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FOURTEENTH  
ANNUAL REPORT  
ON THE  
HEALTH OF SALFORD,


BY  
DR. J. TATHAM, S.Sc.CERT., CAMB.,  
MEDICAL OFFICER OF HEALTH; AND  
MEDICAL SUPERINTENDENT TO THE FEVER HOSPITAL.

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1882.

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*Town Hall, Salford,*

*August 13th, 1883.*

TO THE GENERAL HEALTH COMMITTEE.

GENTLEMEN,

I beg herewith to present to you my Report on the Health of Salford, for the year 1882.

The Report would have been in your hands much earlier in the year, but that I have been waiting from month to month for the result of the last Census enumeration, in order to correct the estimate of the Salford population at the various age groups.

A new and amended classification of the causes of death, which is understood to have received the sanction of the Royal College of Physicians, having been recently issued by the Registrar General,—I have inserted a copy of it in page 34 of this report. There is every reason to believe that this improved and duly authorised nomenclature of disease will be welcomed by practitioners generally, as tending to augment the scientific value of the statistical information concerning disease and mortality, which they gratuitously supply to the State.

I beg once more to offer my hearty thanks to those who have assisted me during the year, in my efforts to improve the Public Health. As in past years, I record with great pleasure my obligation to the Editors of the Manchester and Salford papers, for the generous help they have rendered the cause of Public Health, by the publication, *in extenso*, of my periodical returns.

I remain, Gentlemen,

Your obedient Servant,

JOHN TATHAM.





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UP IN CONFORMITY WITH THE LOCAL GOVERNMENT  
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# REPORT.

## 1. *An Account of the Sanitary condition of Salford.*

The happy announcement with which I was able to preface my last Annual Report, as to the satisfactory condition of the Public Health in that year, will apply with equal appropriateness to the year under present notice, which terminated on the 31st of December, 1882.

SECTION

Public Health.

Whether measured by the general rate of mortality, or by that from those special diseases, the prevalence of which is generally accepted as a test of sanitary condition, the Health of Salford, throughout the year 1882, has been maintained at an exceptionally high standard. The deaths occurring amongst Salford residents during the year were equal to an annual rate of 23·2 per 1,000, which exceeds the unprecedentedly low rate of the previous year by 0·7 only; whilst, as compared with the average of the annual rates recorded in Salford during the preceding 17 years, the rate of mortality in 1882 was lower by not less than sixteen per cent.

The mean temperature\* of the year was 49·6° Fahr. which is higher by 1·3° than that of 1881, and also higher by one degree, as compared with the average of the annual mean temperatures of the preceding ten years. The mean temperature at Greenwich was almost identical (49·7) with that in Salford. Rain fell in Salford on 230 days of the year, to the aggregate measure of 41·4 inches, which exceeds by not less than 16·1 inches the Greenwich rainfall during the same period, and by 3·5 inches the rainfall in Salford during 1881.

Meteorology.

The seasonal variations of mortality have been much less marked during 1882 than in the immediately preceding year. This is attributable to the mildness of the spring and winter quarters, and the absence of excessive heat in the autumn. In the spring quarter, the rate was equal to 24·8 per 1,000, or 15 per cent. below the average in the ten previous corresponding quarters. In the summer quarter it was 23·0, or 9 per cent. below; in the autumn quarter 24·3, or 8 per cent. below; and in the winter quarter 21·1, or 25 per cent. below the decennial average rate.

Seasonal variation of mortality.

For comparison with the Salford rates of mortality, in present and past years, I have extracted from the Returns of the Registrar-General, the rates of mortality occurring in certain other large towns in this division of England, the population of which consists, in the aggregate, of little less than one

Local variation of mortality.

\* The usual Meteorological Table will be found in the Appendix.



SECTION I. million and a half. The table given below\* shows that, as compared with the previous ten years, a notable decrease in mortality has been achieved in every one of these large centres of population, and it is satisfactory to observe the relative position which Salford occupies in the list.

II. *Preventible Disease:—Summary of the action taken during the year for limiting its spread.*

A. Prevalence of Infectious disease.

B. Preventive measures.

Power of control  
over infectious  
disease.

**Prevalence of Infectious Disease.**—Of the 5,000 cases of infectious sickness which, in round numbers, probable occurred in 1882, not more than one case in four was reported at this office; consequently the power which the department possessed over the spread of disease of this character, was proportionately limited.

Inquiries into the circumstances attending the occurrence of 1,261 cases of infectious sickness were made by the Sanitary Inspectors; 72 of these were cases of Small Pox, 154 of Scarlet Fever, 12 of Diphtheria, and 301 of Fever,—539 in all—the isolation of which was desirable in the interests of the Public Health. Of these, 216 patients, or 40 per cent. were removed to Hospital, and in each instance a thorough disinfection of the house and premises was subsequently effected.

Miasmatic  
diseases.

**Specific Febrile Diseases or Zymotics.**—Of the six† more familiar diseases of this class, known as “Miasmatic,” 1,261 cases were reported to the Health Department during the year.

The death register, however, records the deaths within the

\* Annual Rate of Mortality in six great English towns, during the last eleven years.

	Annual Rate of Mortality.		Decrease per cent. in 1882.
	Ten years, 1872-81.	1882.	
Manchester .....	29·0	26·7	7·9
Oldham .....	26·1	24·6	5·7
Bradford .....	24·6	21·2	13·8
Leeds .....	25·3	23·2	8·3
Sheffield .....	24·8	21·7	12·5
Salford .....	27·2	23·2	14·7

† See foot note, page 35.



same period, of 499 persons from these diseases. Unless, therefore, we are prepared to accept the proportion of two deaths in every five attacks as the average mortality to which infectious maladies give rise, the conclusion seems inevitable, that of the total number of sick cases that occur, the Health Department receives information with respect to only a very small and inadequate proportion ;—and this, viewed from a preventive standpoint, discloses a state of things the reverse of satisfactory.

## SECTION II.

The rate of mortality due to the above-mentioned miasmatic diseases in Salford, was equal to 270 per 100,000 last year, as compared with 390, the mean of the annual rates in the preceding decennium. The Quarterly returns of the Registrar General furnish the means of comparing the Salford rates of mortality from Infectious diseases with those obtaining in the great English towns, and in other parts of England and Wales.

Prevalence of  
Miasmatic  
diseases through-  
out England and  
Wales.

From a table\* which I have prepared from these returns, it appears that throughout the country generally, the incidence of infectious disease during the past year has been unusually light ; this happy result being due to meteorological conditions, of the nature of which we know little, but which seem to determine the prevalence of such diseases. Salford, however, stands very fairly in the list, for her miasmatic rate is lower than the average rate of the 28 great towns of England, many of which enjoy natural advantages which Salford does not possess.

The table (J) on page 49 shews the rate of mortality due to each of the six miasmatic diseases in Salford, in each of the last eighteen years ; and at the top of the table, the years are grouped in quinquennial periods, in order to facilitate comparison. The table is most instructive, and indicates very clearly how sensitive a test these infectious diseases form of sanitary condition. To take for instance one of the diseases, "Fever," which is generally allowed to be the most reliable index of all in this respect, we find by the table, that in the five years 1867-71, the Fever rate per 100,000† of the population was 126, in the next five years it was 69, in the succeeding five 58, and in the year 1882 it fell to 34 per 100,000 people living. If the mortality from all the six miasmatic diseases be summarised, a gradual although relatively smaller reduction will be observed. In the first quinquennium, the total miasmatic rate was equal to 489 per 100,000, in the second to 439, in the third to 342, and in the year 1882 it did not exceed 271 in the same number of the population.

"Fever," gradual  
decrease of  
mortality from.

