike and during the latter part of the year when unemployment and short time employment were effective in reducing food supplies, there was a greater demand for milk.

Dried Milk, Virol, Cod Liver Oil and Malt, Emulsion of Cod Liver Oil, Chemical Food, Hyd. c Creta are amongst the supplies of the Centre.

There are many preparations both proprietary and other, which have established reputations, often with complete justification, for producing beneficial results in mother and child. Their use is limited to a department's capacity, and will, to conform with the requirements of audits. When small authorities establish municipal depots for the sale or free distribution of food and drug supplies, they are apt to ignore the fact that work entirely outside the scope of professional training of

medical officers and nurses is thrust upon these long-suffering individuals, who have suddenly to adapt themselves to an activity in the conduct of which they are most unhappy.

The duty of keeping stock books, the sale of preparations, the keeping of accounts, and the banking of monies, are not the duties of a Health Department, and as long as this work is foisted upon Health Departments, they can but protect themselves by limiting provisions.

Advocated by the Government, for a period, sugar was of the Council's supplies, and was in considerable demand both by those who were entitled to it and those who were not. When the auditor asked for the sugar stock book the sensational admission had to be made that it did not exist. Evidence was produced as to the amount allowed the Council from the Controller, and certificates and receipt counterfoils were available showing to whom sugar was sold. Likewise there was an absence of stock books for small amounts of Virol, Lactagol, etc., sold, and it is difficult to see the necessity for such, if invoices, certificates, and receipt counterfoils are produceable. I recommend to auditors and their staffs, consideration of practicabilities. Frequently their demands, if in the public interest in one direction, are opposed to it in another in as much as officials curtail provisions to obviate impossible bookkeeping, with resultant hardship.

It requires a degree of toleration not gifted to all, to regard with feeling akin to equanimity, the exploitation of the Clinic attempted by some persons.

To a certain number of people the Clinic is a shop with a reputation for cheapness; to others it is a refined substitute for poor law provisions, and to both it has no usefulness except for its cheapness, and many of its provisions have no appeal but the material part, and are unsought until the suggestion of bargain or gift exercises magnetic influence.

The work of medical consultation at the Clinic is conducted on the following principles. The medical officer attends at each Clinic meeting. He examines all infants presented at the Centre for the first time, and supplements the information obtained by health visitors at their visits. Children on attaining the age of one year are again examined at their first visit to the Centre, after attaining that age. Other examinations are made at the request of parents, health visitors, or doctor.

To those ladies, who by their constant voluntary attendance at

the Clinics contributed to the efficiency of service, I offer my dutiful thanks.

The amount of treatment at home undertaken by the Health Visitors, was as under :—

Massage	47
Dressings	282
Eye bathing	20
Ear syringing	13
Enema administration	38
Milk peptonising	30
Total	430

CO-OPERATION OF MIDWIVES.

The Midwives have co-operated in the pre-natal work with increasing enthusiasm. Several of them are constant attenders at the Antenatal Clinic, bringing their own patients, listening to a short address, and taking away valuable information imparted to them by the Gynaecologist.

PROVISION OF BEDS FOR MATERNITY CASES.

This provision has been delayed pending joint action. Information was obtained that the County Council was providing a Maternity Hospital in a contiguous district, and as this district would contribute by rate for the support of this institution, it did not appear that any overlapping expenditure was justifiable.

PROVISION OF BEDS FOR AILING INFANTS.

As stated in last year's report, the Council maintains one bed at the Manchester Babies' Hospital, at a cost of £100 per annum. During 1920 the bed was occupied as follows. The result of the detention is indicated.

	Duration of Detention.	Result.
One infant	10 days	Died in hospital.
One infant	21 days	Died in hospital.
One infant	21 days	Died in hospital.
One infant	54 days	Discharged : much improved.
One infant	42 days	In hospital at end of year.
One infant	9 months	Discharged : much improved.
One infant	3 months	In hospital at end of year.

The result does not appear to be a very profitable one. Seven infants afforded hospital accommodation at the rate of £25 per life saved, does not suggest superlative advantages in making this provision. That the four lives were saved, however, is indisputable. It will be observed that the hospital authorities kindly permitted some overlapping of accommodation. I do not think it was the intention of the Act that beds should be provided for such a lengthy period for individual cases as 9 months. That, however, is the concern of the authority which administers the hospital.

PROVISION FOR NURSING MEASLES.

A joint meeting between the two District Nursing Associations and a Sub-committee of the Council was held during the year. Any hope that the Associations would co-operate in this work was speedily dispelled by the attitude of the Associations.

There remains to be made a decision as to what will be the action of the Council during measles prevalence. That expert nursing is necessary is an opinion shared in common by those who have brought their minds to bear upon the problem of measles mortality in industrial towns. Measles is epidemic with some consistency every second or third year, and what would appear to be an adequate provision, would be the employment of the services of a temporary nurse to visit all cases of measles during an epidemic, and provide nursing service where requisite.

If there exists doubt in the minds of any that nursing in connection with measles is not needful, reference should be made to the death returns for the year 1915, where it will be seen that measles was responsible for no less than 28 deaths. Not a few of these deaths would have been prevented if any regard had been paid to the proper hygiene of the malady.

61 visits were made last year to measles cases. There were three deaths from measles. Notifications of cases of measles were received through the school attendance officers and teachers.

PROVISION OF HOME HELPS.

One Home Help was provided last year. This provision of the work is fully organised, but the necessity arose in one case only.

PROVISION OF DENTAL TREATMENT FOR NURSING AND EXPECTANT MOTHERS.

This provision is dependent upon the appointment of a school dentist, and his appointment is dependent upon the provision of suitable premises for his work.

PRE-NATAL HYGIENE.

Work accomplished :—

Health Visitors' Pre-natal visits	..	..	..	..	160
No. of Clinics held	..	..	..	..	9
Total attendances	..	..	..	..	121
Total individual cases	..	..	..	..	66
Midwives' attendances	..	..	..	..	36

In the early part of 1920 Dr. Russell Corfield, of Wilmslow, was appointed to undertake the work of conducting an Ante-natal Clinic. A monthly meeting was arranged initially, and has been so conducted since institution. The time has arrived when more frequent meetings should be conducted. Starting humbly, the clinic has recently had a much stronger appeal both to expectant mothers and to midwives. The following account of the work of the clinic has been supplied by Dr. Russell Corfield.

DR. CORFIELD'S REPORT.

The first meeting of the Swinton and Pendlebury District Ante-Natal Clinic was held on April 13th. Since then steady progress has been made, with the result that I now have great pleasure in reporting an attendance of twenty each clinic afternoon; this number is almost more than can be carefully attended to in a session. Tea and biscuits are served, and homely chats are indulged in, and lectures are given to the expectant mothers during the first part of each afternoon. These meetings are much appreciated, and as the work progresses, I hope to be able to add other attractions, such as lantern lectures, etc.

A total of 66 Ante-natal cases has been dealt with. This number is quite satisfactory. It takes some considerable time for the Establishment of an Expectant Mother's Clinic, and it is satisfactory to know that these figures compare favourably with other centres of the same kind. There is always a public feeling of suspicion or distrust against new institutions, a wanting to know what we are going to do with them, a query as to what it costs to attend, etc. In this little difficulty we are not alone, for I have had the same experience with other clinics, and the same is reported to me by other medical officers, but I am sure that, with the continued loyal support of midwives, who have already done so much to help us, we shall develop successfully.

Of the 66 cases reported, thirty-six, after examination, were passed as normal, and were ultimately delivered without complications.

Six cases were kept under constant supervision for Malnutrition; particulars were obtained, and milk and eggs were supplied to help them through the difficult period.

Two cases with a history of serious Hæmorrhage were referred to their doctors. Subsequent history more than proved the usefulness of the Clinic, both to patients and midwives in attendance.

One case of Venereal Disease was sent to St. Mary's V.D. Centre, thus saving serious after-trouble to mother and child, and protecting the midwife.

One case was referred to the Sanitary Inspector, and a note was sent to landlord to make the room fit for the patient to be confined in.

One case was sent to St. Mary's Hospital, and detained there until delivered.

One case out of the district was not dealt with.

Ten cases are not yet delivered, and are still under observation at the Clinic.

Of the remaining eight cases, one was a skin affection successfully treated; the others were cases of Small Measurement. In connection with the latter cases, notes were sent to the patients' medical men, notifying them of the condition.

SUMMARY.

Normal	..	..	..	..	..	..	..	36
True Malnutrition	..	..	..	..	..	..	..	6
Hæmorrhage	..	..	..	..	..	..	..	2
Venereal Disease	(St. Mary's V.D. Centre)	..	..	..	..	..	..	1
Referred to Sanitary Inspector	..	..	..	..	..	..	..	1
St. Mary's—detained (delivered in hospital)	..	..	..	..	..	..	..	1
Out of District	..	..	..	..	..	..	..	1
Skin Disease	..	..	..	..	..	..	..	1
Below Normal Measurement.	..	..	..	..	..	..	..	7
Still under Clinic supervision	..	..	..	..	..	..	..	10
Total cases	..	..	..	..	..	..	..	66

C. RUSSELL CORFIELD, M.D.,

Medical Officer Clinic.

Ophthalmia Neonatorum.

Six cases of this affection were notified during the year. In one case there was a permanent defect, which was a very small and unimportant scar.

Puerperal Septicaemia.

No case of this affection was notified last year.

III. Infectious Diseases.

The list of notifiable diseases is now a formidable array of affections, not a few of which have happily little more than academic interest.

The elimination of measles from the list, however, has had the effect of diminishing the total number of notifications received in 1920, by more than one half.* Measles was epidemic in 1919, and although but a proportion of cases was notified, information in the shape of notification was lodged concerning 762 cases. Deducting this number from the total of notifications for that year, there are left 580 notifications of infections other than measles, a number similar to that of 1920, *i.e.*, 591. The disease, which shows increased incidence as indicated by notification during 1920, is acute primary pneumonia. In 1919 there were 72 notifications of this affection. In 1920 there were 119. Deaths from pneumonia amounted to 30, so that 25 per cent. of pneumonia cases died. Influenzal pneumonia occasioned only two notifications in 1920. Scarlet fever, which during 1919, had a higher incidence than in any of the preceding sixteen years, was again prevalent in 1920, 252 cases having been notified.

The notifiable disease death-rate was 2.2 per 1,000 population, and the zymotic death-rate was 0.7.

The prevalence of smallpox in South-East Lancashire during the fall of 1920, called for the adoption of precautionary measures, and accordingly chicken pox, with the consent of the Ministry of Health, was made notifiable for a period which extended from 27th November until December 31st, 1920. During that period 42 cases were notified, and arrangements were made that each case should be seen by a medical man for confirmatory purposes. Arrangements were also made for obtaining expert opinion for medical men, should such be desired. Happily, no case of smallpox occurred in the district, and circumscribing the area of infection appears to have been accomplished most successfully. This opportunity ought not to be allowed to pass without expression of sorrow at the number of people who have escaped vaccination for what would seem to be most unsubstantial reasons. Exemption would appear to be obtainable with peculiar ease.

* This is not strictly accurate, as Measles was not epidemic in 1920.

Of the obscurer diseases of the nervous system, Encephalitis Lethargica accounted for two notifications; both cases proved fatal. The first case was that of a coal miner, whose illness started with all the features of influenza, from which he partially convalesced, and then relapsed into a stuporose condition, alternating with periods of a fair amount of consciousness. At no time were the symptoms, apart from the condition above mentioned, anything other than negative. I saw him in consultation with his medical attendant, but he was then moribund, and the only symptom of any significance was nystagmus, but in as much as he was a miner the symptoms may have been associated with his occupation. The other case was admitted into Manchester Royal Infirmary, and died there. In neither case was the illness traced to any known source of communicability. No other members of either family, and one was living in a state of overcrowding, the patient, his wife, and four children occupying a bedroom 11 feet by 10 feet, by 6½ feet, developed any symptoms suggestive of affection of the nervous system. If the Sanitary Authority is to be held responsible for the investigation of diseases, the communicability of which is in doubt, and there is no substantial proof of the infectiousness of encephalitis lethargica, the Infectious Diseases Notification Act has been given a new orientation, and isolation, removal to hospital, and house disinfection, intentions of that Act, have become of secondary importance. Under these circumstances a Sanitary Authority would have some justification in asking for a grant for medical research. There should be some precise recognition of what really constitutes an infectious disease, and what doesn't, otherwise the list will become indefinitely extended. There appears to be just as good a case for the inclusion of cancer as there is for the inclusion of encephalitis lethargica.

At the end of the present financial year, the Council's agreement with Salford Corporation for the reception by the latter at Ladywell Sanatorium of infectious cases occurring in Swinton and Pendlebury, terminates. The Corporation have announced their definite intention not to renew the agreement.

A Joint Committee with other Local Authorities concerned, after refusal to renew isolation provision at Ladywell, was formed, but what has been its action I am not in a position to say. The only communication I have had was a letter from the convenor of the Joint Committee, asking what I estimated would be the isolation bed requirement of this district. It is now within a month of the time when the agreement terminates, and if epidemic disease is prevalent thereafter, I do not think it is difficult for those Councillors who know the conditions in several parts of the district to realize that isolation will be non-existent, that

dangerous cases of illness will be accommodated under the most distressingly adverse conditions, and that school attendances will suffer by reason of long continued absence of contacts. Last year 82 cases of Scarlet Fever and four cases of Diphtheria were sent to Isolation Hospital. In the previous year the number was 128. It may be said that these cases were removed because, in the opinion of the staff, no other course was permissible. I must register now my disclaiming of any responsibility with regard to proper supervision of infectious disease after March. The staff will continue to do its duty, but it will be hopelessly handicapped and the prejudice to life in the event of epidemic prevalence will no doubt be evidenced in the death returns.*

Scarlet Fever.

Scarlet Fever was again epidemic throughout the year. The epidemic prevalence which commenced towards the end of the first quarter of 1919, continued throughout that year and throughout 1920. The number of cases notified last year was 252, and the rate per 1,000 of population was 8.1. The rate in 1919 was 13.7. The disease was of a mild type. Of the 252 cases notified one died. The disease was spread over the district quite uniformly, and the incidence as might be expected, was greatest during the age period of school attendance. 13 per cent. of the cases notified, however, were of persons between the ages of 15 and 25. This is explained by the district's long-continued immunity from the disease in anything like epidemic proportions.

82 of the cases were removed to hospital. The removal of approximately one-third of all the cases was occasioned not by any predominant hope of prevention, for preventive measures some days after infection has manifested itself, and at the end of a period when infection is most intense, are belated, but because household conditions left no alternative. Two-thirds of the families of the district live in four-roomed cottages, and if home isolation is to be attempted, one of the two bedrooms which these four-roomed cottages afford, is for a period of weeks available only for the purpose of isolation of the patient, the remaining members of the family have to be contained in the only other bedroom. Thus of a family consisting of father and mother, one grown-up daughter, one youth and three children of school age, if one child contracts scarlet fever, isolation at home means a problem in which decency, isolation, air space, and education are struggling against complete submersion. Isolation hospitals have a more salutary effect in the provision of air space, nursing, and general improved hygienic surroundings than they have in the prevention of spread of infection.

*Since the above was written, Salford Corporation has very kindly extended its isolation provision for another year without increase of cost.

So difficult were the nursing problems at Ladywell Sanatorium in 1919, that it became necessary to alter the period of isolation from a routine observance of six weeks to one at the end of which a case was deemed to be free from infection. This rule has been in force since September 30th, 1919. During the period, September 30th, 1919—December 31st, 1920, the number of cases of Scarlet Fever sent into isolation at Ladywell Sanatorium was 111, and there were 9 return cases.

The more remote from the time of invasion is the return to communal life of an individual who has suffered from scarlet fever, the less likelihood is there of his infecting others. This can be said with more conviction of a case isolated in a private room at home or in hospital, than it can be said of a patient discharged from the ward of a hospital in which patients have been nursed in common.

Diphtheria.

The incidence of diphtheria during 1921 was small. 48 cases were notified, of whom 5 died. Four were sent into hospital.

169 specimens from the throat were sent to Professor Delepine for bacteriological examination, of which 34 gave positive results. Most of these specimens were taken from school children, it being the practice to re-admit to school neither convalescents nor contacts until a negative examination has been made.

Enteric Fever.

Only two cases were notified during the year. The disease has become almost historic, but the history of it should give impetus to extension of the reform which brought about its diminished incidence. I refer those Councillors who were not members of the Local Authority at the time of publication of the 1913 annual report, to a diagram which appeared there, and which was reproduced in the 1914 report. I do not think that anyone contends that the evidence of the diagram is disputable. At the time when enteric fever was most prevalent in the district, the practice of excremental disposal was an infraction of hygienic principles which were observed long before the dawn of the Christian Era. Influences in the production of epidemics were discussed by Hippocrates, and it is a poor tribute to our assimilative capacity for his teaching, and that of those who further developed it, that to-day we flout the most elementary knowledge concerning epidemic disease by a continued toleration of an insanitary crudity which is without equal. One-fifth of the district closet accommodation consists of privies and conver-

sions started over 20 years ago. Many of the privies are much more dangerous than others. It is a peculiarity of flies that they are not attracted to dark places, and their influence in the conveyance of infective organisms from exposed excremental deposits is neutralised to some extent by the darkness of covered privies. It has been the habit in times past to secure the conversion only of such privies as could be declared insufficient, a word the interpretation of which, so far as this Authority was concerned, was dilapidated. Thus the uncovered privies and the tumble down privies were to a large extent converted entirely at the owners' cost. This work went on up to the time of the outbreak of war, at a pace which ensured complete cessation of the work in the near future, unless some contribution was to figure in the scheme of convertive work. In fact, the dilapidated privies were rapidly disappearing, and such as remained were structures which conformed with the Council's building bye-laws. They nevertheless were privies, and their menace to the health and purity of the community was one of lessened degree only. During the war when this work was in complete abeyance, many more privies became insufficient, but now the cost of conversion is about three times that of pre-war days, and this work to all intents and purposes has ceased. To advocate a contributory scheme at the present time would be unpopular, but if local authorities expect the pursuit of a more refined existence on the part of the people, while the lesson of the privy remains, they are likely to be disappointed. If in a hot summer infants die in alarming numbers they must attribute the part the privy plays in pollution of food and atmosphere to action on the part of those who were responsible for staying a reform long overdue. It may be contended that the indictment of the privy and its perpetuators is ill-timed, after consideration of the incidence of enteric fever for the last half dozen years. I have already indicated that privies grow dilapidated, but so long as even a few privies dilapidated or otherwise remain, there will be the menace of enteric fever, and what have been hitherto regarded as idle warnings, may all too soon have an altered significance.*

Tuberculosis.

Two tables, one of which has been presented since 1913, and the other since 1918, are reproduced with the necessary additions consequent upon records for a further year being available.