**Small Pox.**—In a former report, I drew attention to the fact that, after a period of almost complete immunity from small pox, extending over four years, 16 cases of small pox occurred in Salford in rapid succession within the last few weeks of 1881 ; the infection having been imported from out-

Importation of  
Small-pox.

\* See page 35.

† The rates given in the table are per 1,000 of the population, by shifting the decimal point two places to the right, the figures will of course apply to 100,000.



SECTION II. side the borough, in the person of an unvaccinated child, whose mother had died of small pox at Newton Heath, only three days previously. Although 11 out of these 16 cases were promptly removed to hospital during 1881, the disease was not stamped out of the borough until the end of the second quarter of 1882, 69 cases having been reported within the first six months of the year, of which 60 were removed to hospital. Since this date, however, only three cases have occurred, and these were sporadic cases introduced from other towns.

Severe type of Small-pox. The mortality amongst the above cases was very severe, for out of the 88 cases which occurred during the nine months ending June, 1882, not less than 25 died; thus showing that, in point of severity, the disease was present in a form quite capable of indefinite spread, under favourable conditions; and I do not think I shall be wrong in assuming that the prompt and effective action, which the circumstance of our possessing hospital accommodation enabled us to take, was instrumental in cutting short an epidemic, which, in default of such isolation, would probably have reached proportions not less frightful than those of the terrible periods of 1871 and 1876.

Measles. From the table on page 42 it appears that measles was the most fatal of all the infectious diseases during 1882. As far as can be judged from the death roll, it was exceptionally prevalent during the first six months, and only returned to its normal proportion towards the end of the year.

Scarlet Fever. For many years past, scarlet fever has been the most fatal of all the miasmatic diseases, but last year it gave place to measles, accounting for 81 deaths only during 1882, as compared with 200, the corrected annual average. Whooping Cough was somewhat less fatal than usual, causing 152 deaths during the year, against a corrected average of 170.

Whooping ough. I have frequently pointed out, that the rate of mortality from these only too familiar diseases, forms no reliable measure of their numerical prevalence. With a view of obtaining some data which would enable me to give more adequate expression to the havoc, and the great amount of suffering to which these incessant scourges of infant life annually give rise, I kept a careful record, during the successive quarters of 1881-2, of all the cases of scarlet fever, whooping cough, and measles coming under the treatment of the various medical charities of Salford, and also of the deaths occurring amongst these patients:—converting the latter into percentages of the former, the death rates were obtained, of which I have published particulars in my later\* quarterly reports.

Attempt to ascertain normal rate of mortality from Scarlet Fever and Whooping Cough

I fully recognise the danger of drawing conclusions with respect to rates of mortality, from an insufficient basis of facts; and I have no wish to claim for the results here set forth

\* Quarterly Health Bulletins, Nos. vii. and viii.



any further weight than that which should attach to conclusions legitimately based on careful experiment, the conditions of which are fully stated, and may easily be verified, if necessary. I would, however, ask attention to the following distinctive features of these observations, which, in my judgment invest the results with a peculiar interest to the practical sanitarian:

1. The calculations are based on a considerable number of observations, extending over two years.

2. The majority of the patients were treated at their own homes;—the cases were therefore not in any sense selected, or hospital cases; but on the contrary, were such as may be considered typical of the diseases, respectively, in their normal and prevalent form.

3. The rates represent the proportion of deaths to cases treated, and consequently the element of uncertainty attaching to rates based on estimates of population, is eliminated here.

The cases of sickness observed during the two years numbered 1,418, namely, 270 of scarlet fever, 664 of whooping cough, and 484 of measles. The facts were in all cases extracted with the greatest care in this office, from the admission books and the duplicate certificate books of the public Institutions referred to. The observed mean rates of mortality, expressed in percentages of cases treated during the year, were as follows:—

Scarlet Fever.....	12.1 per cent.*
Whooping Cough.....	9.8 „

In the case of measles the rates of mortality were so discrepant, varying in the several quarters from nil up to 14, and even 23 per cent., that I hesitate to assign—as even an approximate to the normal mortality for this disease—a mean which, based upon such discordant averages, could not be otherwise than fallacious.

The circumstances which regulate the fatality of measles are not accurately known, and the wide variation in its mortality is by no means accounted for by differences in the so-called “sanitary condition” of the patients, or in their constitutional organisation, or even in the treatment to which they are subjected. Measles fatality

Under ordinary circumstances, every mother knows that measles is a comparatively mild disease, requiring simply protection from cold in order to ensure recovery; and yet most medical men can speak of periods in their practice when the disease has behaved far differently. I well remember the time when, amongst patients treated in well ventilated and carefully warmed hospitals, in spite of all the aid which skilled nursing and medical art could render, the fatality was nothing short of alarming.

\* I desire particularly to insist, that these rates are provisional merely, and simply express the proportional mortality observed by me under the circumstances above stated. The investigation with respect to the mortality of infectious diseases is still proceeding, and the results, corrected by future experience, will become more reliable from year to year.



## SECTION II.

I know of no subject within the range of preventive medicine, more worthy of careful and exhaustive investigation, than that herein referred to.

Enteric Fever  
outbreak in  
Broughton Park  
and Cheetham  
Hill.

**Enteric Fever in Cheetham Hill.**—During the last three months of 1882, an unusual prevalence of enteric fever was reported in certain houses in Broughton Park, and the neighbourhood adjoining. Eleven houses in all were invaded, four patients being attacked in one house, two in each of three others, and one in each of the remaining houses. The disease is not known to have been exceptionally prevalent in other parts of the borough at this period, and the death register furnishes no evidence of its excessive fatality. As the first few families affected obtained their milk from the same source, suspicion naturally fell on that commodity, as the probable vehicle of infection. The most careful local scrutiny, however, failed to fix the blame, either on the purveyor of the milk, or on the farmers who supplied it, and other cases subsequently occurred which could not have originated in a common milk supply. The sanitary condition and drainage arrangements of the houses were carefully examined; but, although in a few cases, the water closets were faulty, it was found impossible to connect the general spread of the fever with defective house drainage. In certain instances, there certainly existed grounds for believing that sewer gas had obtained access to the houses, by means of imperfectly constructed and unventilated water closets; but I may state generally, that in the majority of cases I was unable to account for the spread of the disease, either in this way, or on the supposition of a common origin, although the progress of the fever, from the first case onwards, was watched with anxious care, both by the sanitary inspector and myself. I may add, that in making these investigations I received most valuable assistance from Dr. Buckley, the able and courteous Health Officer of the district in which the milk farms were situated.

Isolation of infectious disease.

**Preventive Measures.**—With respect to the action which a sanitary authority should take for the fulfilment of that most important of its duties, namely, the suppression of infectious disease, Salford can give a satisfactory account of herself. Amongst the great English boroughs which have always shewn an intelligent appreciation of the spirit of the Public Health Act, Salford occupies a foremost position, for she has recently obtained powers for the compulsory notification of infectious disease, and has also wisely provided herself with those means for the isolation of the sick in hospital, the possession of which, as a preliminary, could alone have justified an application for such powers, and which form the only effectual means of controlling the spread of infection amongst the masses of the people. As the powers above referred to did not take effect until the end of the year under present review, no information is at present available as to their effect on the public health. The



means of isolation provided by the Committee have done good service in Salford during the year. The epidemic of small pox having thus undoubtedly been cut short, and a number of cases of other infectious diseases removed from the homes of the people, mainly of the poorer class, amongst whom these complaints are known to spread with such alarming rapidity.

**Fever Hospital Report.**—During the year under present notice the Salford Health Department has provided isolation for 216 patients; of these 139 were admitted into the Wilton Hospital, and 77 sent to Monsal. Of the total admissions 165 were discharged cured, 23 remained in Hospital at the end of the year, and 45 died. The ages of the patients, and the diseases from which they were suffering, are shewn in the accompanying table.\*

The following figures show the cost of maintenance of the Wilton Hospital during the year:—

	£	s.	d.
Salaries of Resident Medical Officer and Matron..	250	0	0
Wages of Nurses .....	548	12	0
Rates, Taxes, and Insurance .....	147	12	6
Coal, Gas, Water, and Cleaning Materials .....	307	17	8
Meat, Provisions, and Groceries .....	663	12	11
Medicine and Stimulants .....	210	16	11
Repairs .....	155	18	10
Provender and Farriery .....	49	19	11
Printing, Stationery, etc. ....	13	3	1
Collecting Hospital Charges .....	11	17	10
Furniture for Residential House .....	38	19	3
Stamps and Sundries .....	33	15	11

£2,432 6 10

**Disinfection of Bedding.**—During the year 167 parcels of infected bedding were either disinfected by prolonged boiling in water, or destroyed by fire; this latter course having been necessary in a large number of cases, because of the untrustworthiness of the stove in use at the present time. It gives me pleasure to note that in consequence of my representations to this effect, the Health Committee have decided to provide themselves with a disinfecter on the most improved principles, which will thoroughly disinfect by means of super-heated steam, whatever fabrics may be submitted to its action, the process being attended with the greatest economy both as to cost and time. A large disinfecter is now in course of erection within the Hospital enclosure in Cross Lane, which when complete will fully and efficiently meet the requirements of the Borough in this most important particular.

**Exposure of Infected Persons.**—The following case, which is unfortunately not an isolated one, shows how necessary it is that careful supervision should be exercised by the Sanitary Authority, in order to check the almost unlimited spread of

SECTION II.

Admission of patients in 1882.

Hospital expenditure.

Conveyance of infected persons in cabs.



# HOSPITAL REPORT FOR THE YEAR 1882.

(52 Weeks ending December 30th, 1882.)

	WILTON HOSPITAL.				MONSAL HOSPITAL.				Total.
	Males.		Females.		Males.		Females.		
	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	
I.—Patients remaining in Hospital on Dec. 31st, 1881, affected with									
Small Pox .....	..	..	1	2	..	..	..	..	3
Measles.....	..	2	..	..	..	..	..	..	2
Scarlet Fever .....	3	..	3	2	..	..	..	..	8
Enteric Fever .....	..	2	..	..	..	..	..	..	2
Erysipelas.....	..	..	..	1	..	..	..	..	1
Other Acute Diseases.....	..	..	..	1	..	..	..	..	1
Total .....	3	4	4	6	..	..	..	..	17
II.—Admitted during the 52 Weeks ending Dec. 30th, 1882, affected with									
Small Pox .....	..	1	..	..	1	23	3	32	60
Measles.....	2	2	1	3	..	1	1	..	10
Scarlet Fever .....	15	14	5	22	2	..	2	1	61
Diphtheria .....	..	..	..	..	..	..	..	1	1
Typhus Fever .....	1	4	..	8	..	2	..	..	15
Enteric Fever .....	1	24	..	23	1	3	..	1	53
Simple Continued Fever ..	..	..	..	2	..	..	..	..	2
Erysipelas.....	..	2	..	..	..	..	..	2	4
Pertussis .....	..	1	..	..	..	..	..	..	1
Other Acute Diseases.....	1	3	..	4	..	1	..	..	9
Total .....	20	51	6	62	4	30	6	37	216
Total under Treatment in 1882	23	55	10	68	4	30	6	37	233
III.—Of the above there were discharged recovered from									
Small Pox .....	..	1	1	2	..	17	1	29	51
Measles.....	1	4	1	2	..	1	1	..	10
Scarlet Fever .....	13	12	7	20	1	..	1	1	55
Diphtheria .....	..	..	..	..	..	..	..	1	1
Typhus .....	1	1	..	1	..	2	..	..	5
Enteric .....	..	13	..	12	1	2	..	1	29
Simple Continued Fever ..	..	..	..	2	..	..	..	..	2
Erysipelas.....	..	2	..	1	..	..	..	2	5
Other Acute Diseases.....	1	1	..	4	..	1	..	..	7
Total .....	16	34	9	44	2	23	3	34	165
IV.—Died from									
Small Pox.....	..	..	..	..	1	6	2	3	12
Measles.....	1	..	..	..	..	..	..	..	1
Scarlet Fever .....	3	..	1	1	1	..	1	..	7
Typhus .....	..	2	..	6	..	..	..	..	8
Enteric Fever .....	1	7	..	5	..	1	..	..	14
Other Acute Diseases.....	..	2	..	1	..	..	..	..	3
Total .....	5	11	1	13	2	7	3	3	45
V.—Remaining in Hospital on Dec. 31st, 1882, affected with									
Measles.....	..	..	..	1	..	..	..	..	1
Scarlet Fever .....	2	2	..	3	..	..	..	..	7
Typhus Fever .....	..	1	..	1	..	..	..	..	2
Enteric Fever .....	..	6	..	6	..	..	..	..	12
Pertussis .....	..	1	..	..	..	..	..	..	1
Total .....	2	10	..	11	..	..	..	..	23
Total under Treatment in 1882	23	55	10	68	4	30	6	37	323



infection. In the early part of the year, just as we were getting the better of the small-pox epidemic, by careful isolation and attention to every case as it occurred, a report was made to me by Inspector Buxton, of Pendleton, on the 30th of March, that a patient suffering from small-pox had been conveyed in an ordinary cab from Broughton Road, Pendleton, to Cross Lane, Salford; the father of the patient having chartered and discharged the cab, without either informing the driver of the nature of the case, or taking any other precaution to prevent the spread of infection. Luckily the matter came to the knowledge of the Inspector before any mischief was done, and the cab was detained, stripped of its lining, and thoroughly cleansed before subsequent use. In this case the Health Committee decided to make an example of the offender, and proceedings were taken which resulted in his being fined 40s. and costs, with the alternative of a fortnight's imprisonment.

## SECTION II.

III.—*An account of inquiries made by the Medical Officer of Health, as to conditions injurious to health existing in the Borough, and of the proceedings taken by his advice for the abatement of such conditions.*

The special enquiries which have been made from time to time as to conditions injurious to health in Salford, have been reported by the Medical Officer of Health to the Health Committee at their fortnightly meetings, but as these reports were carefully considered and acted upon by the Committee at the time, it would serve no useful purpose to reproduce them in detail.

Fortnightly reports of Medical Officer to Health Committee.

There remain, however, certain conditions of a more general character, which exercise a permanently depressing and baneful influence on the people's health, to which attention may properly be recalled in this place. Many and indeed most of these conditions have formed the subject of previous reports, but I think it necessary again to revert to them here, in order on the one hand, that I may record any improvement which may have resulted from the action of the Council, and, on the other, that the more pressing of these injurious influences still remaining unaltered, may be steadily kept patent to their view.

**Want of Medical Aid in Sickness.**—Of the 4,265 deaths registered during the year, 3,810,\* or 89·3 per cent, were attended in their last illness by a registered medical practitioner; 193, or 4·5 per cent, were buried by order of the Coroner; and 262 persons, or 6·2 per cent, died without medical attendance. It is unsatisfactory to find that, as compared with former years, the proportion of uncertified deaths is now increasing in Salford, the excess being most marked in the district of Regent Road. On page 15 of my last annual report, I offered some detailed remarks on the relation between uncertified deaths and coroners' inquests, to which the reader, who is interested in this subject, will do well to refer.