The number of notifications of pulmonary tuberculosis received in 1920, showed a slight increase over that of 1919, and is equal to an incidence of 1.9 per thousand of population. Since the earlier years of compulsory notification, however, the number of notifications has

*At the time of writing there is occurring an outbreak of enteric fever in the district

diminished. This must not be interpreted as primarily establishing proof of diminished incidence. It is due rather to notification in the earlier years of an accumulation of cases in which onset was referable to other years than that of notification, and also may be a result of increased accuracy of diagnosis, consequent upon the availability of expert diagnosis. During the same period the death-rate, a more valuable index, remained fairly constant with the exception that in the year now under review, it dropped considerably. The relationship of notifications to death-rate is seen in the subjoined tabular statement.

					Notification Rates.	Death Rates.
1913	..	..	..	..	3·4	0·9
1914	..	..	..	..	3·1	1·3
1915	..	..	..	..	2·8	1·05
1916	..	..	..	..	2·8	1·03
1917	..	..	..	..	2·7	1·2
1918	..	..	..	..	2·5	1·2
1919	..	..	..	..	1·5	1·2
1920	..	..	..	..	1·9	0·8

The value of these figures is unfortunately doubtful, principally on account of the extraordinary dislocation of the war. The population figure since 1916 has been more or less guessed. The altered ratio of conditions of life, and abnormalities in other directions, cannot but have affected the figures to an appreciable extent, and no correcting factor can be introduced.

Broadly speaking, however, it can be said that there is a decided tendency for notifications to remain at a lower figure than was the case at the commencement of compulsory notification, and that the death-rate has remained constant with the exception of a drop in 1920. It might be expected that a fall in notifications would precede by a year or two that of a fall in death-rate, and subsequent happenings may be watched with interest.

With regard to the localities in which pulmonary tuberculosis was evidenced by fresh notification last year, there was no indication that bad housing conditions were more intimately related to tuberculosis than were any other housing conditions. One street of 77 houses in Pendlebury had a notification rate of 11·1, whereas the general district rate was 1·9, but it is not permissible to make any inference from what must be regarded as purely accidental. A remarkable feature of distribution was the greater incidence of tuberculosis in Newtown Ward, which on account of its comparative elevation in other respects, might be ex-

NOTIFICATIONS OF TUBERCULOSIS, 1920.

PRIMARY NOTIFICATIONS.

	All Ages.		Under 1 Year.		1 to 5.		5 to 15,		15 to 25		25 to 45		45 to 65		Over 65.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Pulmonary	35	25	—	—	—	—	6	7	7	5	10	12	12	1	—	—
Non-Pulmonary	8	8	—	2	—	1	6	4	2	1	—	—	—	—	—	—
Total	43	33	—	2	—	1	12	11	9	6	10	12	12	1	—	—
Pulmonary	35	25	—	—	—	—	6	7	7	5	10	12	12	1	—	—
Non-Pulmonary	8	8	—	2	—	1	6	4	2	1	—	—	—	—	—	—
Pulmonary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Non-Pulmonary	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	43	33	—	2	—	1	12	11	9	6	10	12	12	1	—	—

Form
AForm
B

PULMONARY TUBERCULOSIS NOTIFICATIONS AND RESULTS SINCE 1913.

1.	2.	3			4	5			6	7			8	9			10	11												
Year Notified.	Number of Cases Notified.	Number of Patients admitted to Sanatoria.			Total admitted to Sanatorium.	Year of Death of Patients who have received Sanatorium Treatment.			Total.	Year of Death of Patients who have not received Sanatorium Treatment.			Total.	Total Deaths of Patients notified from 1913 to 1920 inclusive.			Total.	Total No. of persons still alive who have been notified as suffering from Pulmonary Tuberculosis												
		1913	1914	1915	1916	1917	1918	1919	1920		1913	1914	1915	1916	1917	1918	1919	1920												
1913	111	19	12	3	4	3	1	1	—	34	9	11	1	2	—	2	1	—	26	9	15	5	3	3	3	1	42	69		
1914	101	—	8	3	4	7	—	—	—	22	23	6	3	—	1	2	—	—	35	—	24	8	4	1	4	2	1	44	57	
1915	90	—	—	21	7	4	1	1	—	34	—	16	6	2	1	—	1	—	26	—	—	19	6	6	3	1	1	36	54	
1916	93	—	—	—	—	27	14	—	—	41	—	—	17	5	2	—	—	—	24	—	—	—	19	7	6	1	—	33	60	
1917	87	—	—	—	—	—	44	7	—	51	—	—	—	17	7	2	—	—	26	—	—	—	—	19	10	2	3	34	53	
1918	680	—	—	—	—	—	—	39	10	49	—	—	—	—	15	1	—	—	16	—	—	—	—	—	17	1	3	21	59	
1919	46	—	—	—	—	—	—	—	13	13	—	—	—	—	—	9	4	—	13	—	—	—	—	—	9	5	14	32		
1920	60	—	—	—	—	—	—	—	38	38	—	—	—	—	—	—	7	—	7	—	—	—	—	—	—	—	14	14	46	
Totals	668	10	20	27	42	72	48	25	38	282	9	34	23	28	24	28	15	12	173	9	39	32	32	36	43	19	28	238	430*	

*13 of 430 cases are presumed to be alive. They have left the district and their history subsequent to the time of leaving is not available.

pected to occupy a favourable position, but sinks to that of providing a tuberculosis rate which is exceeded only by that of Market Ward, and is more than twice that of East Ward.

The ward rates as indicated by notification are as under :—

	Rate per 1,000 Population.
Victoria Park Ward	1.1
Moorside Ward	1.1
Newtown Ward	2.7
Old Park Ward	2.04
Market Ward	2.9
East Ward	1.2

The number of persons who have been notified since compulsory notification came into force, and who are now living in the district, is indicated in the following statement :—

Ward.	No.	Rate per 1,000 Population.
Victoria Park	68	11.02
Moorside	33	6.7
Newtown	61	11.7
Old Park	52	9.6
Market	84	16.7
East	100	20.7
	398*	12.8

It is evident that some factor or factors in Market Ward and in East Ward are responsible for a notification rate far in excess of that of the general district notification rate; what the factor or factors are would be difficult to determine. One element which may have had a determining influence, is that of varying opinions as to what physical signs justify a diagnosis of pulmonary tuberculosis, and what do not. There is some support for the belief that diagnosis in the earlier years of compulsory notification was somewhat hazardous. If the figures for the first two years of notification are taken conjointly, it will be found that 212

*The difference between this figure and 430 of the table of Notifications and Results is accounted for by the inclusion of persons who have left the district and notifications from institutions such as Asylums, in the table.

cases were notified, of which 56 were admitted to sanatoria. Of the 56 who were admitted to sanatoria 44 per cent. are now dead. Of the 156 who were not admitted to sanatoria, 39 per cent. are now dead. There is no great difference in the death figure, but in as much as it can be assumed sanatoria cases would be definite cases of pulmonary tuberculosis, but would be in the earlier stages of the affection, there would be expected a greater rather than a less proportion of deaths in correctly diagnosed non-sanatoria cases.

Whatever influence this factor may have had, it is not contended it is the only factor. Investigation into the incidence of pulmonary tuberculosis in smaller areas, associated with general defective conditions of life, such as dirty and dilapidated houses, casual labour, poverty, etc., provides abundant proof of the paramount influence which certain social factors have in determining incidence. In this connection may be instanced the behaviour of phthisis in the locality known as the Knowles Square area, recently represented as an unhealthy area. There, the notification rate since compulsory notification was introduced, is 61 per 1,000 population.

Powers in connection with the Tuberculosis campaign are vested in the Lancashire County Council, so that in regard to treatment supervision of cases, and contacts, the Council has no authority. Its work in regard to cases is limited, purely to receiving notifications and transmitting them to the responsible authority, and investigation of the circumstances of cases notified. Powers, however, in connection with the premises from which notifications are received, are vested in the Council, and remedying defects of sanitation and carrying out disinfection, are activities for which it is solely responsible.

Reference to the tabular statement of work in that part of the report dealing with sanitary administration, will show that 152 visits were paid to the homes of cases of pulmonary tuberculosis last year, that 107 room disinfections were carried out, and that 202 articles of clothing (bed and body) were sterilised.

DR. JESSEL'S REPORT.

The following particulars have been supplied by Dr. Jessel, Consultant Tuberculosis Officer of the County, with respect to cases of tuberculosis belonging to this district, dealt with under the County Scheme.

SWINTON AND PENDLEBURY DISTRICT.

(a) No of cases admitted to—

1. Sanatoria	31
2. Pulmonary Hospitals	22
3. General Hospitals	1
4. Skin Hospitals	4

(b) No. of cases granted domiciliary treatment 111

(c) No. of cases granted dispensary treatment or supervision .. 291

(d) No. of cases under supervision on 31st December, 1920 .. 356

	Insured.	Non-Insured.	Total.
Pulmonary ..	121	141	262
Non-Pulmonary ..	15	79	94
Totals ..	136	220	356

The number under treatment and supervision during 1920 was larger than in 1919, not because there was an increase in the incidence of the disease, but owing to the discovery of existing cases hitherto unknown, who were then brought under treatment. This has been largely due to the effective working of the arrangements for mutual co-operation made between Dr. Stalker, as Medical Officer of Health and School Medical Officer, and the County Tuberculosis Officers (Drs. Jessel and Jamieson).

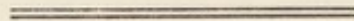
The County Tuberculosis Dispensary at 40, Chorley-road, Swinton, has been regularly open on Monday and Wednesday mornings, and also on certain evenings (for those at work in the daytime). In addition to the patients referred by local medical practitioners, pension boards, and committees, etc., a large number of children have been examined by Dr. Jamieson at the request of the School Medical Officer, and reports sent to him as to fitness for school. The County scheme for the treatment of Tuberculosis is now applicable to all forms of the disease, and is available for non-insured as well as for insured persons. As the disease is

frequently curable in the early stages, it is important that patients be referred to the Tuberculosis Officer as soon as Tuberculosis is suspected.

G. JESSEL.

**Report of Bacteriological Work Carried out by
Professor Delepine and his Staff during 1920.**

	Total.		Positive.
Diphtheria Swabs	169	....	34
Sputum for Tubercle Bacilli	22	....	—
Blood for Typhoid	3	....	—



IV. Sanitary Circumstances.

Work of Sanitary Inspectors.

The work of the Inspectors is set out in the accompanying tables. The first table is a statement of work with reference to infectious disease. The other table refers to general work of the department, especially to the abatement of nuisances. Comparison with similar tables published in last annual report, will show that a very greatly increased amount of inspectorial work was accomplished last year. Not only was a greatly increased amount of inspectorial work accomplished, however, for there was a great increase in the number of nuisances abated. To be more exact, more than twice the number of inspections made in 1919 were made in 1920, and more than three times the number of nuisances were abated. It has frequently been contended that work consists of much inspection and little result; in other words that discovery of defect is superfluous which has not the appropriate remedy as a corollary. This criticism cannot be made concerning the work of the sanitary department.

In former years systematic house to house inspections could not be undertaken on account of insufficiency of staff. It has now been possible to assign this work as the principle duty of one inspector. In such a district as this, no sanitary work is adequate which does not embrace systematic house to house inspection.

An effort was made last year to deal with houses from which came persistently verminous children and children suffering from scabies. In the table of infectious disease will be seen the work accomplished in this connection. This work is over and above that undertaken in connection with cleansing of dirty and verminous premises, a work the extent of which is indicated in the other table.

It will be understood that the work indicated by the figures in these tables is not inclusive of work done in connection with the Housing Acts. The tables are indicative of work done in connection with the administration of the Public Health Acts, Towns Improvement Clauses Act, Factories and Workshops Act, Petroleum Acts, and Food and Drugs Act.

Work undertaken in connection with the Housing Acts is tabulated in that section of the report dealing with Houses of the Working Classes.

SANITARY WORK IN CONNECTION WITH INFECTIOUS DISEASE.

NATURE OF INSPECTIONS	Primary Inspection	Re-inspections	Rooms Disinfected	Rooms Sprayed	Schoolrooms Sprayed	Bedding, etc., Disinfected	No of Cases Removed to Hospital	Notices sent to			REMARKS
								Elementary Schools	School Attendance Officer	Parents	
1—Scarlet Fever	249	471	266	291	..	5	73	230	396	218	No. of Schoolrooms Sprayed, 194.
2—Diphtheria	47	41	26	28	..	..	3	36	53	26	
3—Enteric Fever	2	6	..	1	..	4	..	..	..	..	
4—Puerperal Fever	..	..	..	..	..	2	..	..	..	..	
5—Chicken Pox	50	23	..	..	..	..	..	..	..	..	
6—Scabies	11	4	6	10	..	88	..	..	..	..	
17—Cancer	1	1	..	13	..	8	..	..	..	..	
20—Fleas	4	..	..	..	..	4	..	..	..	..	
18—Dropsy	1	..	..	..	..	5	..	..	..	..	
7—Encephalitis Lethargica	2	2	..	..	..	..	..	..	..	..	
8—Erysipelas	21	..	..	1	..	..	..	..	..	..	
9—Ophthalmia Neonatorum	2	..	..	..	..	..	..	..	..	..	
10—Tuberculosis .. (Pulmonary ..	55	97	11	96	..	202	..	..	..	..	
.. (Other	15	..	..	..	..	..	..	..	..	..	
11—Small-pox Contacts	1	13	..	..	..	..	..	..	..	..	
12—Measles	12	..	..	..	6	..	..	..	..	..	
21—Vermineous Houses	..	..	..	..	..	13	..	..	..	..	
19—Gangrene	..	..	..	..	..	3	..	..	..	..	
13—Malaria	10	..	..	..	..	..	..	..	..	..	
14—Dysentery	..	..	..	..	..	..	..	..	..	..	
15—Influenzal Pneumonia	2	..	..	..	..	..	..	..	..	..	
16—Acute Primary Pneumonia ..	118	5	..	..	..	..	..	..	..	..	
TOTALS	603	663	309	440	6	334	76	266	449	244	

Nuisances, &c.	No. of Primary Inspections.	No. of Premises on which Sanitary Defects were found.	No. of Re-inspections	No. of Notices Served.						No. of Nuisances etc., Abated after Notice.			
				Verbal to		Informal to		Statutory to		Verbal.	In-formal.	Statu-tory.	Total Nuisances Abated
				Owner.	Occupier	Owner.	Occupier	Owner.	Occupier.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dirty and Vermineous Houses	161	149	394	9	19	109	—	48	—	4	85	32	121
Overcrowding	4	2	1	—	2	—	—	—	—	—	—	—	—
Defective Roofing	92	91	171	2	—	65	—	7	—	1	85	7	93
Gutters	104	89	303	4	—	63	—	11	—	14	105	40	159
" Spouting	35	33	54	2	—	15	—	—	—	4	27	3	34
" Floors	11	13	13	—	—	10	—	—	—	—	5	—	5
" Window Cords	26	21	25	1	—	9	—	—	—	2	31	—	33
" Ashbins	448	380	860	23	4	164	—	95	—	21	200	170	391
" Privies and Ashpits	68	23	82	—	—	5	—	23	—	1	8	—	9
" W.C. Pedestals	28	22	36	4	3	14	—	1	—	—	14	1	15
" W.O. Fittings	86	84	121	3	—	72	—	1	—	3	77	2	82
" Water supply Pipes	34	24	40	1	1	22	—	—	—	1	27	—	28
" Sink Waste Pipes	15	14	21	—	—	13	—	—	—	—	9	—	9
" Surface of Yards	23	23	59	1	—	18	—	—	—	—	24	—	25
" Structural Condition	167	144	357	8	—	91	—	3	—	1	105	2	130
Blocked Drains	109	96	191	18	4	35	—	7	—	35	69	3	107
" W.C.'s	103	103	64	60	22	11	—	2	—	93	14	—	107
" Gullies	208	164	120	111	31	13	—	1	—	193	32	7	233
" Sewers	25	17	59	6	—	—	—	—	—	10	1	1	12
Stables and where Animals and Poultry kept	21	9	58	1	8	3	—	—	—	7	3	—	10
Accumulation of Rubbish	34	24	93	—	13	1	7	—	—	10	6	—	16
Slaughter-houses	9	8	144	—	—	—	—	—	—	—	—	—	—
Factory and Workshops	9	8	125	—	3	—	8	—	—	1	—	—	—
Bakehouses	1	1	103	—	4	1	1	—	—	9	1	—	10
Common Lodging Houses	1	1	13	—	1	—	—	—	—	1	—	—	1
Complaints Investigated	76	35	36	1	10	1	—	—	—	6	—	1	7
Dairies and Cowsheds	2	1	51	—	7	1	—	—	—	6	—	—	6
Offensive Trades	—	—	4	—	—	—	—	—	—	—	—	—	—
Smoke Observations	9	—	43	1	—	—	—	—	—	—	—	—	—
Outworkers	—	—	2	—	—	—	—	—	—	—	—	—	—
Conversions	27	—	262	—	—	—	—	11	—	—	1	41	42
Testing and Tracing of Existing Drains	94	2	51	—	—	—	—	—	—	—	—	—	—
Water Tests to New Drains	20	—	84	—	—	1	—	—	—	—	1	6	7
Miscellaneous Inspections	180	33	120	2	5	1	—	—	—	1	7	6	13
Vermineous Clothing & Bedding	65	50	89	—	43	—	6	—	—	—	—	—	1
Manure Receptacles	6	5	22	3	5	1	—	—	—	23	2	—	30
Petrol Storage	23	7	14	—	6	1	—	—	—	3	3	—	6
New Drains Laid	1	—	11	—	—	—	—	—	—	—	—	—	—
Water Course silted up	—	—	27	—	—	—	—	—	—	—	—	6	6
Inspections under Rats and Mice Order	1	1	—	—	—	—	—	—	—	—	—	—	1
House to House Inspection	415	209	269	3	—	116	—	4	—	—	—	—	—
Totals	2709	1882	4524	272	190	869	92	212	—	478	942	328	1748

Water Supply.

The water supply of the district is obtained from the Manchester Corporation supply, which comes from Thirlmere. The supply is a constant one. Every house in the district is supplied directly from the main. There is no household storage.

Rivers and Streams.

The River Irwell forms one of the boundaries of the district. Into the Irwell discharges the overflow of three cesspools in connection with 42 houses in Langley Road.

The question of this contamination of the Irwell is not serious when one takes into account the condition of the river. Trade effluents, one of which is carried to the river in the same drain which carries the overflow from the cesspools in Langley-road, are sufficiently inimical to the lower forms of life as to secure by their action freedom from harmful bacterial activity. Nevertheless the contamination of any stream by any form of effluent which is not rendered as innocuous as possible from every point of view is very undesirable.