Uncertified deaths.

\* See table A on page 28.



**SECTION III. Illegitimacy, and Infantile Neglect.**—In former reports I have endeavoured to trace the connection between illegitimacy and the neglect of young children, which not unnaturally accompanies it. During the year 1882, there is no evidence that greater care than usual was taken of infant life generally in Salford, the proportion of deaths under one year to births registered being 177 per 1,000, as compared with 176 in the four preceding years. It appears,\* however (no doubt accidentally), that the death-rate of infants' illegitimately born was lower in 1882 than in former years. This subject also was fully discussed on page 16, *et seq.*, of my 1882 report, to which document I beg to refer the reader.

Open Sewer at  
Kersal.

**Singleton Brook.**—For several years past, complaints have been frequent at the Health Department, as to the Nuisance arising from the foul condition of the Singleton Brook, which forms the boundary between Broughton and Prestwich. In consequence of the great increase in the number of houses recently built in the neighbourhood of the Kersal Toll Bar, and especially in that part of the district to the south of Bury New Road, the nuisance had assumed such proportions in the early part of 1882, that the Broughton Committee found it necessary to direct serious attention to the matter.

New Sewer con-  
structed.

With a view of remedying this nuisance, the Borough Engineer has constructed a new sewer from the Bury New Road southward, to a point below the Dye Works, which intercepts the sewage from the houses in Bury New Road, and in the Mayfield and the St. Paul's Road respectively.

It should be mentioned, however, that most of the houses situate on the course of Singleton Brook, between the Bury Old and New Roads, still drain into this Brook; and although the sewage which they contribute is largely diluted with surface water which flows into the brook from Sedgley Park, it appears to me that it will eventually be found desirable to carry the present sewer further northward, so as to intercept the sewage from all the houses below the Bury Old Road, which at present discharge into the Singleton Brook.

Overcrowding of  
sublet houses.

**Overcrowding** is one of the greatest and most unmanageable evils with which in large towns like our own, a Sanitary Authority has to deal. There is little doubt that the spread of disease can in numerous instances be traced to this cause, and it is common information amongst medical men, that when once infection such as that as scarlet fever for instance, obtains entrance into a crowded family, it is pretty certain to spread to every member of it, who has not been protected by a former attack. The worst kind of overcrowding met with in Salford is that occurring in certain low class houses which although unregistered, are surreptitiously let in lodgings to persons of objectionable character, who have neither the wish nor, in many cases the means, to practise the most elementary habits of cleanliness. For many years past the supervision of these

\* See table B on page 29.



SECTION III. irregular and low class lodging houses, has monopolized far too large a share of the time of the Sanitary Inspectors, who in my judgment should be entirely relieved of this work.

Suggestions as to supervision of Lodging Houses.

The establishment of a fever hospital has so greatly increased the more strictly sanitary duties of the Inspectors, namely, those connected with the removal of infectious cases and the abatement of those nuisances which conduce to their spread, that I feel it necessary to state my conviction, that if the supervision of these lodging houses is still to be connected with the Health Office, the staff of Inspectors should be increased. I cannot, however, resist the conviction that this duty falls more naturally within the sphere of another department.

Tentative adoption of new powers for prevention of overcrowding.

A block of low class property, consisting of about 73 houses, near the Regent Road barracks, has long been exceptionally troublesome to the inspectors, on account of the persistency with which the people overcrowd their houses. This is the district unhappily notorious by the spread of typhus to such an alarming and fatal extent in the years 1880 and 1881. Towards the end of last year, however, I suggested to the Committee the expediency of applying to this property the 90th Section of the Salford Improvement Act, which provides that,—with respect to small dwelling-houses consisting of not more than four rooms, the Corporation may prescribe the number of persons by whom such rooms may lawfully be occupied, and may require the occupiers permanently to mark on such houses the number so prescribed. The Act makes it a punishable offence to permit the occupation of the aforesaid rooms by a greater number of persons than that allowed by the Corporation, and so brings within practical reach, a class of dwellings which beforetime were a source of considerable danger to the inhabitants.

The Health Committee having ordered that a trial of the above section should be made in this most suitable case, it will be interesting to watch the result, with a view to its extension to other and similar localities.

Smoke Nuisance.

**Atmospheric Impurity.**—I am sure that those who have the real welfare of the borough at heart, will approve the course I have taken, in persistently keeping this “burning subject” of atmospheric contamination before the public. In my last\* annual report I considered this question in some detail, with reference, not only to the effect of a smoke-laden atmosphere on the health of the people, but also to the means for the suppression of the smoke nuisance, which have been taken by the sanitary authority.

Particulars were likewise given of the number and mode of construction of the boilers and furnaces in use within the borough at the end of 1882. By comparing the subjoined table with that on page 12 of the above report, the proportion will be seen of properly constructed furnaces to the total number of such appliances in use, at the end of the two years respectively.

\* See Thirteenth Annual Report of Medical Officer of Health. Page 11.



## SECTION III.

Boilers and  
furnaces in use in  
Salford.

District.	Boilers and Furnaces.		Notices to properly construct Furnaces.	
	Properly constructed.	Improperly constructed.	Number served.	Number complied with
Borough, Total	378	250	149	70
Regent Road.	119	85	45	16
Greengate ..	90	99	55	25
Pendleton ..	153	52	41	23
Broughton ..	16	14	8	6

Nominal horse  
power.

The approximate nominal power of the above furnaces is equal to 19,342 horses; at the end of 1881 the number was 18,488. A number of old and imperfectly constructed boilers have been replaced by new and improved ones.

## BLACKSMITHS' FORGES IN THE BOROUGH IN 1882.

Borough, Total.	Regent Road.	Greengate.	Pendleton.	Broughton.
41	14	11	11	5

BAKEHOUSE OVENS HEATED BY FURNACES IN THE  
BOROUGH, 1882.

Borough, Total.	Regent Road.	Greengate.	Pendleton.	Broughton.
74	39	15	13	7

Action of Smoke  
Inspector.

During the year under notice, Inspector Thompstone has been most assiduous in his attention to the smoke nuisance. The table\* in the appendix shows the number of inspections made, and the action which has been taken for the abatement of the smoke nuisance. I have, however, previously drawn attention to the fact, that the area of the borough, extending as it does over eight square miles, is so large, that in order to keep this nuisance within reasonable check, the Health Committee will find it necessary to commit the supervision of the chimneys to an inspector whose undivided attention shall be directed to this duty.



IV.—*An account of the supervision exercised by the Medical Officer of Health, or on his advice for sanitary purposes, over places and houses which the Sanitary Authority has power to regulate; with the nature and results of proceedings required, and of the action taken with respect to them, during the year.* SECTION IV.

**“Dairies, Cowsheds, and Milkshops Order of 1879.”**—Within the short time that has elapsed since it came into force, this much needed Act has effected a most salutary change in the condition of the dairies and milkshops of Salford.

The following list gives particulars of the milkshops registered since the passing of the Act (1879):

	Borough.	Green-gate.	Regent Road.	Pendle-ton.	Brough-ton.
Number on Register, end of 1881.....	659	284	103	135	137
Registered during 1882 ..	82	42	8	3	29
Discontinued during 1882.	137	74	19	44	..
Still remaining on Register, end of 1882.....	604	252	92	94	166

It will thus be seen that at the close of the year 1882 there were 604 milkshops and dairies on the register. These have all been inspected at least three times during the year, and found, at the time of inspection, to have conformed to the recently issued requirements of the Corporation. Several notices have been issued under the new regulations, to improve the sanitary condition of the shops and dairies, or to ensure their effective separation from dwelling-rooms; and these have so far been complied with, either by discontinuing the sale of milk, or by structural improvements, that at the present time there exist only a few establishments in Salford, which do not comply with the requirements of the Corporation.

**New Regulations.**—The following are the Regulations made under the Act of 1879, by the Health Committee of Salford, as the Local Sanitary Authority:—

Regulations as to places used for the storage and sale of milk.

1. No room used for the storage or sale of milk shall be occupied as a living room, or communicate by door, window, or otherwise with any bedroom, *and the walls of such room must not be papered, but they may be either limewashed, coloured in distemper, or painted.*

2. Every milk vessel, table, bench, and all other utensils and furniture shall be washed and thoroughly cleansed every day.

3. The words “Registered for the Sale of Milk” shall be painted and kept clear and legible over the entrance door of every room used for the sale of milk.

4. All premises used for the sale of milk shall be open at all times to the inspection and examination of the officers appointed by the Local Authority for the purpose.



## SECTION IV.

5. Every cowshed shall contain for each cow a superficial area of not less than 42 square feet, nor less than 380 cubic feet of space. The sheds must have satisfactory provision for light and ventilation.

6. The floors of all cowsheds shall be of cement concrete, brick, stone, or other non-absorbent material, and the *joints* thoroughly grouted with cement.

7. All cowsheds shall be drained by means of an open channel which must be continued to the outside of the wall, and there deliver itself on a trapped gulley, or otherwise drained to the satisfaction of the Local Authority.

8. The floors of all cowsheds shall have the manure, &c., cleaned off at least twice daily, and must be thoroughly cleansed with water once a week.

9. The walls shall be lime-washed at least twice in every year, namely, in March and October, and also at such other times as may be deemed necessary by the Officer of Health.

10. The manure of the cowshed shall be kept in a properly constructed "sewered middenstead," and removed once a month, or oftener if deemed necessary by the Officer of Health.

Any person doing anything in contravention of the Order of Council, or of these Regulations will be liable to a penalty of not exceeding twenty pounds.

There were 32 cowsheds and shippens on the Register at the end of the year, which have been frequently inspected by Inspector Fordham.

Slaughter-house  
nuisance.

**Private Slaughter-houses.**—I am sorry that I am not able to report that there is yet any near prospect of action being taken by the Corporation, for the abolition of the glaring nuisance to which private slaughter-houses give rise. I have repeatedly urged that these establishments, situated as they are in the back slums of the borough, and separated from each other by considerable distances, are most difficult to keep under efficient supervision; their scattered position offering unusual facility for the clandestine disposal of unsound meat. It was at one time believed that the greatest opposition to their discontinuance would come from the butchers themselves, but on a recent occasion, when the Health Committee were waited upon by a deputation from the Manchester and Salford Butchers' Association, I was agreeably surprised to find that no objection would be raised by the trade, provided sufficient and suitable accommodation were provided in public abattoirs. Under these circumstances then, I hope I shall not be considered importunate, if I again ask the Health Committee to take into early and serious consideration, the establishment of public abattoirs, and the subsequent removal of private slaughter-houses from amongst the homes of the Salford people.

There are at present 43 private slaughter-houses in the borough. Inspector Fordham has kept these establishments under supervision, as far as it is possible for one man to do so, and has paid frequent visits to them by night and by day.



He has also made the following seizures of bad meat **SECTION IV.** and other unwholesome commodities exposed for sale, or deposited in some place by way of preparation for sale, and intended for the food of man :—

	No. of Seizures.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Beef .....	20	5	3	3	23
Mutton and Lamb ....	123	2	17	0	1
Veal .....	52	0	19	2	0
Pork and Bacon .....	6	0	4	0	0
Horse Beef .....	1	0	7	2	0
Fish .....	4	0	1	3	2
Goat .....	1	0	0	1	27
Eggs .....	1	0	0	1	22
	<hr/> 208	<hr/> 9	<hr/> 14	<hr/> 2	<hr/> 19

The following are particulars of the cases in which the Meat Inspector has obtained convictions before the magistrates :—

Five persons were summoned for being in possession of and exposing for sale, meat which was unsound and unfit for food. Four of them were fined, to the aggregate sum of £17 3s. od.

Convictions  
obtained.

A man was fined £3 for dressing a calf in an unlicensed place, and two men were convicted in small amounts, for neglecting to comply with the Slaughter House Regulations.

**Common Lodging Houses.**—There were 20 Common Lodging Houses in the Borough at the end of 1882, being an increase of seven upon the number on the Register in the previous year. These houses provide accommodation for 343 lodgers in 67 rooms.

Regulations as to  
Lodging Houses

**Houses Sublet in Apartments.**—There are 381 houses or parts of houses let in lodgings, the registration of which is compulsory, but which are not registered as Common Lodging Houses. This number is an increase of 41 on the number registered in 1881.

All these houses have been visited at frequent interval during the year; several of the inspections having been made after midnight. The houses generally have been fairly well conducted, and only a single case of infectious disease, namely, one of measles, has been reported during the year in any of the registered houses. All the apartments have been cleaned and limewashed at regular intervals during the year.

The following offences were committed against the Lodging House Regulations during the year :—

Offences against  
regulations.

Ten persons were summoned and eight fined, for letting houses in lodgings without being registered. Ten summonses were issued against persons for overcrowding registered lodging houses, and of these six were convicted, and two persons were prosecuted and punished for neglecting to observe measures of cleanliness in their licensed apartments.



### Proceedings under the Adulteration Act.

NUMBER OF SAMPLES OF FOOD PURCHASED FOR ANALYSIS DURING THE YEAR 1882, SHOWING RESULT OF ANALYSIS.

Article.	Number.	Pure.	Adulterated.
Milk.....	300	243	57
Butter .....	7	6	1
Bread and Flour.....	47	46	1
Drugs .....	13	6	7
Groceries.....	3	3	..
Beer and Porter.....	58	57	1
Wines and Spirits .....	20	18	2
Sundries .....	17	14	3

SAMPLES COLLECTED BY THE INSPECTOR UNDER THE "SALE OF FOOD AND DRUGS ACT", FROM 1875 to 1882.

	Total No. of Samples	Milk.	Butter.	Bread and Flour.	Drugs.	Groceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875 ..	60	37	1	1	1	..	7	4	9
1876 ..	119	43	2	18	34	17	..	..	5
1877 ..	390	114	7	159	22	30	18	37	3
1878 ..	418	197	10	35	31	25	24	70	26
1879 ..	518	306	16	130	15	28	10	13	..
1880 ..	506	269	12	48	5	52	71	18	31
1881 ..	478	376	11	1	..	61	..	8	21
1882 ..	465	300	7	47	13	3	58	20	17

PERCENTAGE OF THE ABOVE ARTICLES RETURNED AS ADULTERATED.