Drainage and Sewerage.

It will be remembered that in the year 1914 the Surveyor presented a scheme for laying a new main sewer, which commencing at the junction of John-street and Swinton Hall-road, would pass along the latter to the top of Pendlebury-road, traverse that part of Pendlebury-road south of Swinton Hall-road, then turning along Chorley-road in the direction of Market Place, would turn at the latter into Worsley-road, and then down Lightbourne Green-road to join the Wall-lane and Swinton Park sewers, and so to the Swinton Sewage Works.

Sanction to borrow £10,875 for carrying out this work was obtained after Local Government Board inquiry, but the war prevented borrowing powers being exercised, and until 1920 no re-constructive work could be undertaken.

The problem of re-construction which became urgent before the war by reason of the backing-up of diluted sewage during heavy rain in the cellars of houses in Pendlebury-road, became still more urgent last year, by reason of extension of backing-up of sewage to Chorley-road, where in a depression behind one house there was a small lake of sewage, which was forced up a yard gulley.

Accordingly, reconstructive work was undertaken for relief purposes, which did not embrace the whole of the original scheme, but was in reality a sector of that scheme with the following variation. A main sewer was relaid from the bottom of Pendlebury-road, along Chorley-road to Beech-street, thence along Beech-street and Ogden-street, to Worsley-road, where a length of sewer was relaid. The lengths of sewer between Beech-street and Market Place and Ogden-street and Market Place in Chorley-road and Worsley-road respectively, were not relaid.

It is not contended that this re-construction will do more than afford relief to cellar flooding, and the capacity of the sewer for dealing with storm water has yet to be tested.

It is intended to carry out the whole of the original scheme. Cost and difficulty of borrowing money, however, are deterrents.

The uncertainty that a new laid sewer will for any time afford security against grave leakage in a district subject in such a degree to colliery subsidence as in this district, must obviously inhibit action of a reconstructive nature. Whilst colliery workings exert their influence, no new sewerage schemes which can be avoided should be entered upon. Where blockage from fracture occurs, a relieving length of sewer to make another connection, is the only justifiable action when present day cost is considered.

Many sewer fractures are admitted, but there is no evidence apart from inconvenience of cellar flooding, which is being met by relief methods, that hurtful results can be assigned to the very difficult and trying problem of defective sewerage in this district.

Closet Accommodation.

Name of Ward.	No. of Houses.	No. of Water Closets	No. of Privies.	No. of Ash-bins.	No. of dry ashpits	No. of Privy Ashpits.
East	1015	873	142	791	50	73
Market	1062	935	127	786	33	113
Newtown	1230	996	234	934	32	137
Victoria Park ..	1304	855	449	679	118	224
Old Park	1157	1021	136	939	45	84
Moorside	912	678	234	664	22	123
	6680	5358	1322	4793	300	754

There were 42 conversions of privies to water closets last year.

There still remain 1322 of these abominations concerning which so much has been written, and unless some scheme for rapid conversion, regardless of structural condition is adopted, privies will be handed on from council to council as a record of barbarities which are practised in modern times, for in the light of present-day knowledge, it must be contended that apart from mortality assignable to sanitary defect, the unwholesomeness of having excrement and food in inviting exposure to such insect life as delights in the short journeys from one to the other, and the circumstances of the district provide this, is barbarous and unthinkable. Problems of economy and expediency have absolutely no claim to consideration in this connection.

One awaits with impatience a lead from the Ministry of Health in this matter. A contribution to good legislation would be the exacting of penalties upon districts which failed to furnish schemes for the conversion of all privies within a definite period.

I have contended in previous reports that the conservancy system is costly. Approximately £2000 in the next financial year's estimate is diverted for privy emptying purposes. This sum placed towards contribution for conversions would have a salutary effect on the district's sanitation and amenity, and although service would still have to be provided for emptying dust bins, the addition of 1300 dustbins to those already being emptied would cost but a fraction of the aforementioned sum.

Work of the Cleansing Department.

	No. of Weeks.	No. of Ashpits emptied monthly.	No. of Ashbins emptied monthly.	No. of Privy Pails emptied monthly.	Loads carted to Des- tructor and Tip and surrounding farms.	No. of Applications for Ashpits to be emptied.	Loads of Garbage re- moved and burned.	
January	4	333	18,600	356	442	52	—	12
February	4	397	18,800	356	507	81	2	12
March	4	436	18,800	356	512	61	2	12
April	5	446	23,945	445	583	107	—	15
May	4	522	19,204	356	521	82	—	12
June	5	480	22,800	445	548	85	2	15
July	4	620	18,800	356	514	77	—	12

August	5	511	18,800	445	543	58	—	15
September	4	566	18,800	356	506	51	1	12
October	4	568	18,880	356	489	56	—	12
November	5	667	23,600	445	645	77	2	15
December	4	547	18,800	356	541	64	—	12
Total	52	6093	239,909	4628	6351	851	12	156

The work of the Cleansing Department consists in emptying the excrement and ashes from privies, the contents of cesspools, of which there are some fifteen in the district, the contents of pail closets, of which there are about 70, mostly in connection with works, although let it be recorded with sorrow that pail closets exist on the Council's own premises, the contents of movable ashbins, and the removal of garbage from shop premises.

The privy contents are taken to farms in the district, or in contiguous districts, and are there deposited on the surface to be ploughed in at a later date. Meanwhile they are exposed.

Last year, of a total of 4,628 loads of ashes, 928 only were dealt with at the destructor. No less than 3,700 loads were tipped at Pendlebury. The ashes were those from moveable bins, and from privy pits, and it requires no imagination to realize that the refuse from the latter was highly charged with excremental matter, so that in effect privy content was, and is being deposited at Pendlebury tip. I have said so much on this subject that I refrain from further comment.

The cause of so much tipping was dislocation caused by altered times of employment, and dilapidations in the destructor plant. Only three cells are provided at the destructor, and are in constant use. When anything in the way of repair is necessary each cell requiring repair is put out of action, and automatically puts its fellows out of action. Sanction has been applied for to borrow money to supplement the destructor plant, which, judging by last year's effort, seems to be particularly inert in diverting very objectionable and dangerous matter from contaminating the very thresholds of dwelling-houses.

Emptying of Gullies.

The number of gulleys and footpath channels reported emptied in 1920 was 4,534.

Common Lodging Houses.

There is only one common lodging house in the district.

No infectious disease was reported. The house is well conducted and the bye-laws are strictly observed.

Offensive Trades.

There are two offensive trades' premises in the district which have apparently no controlling bye-laws. Their activities have increased since private slaughtering was again permitted.

They are under supervision by the sanitary staff and no complaints have been received.

Public Conveniences.

There are two public conveniences uncontrolled by bye-laws.

Public Baths.

The Baths, which include a swimming pond, private baths and vapour bath, have now been in existence for some years. (The pond is open from April to October inclusive.)

Attendances at the Baths last year were as follows :—

Swimming baths Males, 38,804 ; Females, 8,832.

Slipper baths „ 5,010 ; „ 2,878

The pond water is treated on the Royle's system.

V. Food.

Dairies, Cowsheds and Milkshops.

No. of Cowkeepers in the district (4 are non-retailers)	.....	17
„ Dairymen „ „	.....	10
„ Milkshops „ „	.....	6

In addition to the above there are 11 farmers and dairymen coming into the district from outside. The total number of milk purveyors in the district therefore is 40.

Fifty-three inspections were made of dairies, cowsheds, and milk shops during 1920.

13 samples of milk were taken and submitted to the public analyst for examination for fatty and nonfatty contents. All 13 samples were reported to be genuine.

An American Commission on Milk Standards has recommended classification of milk into three Grades according to the number of contained organisms. Grade A milk may have a bacterial content which should not exceed 10,000 organisms per cubic centimetre at time of delivery to the consumer. In Grade B milk the number should not exceed 1,000,000. Grade C milk, the lowest Grade is milk in which the number of organisms exceeds 1,000,000 per cubic centimetre at the time of delivery to the consumer. The Commission moreover says that whenever any community finds it necessary to allow the sale of Grade C milk, its sale should be surrounded by safeguards such as to insure the restriction of its use to cooking and manufacturing purposes.

It will now be useful to submit Professor Delepine's bacteriological analysis of some samples of milk taken in the district.

	Bacteria growing at 20 deg. C. in 3 days.		Bacteria growing at 40 deg. C. in 48 hours.
Sample 1.....	7,000,000	....	2,960,000
„ 2.....	103,000	....	960,000
„ 3.....	19,000	....	77,000
„ 4.....	730,000	....	100,000
„ 5.....	1,800,000	....	1,965,000
„ 6.....	2,000,000	....	360,000
„ 7.....	118,000	....	65,000
„ 8.....	87,000	....	7,000
„ 9.....	82,500	....	4,950
„ 10.....	20,000	....	47,000
„ 11.....	1,090,000	....	453,500
„ 12.....	1,135,000	....	130,000
„ 13.....	2,675,000	....	1,625,000

Some explanation is necessary of the circumstances in which these samples were taken.

Samples 1, 2, 3, and 4 were taken on arrival at a local Railway Station from different churns, but were the product of the same producer.

Sample 5 was taken from a retailer's premises was the previous days milking and had been preserved uncovered overnight in a scullery attached to a kitchen-living room.

Sample 6 was taken from premises of retailer and had been kept overnight in a receptacle which at time of taking of sample was uncovered.

Sample 7 was taken from a farmer's cart during delivery.

Sample 8 was taken from vendor's cart on its round, and was the same morning's milk.

Sample 9 was taken from same source as 8, and was previous evening's milk.

Sample 10 was taken from a farm direct.

Sample 11 Railway Station sample milked that morning.

Sample 12 Railway Station sample from same source as 11, but milked previous evening.

Sample 13 taken from vendor's premises and is the same milk as that of sample 12, and had been one night in producer's premises and one night in retailer's premises.

It will be seen at once that no single sample attains the American Standard, Grade A, seven of the 13 samples are Grade B and six are Grade C or milk, the use of which by the advice of the American Commission should be restricted to cooking and manufacturing purposes.

It is difficult to calculate the true value of this standardisation in relation to what should be the action of a local authority finding milk in the condition of samples 1, 5, 6, 11, 12, and 13 on sale in its district.

Let it be said at once, that probably the greater portion of milk delivered in towns is Grade C milk at the time of consumption. If this contention be true, then it is manifest that unattractive as is the story connected with milk supplies, there is no evidence that there are any grave pathological resultants. Moreover, there is overwhelming evidence that a Grade A milk inevitably and speedily becomes a Grade C milk under the conditions of household storage, which obtain in this district. The vast majority of the organisms found in the milk are perfectly harmless, some are beneficial, and any pathogenic organisms can be rendered harmless by the simple expedient of heat sterilisation. To measure the menace of the milk in terms of the number of organisms may be the scientific way, but I do not think it has regard to practicalities, nor is it supported by proof. That the conditions of milk production, storage, and distribution in this district, are not as good as they should be is a mild expression of the truth. But even so, I am convinced that at no time were they any better, and had I the slightest evidence that during the last ten years mortality or morbidity were associated with milk supplies, I should not now be giving expression to what no doubt is considered a heresy by those who talk sensationally of milk impurity. During a considerable part of the winter, milk was 1/- a quart. If safeguards are put into practice which would ensure a Grade A milk being supplied to the consumer, the price would be prohibitive, and when it is remembered that a milk of excellent quality as regards food value, but the bacterial content of which would render it a low grade milk, according to the American standard, can be rendered perfectly sound by boiling, there does not seem much cause to be alarmed by the doctrine of those who would have us believe that milk is responsible for half the ills to which humanity is subject.

I am not unmindful of the theories of those who write about the destruction of vitamins by sterilisation, and I am not unmindful of the assertions of those who say that vitamins are not entirely destroyed by heat. The truth may yet be told about vitamins; at present too many results tend to disprove the theory of destruction by sterilisation, or to prove that the vitamins of milk are after all rather unimportant,

to accept guidance by declarations that are not proved up to the hilt.

Bakehouses.

114 inspections were made at 49 bakehouses during 1920.

Slaughter-Houses.

All the district private slaughter houses, 18 in number, were re-licensed last year, and private slaughtering was recommenced in October. In granting re-license, the Council requested that certain information in connection with slaughtering be afforded its officials. The information requested was, as near as possible the hours of slaughtering. This information has been given, and facilities for examination of carcasses have been afforded. No seizures or surrenders were made during the short period of 1920 in which the slaughter houses were being used.

153 inspections were made from October to December, so there is every evidence that vigilance was not wanting.

Food and Drugs Act.

A return of samples taken by the County Police in connection with the administration of the Food and Drugs Act, is submitted below.

Description of Article.	Number of Samples purchased.						
Milk	..	..	..	..	..	..	39
Coffee	..	..	..	..	..	..	7
Pepper	..	..	..	..	..	..	4
Ginger	..	..	..	..	..	..	3
Yeast	..	..	..	..	..	..	5
Oatmeal	..	..	..	..	..	..	2
Cornflour	..	..	..	..	..	..	2
Self-raising flour	..	..	..	..	..	..	2
Epsom Salts .. .	..	..	..	..	..	..	3
Cocoa	..	..	..	..	..	..	2
Vinegar	..	..	..	..	..	..	2
Beer	..	..	..	..	..	..	1
Margarine	..	..	..	..	..	..	4
Butter	..	..	..	..	..	..	2
Seidlitz Powders	..	..	..	..	..	..	1
Arrowroot	..	..	..	..	..	..	2

Pearl barley	1
Rice	1
Sago	1
Flour	2
Tapioca	1
Cheese	1
Boracic Acid	1
Tartaric Acid	1
Marzipan Dates (sweets)	1
Total	91

The whole of the above samples have been submitted to the County Analyst without complaint or comment.

VI. Housing of the Working Classes.

Subjoined is a complete statement of the inspectorial work done under the Housing Acts.

Number of houses inspected under Sec. 28	34
Number of houses inspected in proposed unhealthy areas	194
Number of houses where work has been completed ..	78
Number of Preliminary Notices served under Sec. 28 ..	115
Number of Statutory Notices served under Sec. 15 ..	77
Number of Statutory Notices served under Sec. 28 ..	95
Number of Certificates issued under Rent Restrictions Act	10
Number of Revisits to houses where work is in progress	2232
Number of Revisits (Miscellaneous)	1231
Number of Revisits for drawing up Specifications ..	182
Number of house to house inspections	415
Number of Revisits under house to house inspections ..	269
Number of Revisits under Rent Restrictions Act ..	15
Total number of Revisits	3929
Number of houses where work was in progress at the end of the year	136

One inspector for the whole year, and another inspector for nine months engaged on housing inspection. Until the time when completion was made of inspections in connection with housing in areas represented, or intended to be represented as unhealthy, the second inspector engaged on inspections made with a view to getting such repairs executed as are embraced within the provisions of Sec. 15 of the Housing Act of 1909, and Sec. 28 of the Housing Act of 1919. When inspection in unhealthy areas was completed, the second inspector was employed in house to house inspection in connection with the Public Health Acts, and his work was taken up by the inspector originally appointed to carry out work in connection with the Housing Acts.

I.—General Housing Conditions in the District.

(1) GENERAL HOUSING CONDITIONS.

Broadly speaking the housing conditions in the district are as follows :—

264 houses are included, or are intended to be included in unhealthy areas. Not all of these houses will be demolished, as reconstructive work will be possible in several instances. At present the Council has declared unhealthy two areas representing 189 houses. One of these areas is fit only for clearance.

60 houses over and above those included in unhealthy areas, are in such a condition that they should be dealt with only by closure and demolition powers conferred by Sec. 17 of the Housing Act of 1909.

Furthermore, there are 22 obstructive dwellings.

From 1,500 to 1,600 houses are seriously defective, and in urgent need of repair.

There are 6,708 houses in the district, of which two-thirds are four-roomed tenements. All houses with the exception of 289, are working-class houses.

(2). EXTENT OF SHORTAGE OF HOUSES.

(a) In the Survey of Housing Needs prepared for the Ministry of Health in 1919, it was estimated that housing shortage existed to the extent of 670, made up as follows :—

(a) Unsatisfied demand	350
(b) Rehouse dispossessed in areas	274
(c) Rehouse dispossessed in dwellings	29
(d) Replace obstructive buildings	22
Total	675

This estimate in the light of more recent knowledge, requires some revision. For instance, the unsatisfied demand was based upon a natural increase of pre-war proportions. It will be remembered that during the war natural increase fell from a pre-war figure of 300 to one of 33 in 1918. It is now computed that since the year 1912, the first year in which house-building shortage was in evidence, the unsatisfied demand is represented by the figure 300.

To rehouse persons dispossessed by clearance and reconstruction of unhealthy areas, it is now estimated that a need will exist for about 200 houses.

To replace individual dwellings which will have to be demolished, 60 houses will be required, and to replace obstructive dwellings 22 houses will be required.

The housing shortage is therefore estimated to be at the present time roughly 600 less those houses which are in unhealthy areas and those houses which are fit only for demolition, or are obstructive, all of which must be replaced eventually.

(b) The measure taken to meet the shortage is the Council's participation in the National Housing Scheme, 230 houses are in course of erection, but the Council has not so far decided to increase this number. A small amount of private building is going on, two houses having been completed in 1920, and four are in course of erection.

II.—Overcrowding.

(1) No figures are available to supplement or supplant the figure given in last year's report, which was that recorded in the housing survey. That figure was 208, and must of course have been added to, as not only has gross population increased, but nett population also has increased by the return of demobilised men. The proximity of the district to other centres of population obviates to some extent what would probably be greater congestion under circumstances of less easy access. Not a few workers live out of the district, and proceed to and from their work by train or tram.

(2) The cause of overcrowding is, of course, increase of population during a period when no houses were built. No increase of population, according to the Registrar General's figures is in evidence, for a figure of 30,759 in 1911 became in 1920, 29,265. If this calculation is correct, then a figure of 7.9 per cent. overcrowding at the time of the 1911 census, with proper distribution is capable of diminution, the number of persons per house being only 4.3. The figures of the 1921 census are awaited with interest.

(3) The measures taken or contemplated for dealing with overcrowding are provision of fresh homes. No other measure can be contemplated except redistribution where possible.

(4) Such overcrowding as was encountered during the year under review was impossible of remedy for obvious reasons.

III.—Fitness of Houses.

1. (a) The general standard of housing in the district is poor. A district cannot be said to be other than defectively housed which has 25 per cent. of its houses in serious need of repair.

(b) The general character of the defects are those which have been stated repeatedly, *i.e.* :—

Structural defects, dilapidations, etc., of walls, floors, and roofs.
 Defective lighting and ventilation.
 Defective and dirty plaster and decoration.
 Defective food storage.
 Defective doors and window frames.
 Common yards and defective yard paving.
 Defective closet accommodation.