	Total No. of Samples	Milk.	Butter.	Bread and Flour.	Drugs.	Groceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875 ..	66.6	62.1	100.0	..	..	..	100.0	75.0	66.6
1876 ..	40.3	55.8	50.0	27.8	35.3	17.6	..	..	60.0
1877 ..	27.4	40.3	28.6	11.3	13.6	6.7	..	97.3	..
1878 ..	29.9	29.4	10.0	2.9	51.6	4.0	4.2	67.1	..
1879 ..	12.0	13.1	25.0	5.4	26.6	10.7	10.0	2.3	..
1880 ..	20.2	25.2	75.0	6.3	..	17.3	11.3	11.1	9.7
1881 ..	16.3	18.1	9.1	..	..	1.6	..	37.5	23.8
Average,									
1875-81.	30.4	34.8	42.5	7.7	21.2	9.7	25.1	48.4	26.7
1882 ..	15.5	19.0	14.3	2.1	53.8	..	1.7	10.0	17.6



*List of Samples taken from Farmers during the year 1882, at the place of delivery:—*

No.	Name and Address.	Results of Analysis.	Place of Delivery.
1	D. R., Gisburn, Lancashire ....	2 % of water .....	Pendleton Station
2	H. J., Gisburn, Lancashire ....	Robbed of 30 % of its cream	Do.
3	D. J., Gisburn, Lancashire ....	Robbed of 20 % of its cream	Do.
4	W. J., Bolton, Peel, near Clitheroe .....	1 % of water .....	Do.
5	E. M., Mobberley, Cheshire ...	4 % of water .....	Old Trafford Station
6	L. T., Tabley, Cheshire .....	Pure .....	Do.
7	L. J., do. do. ....	Do. ....	Do.
8	B. J. and S., Helmshore .....	Do. ....	Pendleton Station
9	S. Y., Radcliffe .....	Do. ....	Higher Broughton
10	Do. do. ....	Do. ....	Do.
11	D. R., Gisburn, Lancashire ....	Do. ....	Pendleton Station
12	W. J., Clitheroe, Lancashire ..	Do. ....	Do.
13	Do. do. do. ....	Do. ....	Do.
14	H. J., Gisburn, Lancashire ....	Robbed of 30 % of its cream	Do.
15	C. P., Clitheroe, Lancashire ....	Pure .....	Do.
16	C. T., Thelwell, near Warrington .....	3 % of water .....	Ordsal Lane Station
17	E. M., Mobberley, Cheshire ..	Robbed of 20 % of its cream	Old Trafford Station
18	C. J., Knutsford .....	Pure .....	Do.
19	H. W., Levenshulme, near Manchester .....	8 % of water .....	Salford
20	M. A., Newton Bridge .....	Pure .....	Ordsal Lane Station
21	Do. do. ....	Do. ....	Do.
22	C. W., Clitheroe, Lancashire ..	Do. ....	Pendleton Station
23	W. T., Frodsham, nr. Chester ..	Do. ....	Old Trafford Station
24	Y. P., Ringley, near Bury ....	Robbed of 10 % of its cream	Higher Broughton
25	P. D., Kersal, Salford .....	3 % of water .....	Do.
26	B. J., Prestwich, near Manchester .....	Pure .....	Do.
27	B. J., Plumbley, Cheshire ....	Very poor milk .....	Old Trafford Station
28	W. J., Over Peover, Cheshire ..	Robbed of 10 % of its cream	Do.
29	H. J., Plumbley, Cheshire ....	Robbed of 30 % of its cream	Do.
30	Do. do. do. ....	Pure .....	Do.
31	B. J., Kinnerton, nr. Chester ..	6 % of water .....	Ordsal Lane Station
32	Do. do. do. ....	18 % of water .....	Do.
33	Do. do. do. ....	22 % of water .....	Do.
34	Do. do. do. ....	4 % of water .....	Do.
35	Do. do. do. ....	Very poor milk .....	Do.
36	Do. do. do. ....	6 % of water .....	Do.
37	H. W., Langs, near Whalley ..	Pure .....	Pendleton Station
38	H. J., do. do. ....	Do. ....	Do.
39	G. H., High Leigh, Cheshire ..	Do. ....	Old Trafford Station
40	R. J., Kenyon, nr. Liverpool ..	Very poor milk .....	Ordsal Lane Station
41	J. P., Mobberley, Cheshire ....	Pure .....	Old Trafford Station
42	C. W., Gt. Wharford, Cheshire ..	7 % of added water .....	Do.
43	Do. do. do. ....	Pure .....	Do.
44	Y. R., Ringley, near Bury ....	Do. ....	Prestwich, near Manchester
45	Do. do. do. ....	Do. ....	Do.
46	Do. do. do. ....	3 % of water .....	Do.
47	B. R., Wilpshire, nr. Chatburn ..	Pure .....	Pendleton Station
48	Do. do. do. ....	Very poor milk .....	Do.

No.	Name and Address.	Result of Analysis.	Place of Delivery.
49	H. T., Heaton Mersey .....	Pure .....	Salford Union Workhouse
50	Do. do. ....	Do. ....	Do.
51	Do. do. ....	Do. ....	Do.
52	H. D., Rhodes Green, Mid- dleton .....	Do. ....	Cheetham Hill
53	C. M., Cheetham Hill .....	Do. ....	Do.
54	L. A., Norton, Cheshire .....	6 % of water .....	Ordsal Lane Station
55	Do. do. do. ....	Do do. ....	Do.

*V. An account of the action taken by the Medical Officer of Health or on his advice during the year, in regard to offensive trades and to factories and workshops.*

**Offensive Trades. Offensive Fumes from India Rubber and Ozokerit Works.—**

Serious complaints were received by the Health Department during the year, of the emission of suffocating fumes arising from the manufacture, in the one case of India rubber articles, and in the other, of a material consisting mainly of ozokerit, in one of the densely populated parts of Salford. Our suggestions that in both instances, the fumes should be carried into shafts, and thence into chimneys, were adopted, and nothing further has been heard of the nuisances referred to.

In addition to the above, complaints were received during the year, of nuisances arising from Soap Works, Paper Works, Rop Cleaning Works, Tanneries, Chemical Works, Tarpauling Manufactories, and Copper Works; but as in all these cases our suggestions were readily adopted by the respective proprietors, no action before the magistrates was in any case found necessary.



## VITAL STATISTICS.





## VI.—VITAL STATISTICS.

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**Area.**—The Municipal Borough of Salford, comprising the Townships of Broughton, Salford and Pendleton, together with a detached portion of Pendlebury, contains an area of 5,170 acres, or rather more than eight square miles.\*

SECTION VI.  
General Statistics.

**Elevation.**—The population of Salford resides at a mean elevation above the sea level of 140 feet. The maximum height is 250, and minimum 85 feet. The low lying land predominates in extent, over that at higher levels.

**Inhabited Houses.**—There are about 35,728 inhabited houses in the Borough. At the Census Enumeration in 1881, each house contained an average of 5·15 persons.

**Annual Rateable Value.**—The rateable value in Salford in 1882 was £799,618. In the year 1872 it was £550,030. The rate of increase within the last ten years in the rateable value of the Borough, has therefore been equal to 45 per cent.

**Population.**—Estimated to the middle of the year 1882, the population of the Borough was 184,001. This estimate is based on the assumption that the population of Salford is now increasing at the same annual rate as that which, at the last census taking was found to have obtained in the preceding ten years.

**Density.**—Expressed as so many persons living on an acre of ground, the *mean density* of the Borough, in the middle of 1882 was 35·6. The density in Regent Road district was 68·7, in Greengate 117·9, in Pendleton 18·8, and in Broughton 27·5.

These figures represent merely the average density of the population, and do not even approximately express the actual proximity of person to person in certain portions of these localities. Large areas of Pendleton and Broughton are at present uncovered by houses, and consequently the population is crowded into areas which, compared with the total acreage of these districts, are of small extent. From data in my possession, I have ascertained that both in Pendleton and Broughton there are localities which, in point of actual density of population, differ little if at all from the crowded districts of Regent Road and Greengate.

**Annual Rate of Increase.**—The natural increase to the population of Salford in 1882, by excess of births over deaths was 2,865. Assuming that the emigrants and immigrants were equal in number, the rate of increase would be equal to 1·6 per cent.

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\* Areas of districts:—Regent Road, 1,066 acres; Greengate, 263; Pendleton, 2,415; and Broughton, 1,426.



TABLE A.