(c) How far these defects are due to lack of proper management and supervision of the owner, may to some extent be judged by the length of time which has elapsed since decorative repairs were executed. In not a few instances of houses inspected last year, without reasonable excuse, no redecoration had been carried out for periods of over 10 years. Then again, the fact is undisputed that the period of the war and post-war cost were used as excuses for the further delay of work overdue long before the war. Whilst saying this, I am not oblivious to what is the fault of tenants. Too often a bad house provides accommodation suitable to the deserts of the tenant.

In this connection it is rather surprising how few certificates have been asked for under the Rent Restrictions Act.

2. The general action as regards unfit houses is as follows :—

(a) Under the Public Health Acts a fairly rapid house to house inspection was undertaken during the latter part of the year, and in 110 instances, defect was remedied as a result of this work. It will be understood that the work was only commenced in October.

(b) Two classes of property were under inspection last year, *i.e.* houses requiring repairs and houses which with others, constituted unhealthy areas, and could be most suitably dealt with under Part I. of the Housing Act of 1890.

With regard to the former, Sec. 28 of the Housing Act of 1919 was made use of for effecting repairs, the Council carrying out the work where refusal of the owner to do so was established. The amount of work accomplished in this connection will be seen on reference to the subjoined tabular statement.

OUTSIDE.

Roofs repaired	218	Yard W.C. re-built or re-	
Eaves and Gutters repaired .	308	paired	86
Chimney Stacks, Brickwork		Yard Gate repaired or re-	
and Flashing repaired ..	251	placed	50
Chimney Pots replaced or		Galvanized Bins replaced ..	36
rebedded	240	Yard Paving reformed or	
Downspouts replaced or re-		repaired	56
fixed	92	Front Paving reformed or	
Downspouts disconnected		repaired	7
from Drains	4	Centre Grids to Gullies pro-	
Brickwork of walls repaired	184	vided	19
Boundary Walls and Fences		Obstructive Outhouses re-	
repaired	36	moved	2
Door and Window Frames re-		Outbuildings repaired ..	8
pointed	586	Drains re-laid	3
Doors and Door Frames re-		Dryashpits repaired ..	7
paired or replaced	117	Windows made to open or	
Door Steps repaired or re-		new ones fixed	41
placed	30	Window Frames repaired,	
Window Sill replaced or re-		Broken Glass replaced,	
paired	41	Sash Cords and Catches	
Slop Waste Pipe repaired or		fixed	345
replaced	42	Windows increased in size ..	1
Earthenware Pipe Protector		Houses painted outside ..	91
fixed	3		

INSIDE.

Ceilings re-plastered or re-		Floors (boards) repaired or re-	
paired	636	laid	213
Ceilings cleansed	711	Kitchen Ranges repaired ..	82
Walls replastered or repaired	646	Brickwork of Flues, Fire	
Walls decorated	698	Backs, etc., repaired ..	64
Floors (flags) repaired or re-		Jambs of Fireplace re-fixed	12
laid	169	Hearth Flags re-placed or re-	
		bedded	43

INSIDE—continued.

Brickwork of Wash-boiler	Inside Door and Door Frames
repaired 100	repaired or re-placed .. 134
Treads and Risers of Stair-	Skirting—Cement formed .. 19
case re-placed or repaired.. 75	Skirting Boards repaired or
Guard Rails repaired 18	re-fixed 59
Slopstones repaired or re-	Shelf Accommodation pro-
placed 24	vided 2
Water Fittings repaired .. 38	Cellars cleansed 2

A considerable amount of inspectorial work was made on property which constituted part of areas which reasonably might be represented as unhealthy. It is advised that representation of unhealthy areas should be deferred (see "Housing," March 1st, 1921), pending a time when the areas can be dealt with promptly by the Ministry and the Local Authority concerned. The housing of unhealthy areas is admittedly the worst housing in this district. It seems to be quixotic action to leave this housing to inflict injury upon the unhappy inhabitants. Far better would it be surely for the Local Authority to acquire it and effect such repair upon it as would render it temporarily habitable until the day appointed for ultimate action had arrived. Two areas were represented last year, and a further two await representation. They are all small areas.

3. Difficulties experienced in getting repairs effected were of two kinds, *i.e.*, refusal of owner to take action or the taking of some action amounting to a negligible part of the requirements, and lack of contractors. For a time district contractors only were employed, but as few of those equipped to carry out such work would undertake it, contractors had to be sought outside the district. The work will progress, it is hoped, at a greater rate as things tend towards normal. The cost need not be discussed. It is well nigh prohibitive, especially in houses which are near the border line, and from which rents are not always forthcoming.

4. Conditions affecting housing as regards water supply, closet accommodation, and refuse disposal, have been fully considered in another part of this report (*vide* Sanitary Circumstances).

IV.—Unhealthy Areas.

As above stated, there are four such areas. Two have been officially "represented" and "declared." Improvement schemes in con-

nection with two areas are in course of preparation by the Surveyor. I cannot refrain from expressing my sorrow at the unhappy lot of the people inhabiting an area in the extreme N.W. corner of the district. Some houses there exemplify all the worst conditions which are associated with slumdom. They are an impressive monument of past inertia, both on the part of owner and Local Authority.

Appendices.—Housing Conditions.

STATISTICS.

Year ended 31st December, 1920.

1.—General.

(1) Estimated population	30,900
(2) General death-rate	12·4
(3) Death-rate from tuberculosis	0·97
(4) Infantile mortality	103·5
(5) Number of dwelling-houses of all classes	6708
(6) Number of working-class dwelling -houses	6419
(7) Number of new working-class houses erected	2

2.—Unfit Dwelling Houses.

I.—INSPECTION.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	643
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	415
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	194
(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	186

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 ..	124
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III.—ACTION UNDER STATUTORY POWERS.

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	172
(2) Number of dwelling-houses which were rendered fit—	
(a) by owners	66
(b) by Local Authority in default of owners ..	12
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	15

B. *Proceedings under Public Health Acts.*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	212
(2) Number of dwelling-houses in which defects were remedied—	
(a) by owners	874
(b) by Local Authority in default of owners ..	119

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

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

3.—Unhealthy Areas.

Areas represented to the Local Authority with a view to Improvement Schemes under (a), Part I., or (b), Part II. of the Act of 1890:—

(1) Name of area	"Newtown"	"Croft"
(2) Acreage	3	2½
(3) Number of working-class houses in area	88	101
(4) Number of working-class persons to be displaced	411	492

4.—Number of houses not complying with the building byelaws erected with consent of Local Authority under section 25 of the Housing, Town Planning, &c., Act., 1919 Nil

5.—Staff engaged on housing work with, briefly, the duties of each officer 2

A statement of the duties of the officers concerned will be found in the opening passage of that part of the report devoted to housing.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1929.

NOTIFIABLE DISEASE.	Number of Cases Notified.							Total Cases Notified in each Ward.						Total Cases Rem'ed to Hospital.	
	At all Ages.	Ages.						Victoria Park	Old Park	Moorside	Newt'wn	Market	East		
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65								65 and upwards.
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	48	9	34	2	2	2	1	8	5	6	10	10	9	4	4
Erysipelas	32	..	1	4	16	10	1	5	4	4	8	7	4	..	..
Scarlet Fever	252	31	182	33	5	1	..	69	45	27	41	27	43	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever	2	..	..	..	2	..	..	..	..	1	1	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Encephalitis Lethargica	2	..	..	..	2	..	..	..	..	1	1	..	..	..	..
Acute Polio-Encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	10	..	..	2	7	1	..	3	..	2	2	1	2	..	..
Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	6	6	..	..	..	..	..	..	1	1	..	1	3	..	..
Influenzal Pneumonia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Primary Pneumonia	119	15	30	11	15	6	2	25	9	5	24	35	21	..	..
Chicken-Pox	42	6	21	12	22	12	..	3	2	14	2	10	11	..	..
Pulmonary Tuberculosis	60	..	14	12	..	..	..	7	11	5	16	15	6	..	..
Non-Pulmonary Tuberculosis	16	2	1	3	..	..	..	4	1	2	2	4	3	..	..
TOTALS	591	29	96	292	67	72	32	124	78	68	109	110	102	86	..

CASES OF INFECTIOUS DISEASE NOTIFIED IN CHILDREN'S HOSPITAL.

	At all Ages.		Under 1.		1 to 5.		5 to 15		15 to 25.	
	3		..		..		3		..	
Scarlet Fever	..		..		..		3		..	

DEATHS REGISTERED LOCALLY DURING THE YEAR 1910.

Causes of Death.	Nett Deaths, at the Subjoined Ages, of "Residents," whether occurring within or without the district.								Total Deaths whether of "Residents" or "Non-Residents," in Institutions in the District.	
	All Ages	Under 1 year.	1 and under 3 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
1. Enteric Fever	1	...	...	...	...	...	1	...	...	...
2. Smallpox	...	1	2	...	...	...	...	...	...	1
3. Measles	1	...	...	...	...	1	...	...	...	...
4. Scarlet Fever	9	3	1	6	2	...	...	...	...	...
5. Whooping Cough	5	...	1	2	2	1	1	3	...	1
6. Diphtheria and Croup	5	...	...	...	...	1	...	...	...	...
7. Influenza	...	...	...	...	...	...	10	11	...	2
8. Erysipelas	...	...	...	...	...	4	...	...	...	10
9. Phthisis (Pulmonary Tuberculosis)	35	...	...	...	...	1	...	...	...	13
10. Tuberculous Meningitis	1	...	1	...	1	...	...	...	...	1
11. Other Tuberculous Diseases	4	1	...	...	...	...	6	24	9	...
12. Cancer, malignant disease	39	...	...	...	2	...	...	...	...	...
13. Rheumatic Fever	2	...	...	...	...	...	...	...	...	...
14. Meningitis	1	...	...	...	1	1	...	...	...	...
15. Organic Heart Disease	34	1	...	...	...	2	7	19	11	...
16. Bronchitis	50	6	...	...	...	2	3	17	24	...
17. Pneumonia (all forms)	30	10	7	2	2	...	2	4	3	...
18. Other diseases of respiratory organs	1	...	...	...	...	1	...	...	...	...
19. Diarrhoea and Enteritis	4	3	...	...	...	...	...	1	...	...
20. Appendicitis and Typhilitis	1	...	...	...	...	...	...	1	...	...
21. Cirrhosis of Liver	1	...	...	...	...	...	1	3	1	...
21a. Alcoholism	1	...	...	...	...	...	...	...	...	...
22. Nephritis and Bright's Disease	5	...	...	...	...	...	1	...	...	...
23. Puerperal Fever	1	...	...	...	...	...	...	...	...	...
24. Other accidents and diseases of Pregnancy and Parturition	1	...	...	...	...	1	...	...	...	...
25. Congenital Debility and Malformation, includ. Premature Birth	36	36	...	...	2	...	...	...	...	33
26. Violent Deaths, excluding Suicide	18	1	...	...	...	4	4	7	...	...
27. Suicide	3	...	...	...	...	...	...	2	1	...
28. Other defined Diseases	100	5	...	4	2	...	10	30	47	36
29. Diseases ill-defined or unknown... ..	1	...	...	...	...	...	1	...	...	...
Totals	383	67	19	13	12	18	48	117	96	165

INFANTILE MORTALITY LOCALLY REGISTERED.

1920. Nett Deaths from Stated Causes at Various Ages under 1 Year of Age,

Causes of Death.		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
All Causes	Certified. Uncertified	15 —	3 —	5 —	8 —	31 —	14 1	6 1	6 —	8 —	65 2
Small-pox	.....	—	—	—	—	—	—	—	—	—	—
Chicken-pox	.....	—	—	—	—	—	—	—	—	—	—
Measles	.....	—	—	—	—	—	—	—	—	1	1
Scarlet Fever	.....	—	—	—	—	—	—	—	1	1	2
Whooping Cough	.....	—	—	—	—	—	—	—	—	—	—
Diphtheria and Croup	.....	—	—	—	—	—	—	—	—	—	—
Erysipelas	.....	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis.	.....	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis.	.....	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	.....	—	—	—	—	—	1	—	—	—	1
Meningitis (not Tuberculous).	.....	—	—	—	—	—	2	1	—	—	3
Convulsions	.....	—	—	—	—	—	—	—	—	—	—
Laryngitis	.....	—	—	—	—	—	—	—	—	—	—
Bronchitis	.....	—	—	—	—	—	—	—	—	—	—
Pneumonia (all forms)	.....	—	—	1	1	2	2	2	2	4	6
Diarrhoea	.....	—	—	—	—	—	1	—	—	1	2
Enteritis	.....	—	—	—	—	—	—	—	—	—	—
Gastritis.	.....	—	—	—	—	—	—	—	—	—	—
Syphilis	.....	—	—	—	—	—	—	—	—	—	—
Rickets	.....	—	—	—	—	—	—	—	—	—	—
Suffocation, overlaying	.....	—	—	—	—	—	—	—	—	—	—
Injury at birth.	.....	1	—	—	—	1	—	—	—	—	1
Atelectasis.	.....	—	—	—	—	—	—	—	—	—	—
Congenital Malformations	.....	3	2	2	3	10	1	1	—	—	12
Premature Birth	.....	11	1	2	2	16	1	1	—	—	18
Atrophy, Debility, and Marasmus	.....	—	—	—	—	—	6	1	—	—	7
Other Causes	.....	—	—	—	1	1	—	1	—	—	2
Totals	.....	15	3	5	8	31	15	7	6	8	67

REGISTRAR GENERAL'S TABLE.

CAUSES OF DEATH IN SWINTON AND PENDLEBURY
URBAN DISTRICT, 1920.

Causes of Death.							Males.	Females.
CIVILIANS ONLY.								
All Causes							197	187
1	Enteric fever	..	..	..	..	..	1	—
2	Small-pox	..	..	..	..	..	—	—
3	Measles	..	..	..	..	..	1	2
4	Scarlet fever	..	..	..	..	..	1	—
5	Whooping cough	..	..	..	..	..	7	3
6	Diphtheria and croup	..	..	..	..	..	1	4
7	Influenza	..	..	..	..	..	3	4
8	Erysipelas	..	..	..	..	..	—	—
9	Pulmonary tuberculosis	..	..	..	..	..	18	9
10	Tuberculous meningitis	..	..	..	..	..	—	2
11	Other tuberculous diseases	..	..	..	..	..	2	2
12	Cancer, malignant disease	..	..	..	..	..	18	22
13	Rheumatic fever	..	..	..	..	..	1	1
14	Meningitis	..	..	..	..	..	—	—
15	Organic heart disease	..	..	..	..	..	17	18
16	Bronchitis	..	..	..	..	..	21	25
17	Pneumonia (all forms)	..	..	..	..	..	22	13
18	Other respiratory diseases	..	..	..	..	..	3	2
19	Diarrhoea, &c. (under 2 years)	..	..	..	..	..	—	4
20	Appendicitis and typhlitis	..	..	..	..	..	—	—
21	Cirrhosis of liver	..	..	..	..	..	1	—
21A	Alcoholism	..	..	..	..	..	1	—
22	Nephritis and Bright's disease	..	..	..	..	..	5	5
23	Puerperal fever	..	..	..	..	..	—	1
24	Parturition, apart from puerperal fever	..	..	..	..	..	—	1
25	Congenital debility, &c.	..	..	..	..	..	18	12
26	Violence, apart from suicide	..	..	..	..	..	12	1
27	Suicide	..	..	..	..	..	3	2
28	Other defined diseases	..	..	..	..	..	41	54
29	Causes ill-defined or unknown	..	..	..	..	..	—	—
Special Causes (included above—								
	Cerebro-spinal fever	..	..	..	..	..	—	—
	Poliomyelitis	..	..	..	..	..	—	—
	Encephalitis Lethargica	..	..	..	..	..	—	1
	Deaths of infants under one year of age	..	..	..	..	..	41	27
	Illegitimate	..	..	..	..	..	2	—
TOTAL BIRTHS							319	344
Legitimate							309	340
Illegitimate							10	4
POPULATION (for births and deaths)—29,265.								

General Register Office, Somerset House, London, W.C.
April, 1921.

FACTORIES AND WORKSHOPS ACT, 1901.

WORKSHOPS, WORKPLACES, AND HOME-WORK, 1920.

1.—*Inspection of Factories, Workshops, and Workplaces.*

Premises.	Number of Inspections	Written Notices.	Prosecut'ns
Factories (including Factory Laundries)	43	10	—
Workshops (including Workshop Laundries)	201	1	—
Total	244	11	—

2.—*Defects Found in Factories, Workshops, and Workplaces.*

(Nuisances under the Public Health Act).

Particulars.	Defects Found.	Defects Remedied.	Pr'scut'ns
Want of Cleanliness and Limewashing	6	5	—
Sanitary Accommodation { insufficient ..	2	2	—
{ unsuitable or			
{ defective	6	1	—
{ not separate for			
{ sexes	1	1	—
Roof defective	1	1	—
Insufficient means of escape in case of Fire	3	1	—
Total	19	11	—

1920.

3.—*Homework.*

Nature of Work.	Outworkers' Lists.					
	Sending twice in the year			Sending once in the year.		
	Lists.	Outworkers.		Lists.	Outworkers.	
		Con-tractors.	Work-men.		Con-tractors.	Work-men.
Wearing Apparel, making	1	—	1	—	—	—
Umbrellas, etc.	1	—	1	—	—	—
Total	2	—	2	—	—	—

4.—*Registered Workshops.*

Important Classes of Workshops on the Register at the end of the year 1920.	No.
Bakehouses	46
Boot, Shoe, and Clog Repairing	24
Dressmaking, Millinery, and Tailors	12
Metal Workers, Tinplate Workers, and Whitesmiths	7
Manufacturers of Mineral Waters	1
Laundry	1
Total Number of Workshops on Register	91

5.—*Other Matters.*

Class.	Number.
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Acts, 1901 Notified by H.M. Inspector. Reports (of action taken) sent to H.M. Inspector on Completion.	10 4
Underground Bakehouses— Certificates granted during the year In use at the end of the year	None 7

REPORT

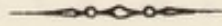
ON

**The Medical Inspection
and Treatment**

OF

Elementary School Children.

To the Chairman and Members of the Swinton and
Pendlebury Education Committee.



I beg to submit the Report of 1920 on the Medical Inspection and Treatment of Elementary School Children.

I have the honour to be

Your obedient Servant,

W. STEWART STALKER.

Council Offices, Swinton,

April, 1920.

Staff of the School Medical Service.

School Medical Officer :

W. STEWART STALKER, M.D. (Glas), D.P.H. (Oxfr.) (Brevet-Major).

Ophthalmologist :

WILLIAM STIRLING, JUNR., M.D., O.B.E.

Clerk (Part Time).

J. FLOWER.

School Nurses :

MISS METHVEN.