CERTIFICATION OF THE CAUSES OF DEATH IN 1882, AND IN THE FIVE IMMEDIATELY PRECEDING YEARS.

	Total Deaths.	Certified by		Not Certified.	Proportion per cent. of Deaths.		
		Registered Medical Practitioners.	Coroner.		Certified by		Not Certified.
					Registered Medical Practitioners.	Coroner.	
Borough .. { 1877-81	21709	19658	968	1083	90.5	4.5	5.0
1882	4265	3810	193	262	89.3	4.5	6.2
1882.							
Regent Road District	1824	1608	80	136	88.2	4.4	7.4
Greengate ..	924	812	56	56	87.8	6.1	6.1
Pendleton ..	931	851	39	41	91.4	4.2	4.4
Broughton ..	586	539	18	29	92.0	3.1	4.9

#### BIRTHS, VACCINATIONS, MARRIAGES AND DEATHS.

##### Marriage rate.

**Marriages.**—1,548 marriages were contracted during last year within the Registration Sub-district of Salford\* as compared with 1,298, and 1,490 in the two previous years respectively. The marriages registered in 1882 gave a *rate of persons married* per 1,000 of the population equal to 16.5. The rates in 1880 and 1881 were 16.6 and 16.3. The Salford marriage rate in the ten years 1872-1881 averaged 16.9 per 1,000.

##### Birth rate.

**Births.**—During the 52 weeks of the year the births of 7,130 children were registered, namely, 3,674 males and 3,456 females. These births are equal to a rate of 38.8 per 1,000, which is identical with the rate recorded in 1881, and agrees with the

\* The marriages and marriage rates are necessarily those for the Registration District of Salford, which includes a small extra Municipal area, in addition to the Borough. As, however, the marriages are calculated on the entire district population, the rates may be accepted as approximately those of the Borough. The marriages registered in the Borough are not separately recorded.



latter in being the lowest birth rate registered in Salford since the year 1869. The birth rate was highest 40·6 in the district of Greengate, and lowest 29·5 in that of Broughton. SECTION VI.

**Vaccinations.**—The particulars as to Vaccination for the year under Report are not yet available; but the Registrars have obliged me with the necessary data for the year 1881, and from these I find that of the total number of children born in Salford 84·5 per cent. were successfully vaccinated; 9·7 per cent. died unvaccinated, and the vaccination of 1·4 per cent. was postponed for medical reasons. There remained, therefore, at the end of the year a proportion of 4·4 per cent. unaccounted for. Some of these children have doubtless been taken to other districts and there vaccinated, but what per centage of them have been thus protected cannot be ascertained.

TABLE B.

BIRTHS IN THE BOROUGH OF SALFORD AND IN ITS FOUR REGISTRATION SUB-DISTRICTS IN 1882, AND IN THE FIVE IMMEDIATELY PRECEDING YEARS, DISTINGUISHING LEGITIMATE AND ILLEGITIMATE BIRTHS; ALSO, THE PROPORTION OF MORTALITY AMONG LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD.

		Births.		Percentage of Illegitimate Births to Total Births.	Deaths under one year.		Proportion of Deaths under one year per 1000 births.		
		Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
Borough . . . .	{ 1877-81	35249	1498	4·2	6187	585	176	166	391
	{ 1882	7130	330	4·6	1261	108	177	170	327
1882. Regent Road District..		2974	161	5·4	552	54	186	177	335
Greengate	„	1285	58	4·5	263	23	205	196	397
Pendleton	„	1711	78	4·6	268	19	157	152	244
Broughton	„	1160	33	2·8	178	12	153	147	364

TABLE C.

POPULATION, DENSITY, BIRTHS AND DEATHS; TOGETHER WITH THE MARRIAGE, BIRTH, AND DEATH RATES IN THE BOROUGH OF SALFORD, FOR EACH OF THE EIGHTEEN YEARS, 1865—1882.

Year.	Population estimated to the middle of each year.	Density. Persons per Acre.	Births.	Deaths.	Annual Rate per 1,000 living.		
					Marriages.	Births.	Deaths.
1867-71	120,707	23'3	4,782	3,418	14'1	39'5	28'2
1872-76	139,782	27'0	6,040	3,959	16'7	43'0	28'1
1877-81	166,100	32'1	7,050	4,342	17'1	42'4	26'1
1865	111,414	21'6	4,207	3,239	12'9	37'8	29'1
1866	113,635	22'0	4,307	3,268	13'4	37'9	28'8
1867	115,901	22'4	4,517	3,267	14'3	39'0	28'2
1868	118,211	22'9	4,715	3,661	13'3	39'3	30'5
1869	120,567	23'3	4,681	3,182	14'1	38'8	26'4
1870	122,967	23'8	4,870	3,167	14'1	39'6	25'8
1871	125,890	24'3	5,127	3,815	14'6	40'7	30'3
1872	130,301	25'2	5,399	3,299	15'1	41'5	25'3
1873	134,883	26'1	5,691	3,884	14'4	41'6	28'3
1874	139,618	27'0	5,884	3,935	16'2	42'1	28'2
1875	144,518	27'9	6,421	4,271	17'5	44'4	29'5
1876	149,591	28'9	6,806	4,407	20'5	45'5	29'5
1877	154,842	29'9	6,866	4,079	19'6	44'4	26'3
1878	160,277	31'0	7,161	4,336	17'9	44'7	27'1
1879	165,899	32'1	7,240	4,495	15'2	43'0	26'7
1880	171,727	33'2	7,102	4,799	16'6	41'3	27'9
1881	177,755	34'4	6,880	4,000	16'3	38'8	22'5
1882	184,001	35'6	7,130	4,265	16'5	38'8	23'2



TABLE D.

ANALYSIS OF THE MORTALITY IN THE BOROUGH OF SALFORD IN EACH OF THE TEN YEARS, 1872 TO 1881; AND IN THE YEAR 1882.

Year.	Deaths of Infants under One year.	DEATHS.						
		From All Causes.		At All Ages from				
		Of children under Five years.	Of persons over 60 years.	All Causes.	Six Miasmatic Diseases.	Diar-rhœa.	Acute Lung Diseases.	Phthisis
1872	932	1585	504	3299	410	249	537	368
1873	1055	1863	616	3884	512	278	674	374
1874	1110	1923	546	3935	569	296	693	339
1875	1141	2039	654	4271	699	283	890	382
1876	1286	2170	596	4407	910	263	842	405
1877	1108	1988	589	4079	574	207	927	413
1878	1324	2262	616	4336	529	340	946	434
1879	1230	2215	708	4495	572	141	1102	480
1880	1403	2592	604	4799	784	477	1003	459
1881	1122	1802	674	4000	367	160	1012	451
1882	1261	2130	624	4265	499	240	904	437
DEATH-RATES PER 1000 LIVING.								
Year.	Proportion of Deaths under One Year per 1000 Births	From All Causes.		At All Ages from				
		Of children under Five years.	Of persons over 60 years.	All Causes.	Six Miasmatic Diseases.	Diar-rhœa.	Acute Lung Diseases.	Phthisis
1872	173	85.9	78.0	25.3	3.2	1.9	4.1	2.8
1873	185	96.0	90.6	28.3	3.8	2.1	4.9	2.7
1874	189	97.0	78.9	28.2	4.1	2.1	5.0	2.4
1875	178	99.6	91.3	29.5	4.8	2.0	6.2	2.6
1876	189	102.4	80.4	29.5	6.1	1.8	5.6	2.7
1877	161	90.7	76.8	26.3	3.7	1.3	6.0	2.7
1878	185	99.7	77.5	27.1	3.3	2.1	5.9	2.7
1879	170	92.8	84.7	26.7	3.4	0.8	6.5	2.9
1880	198	106.6	70.9	27.9	4.6	2.8	5.8	2.7
1881	163	71.6	76.5	22.5	2.1	0.9	5.7	2.5
Average, 1872-81.	179	94.2	80.6	27.1	3.9	1.8	5.6	2.7
1882	177	81.7	68.4	23.2	2.7	1.3	5.0	2.4



## SECTION VI.

## Mortality.

**Deaths.**—During the 52 weeks of the year 4,262 deaths were recorded by the Salford Registrars, and the deaths of 15 Salford residents were registered as having occurred at Monsal Hospital, whither they had been sent by the Salford Health Department. On the other hand, 12 persons died at the Salford Royal Hospital who belonged to districts outside the Borough.