MISS BANKS.

STATISTICAL SUMMARY.

Total Number of Schools—Provided (a) Ordinary Elementary	2
(b) Open Air	1
Total Number of Schools—Non-provided	9
	—
	12
Accommodation—Provided Schools	1,508
Accommodation—Non-provided Schools	3,700
	—
	5,208
Average Attendance for last Completed School Year	4,043
Per cent. of Attendance for last Completed School Year ..	84.1
Number of Children under five years of age on books	86

Rateable value for Education Purposes	£124,842
Education Rate	3/1 in the £, 1920.
Yield of 1d. rate for aid Grant Purposes	£448
Cost of Medical Inspection to 31st March, 1920.. .. .	£813
Income limit for Meals : 25/- for first two people in family, and 6/- per head onwards.	
No. of Meals supplied year ended 31st March, 1920	15,091
No. of Children in Deaf, Dumb and Blind Schools	2

Work of Medical Inspection.

Tabular statements of the work of Medical Inspection of school children are subjoined. They are given for purposes of comparison with former years. The rest of the report is arranged on lines suggested by the Board of Education, and on this account the report differs somewhat in arrangement from that which characterised its predecessors.

Work Accomplished.

Routine Inspections	1,475
Special cases seen at school	67
CLINIC—	
No. of children seen	1284
No. of conditions inspected	1516
No. of individual inspections	2950
No. of treatments	9019
No. of nurse's visits to departments.. .. .	459
No. of nurse's visits to homes	1564
No. of examinations for cleanliness	8558
No. of Statutory Notices to cleanse served	61
No. of children cleansed	37
No. of individual inspections by Eye Specialist	487
No. of children treated by Eye Specialist	253

Local Authorities Scheme for treatment of enlarged tonsils and adenoids, June 17th, 1920 to December 31st, 1921—No. of children operated on at Pendlebury Children's Hospital, 114.

STATEMENT OF CLINIC WORK.— (INSPECTION AND TREATMENT).

*Conditions Inspected.	Boys.	Girls.	Times Inspected.
Nose and Throat affections	66	79	261
Non-Tubercular Adenitis	5	3	11
External Eye Disease	43	43	265
Squint	3	4	8
Defective Vision	12	14	25
Deafness and Otorrhœa	34	32	232
Mentally Defective	1	3	4
Heart and Circulation	9	14	47
Respiratory affections	50	72	206

*Included are the Inspections in connection with fitness, or the reverse, to attend School. The miscellaneous cases were largely contacts of Infectious Disease and children sent by the School Attendance Officers in whom no defect could be found.

	Boys.	Girls.	Times Inspected.
Nervous System	9 ..	16 ..	72
Non-Pulmonary Tuberculosis	12 ..	20 ..	38
Rickets	3 ..	2 ..	5
Skin Diseases	217 ..	179 ..	969
Miscellaneous (including uncleanliness inspections)	270 ..	301 ..	807
Totals	734 ..	782 ..	2950

Conditions Treated.	Number of Treatments.	
	Boys.	Girls.
Eye Inflammation	608	1043
Otorrhœa, Deafness, and other Ear affections ..	735	927
Skin affections—		
Ringworm of the Scalp	95	142
Ringworm of the Body	13	43
Impetigo	1237	1032
Scabies	632	391
Other Skin Disease	911	593
Minor Injuries	63	119
Miscellaneous	147	278
	4441	4578

CO-ORDINATION.

Infant and Child Welfare.

The records of medical inspection of infants and children under school age are available for school medical inspection purposes. Lists of entrants to be presented for inspection during the year are supplied to the School Medical Officer, who is also medical officer to the Maternity and Child Welfare Committee, and from the files pertaining to the latter office the records of inspection are secured for school medical inspection purposes.

Nursery Schools.

No such establishments have as yet been organised. The need is apparent if investigation be made into the conditions in which the younger members of some families are existing. Children attend school

at a very early age in this district, and commendable efforts are being made by infant mistresses, with necessary accommodation at disposal, to approximate the conditions of the baby class-rooms to those of a nursery school. Dried milk at cost price has been supplied to these baby classes from the Council's stock.

Care of Debilitated Children under School Age.

The work in this connection comes within the scope of the Maternity and Child Welfare scheme. All debilitated children under school age, the parents of whom can be persuaded to bring them to the clinics are seen repeatedly by the health visitors and medical officer. These records are passed on to the School Medical Officer when the children become of school age. In a small area such as this, where centralisation of all the medical work under one officer obtains, a great deal of dovetailing of work and effective interchange of office, is necessarily a feature of administration. It thus comes about that a sick child under school age is already known to the School Medical Officer's department. The minor ailment treatment of the group of children under school age is conducted on the premises of the school clinic, and the procedure is exactly the same as that in the case of treatment of the school child.

SCHOOL HYGIENE.

A copy of a report of H.M. Inspector of Schools, dated 31st December, 1919, is subjoined. It relates to Christ Church School.

Both Departments.

The teaching conditions in this large school are deplorable. There are three large and two small rooms for the accommodation of the eleven classes which form the Mixed Department. In the largest room four classes are taught in close proximity, one room has three classes and another two. All the large rooms are passage rooms, and there is only one safe exit for the 297 boys and girls who work on the upper floor. The spiral staircase was condemned in the Board's report of 1905 and is not in use. The lighting is unsatisfactory, the artificial lighting is poor, and the windows, even on the top floor, are partly of ground glass. The upstairs rooms cannot possibly be overlooked and there appears to be no reason for the absence of clear glass panes. The cloak room accommodation is totally inadequate; the children's clothes lie in heaps along the side of the main room downstairs. There is only one small wash hand basin for the use of 447 children. The ventilation is insufficient, and the roof is out of repair.

The flooring, particularly in the 'Infants' Department, is in a bad condition the boards do not meet, and the open crevices are the source of dangerous draughts.

The Infants' rooms, one of which contains two classes, have direct lighting from north-west wall only, with the exception of a small window in the west corner. No ray of sunshine can enter this department. The windows are all about six feet

from the floor. There is practically no free floor space for indoor games and exercises. The single playground is shared by Boys, Girls, and Infants.

Nothing short of a complete reconstruction of the interior of the premises can convert them into satisfactory school buildings. The exact nature of the alterations will depend upon the future proposed for the School in view of the changes contemplated with regard to the instruction of the older scholars. It is understood that a new site has been acquired lately near the School, and the use to which this is put will also be a factor in determining the fate of the present structure.

In so far as this report relates to matters purely hygienic, it is a just criticism. But H.M. Inspector can go further than Christ Church School, and find defects equally glaring. I have referred in previous reports to the ventilation defects of other schools in the district—and I am convinced that ventilation defects are the most injurious—the degree of which is positively alarming.

In the report of the School Medical Officer for 1913, appear the following paragraphs :—

The Managers of Moorside Council School have met and considered the school Medical Officers report and have submitted to the school Management Committee their proposal, which is that as the present school building cannot be adapted to suit the requirements of the Board of Education or the suggestion of the School Medical Officer, it be used, with necessary alteration, as an infant school only, and that a new mixed school capable of accommodating 300 children be built. The school Management Committee has now submitted the matter to the Buildings and Sites Committee.

The Managers of St. Agustines School have met and considered the School Medical Officer's Report, and although they are not in absolute accord with the opinions expressed in the report and the statements made therein, they are in general agreement that the time has come when work of a constructive or re-constructive nature should be undertaken, and they have placed the matter in the hands of an architect to report on the present buildings and give an expression of opinion as to whether they could be so altered as to bring the school into line with present day requirements or whether the erection of new buildings would be more expedient.

In the same report, unfavourable criticism is passed on all the hygienic features of the older schools. Lighting, heating, ventilation, cloak-room and lavatory accommodation are stated to be most defective.

In the report of the School Medical Officer for 1914, appears the following passage :—

The Council, having decided to erect a new mixed department at Moorside, have decided on a site, and have given instructions that specifications be prepared for a boy's and girl's department of seven class rooms each class room to accommodate 50 pupils.

As a foot-note, appears an announcement to the effect that the work has been postponed for six months.

I write now at the beginning of 1921, and neither has the new school been built nor have the features of St. Augustine's School altered.

The reason, of course, is known only too urgently to all, and no good purpose can be served by making destructive reports upon buildings that are as obviously defective in hygiene to the untrained observer as to the expert. Such as they are, the schools must serve for a further period. Short of their closure, their repair to an approximate standard, would be prohibitive in cost, and repair is inadvisable from the point of view of the difficulty of constructing healthy class-rooms in architectural monstrosities.

Comment was made last year in the report of the School Medical Officer upon an alternative to building new schools, *i.e.*, the extended use of playground instruction, or other open-air instruction. It would have been refreshing to hear a discussion in committee upon the practicability and expediency of such a proposal. It is a matter which very intimately concerns health, but no discussion arose, on this or any other proposal put forward by the School Medical Officer in his annual report which might reasonably be accepted as a basis for discussion upon subjects in which he gives his expert opinion.

Were the Council persuaded that the time had arrived for building a new Council School at Moorside, what would be the answer to their request to be allowed to borrow necessary money, in view of the present Departmental circulars on avoidance of expenditure? The answer is not in doubt. It therefore does appear to be a superfluous undertaking to detail defects for which there can be no possible structural remedy in the near future.

Medical Inspection.

The arrangements for medical inspection have been amply described in previous reports. They vary only in small details from year to year, and their recapitulation in this report is unnecessary.

Inspections take place in the schools, all the routine inspections being accomplished there; special inspections, with the exception of a few examinations in connection with the Cripples' census, are conducted at the clinic, as are all re-inspections of routine cases.

The age groups examined are entrants, children who are 8 years of age, and children who are 12 years of age. The statistical particulars concerning these examinations will be found in Table I., at the end of this report.

The schedule of inspection of the Board of Education has been

filled up for every routine case. The only particular in which accuracy has not been attempted is in the estimation of carious teeth. It is not the province of a medical inspector to make accurate dental examinations, and all that can be attempted in filling in the schedule is to give a rough and admittedly inaccurate estimation of the extent of dental decay in individuals.

That defects may be early under the observation of the School Medical Service, teachers, attendance officers, and school nurses have instructions that any ailing child is to be sent to the clinic. No child need therefore wait until routine medical inspection reveals a crippling defect which has been in existence for a period of years or even months. I think it is evident that if 1284 children out of a total of 4879 attended the clinic last year, there is very little in the way of unrecognised defect of the grosser kind in the district.

Disturbance of school arrangements necessarily depends on the accommodation a school affords for medical inspection. The smaller schools are the more likely to suffer temporary dislocation of work, but in as much as the smaller schools present fewer children for inspection, the disturbance of work is not relatively greater than is that occasioned by the suspension of classes, or part thereof, during medical inspection of an age group.

On the whole it can be said with due regard to reason, that school inspections interfere but little with the routine school work.

REVIEW OF THE FACTS DISCLOSED BY MEDICAL INSPECTION.

Uncleanliness.

The arrangements for the supervision of the state of cleanliness of school children have been described in previous reports. It will be well to review the chief features of these arrangements.

The nurses visit the schools as often as the time at their disposal will permit. It was not found possible for them to visit the schools more than twice during the year 1920, for complete inspection. Their other visits to schools on account of uncleanliness were made for the purpose of re-examination of those found to be unclean at the primary inspection.

School.	1 Dept.	2 No. Exam.	3 Clean.	4 Somewhat Verminous.	5 Highly Verminous.	Re-examinations.			
						6 Clean.	7 Improved.	8 Statutory Notice to Cleanse.	9 Cleansed by Education Authority
1	B. G. Inf.	454 462 258	452 422 238	— 36 11	2 4 9	1 — —	1 24 3	— 8 1	— 8 —
2	B. G. Inf.	330 342 218	329 245 191	— 91 19	1 6 8	— 11 11	— 28 5	2 13 1	— 6 —
3	B. G. Inf.	336 366 245	334 314 236	2 45 7	— 7 2	2 7 3	— 36 4	— 1 —	— — —
4	Inf.	145	141	4	—	1	2	—	—
5	B. G. Inf.	127 167 97	126 127 93	— 36 4	1 4 —	— — 1	— 28 2	1 11 —	— 3 —
6	B. G. Inf.	490 460 285	482 387 269	6 65 13	2 8 3	8 9 6	— 35 7	— 10 —	— 3 —
7	B. G. Inf.	661 628 452	657 546 400	3 63 42	1 19 10	3 68 26	1 1 23	— 6 3	— 7 4
8	Inf.	479	436	33	13	14	18	5	5
9	B. G. Inf.	57 43 51	55 29 45	2 9 4	— 5 2	1 2 6	1 9 9	— 2 1	— — —
10	B. G. Inf.	85 73 104	85 69 99	— 4 4	— — 1	— 2 5	— — —	— — —	— — —
11	B. G. Inf.	197 169 239	195 124 217	2 39 16	— 4 6	— 18 18	— 8 4	— 1 —	— 1 —
Totals ..	Boys ... Girls ... Infants .	2737 2710 2573	2715 2263 2365	15 388 157	7 57 54	15 117 91	3 169 77	3 52 11	0 28 9

The action taken at a primary visit is to examine person and clothing and record all cases of infestation, however slight the degree. It must be obvious that a child with a few nits (probably dead), who has every sign of being well cared for, calls for no action. Other cases with infestation call for action, and the parent is served with a primary notice. Subsequent inspections of these cases are made, and appropriate action taken. When no improvement is observed in a child already recorded as highly verminous, a statutory notice to cleanse is served.

Cleansing is carried out by the school nurses at the cleansing station. Little hair cutting has been effected, as with the aid of a specially designed comb, it has been found possible at one sitting to remove all nits. It is necessary in cases of some heads to get sores healed before the comb is used, and in extreme cases to cut the hair. A child with abundant ova in the hair can be completely cleansed in half an hour.

A table of the conditions in the separate schools is attached. It is necessary to explain that the relationship between columns 4, 5 and 6, 7, is somewhat loose, in as much as some children who were found to have a few nits, but who were so obviously under proper care, are recorded in column 4, but have no representation in column 6, 7, as their condition did not call for further action. Again, the relationship between columns 8 and 9 is a loose one, as children are cleansed without service of statutory notices when a request is made by parents for the services of the School Nurse for this purpose.

Roughly, the findings for 1920 were as follows :—

	Clean.		Somewhat Verminous.		Highly Verminous.
Boys	99 %	....	0.5 %	....	0.2 %
Girls	83 %	....	14 %	....	2. %
Infants	91 %	....	5 %	....	2 %

These figures refer to primary inspections.

Minor Ailments.

Reference to the statement of work carried out at the School Clinic will establish the nature and extent of the minor ailments prevalent. The number treated is a fair index of the amount of defect, as most children suffering from minor ailments arrive at the clinic sooner or later. In reality, impetigo and otorrhœa provide the bulk of the work. A few years ago ophthalmia was much more prevalent than it is to-day, and occasioned much dislocation of school work. The incidence of this malady now is happily much lessened. Impetigo and otorrhœa, and

ophthalmia are discussed elsewhere, and are only mentioned here as contributing the bulk of the work which is called for at the minor ailments treatment clinic.

Enlarged Tonsils and Adenoids.

In the years previous to 1920, one of the most unsatisfactory features of the work was the unavailing effort to secure treatment for enlarged tonsils and adenoids. The incidence of enlarged tonsils and adenoids in any school population might be taken as a constant. A certain number of tonsils are chronically enlarged, and a certain number of children have nasal obstruction from adenoids. In populations in which school medical treatment has been an institution for years, the incidence over the total school population might be expected to have lessened. Thus it was found that in 1915, of every 100 London school boys, 11.4 had enlarged tonsils, and of 100 London school girls, 12.3 had enlarged tonsils. In 1919, the figures were for boys and girls, 8.6 and 10.5 respectively. There is in these figures evidence of improvement, especially in boys. Figures are available for Swinton & Pendlebury and in 1914 were : boys 11.8, girls 11.8 ; in 1920, they were : boys 9.05, girls 11.6. In 1914, the education authority had no scheme of treatment of any kind. It had no scheme of treatment for naso-pharyngeal affections until 1920, when in June of last year, a commencement was made on the operative treatment of enlarged tonsils and adenoids by the authorities of Manchester Childrens' Hospital, the Education Committee being responsible for a payment of 30/- per case operated upon. The arrangement is as follows :—Cases are sent in the first place to Gartside Street Dispensary, where they are registered. They are told to attend Pendlebury Childrens' Hospital for operation on a certain day ; a few days later they again visit Gartside Street for inspection, and final discharge, or for further reference for inspection. The arrangement made for the supervision of their school attendance during the period between operation and final discharge is as follows :—Gartside St. Authorities send lists to the School Medical Officer, containing the names of : (1) children who attend for primary inspection ; (2) the dates assigned for operation on specific cases ; (3) the names of children operated upon and dates ; (4) the names of children who have been finally inspected and discharged, or referred for further inspection. It is thus possible to exclude for the precise period between the day of operation and the day after final discharge at Gartside Street. The scheme appears to be working smoothly.

During 1920 there was a larger number of children referred for treatment than will in all probability occur in a normal year, in as much as

cases which were examined in the year 1919, when no treatment scheme of the Local Education Authority was in operation, were sent for treatment to Gartside Street in 1920. In all, 248 children were referred for treatment for naso-pharyngeal affections last year. Of these, 114 were operated on under the Local Education Authority scheme, at the Children's Hospital, and 58 were operated on otherwise, either by private practitioners or at hospitals, independent of the Education Committee's scheme. Thus 46 per cent. of all cases referred were operated upon at the instance of the authority. 23 per cent. were operated upon independently of the authority. The remaining 31 per cent. were cases which on re-inspection could be considered as having undergone spontaneous resolution, or cases which had received some form of treatment other than operation, or had not at the end of the year been referred to Gartside-street. Others were cases concerning which there had been absolute refusal on the part of the parents to have any interference.

I would like to direct the Committee's attention to the difficulties that are to be met in arriving at the stage when operation is actually accomplished. A great many parents take no notice of the first intimation of the defect. They have to be visited subsequently by a School Nurse, when they promise in many cases without intention of fulfilment; in other cases there is intent, but lack of opportunity. Some are taken immediately to the private family practitioner, whose opinion regarding enlargement may, or may not co-incide with that of the inspector. If it does co-incide about the enlargement, it may not co-incide about the form of treatment called for. When finally a stage has been arrived at in which parents have been induced to come to the Council Offices for the necessary admission to the Hospital scheme, difficulties and evasions are the rule rather than the exception, and only very drastic measures can induce some parents to see reason. Threat of prosecution (Sec. 12, Childrens' Act), visits by a N.S.P.C.C. officer, explanation that refusal to certify fitness for employment in factories will result if no treatment is obtained, are instruments of compulsion not infrequently used. I think difficulties are being circumvented. A deal of ignorant criticism has been levied at a scheme which must of necessity be imperfect at its inception, and hopes to profit by the manifestation of its own imperfections. No constructive criticism comes from the sources which are readiest in condemnation. The scheme has justified its existence, if only in the fact that many more private operations, that is operative treatment other than that provided by the Education Committee, have taken place than in any previous year.

Further reference is made to the effects of adenoid growths under ear diseases.

Tuberculosis.

During the year 1920 the department of School Medical Inspection has been greatly assisted in the work connected with tuberculosis by the County Staff at the local Tuberculosis Dispensary.

Arrangements have been come to whereby all the clinical work is carried out at the Dispensary by the Tuberculosis Officer. All cases of tuberculosis or suspected tuberculosis are presented to him for diagnosis and for decision regarding school attendance. His opinions are submitted to the School Medical Officer, who then carries out the necessary administrative work.

It is found that many of the cases originally notified as suffering from pulmonary tuberculosis after an elapse of years, no longer have any signs or symptoms, and it is highly doubtful if they ever had any localising signs.

No child suffering from active disease is permitted to attend school. Quiescent cases are in attendance both at the public elementary schools and at the open-air school.

It will be observed from the tabular statement submitted that 44 boys and 66 girls under the age of 14 on 31st December last, were at some time notified as being subjects of pulmonary tuberculosis. During the year 1920, 33 of the boys and 51 of the girls were under observation both at the School Clinic and at the Tuberculosis Dispensary, and of these, according to the Tuberculosis expert, only 7 boys and 16 girls had active signs of the disease at the time of observation. The other cases were either quiescent or had been wrongly diagnosed in the first instance.

Four boys and seven girls suffered from non-pulmonary forms of tuberculosis. The treatment of the cases is in the hands of the County Council. All the cases which have been notified are kept under periodic observation until the disease can be stated to be definitely cured, or until the diagnosis is altered.

TUBERCULOSIS IN SCHOOL CHILDREN.

	Boys.		Girls.	
	Pulmonary	Non Pulmonary	Pulmonary	Non Pulmonary
No. of children under 14 years of age on the Elementary School roll, who have at one time or other been notified.	43	14	66	29
No. of cases which have been in Sanatoria.	14	1	18	3
No. of cases seen in 1920.	33	14	51	29
No. of cases definitely tubercular in 1920.	7	4	16	7

Skin Diseases.

The skin diseases in which the School Medical Department in this district is most concerned are Impetigo, Septic Sores, and Scabies. Very few cases of these affections are encountered at routine inspection, but no less than 66 cases of scabies, 177 cases of impetigo, and 124 cases of other skin diseases were encountered last year. Apart from routine inspection, these cases were sent to the clinic by teachers or attendance officers, or school nurses, or were brought by parents. Some of the scabies cases were of the most chronic nature. Treatment at the instance of the authority was carried out with much assiduity on such cases as would attend the clinic regularly, but certain home conditions whereby changes of bodily clothing and bedding were in defect, greatly militated against effective treatment. 23 children were afforded bath treatment at the cleansing station, in some cases with beneficial effect, in other cases without apparent benefit. The body and bed clothing of the children was disinfected, but presumably the activities of the parasite if inhibited, were not prevented in all cases, for not a few children were still abundantly affected after a week or two. No treatment short of isolation in hospital would appear to be effective in these cases.

A form of treatment advocated by Dr. Svend Lomholt of the Royal Marine Hospital, Copenhagen, which depends upon the specific action of Sulphuretted Hydrogen is on trial at the present time.

Inpetigo and Septic Sores have occasioned no great loss of school attendance in individuals, the view being taken that a child can be kept better under observation and can be treated with greater regularity if in school attendance. If the treatment has been properly carried out the risk to others is negligible.

Ringworm of the head as will be seen from Table II. is not prevalent in the district schools at present. In the year 1914, there were 58 cases under observation. In 1920 there were 17 cases only under observation. It is not contended that these 17 cases represent the total incidence in 1920, but in as much as the head of every child in the district schools is seen by the nurses two or three times every year, there seems every reason to think that the affection at present is of low incidence and of the known cases but few have extensive affection. The loss of attendance at school on account of ringworm is small in proportion to the duration of the affection, in as much as children have been allowed to attend school if provided with suitable protective covering of the head. These children have been kept under observation at the clinic. The Board of Education has expressed the desire that the Council should arrange for treatment of ringworm of the scalp by X-Rays. So far, where such treatment is indicated, it has been possible to secure it without special arrangement. Moreover authoritative expressions of opinion as to the doubtful efficacy of the treatment, occasion some hesitation in advocating such a form of treatment for a few cases of limited affection.

External Eye Disease.

Reference to Table II. at the end of the report will show that in 1920 the incidence of ophthalmia, so great in 1917, was small. Altogether 96 cases of eye inflammation came under the supervision of the school medical officer's department in 1920. In 1917 the number was 423. Many cases of chronic inflammation were referred to Dr. Stirling, Ophthalmic Surgeon to the Authority, at his fortnightly visits to the clinic, and the appropriate treatment was prescribed for them by him, and provided at the clinic. The amount of treatment for eye inflammation will be seen in the statement of work at the commencement of the report. It amounted to about 17 treatments per case.

Vision.

In previous years defective vision remedy had been left to the haphazard influence of proximity to hospitals, and to private practitioners.

In the early part of last year the Committee made arrangements with Dr. Wm. Stirling, junr., an ophthalmic surgeon on the consulting staff of the Manchester Royal Eye Hospital, to attend the clinic once a fortnight, and prescribe for cases of defective vision. It was arranged that Dr. Stirling should examine at least 12 cases per session. An account by Dr. Stirling of his work is subjoined. In this connection it should be recorded that Dr. Stirling has admitted three cases to the Eye Hospital, and has operated on them there. Dr. Stirling, in his report, gives only an account of the work of primary inspections made by him. To the primary inspections are to be added 234 subsequent inspections.

DR. STIRLING'S REPORT.

During the last year 253 children from the Swinton and Pendlebury Schools were examined and the requisite glasses and treatment supplied. The diseases were the following. The figure after each disease give the number of School children treated for that particular disease.

Emmetropia 60. (This diagnosis was made after refraction under Atropine).	Compound Hypermetropic Astigmatism 20.
Hypermetropia 81.	Compound Myopic Astigmatism 10.
Myopia 9.	Mixed Astigmatism 19.
High Myopia (<i>i.e.</i> , over-9 Dsp.) 3.	Hypermetropic Astigmatism 9.
Myopic. Astigmatism 2.	Keratitis Diffusa 2.
	Nebulæ Cornea 7.
Convergent Strabismus 56.	Sequelæ Ophthalmia Neonatorum 2.
Alternating Convergent Strabismus 4.	Adherent Leucoma 2.
Divergent Strabismus 1.	
	Atropine Mydriasis 2.
Simple Conjunctivitis 12.	Persistent Pupillary Membrane 1.
Phlyctenular Conjunctivitis 1.	
Blepharitis 19.	Anterior Polar Cataract 3.
Ptosis 1.	Vitreous Opacities 1.
Epicanthus 1.	
Sebaceous Cyst. Lid 1.	Coloboma of Iris, Choroid and Optic Nerve 1.
	Coloboma of Iris and Choroid 1.
Lachrymal Obstruction 2.	
	Central Choroiditis (Myopic in origin) 2.
Keratitis 1.	
Foreign Body Cornea 1.	

Vascular Keratitis 1.	Staphyloma Posticum 4.
Phlyctenular Keratitis 2.	Nystagmus (Congenital) 1.
Albino with very defective vision and secondary Nystagmus 1.	

As can be seen from the preceding list of diseases treated there has been comparatively little incidence of inflammatory diseases. The large number of normal cases examined is due to the fact that all suspicious cases as regards acuity of vision were examined and no case was called Emmetropic until the Refraction of the eyes was estimated under a Mydriatic. The Mydriatic used was Atropine Sulphate 1 per cent for a few days before the actual Retinoscopy was performed. The glasses ordered for each case needing them were round glassed so that in the Astigmatic cases especially, the Astigmatic angle could be adjusted without the necessity of grinding a new lens. Blepharitis cases were not very common and chiefly of the type which is a secondary condition to Simple Septic Conjunctivitis with the result that 17 out of the 19 cases were emmetropic and soon resolved under consistent local treatment. Three operations were performed namely on a case of Ptosis and on two cases of Convergent Strabismus. In all three cases the result of the operation was excellent. Two cases were advised special school routine, namely a case of an Albino and a severe case of Interstitial Keratitis in right and left eyes.

W. STIRLING (JUNR).

Cases of defective vision are referred from routine medical inspection for clinic treatment. Special cases are referred for treatment by teachers, parents and school nurses.

Permission to spend an annual sum of £50 on spectacles was given by the Board of Education. A sum of £32 1s. 6d. was spent on spectacles during 1920 of which £17 3s. 6d. was recovered from parents.

Messrs. Armstrong Brothers, Opticians, Manchester, sent a representative to measure for and subsequently to fit the spectacles prescribed by Dr. Stirling. A reduced scale of charges for spectacles is in operation for the children prescribed for at the Eye Clinic.

Ear Disease and Hearing.

The number of cases of ear affections coming under the observation of the school Medical Officer during 1920 was 73. Of these cases many were old standing cases of middle ear disease. Some of these cases of

middle ear disease had undergone operation for the removal of adenoids without remedy of the ear condition. All that could be attempted by the School Medical Staff with the existing equipment was the daily syringing of ears in order to make it possible for these children to attend school. I have submitted a report (January 26th, 1921) on a scheme to get some more effective treatment for these children with chronic middle ear disease. Not a few of them require something in excess of that which can be provided at present at the instance of the Committee. I have recommended that a scheme whereby the aid of the Manchester Children's Hospital authorities could be enlisted. It appears to be that most suited to the needs of the authority. Some children will require operation (in all there are about 40 chronic cases) and it may be possible to clear up other cases by means less radical. Some authorities relate favourable instances of ionic treatment.

Dental Defects.

It is a rather melancholy commentary on the School Medical Service that it is yet without a dentist. That the need for such exists cannot be doubted. It is perhaps best demonstrated in the number of young people in the district who are possessed of dentures. The disfigurement is apparent in a journey through the streets when the factories are releasing their operatives. This disfigurement will continue so long as the School Medical Service by education, prevention and conservation, fails to bring about conditions whereby the youth of the district may preserve healthy mouths in which the natural teeth are preserved.

Delay in providing a dental service is entirely due to inadequacy of space at disposal of the School Medical Service. The Council approved a scheme of treatment in which a dental service figured, early in 1920. The development of this part of the scheme awaits the settling of the question of where the enlarged clinic premises will be situated.

Crippling Defects and Orthopaedics.

In another part of this report reference is made to the widely divergent figures of crippling which have been supplied to the Chief Medical Officer of the Board of Education. To those who are apprehensive as to the condition in Swinton and Pendlebury, seeing that this district provided the highest proportion of cripples of any education authority supplying figures, the fact has to be recorded that the interpretation put upon cripples was of the very broadest nature and that all children who in

any way were rendered divergent from normal structure by reason of tuberculosis, rickets, poliomyelitis, congenital deformities, accidents and heart disease, were included. Rickets is a disease, the prevalence of which in industrial districts with bad housing and irregular conditions of life, is admitted. This district is no exception. There were, at the time the figures referred to above, 55 children who showed bony deformity due to rickets and which, definitely, was crippling in effect. The crippling in some cases was very slight, and in a great many cases would probably wear off. If it did not it would produce the permanent deformity so commonly seen in the streets of Lancashire towns, a deformity which in adult age could not readily be recognised as producing genuine crippling, but is most decidedly a physical defect. There is but little doubt that for each of the children so deformed there are necessary careful observation and treatment because of the uncertainty of natural resolution.

A report has been presented to the Education Committee (January 26th, 1921) in which proposals have been made to include in the scheme of treatment for school children provided at public expense orthopaedics, at the instance of the authorities of Manchester Children's Hospital. This treatment includes out-patient treatment, the provision of apparatus, and the provision of beds for cases in which operative surgery is indicated.

Infectious Diseases.

The year passed without closure of any schools for infectious disease. Articles 45 (C) and 57 of the elementary education code therefore had no application.

Under Article 53 (C), of the elementary education code, the action taken was that described in previous reports. It is briefly as follows :—

On receipt of a notification of infectious disease in a house in the district, notice is sent to teachers and school attendance officers, excluding from School all school children in the house. A school child who has been suffering from scarlet fever, is re-admitted on certificate of the School Medical Officer, who examines the child eight weeks after onset. When a scarlet fever patient has been nursed at home the school children contacts are re-admitted by certificate of the School Medical Officer, who examines them at the same time as he examines the affected child. When a scarlet fever patient has been removed to hospital, the contacts are re-examined 14 days after removal of the case to hospital, and are admitted to school by certificate of the School Medical Officer. A school

child who has been suffering from diphtheria, and school children contacts of a person suffering from diphtheria are admitted to school by certificate of the School Medical Officer, after a negative bacteriological examination.

Regarding the minor infectious diseases, there is a printed booklet of instructions, dealing with the exclusion of children in connection with these affections, in possession of all teachers and school attendance officers.

Children suffering from the contagious skin affections are under constant supervision of the School Medical Officer, and attend school or are excluded therefrom on his certificate.

Following Up.

A considerably greater amount of following up took place last year than in the years immediately preceding. I have indicated in previous reports that unless an education authority was itself able to provide treatment, much following up was superfluous in energy. There is but little response to requests to mothers to take children who are not obviously suffering from defective vision, to hospital, for the purpose of examination.

Now that the Education Committee has a scheme of treatment which embraces minor ailments, enlarged tonsils and adenoids, and defective vision, following up cases of these defects is largely practised in order that defective children should not be denied treatment by reason of lack of means or lack of opportunity.

Following up in connection with verminous cases is practised in the manner described under uncleanliness. The scheme as regards following up of dirty and neglected children starting with initial inspection, includes first warning notice and visit of inspector to home ; second, re-examination. The scheme here diverges to suit, first, verminous children who are cleansed after service of statutory notice, and then re-examined at intervals with legal proceedings, as the final action in persistent cases ; second, to suit neglected children. Such children are poorly clad, badly shod, semi-starved, etc. Here the services of the N.S.P.C.C. are invoked, and co-operation with that body, at all times, close and hearty, is the method of following up best suited to such cases.

Such cleansing of homes as would appear to be essential in any deverminising scheme, is promptly carried out, and steam disinfection of body and bed clothing is provided.

Open-Air Education.

In my various reports I have strongly advocated the introduction of as much open air education as is consistent with the requirements of the Elementary Education Code. I have emphasised the need of abundance of fresh air for the proper mental and physical development of youth, and I have indicated repeatedly how very deficient are the majority of the schools of this district in such structural arrangements as will insure adequacy of ventilation. As a remedy against the hygienic evil indicated in the last sentence the playground, the fields and the lanes in which the district abounds, offer themselves as an alternative to the expensive substitution of new schools for those which cannot be remodeled.

The time for strictest national economy is upon us, has been upon us for some years and will be upon us for at least a generation. National economy does not, however, demand that children be shut up in schools, the atmosphere of which is fertile in unhealthiness. That is not economy. It is profligacy. So when economy of health and economy of national resources can be achieved by such a simple expedient as the substitution of the playground, or the fields, for the classroom, there does not seem to be left much argument against open air instruction.

At the request of the Board of Education information regarding the extent to which open air instruction enters into the school curriculum in this area is now given under various sub-headings.

(a) Playground Classes.

With but few exceptions physical exercises are conducted in the schoolyards.

Most schools have arrangements for playground classes in the summer time. Some have definite engagements that each class in rotation be for a certain period of the day instructed in the playground. In other schools the arrangement is of a more fortuitous nature.

In such a school as Christ Church the employment of the play yard for class instruction purposes is rendered difficult on account of the yard being common to mixed and infant departments.

In summer time it is possible in some cases to have the youngest children in infant departments in the open air all day.

(b) *School Journeys.*

There is considerable inequality in the different schools in the development of this activity. Some schools undertake no walks. In some schools the children have occasional walks. In other schools regular walks are undertaken in the fields and parks, and at longer intervals visits are paid to places of interest.

(c) *School Camps.*

No school camp has been organised

(d) *Open-Air School.*

At the time of compilation of the report for 1919 an open air school was being conducted in the pavilion of the Swinton Cricket Club. The school had an enrolment of some 30 ailing children.

During the summer of 1920 it was no longer practicable to conduct the school on the premises of the Cricket Club and it was thought that the hut purchased for open air school purposes, which had been erected in Swinton Park, could be used, although no work of adaptation had commenced.

The children were accordingly removed from the cricket pavilion to the hut and there the school is now being conducted. Some temporary heating arrangements have been installed and developments towards a more permanent basis of construction and organisation are imminent.

At the time of writing there are over 40 children on the roll of the school. The nature of the ailments from which they suffer are indicated in a subjoined tabular statement. In the summer time and the winter time as often as the weather will permit, education is to a large extent conducted out of doors. It is almost needless to say that in the present undeveloped nature of the scheme, the provision falls far short of the ultimate aim, but in the head teacher's interest it should be stated that a most creditable effort, under circumstances peculiarly dispiriting, is being made to meet the educational and physical needs of debilitated children.

At a recent medical inspection of children attending the open-air school, the children were categorised into the following age groups. The defects which occasion their education under open-air school conditions are also indicated.

	BOYS.								GIRLS.								
	7	8	9	10	11	12	13	Tot'l	6	7	8	9	10	11	12	13	Tot'l
Quiescent Pulmonary Tuberculosis	—	—	3	1	2	1	1	8	1	—	—	1	—	5	5	2	14
Debility & Defective Nutrition	2	1	—	—	1	1	—	5	1	—	1	2	—	2	3	—	9
Heart Disease	—	—	1	—	—	1	—	2	—	—	—	—	1	—	1	—	2
Non-Pulmonary Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Adenoids	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	2
Spinal Curvature	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Chorea	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1

Feeding of Necessitous School Children.

It has been found that with a limited number of children spread over a wide area, who qualify for provision of meals, a more suitable arrangement than feeding at one centre under the direction of the authority is that whereby different caterers agree to provide for a fixed sum a certain menu, the meals to be provided on the premises of the caterer.

Arrangements were made in 1920 with three caterers to provide approved meals and a statement of the number of children fed and the number of meals provided is subjoined.

	No. of Children Fed.	No. of Breakfasts.	No. of Dinners.
Caterer 1	45	4400	4442
Caterer 2	19	1420	1455
Caterer 3	8	242	239

Total children fed, 72.*

Total breakfasts provided, 6062.

Total dinners provided, 6136.

*At the time of going to press, 1,100 children are being fed by the Education Authority, as a result of the Coal Strike and general distress.

Total meals provided, 12,189.

Total cost for 1920—21 (Financial Year) £420.

No. of children being fed at the end of the year, 42.

Children are selected for feeding purposes : (1) by applied scale :
(2) by recommendation of the School Medical Officer.

The arrangements for feeding are in the hands of the School Attendance Officers and the School Medical Officer.

Co-operation of Parents, Teachers, Attendance Officers and N.S.P.C.C.

PARENTS.

A notice is sent to the parent of every child medically inspected to be present at the examination. The number of parents actually present at medical inspections at the schools is small, and is a diminishing quantity. It has never amounted to one-fifth of the children examined. When the time, however, comes for re-inspection, the attendance of parents is amplified. Their attendance for the purpose of this examination is specially requested, as it is on this occasion that the greatest effort is made to achieve the legitimate aim of medical inspection, *i.e.*, treatment. If on re-inspection the child has been treated, the adequacy of such treatment is ascertainable. If the child has not been treated, the need for treatment is either confirmed or a reasonable doubt will cause the child to be referred for observation. It is here that the presence of the parent is particularly serviceable. The demonstration of defects, of which parents had notice some weeks or months previously, is convincing in not a few instances in which the primary warning was treated with indifference.

The co-operation of parents is sought, but is not readily obtained in matters of cleanliness. If a child's head has got beyond the limits of a parent's power to effect a speedy remedy, an offer is made by the School Medical Staff to effect the remedy without resort to any measures suggestive of castigation or obloquy. It is curious how this offer is resented. Denial of any defect of their children's cleanliness is common on the part of mothers, who cannot fail to see the condition of the hair, and rather than submit their children to the hands of the School Nurses, who have the means of quickly removing all nits without any attempt

at cutting the hair, they declaim against what they regard as an outrage, but what is, in reality, a truly kind action, and make fruitless efforts by various means to remedy a defect which should have been obviated, but is now beyond remedy so far as they are concerned. I am sorry to say that co-operation with defaulting parents in respect of cleanliness, is in a very embryonic state.

With regard to wearing of glasses, and after treatment in connection with the enucleation of enlarged tonsils and adenoids, the co-operation of the parents is an essential of the scheme of treatment.

TEACHERS.

The participation of teachers in the work of medical inspection is exemplified in preparation of record cards; submitting of weekly returns of infectious disease; general survey of school children for defective cases, which are promptly sent to the school clinic; general survey for conditions of uncleanliness; distribution to parents of notices respecting defective children; submission of special returns to the School Medical Officer, on request. The help of teachers has been generously given.

ATTENDANCE OFFICERS.

It has been pointed out in previous reports how complete is the co-operation between attendance officers and the School Medical Officer. Ailing children who are absent from school are sent by the school attendance officers to the School Medical Officer for examination with respect to ability to attend school, or the reverse. Refusal to bring children to the School Medical Officer is not frequent, but is exemplified unfortunately in just those cases where it is necessary to have detached evidence. It is regrettable that there are means of circumventing a certificate of the School Medical Officer, and that hithertofores ethical observation in specific instances, has been characterised by breach on one side, and observance on the other. Here observance proved a distinct disadvantage.

The participation of attendance officers in the work of medical inspection may be summarised as follows:—Supervision of the absence from school of ailing children, and ensuring their attendance at the clinic; enumeration of defective children not fit for a public elementary school; registration of children on the feeding lists; investigation of circumstances in connection with free meals; submission of returns and reports to the School Medical Officer; investigation of home circumstances associated with any defective conditions; supervision of arrangements

for admission of children to special schools in connection with the Elementary Education (Blind and Deaf) Children Act, 1893.

*NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY
TO CHILDREN.*

The officers of this Society have rendered admirable help in furtherance of the work of medical inspection. In all cases of continued neglect the aid of the inspectors of the Society is invoked. All the worst families are known to these officers, and are under continuous supervision.

It is now customary to send lists to the N.S.P.C.C. officer of children to whom the parents refuse treatment of defects discovered at medical inspections. It is granted that this part of the inspectors' work is somewhat delicate at the outset, in as much as people associate a visit from a N.S.P.C.C. inspector with cruelty of the uncleanness and neglect of clothing and feeding type. Neglect on the part of parents to provide spectacles, or to have treatment for adenoids after receipt of warning by the School Medical Officer that such are necessary, constitutes cruelty and neglect in the meaning of Sec. 12 of the Children Act. A defence of course, in the shape of medical evidence to the contrary is possible. In this connection may be pointed out a risk which has to be faced, *i.e.*, fatality or casualty less serious, as a consequence of forced operation.

Blind, Deaf, Defective and Epileptic Children.

ELEMENTARY EDUCATION (BLIND AND DEAF
CHILDREN) ACT, 1893.

This Act makes obligatory upon local education authorities the suitable education of blind and deaf children, including partially blind and deaf children. Obligation rests upon the parent of a blind and deaf child to see that education within the meaning of the above Act, is provided for such child. The duty in the case of a blind child begins when the child is five years old, and extends in both cases to the age of 16 years. In the case of a deaf child the obligation commences when the child attains the age of seven years.

Powers conferred by Sec. 3 of the Elementary Education (Defective and Epileptic Children) Act, 1899, enable local education authorities to provide guides or conveyances for children who in the opinion of the

local education authority, are by reason of mental or physical defect, unable to attend school without guides or conveyances.

The Elementary Education (Blind and Deaf Children) Act, 1893, makes obligatory upon local education authorities, provision for education of blind and deaf children, including partially blind and deaf children, in schools, being certified by the Board of Education, as suitable for providing such education, and for this purpose they can either acquire and maintain a school so certified, or can contribute towards the establishment, maintenance, etc., of such a school or can board out blind and deaf children in houses conveniently near a certified school.

ELEMENTARY EDUCATION (DEFECTIVE AND EPILEPTIC CHILDREN) ACTS, 1899 AND 1914; THE MENTAL DEFICIENCY ACT, 1913; THE ELEMENTARY EDUCATION ACT, 1918.

The Elementary Education (Defective and Epileptic Children) Act, 1899, gave optional power to local education authorities to educate mentally and physically defective children. The Mental Deficiency Act, 1913, imposes the duty of ascertaining which children are mentally deficient within the areas of local education authorities. The Elementary Education (Defective and Epileptic Children) Act, 1914, makes the education of mentally deficient children in special classes or special schools obligatory, and the Elementary Education Act, 1918, firstly requires ascertaining of all children who are physically defective and epileptic within the meaning of the Elementary Education (Defective and Epileptic Children) Act, 1899, and further it requires their education in special classes or special schools.

The ages between which these Acts apply are seven years and 16 years.

It is clear therefore, that local education authorities must provide education for blind children (including partially blind children), deaf children (including partially deaf children), mentally defective children, physically defective children, and epileptic children.

It now falls to be recorded what has been the action of the Swinton and Pendlebury Local Education Authority towards ascertaining which children are blind, deaf, mentally defective, physically defective, and epileptic, and what has been the action towards providing suitable education for defectives.

BLIND CHILDREN.

It has been ascertained that so far as is known, there are four partially blind children within this education area. Three of them are attending public elementary schools. No child is in a certified school for the blind. One is not attending school. No completely blind child between the ages of five years and 16 years, so far as is known, is resident in the district at the present time.

DEAF AND DUMB CHILDREN.

There are no deaf and dumb children (including the partially deaf and dumb), who are not attending school. One boy and one girl are in residential certified schools outside the district. Four children (one boy and three girls), attending public elementary schools of the district, are defective within the meaning of the Act, that is to say they are so defective in hearing as to be unable to derive benefit from ordinary class instruction in the district schools. Their attendance thereat, therefore, is without benefit to themselves, and is prejudicial to class work. The proper course to take with these children is to send them to certified schools.

MENTALLY DEFECTIVE CHILDREN.

Twenty-one mentally defective children have come under the supervision of the School Medical Officer during the year 1920. Of these children, three are imbeciles, and their notification to the Local Authority under the Mental Deficiency Act will be considered when all the necessary conditions are fulfilled. Three boys and one girl have been notified to the said local authority during 1920. Six boy mental deficients are not attending school, and six boy and two girl mental deficients are attending public elementary schools without distinctive education being provided. As already stated, the Elementary Education (Defective and Epileptic) Act, 1914, makes the education of mentally defective children in special classes or special schools obligatory upon local education authorities, and the obligation is not being fulfilled by providing no education at all, or providing only such as the routine public elementary school course affords.

*PHYSICALLY DEFECTIVE AND EPILEPTIC CHILDREN.**(a) EPILEPTIC.*

Three epileptic children have been excluded from school as being quite unfit to attend school on account of the severity of the malady. Their inclusion as inmates of an institution is desirable.

Five boys and two girls, the subjects of periodic fits, attend the public elementary schools of the district, and their attendance thereat does not appear to be a serious prejudice either to themselves or others. The alternative is certified school education, which is expensive, robs parents of a child often perfectly tractable except when in the epileptic state which may be infrequent, and quite fit to assimilate the provisions of elementary education. History records positive abnormality of intelligence associated with epilepsy, so there does not appear to be a case for the compulsory education of all epileptics under special school conditions. There are probably many children who suffer from masked epilepsy in public elementary schools to-day, and there are also no doubt many concerning whom no suggestion of epilepsy arises, but who are more unsuitable for public elementary schools than are really definite epileptics.

(b) *PHYSICALLY DEFECTIVE CHILDREN.*

Included in this category are all children who are crippled in any way by physical defect. Thus, children with bony deformities resulting from rickets, paralysed children, children with congenital deformities, children suffering from past or present tuberculosis of bones or joints, are children who might be described as obvious cripples. But there are other children who suffer from physical defects, the crippling nature of which, if not as obvious as those detailed above, are yet as prejudicial to activity and capacity for normal existence as are those affections which produce deformity. Chief amongst those conditions is organic heart disease. Other conditions, however, are capable of crippling to a marked degree, *e.g.*, debility, a rather vague term used to cover irregularity of metabolism, chorea, and nephritis.

In the middle of 1920 the Medical Department of the Board of Education asked for a report on cripples, in the area of all local education authorities. There are several definitions of cripple, some of which allow latitude, others of which limit. There is no very definite limit to the definition "impaired efficiency," whereas there is to the word "lame." It is not easy to recognise the definition lame as being precise, nor is the definition which comes from Cleveland (Ohio), *viz.*, handicapping produced by lack of the normal use of skeleton or skeletal muscles, because a slight degree of bow leg producing a wobbling gait would be included under either definition, and a case of advanced organic heart disease which enforced complete inertia, would not be included. The question of cripples must be approached with an open mind, because it is largely a question of degree of disabling, whatever be the cause of disablement.

CENSUS OF CRIPPLED CHILDREN,

	under 1		1-2		2-3		3-4		4-5		5-6		6-7		7-8		8-9		9-10		10-11		11-12		12-13		13-14		over 14		Totals.	
	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
Tuberculosis.....													1	2			1		1		1				1	3					3	6
Poliomyelitis	1		3		1		1						2		1				1		1		1		1	1	1			5	10	
Rickets							3	2	1		5	7	6	4	5	6	4		4	1	1		3	1	1	1	1			33	23	
Congenital Deformities																																
Tauma, etc.	3											1					1	1	1		1		1	1	3	1		1		8	6	
Heart Disease			1				1												1	1				1	1					4	2	
TOTALS....	3	1	1	3		1	4	3	1		8	9	6	6	6	1	4	5	2	1	5	3	7	6	1	3			53	47		

In the report of the Chief Medical Officer of the Board of Education for the year 1920, a table based on the reports of the medical officers of education authorities in England and Wales, is presented, in which the extent of crippling defects is stated in cases per 1000 children in average attendance. The lowest number per 1000 comes from a county area, and the largest number per 1000 comes from Swinton and Pendlebury. It is not clear whether the estimation in the former case was made with a view to ascertaining which children were so crippled as to be fit only for special school education, but certainly this was not the guiding principle in the latter case. The table supplied to the Board of Education is given on the previous page.

The highest figure is that of rickets. It constitutes 62 per cent. of the total. All deformity produced by rickets—and the amount in the district is not inconsiderable—is included in the table, from the slight degree to the gross deformity, which produces permanent crippling. If the intention of the Board of Education was to elicit figures relating only to children so crippled as to require special school education, then it is granted that in the case of Swinton and Pendlebury their intention was misjudged. At the same time it is an undoubtedly necessary part of the School Medical Service, to investigate the extent of the effect of any crippling affection.

The attempt will now be made to show what was the extent of crippling, at the end of 1920. The crippling here recorded is only such crippling as has produced well-marked defect, the lesser defects of genu varum, genu valgum, curved tibiae, etc., of rickets, being ignored.

There were at the end of December attending the ordinary schools, twelve boys and twelve girls who were crippled by rickets, tuberculosis, poliomyelitis, or congenital deformity. Five boys, and two girls crippled by the same causes were unfit to attend school. Six boys and fourteen girls crippled by other physical defects instanced previously, were attending public elementary schools. Seven boys and four girls were being educated in the hut in Swinton Park, and one boy and two girls suffering from advanced heart disease were not at school.

The Elementary Education Act, 1918 (Sec. 20), makes obligatory the education of physically defective children. The form of education is indicated as that which it is the duty of the local education authority to provide under the Elementary Education (Defective and Epileptic) Act, 1914, *i.e.*, by means of classes in the ordinary school or by the provision of special day or residential school education. In so far as the

cripples of this district are concerned there does not appear to be at present any need to go beyond the open-air school to find the special provision necessary for education with one possible exception—a boy completely paralysed in the lower limbs. (The open air school is referred to as a completed and fully equipped provision). It will be remembered that Sec. 3 of the Elementary Education (Defective and Epileptic) Children Act, 1899, enables a local education authority to provide conveyances for children who are unable from physical defect, to attend school, without conveyance. Any cripple in the district who is not fit to attend a public elementary school, or who is unsuitable for attendance at a public elementary school—because cripples do attend the public elementary schools even on crutches—could be conveyed to the open-air school, and there educated under sufficiently suitable conditions, and this method of educating cripples is now recommended to the Education Committee.*

That the education of a perfectly helpless cripple in a special school—perhaps in any school—is an economic proposal to put before any elementary education authority, is debatable. A helpless cripple can never earn a living by means of elementary education. The proper sphere is such institutional life as does not come within the ambit of elementary education.

To sum up, there are four blind children, six deaf children, 14 mentally deficient children, and three epileptics, who require provision for education which the authority does not possess, *i.e.*, special school education. Two of these children are already in special residential schools, and the cost of maintenance there may be taken as indicative of the cost of providing special school education for all. On the assumption that £80 per annum is the cost of maintenance, four blind, six deaf, three epileptic children would cost in special residential schools roughly £1000, of which half would be recoverable in grant. The 14 mentally defective children could be provided for more economically by the institution of a special class in an ordinary school. For blind and deaf children there appear to be ample vacancies in special schools throughout the country. For epileptic children the accommodation is limited, but there appear to be a few vacancies in five of the six certified schools in England.

Juvenile Employment.

On January 1st, 1921, the Employment of Women, Young Persons and Children Act, 1920, came into force. This Act prohibits the employ-

*For the purpose of conveying crippled children to the open air school, use could be made of the Motor Ambulance presented by the British Red Cross Association.

ment in any industrial undertaking on and after January 1st, 1921, of any child under the age of 14 unless so employed previous to that date.

A memorandum dated January 12th, was issued by order of H.M. Chief Inspector of Factories, in which an interpretation was given to the Act which was not conveyed by either its wording or that of a previous memorandum explanatory of the Act. This interpretation was to the effect that a person who was under contract of employment at the commencement of operation of this Act, and where the Local Education Authority had exempted the child on the strength of such employment, then the child even although not actually at work on January 1st, should be regarded as employed.

It would appear therefore that any child aged 13 possessed of a certificate of exemption from school attendance, should be regarded as under contract of employment and be granted a certificate of fitness by the Certifying Factory Surgeon to engage in industrial employment. This, of course, presupposes that the Local Education Authority before granting exemption has satisfied itself that the child is about to enter *beneficial employment*, and will therefore have taken steps by means, of interview and inquiry to elicit the facts about the child's proposed occupation especially its suitability. Such action, however commendable is not within the region of practical politics for all Education Authorities. In this district, exemption is automatically asked for at the age of 13 because the attendance bye-laws permit of it, and if the necessary conditions of attendance have been fulfilled, a certificate is made out by the School Attendance Officer deputising for the Clerk to the Local Education Authority, without regard to the clause regarding beneficial employment.

Again, what is a contract of employment? A certifying Surgeon seldom sees anything that could be regarded as a contract of employment. A verbal promise of work could not legally be regarded as a contract of employment, yet it is the only form of contract employed in most of the mills of this district. Would then a promise (not necessarily binding) to employ a child when it had attained the age of 13 at a time when the child was some months short of that age, be regarded as a contract of employment?

The automatic granting of certificates when a child has attained the age of 13, and the operation of the Employment of Women, Young Persons and Children Act, 1920, have had the effect of debarring children of 13 years of age exempted from school attendance, from industry, the only really beneficial employment in this district. The alternative employments in this district are few and unbeneficial to people of the industrial

classes. They can become clerks, stable boys, golf caddies, etc., but they cannot enter the cotton mill, the staple industry of the district.

As Certifying Surgeon, I have had to reject not a few persons who were possessed of exemption certificates, but who through no fault of their own in many cases, were not under contract (promise) of employment prior to January 1st, 1921.

The remedies apparent for this unsatisfactory state of affairs are putting into operation promptly the provisions of sub-sections 1 and 2 of Section 8 of the Education Act of 1918, or stopping the issue of exemption certificates by local education authorities. If the latter action is not done children will be forced into employments which are non-beneficial, although it would be difficult to call any employment non-beneficial which provided sustenance for an impoverished household.

In 1920 there were granted in this district 372 exemption certificates, and there were certified by me for employment in factories and workshops roughly 250 children of the age of 13. Granted a similar number at that age seek exemption this year, (I see no reason to suppose the number will be less), and the appointed day has not arrived, what is to become of the 250 children ?

Personally, I am sorry to be accessory to compulsory total exclusion of children from industry until they attain the age of 14. Writing of the half-timer in 1914, I then expressed the view that the school age for leaving should be raised to 15, that half-time age should be raised to 13 and total exemption should be allowed by the then available means at the age of 14. I admitted, the half-time system, because I thought then, as I think now, that a child's entry into industrial or commercial life was, at the commencement, more an education than a means of livelihood, and that the blending of education in school and education outside the school was wholly commendable. This blending will be attained in the continuation school system, but I am still of opinion that consonant with the child's physical well-being, and the machinery for this is yet in defect, the sooner the young and plastic mind is directed towards its ultimate absorption, the easier will be the struggle for self dependency.

In previous reports I have expressed the advantages there are to be derived from holding the dual office of Certifying Factory Surgeon & School Medical Officer. Sections 63 and 64 of the Factories & Workshops Act, 1901, state that a person under the age of 16 years must be certified by the certifying Factory Surgeon as not being incapacitated by

disease or bodily infirmity from working daily for the time allowed by law in the factory named in the certificate. The certificate may be qualified by conditions as to the work on which a young person is fit to be employed.

The meaning of the word incapacitated, according to the dictionary, is rendered incapable, or disqualified. A girl suffering from tubercular cervical adenitis is by no means rendered incapable of spinning or weaving cotton, although manifestly in her own interest she should be disqualified by refusal of a certificate. Again if she is granted a qualified certificate there are no means of withdrawing the qualification, or of amplifying it, should it be desirable by means of cure or further involvement, to do either.

The interpretation of the word incapacitated is left to the discretion of the certifying surgeon, and in times past there was not wanting evidence to show that the construction put upon the wording of the Act was that, so long as a child by physical effort could carry out the task which was allotted at the time of presentation for certification, a certificate should be granted. Only such logic can account for the presence in industry of manifest physical defectives. It probably did not occur to some certifying surgeons that an easy task is often the prelude to a harder task.

The conditions for proper physical examination in some factories could not well be worse. The grinding machinery of a spinning mill and the clatter and din of shuttles in a weaving mill, provide even the remote corners of such premises with distracting and disturbing influences, wholly prejudicial to proper examination. Often the only place a mill provides for medical inspection is the general office. In other mills the provision is worse still. One cannot strip a girl where privacy does not exist and the tendency of such lack of facility for making an honest medical survey, is to make the certification examination a parade in which the grossly crippled child is caught, but the child with scoliosis, the child with abundant roles in the chest, and other defectives, escape through the very large meshed net used in prevention. Happily, where the offices of School Medical Officer and Certifying Factory Surgeon are combined, the difficulty of proper certification, outlined above, is overcome, because the child's physical condition is already known to the certifying surgeon.

A number of factories now have welfare departments with zealous welfare superintendents. In such establishments proper physical examination is possible. Co-operation between the Certifying Factory Surgeon and the Superintendents of Welfare Schemes is essential to get

the best physical results. Encouragement in such a scheme of co-operation would appear to be wanting, except such as has spontaneous origin in the zeal of the officers concerned. No comprehensive effort has been made by factory owners, or management, on the one hand, and Government Departments on the other hand, to bring about a co-operative movement which conceivably would be of enormous benefit to the health of the workers. The Factory Surgeon and the School Medical Officer should be concerned not only in preventive work at the outset of factory life, but should exercise a supervisory influence on the health of the workers throughout factory life. And it should be possible for the Certifying Surgeon to prohibit or modify employment where he has reason to think it prejudicial to health as it is possible for the School Medical Officer to prohibit or modify the work of employed school children. Work and the associated conditions, have sufficient influence upon vitality to call for some organised investigation. None exists so far as I know. The new record cards of panel patients cannot supply what a routine inspection at intervals would supply. It is not sufficient for Government Departments to issue advice on the desirability of this, that, and the other. They must make obligations. In fact the time has arrived when the office of Certifying Surgeon should be recast. The present duty of original certification should be delegated to the School Medical Officer and the Certifying Factory Surgeon should supervise the health of the workers on the lines of the medical inspection of school children.

Such co-operations as I have been able to carry out in my capacity of Certifying Factory Surgeon has been the re-examination at intervals of children & young persons the physique of whom has been in question for certain work. As School Medical Officer I have provided cleansing facilities for unclean children. I have granted certificates of fitness to verminous persons who have consented to come forthwith to the department of the School Medical Officer and be cleansed. In this connection use has been made of the special comb already mentioned in the report. The procedure has the advantage of avoiding cessation of work consequent upon refusal to certify and the attendant dislocation of factory organisation by deprivation of labour. It is astonishing how many children, who have been refused certification on account of uncleanliness do not again present themselves for certification when clean. They are invariably given such an opportunity. Whither they go and what becomes of them, I have no means of telling. Whether they go into occupations where certification is unnecessary rather than cleanse themselves, such occupations as domestic service, restaurant service, shop service, or go to other districts in which a less exacting form of inspection takes place, cannot be stated. It may be wondered why mill management engages verminous children. It does, however, engage verminous

persons although in this district it must know the inevitable result. I think it is highly probable no examination is made of the hair when engaging of workers takes place. A remedy is obvious where welfare schemes are in operation. The welfare superintendents, in co-operation with the School Medical Service, should engage the workers; yet I know of mills in which very competent welfare superintendents have no part in the engaging of workers, this duty being done by over-lookers. Another direction in which co-operation of Certifying Factory Surgeon, School Medical Officer and Factory Welfare work, has been achieved to a limited extent is the provision of expert ophthalmological treatment for children in factories suffering from defective vision. The provisions of the School Clinic have been afforded in this respect, and payment for glasses has been recovered from the employers. Persons for whom this arrangement is available are between the ages of 14 and 16 years, and their participation in this provision of the Local Education Authority is regularised by the Education Act of 1918.

During 1920 in the Combined districts of Swinton and Worsley, there were examined for purposes of granting certificates of fitness to work in factories and workshops 938 persons, in sex and age groups as under :—

	BOYS	GIRLS
Over 12 and under 13	30	61
„ 13 „ 14	167	246
„ 14 „ 16	136	298
	—	—
Totals	333	605
	—	—

Of these 938 persons 55 or nearly 6%, were rejected for physical defects as under :—

	BOYS	GIRLS
Uncleanliness	1 (0.3%)	28 4.6%
Tuberculosis	5 (1.5%)	3 0.4%
Deformity (including rickets)	4 (1.2%)	3 (0.4%)
Heart Disease	2 (0.6%)	— —
Ear, Eye, and Throat affections	4 (1.2%)	2 (0.3%)
Debility, etc.	2 (0.6%)	— —
Scabies	1 (0.6%)	1 (0.1%)
	—	—
	18 (5.4%)	37 (6.1%)

To anyone interested in the figures, I would like again to emphasise the fact that they are based upon a broad interpretation of the meaning of the word incapacitated in the Act. I do not think that all physically defective children are incapacitated from working for the time allowed by law in a factory, but whereas a child with an incurable defect is not incapacitated, a child with remediable but untreated defective vision or verminous head is, in any opinion, incapacitated within the meaning of the Act, and on this assumption, I have acted. Happily, in many cases I have obviated rejection by offering the choice between treatment or refused certification.

Employment of School Children.

The bye-laws adopted by the Local Education Authority at the time of writing have not received the sanction of the Secretary of State.

No regulations governing the employment of children out of school hours have therefore been in force in the district, or are in force at the present time.

On April 1st, 1919, Sec. 13 of the Education Act of 1918, came into operation. This means that subsequent to that date it is illegal to

- (1) Employ children under 12 years of age ;
- (2) Employ children over 12* ;
 - (a) On Sundays for more than 2 hours.
 - (b) On any day in which they are required to attend school before school closing hours.
 - (c) On any day before 6 p.m., and after 8 p.m.

These regulations are subject to variation at the discretion of the L.E.A., whereby permission may be granted under certain circumstances for employment before school hours.

- (3) To employ children in street trading.

On August 8th, 1918, Sec. 15, of the Education Act of 1918, came into operation. It provides as follows :—

- (1) The L.E.A. if they are satisfied by a report of the School Medical Officer or otherwise, that any child is being employed in such a manner as to be prejudicial to his health or physical development, or to render him unfit to obtain the proper benefit from his education, may either prohibit or attach conditions as

*The expression " child " means a person under the age of 14 years

they think fit to his employment in that or any other manner, notwithstanding that the employment may be authorised under the other provisions of this Act, or any other enactment.

- (2) It shall be the duty of the employer and the parent of any child who is in employment, if required by the L.E.A. to furnish to the authority such information as to his employment as the authority may require, and, if the parent or employer fails to comply with any requirement of the L.E.A., or wilfully gives false information as to the employment, he shall be liable on summary conviction to a fine not exceeding forty shillings.

It is clear, therefore, that the efficient administration of these two Sections imposes upon local education authorities some administrative machinery.

The regulations for employment of school children adopted by the Swinton and Pendlebury Authority, and which are awaiting the sanction of the Home Office, impose the following obligations :—

(a) The employer shall send a written notification to the L.E.A., stating his own name and address, and the name and address and date of birth of the child, the occupation in which, and the place at which the child is employed, and the times at which employment begins and ends.

(b) The L.E.A. shall issue to each child in respect of whom such notice is given an "Employment card," which he must be possessed of for inspection during employment.

(c) On this card the L.E.A. shall cause to be entered the name and address and date of birth of the child, the occupation in which and the times between which the employment of the child is permitted.

(d) The child shall be employed only within the times mentioned in the card.

(e) The employer shall fix in a prominent position in the place in connection with which the child is employed, a notice showing the name, address, and date of birth of the child, the occupation at which and the precise times within which the child is employed.

Subject to the foregoing provisions a child between the ages of 12 and 14 may be employed before school for not more than one hour, viz., from 7 a.m. to 8 a.m., in the sale or delivery of milk or newspapers, subject to the following conditions :—

- (a) Certification of physical fitness by the School Medical Officer.
- (b) Curtailment of evening occupation by one hour.
- (c) The child must be provided, at the expense of the employer, with waterproof footwear and garments for use during employment as a protection against inclement weather.

The School Medical Officer is therefore concerned particularly in supervising the health of all employed school children, but in the case of children employed in the sale or delivery of milk or newspapers before school hours, he is called upon to perform the specific duty of certifying that the proposed occupation will be prejudicial neither to health nor education. If in the course of supervising the health of employed school children, the School Medical Officer has reason to think that a child is being employed in such a manner as to be prejudicial to physical health or development, or to render him unfit to obtain proper benefit from his education, he may prohibit or attach such conditions to the child's employment as he thinks fit.

In the conduct of the work of supervision the Local Education Authority could model advantageously their procedure on that of certification of fitness for employment in factories and workshops.

Employers of labour would apply to the Education Offices for registers in which the information necessary to be obtained from the employer would be entered in separate columns. The presentation of the register to the Local Education Authority by children concerned with the information required to be supplied by the employer, already entered, would be the written notice of the employer. This register would be submitted, with information corrected to date, to the Education Offices, every six months.

A central register of all employed children would be kept by the L.E.A. for purposes of supervision by their School Medical Officer, attendance officers, and other officers of the authority, and the entries would be amended by information derived from the half-yearly submission of employers' registers, and by action of the School Medical Officer in prohibiting or modifying the employment of a child.

Employers' registers and the central register would contain columns for cancellation of permission to employ, conditions imposed on employment, and medical certification before employment, where in the case of morning employment this was obligatory.

Remaining necessary provisions are the child's employment card and the notice in the premises of the employer.

This suggested method of administration does not appear to present much complication, and could be conducted in the office of the School Medical Officer, who would appear to be the official principally concerned.

TABLE I.
ROUTINE MEDICAL INSPECTIONS

Age.	ENTRANTS.			
	3	4	5	Total.
Boys	36	70	161	267
Girls	38	64	122	224
Totals	74	134	283	491

Age.	Leavers.				Intermediate Group. 8	Grand Total.
	12	13	14	Total.		
Boys	278	8	—	286	209	762
Girls	243	12	—	255	234	713
Totals	521	20	—	541	443	1475

	Special Inspect- ions. Special Cases.	Re-examination (i.e., No. of Children re-ex- amined.)	No. of Inspections
Boys	658	457	1592
Girls	693	489	1010
Totals	1351	946	2602

No. of Individual Children Inspected, 2826.

TABLE II.
RETURN OF DEFECTS FOUND IN THE COURSE
OF MEDICAL INSPECTION 1920.

DEFECT OR DISEASE.		Routine Inspections.		Specials.	
		Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
SKIN	Ringworm—				
	(Head)	1	—	16	—
	(Body)	—	—	6	—
	Scabies	8	1	66	—
	Impetigo	8	—	177	—
EYES	Other Diseases ..	19	—	124	—
	Blepharitis	15	—	31	—
	Conjunctivitis ..	2	—	42	—
	Keratitis	1	—	1	—
	Corneal Ulcer ..	1	—	—	—
EAR	Corneal Opacities ..	2	—	1	—
	Defective Vision ..	79	5	29	—
	Squint	10	8	38	—
	Other Conditions ..	—	—	11	—
	Defective Hearing ..	2	15	—	2
THROAT & NOSE	Otitis Media	11	—	62	1
	Other Ear Disease ..	—	—	—	—
	Enlarged Tonsils ..	124	10	42	1
	Adenoids	20	4	32	4
	Enlarged T's & A.'s ..	18	—	11	—
HEART AND CIRCULATION	Other Conditions ..	—	4	1	44
	Enlarged Cervical Glands (Non-Tubercular) ..	2	5	3	3
	Defective Speech ..	—	—	—	—
	Teeth	—	—	3	—
	Heart Disease—				
LUNGS	Organic	1	5	—	8
	Functional	—	3	—	2
	Anæmia	8	2	2	10
	Bronchitis	3	3	—	8
	Other Non-Tubercular Disease ..	1	1	2	9
TUBERCULOSIS	Definite Pulmonary ..	—	—	—	65
	Suspected	—	—	—	14
	Glands	2	—	1	20
	Spine	—	—	—	1
	Hip	—	—	—	2
NERVOUS SYSTEM	Other Bones & Joints ..	—	—	—	1
	Skin	—	—	—	—
	Other Forms	—	—	—	7
	Epilepsy	—	—	—	3
	Chorea	—	1	2	17
DEFOR-MITIES	Other Conditions ..	—	—	—	—
	Rickets	2	4	2	2
	Spinal Curvature ..	1	4	—	—
	Other Forms	4	—	4	5
	Other Defects or Diseases ..	14	19	52	101

Number of individual children having defects which require treatment or to be kept under observation 1389.

TABLE III.

Numerical Return of all exceptional Children in the area in 1920.

			Boys	Girls	Total
Blind (including partially blind, within the meaning of the Elementary Education Act, 1893)	Attending Public Elementary Schools		1	2	3
	Attending Certified Schools for the Blind		—	—	—
	Not at School		—	1	1
Deaf and Dumb (including partially deaf, within the meaning of the Elementary Education Act, 1893)	Attending Public Elementary Schools		1	3	4
	Attending Certified Schools for the Deaf		1	1	2
	Not at School		—	—	—
Mentally Deficient	Feeble-Minded	Attending Public Elementary Schools	2	6	8
		Attending Certified Schools for Mentally Defective Children	—	—	—
		Notified to the Local (Control) Authority by the L.E.A. during the year	3	1	4
		Not at School	6	—	6
	Imbeciles	At School	—	—	—
		Not at School	2	1	3
	Idiots		—	—	—
Epileptics		Attending Public Elementary Sch.	5	2	7
		Attending Certified Schools for Epileptics	—	—	—
		In Institutions other than Certified Schools	—	—	—
		Not at School	2	1	3
Pulmonary Tuberculosis		Attending Public Elementary Schools	7	16	23
		Attending Certified Schools for Physically Defective Children	—	—	—
		In Institutions other than Certified Schools	—	—	—
		Not at School *	—	—	—
Crippling due to Tuberculosis		Attending Public Elementary Schools	3	7	10
		Attending Certified Schools for Physically Defective Children	—	—	—
		In Institutions other than Certified Schools	—	—	—
		Not at School	1	1	2
Crippling due to causes other than Tuberculosis		Attending Public Elementary Schools	10	10	20
		Attending Certified Schools for Physically Defective Children	—	—	—
		In Institutions other than Cer.Sch.	—	—	—
		Not at School	4	—	4
Other Physically Defectives (e.g., Delicate and other Children suitable for admission to Open Air Schools. Children suffering from Heart Disease)		Attending Public Elementary Schools	6	14	20
		Attending Open Air School	7	4	11
		Attending Certified Schools for Physically Defective Children	—	—	—
		Not at School	1	2	3
Dull or Backward		Retarded 2 years	23	27	50
		Retarded 3 years	7	4	11

*All Children with Pulmonary Tuberculosis attended School at some period of 1920.

TABLE IV.
TREATMENT OF DEFECTS OF CHILDREN DURING 1920.

A.—TREATMENT OF MINOR AILMENTS.

Disease or Defect.	No. Referred for Treatment.	No. Treated.		Total.
		Under L.E.A. Scheme.	Otherwise.	
SKIN { Ringworm (Head).....	17	15	2	17
" (Body).....	6	6	—	6
Scabies	75	73	2	75
Impetigo.....	185	182	3	185
Other Skin Diseases	143	130	5	135
Minor Injuries	14	6	5	11
Ear Disease	90	59	5	64
Eye Disease	104	87	5	92
(external or other)				
Miscellaneous	71	54	17	71

B.—TREATMENT OF VISUAL DEFECT.

Referred for Refraction.	No. submitted to Refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recomm'nd'd for treatment other than by glasses.	Received other forms of treatment.	For whom no treatment was considered necessary
	Under L.E.A. Scheme (Clin. or Hospital).	By private Practitioner or Hospital.	Otherwise.	Total.					
262	219	27	—	246	173	173	3	3	70

C.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Referred for Treatment.	No. who received Operative Treatment.			No. who received other forms of Treatment.
	Under L.E.A. scheme (Clinic or Hospital).	By Private Practitioner.	Throat.	
248	114	58	172	16

TABLE V.
SUMMARY OF TREATMENT OF DEFECTS AS SHOWN IN TABLE IV.

Disease or Defects.	No. referred for Treatment.	Treated.		
		Under L.E.A. scheme.	Otherwise.	Total.
Minor Ailments	705	612	44	656
Visual Defects	262	219	27	246
Defects of Nose & Throat	248	114	74	188
Dental Defects.....	—	—	—	—
Other Defects	—	—	—	—
Total	1,215	945	145	1,090

TABLE VI.

Summary relating to children medically inspected at the Routine Inspections during the year 1920.

(1) The total number of children medically inspected at the Routine Inspections	1475
(2) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear), who require to be kept under observation, but not referred for treatment	96
(3) The number of children in (1) suffering from :—	
Skin disease	37
Defective vision, including squint	102
Eye disease	23
Defective hearing	17
Ear disease	11
Nose and Throat disease	180
Enlarged Cervical Glands (non tubercular)	7
Defective speech	—
Dental Disease	—
Heart disease—Organic	6
„ „ Functional	3
„ „ Anæmia	10
Lung disease (non-tubercular)	8
Tuberculosis :—	
Pulmonary—Definite	—
„ Suspected	—
Non-Pulmonary Tuberculosis	2
Disease of the Nervous System	1
Deformities	15
Other Defects or Diseases	33
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	359
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	227