## Correction of Register.

The Salford Register thus corrected, records the deaths of 4,265 persons during the year 1882, as compared with 4,000 in the preceding year. The rate of mortality was therefore equal to 23·2 per 1,000, or one in every 43 persons living. This rate exceeds by not more than 0·7 per 1,000 the unprecedently low rate of 1881, whilst as compared with the average\* of the rates recorded in the preceding ten years, it is in defect by more than 14 per cent.

Locally the rate varied considerably. In the district of Greengate little improvement was manifest, but in all the other districts the rate of mortality was far below the average. In Regent Road it was 24·9 per 1,000 or 14 per cent. below the average; in Pendleton 20·5 or 17 per cent. below; and in Broughton 14·9 or 30 per cent. below; whilst in Greengate it was 29·8 per 1,000, or 2·3 per cent. only below the decennial average rate.

## Mortality.

**Age at Death.**—During the 52 weeks of the year, the deaths of 1,261 infants under 12 months old were registered, a number equal to 29·6 per cent. of the deaths at all ages, and to 17·7 per cent. of the total births.

In the 10 years ending 1881, the proportion of deaths under one year equalled 17·9 per cent. of the births. The humiliating fact thus stands out in all its stern reality, that here, in Salford, with all our boasted civilisation, not less than one in every six children born, dies before reaching the end of its first year of life; and this, not in one exceptionally fatal year only, but as quite the ordinary toll paid by suffering humanity, for the privilege of being born in a great and opulent centre of industry!

**Normal or Life-Table Rate of Mortality.**—Of the total deaths, 2,130, or 50 per cent., were those of children under five years old. These deaths are equal to a rate of 81·7 per 1,000, or one in every 12 of the children estimated to be living at this age. Although this proportion is a high one, as compared with the life-table rate of 65·7, it is a very great improvement on the average rate 94·1, which obtained in Salford during the preceding 10 years. At the age groups 5-20 and 20-40 years, 820 deaths were recorded during the year. It has frequently been noted in my annual reports, as remarkable, that although at both extremes of life, the Salford rate of mortality greatly exceeds the normal or life-table standard; the rate obtaining at these particular ages is very low, being

\* See Tables C and D.



TABLE E.

POPULATION, DEATHS, AND RATE OF MORTALITY DURING THE FIFTY-TWO WEEKS OF THE YEAR 1882, AT FIVE GROUPS OF AGES, COMPARED WITH THE AVERAGE RATES AT THOSE AGES IN THE TEN YEARS 1872-81, AND WITH THE ENGLISH LIFE TABLE RATES—FOR PERSONS, MALES, AND FEMALES.

	PERSONS.		MALES.		FEMALES.	
	Estimated Population, 1882.	Deaths, 1882.	Estimated Population, 1882.	Deaths, 1882.	Estimated Population, 1882.	Deaths, 1882.
All Ages .....	184,001	4265	87,395	2126	96,606	2139
Under 5 years....	26,054	2130	13,106	1106	12,948	1024
5-20 years .....	57,548	264	28,266	129	29,282	135
20-40 years.....	60,820	556	28,092	265	32,728	291
40-60 years.....	30,454	691	14,148	362	16,306	329
60 and upwards ..	9,125	624	3,783	264	5,342	360

ANNUAL DEATH-RATES PER 1000 LIVING IN 1882, AMONG

	PERSONS.		MALES.		FEMALES.	
	Salford.	English Life Table.	Salford.	English Life Table.	Salford.	English Life Table.
All Ages .....	23'2	21'5	24'3	22'4	22'1	20'7
Under 5 years....	81'7	65'7	84'4	70'1	79'1	61'3
5-20 years .....	4'6	7'1	4'6	7'0	4'6	7'2
20-40 years.....	9'1	10'3	9'4	10'1	8'9	10'5
40-60 years.....	22'7	18'3	25'6	19'4	20'2	17'2
60 and upwards ..	68'4	71'7	69'8	73'9	67'4	69'7

AVERAGE DEATH-RATES IN THE TEN YEARS 1872-81.

All Ages .....	27'1	21'5	29'4	22'4	25'1	20'7
Under 5 years....	94'1	65'7	100'4	70'1	88'0	61'3
5-20 years .....	6'5	7'1	6'9	7'0	6'2	7'2
20-40 years.....	10'6	10'3	11'6	10'1	9'6	10'5
40-60 years.....	25'8	18'3	29'0	19'4	23'0	17'2
60 and upwards ..	80'6	71'7	85'4	73'9	77'1	69'7



# STATISTICAL NOSOLOGY.

NEW CLASSIFICATION OF CAUSES OF DEATH, ISSUED BY THE REGISTRAR-GENERAL OF ENGLAND.

<p><b>Miasmatic Diseases.</b>  Small-pox: { Vaccinated.                    { Unvaccinated.                    { No statement.  Chicken-pox.  Measles.  Epidemic Rose Rash.  Scarlet Fever.  Typhus.  Relapsing Fever.  Influenza.  Whooping Cough.  Mumps.  Diphtheria.  Cerebro-spinal Fever.  Simple and Ill-defined Fever.  Enteric Fever.  Other Miasmatic Diseases.</p> <p><b>Diarrhœal Diseases.</b>  Simple Cholera.  Diarrhœa, Dysentery.</p> <p><b>Malarial Diseases.</b>  Remittent Fever.  Ague.</p> <p><b>Zoogenous Diseases.</b>  Hydrophobia.  Glanders.  Splenic Fever. [nation.  Cow-pox &amp; other effects of vacci-</p> <p><b>Venereal Diseases.</b>  Syphilis.  Gonorrhœa, Strict: of Urethra.</p> <p><b>Septic Diseases.</b>  Phagedæna.  Erysipelas.  Pyæmia, Septicæmia.  Puerperal Fever.</p> <p><b>Parasitic Diseases.</b>  Thrush.  Other Dis: from Veg: Parasites.  Hydatid Disease.  Other Dis: from Anim: Parasites.</p> <p><b>Dietic Diseases.</b>  Starvation, Want of Breast Milk.  Scurvy.  Intemp: { Chronic Alcoholism.            { Delirium Tremens.</p> <p><b>Constitutional Diseases.</b>  Rheum: Fev., Rheum: Heart.  Rheumatism (Chron:)  Gout.  Rickets.  Cancer.  Tabes Mesenterica.  Tubercular Meningitis.  Phthisis.  Tuberculosis, Scrofula, &amp;c.  Purpura, Hæmorrh: Diathesis.  Anæmia, Chlorosis, Lencocyth:  Diabetes Mellitus.  Other Constitutional Diseases.</p> <p><b>Developmental Diseases.</b>  Premature Birth.  Atelectasis.  Cyanosis.  Spina Bifida.  Imperforate Anus.  Cleft Palate, Harelip.</p>	<p>Other Congenital Defects.  Old Age.</p> <p><b>Diseases of Nervous System.</b>  Inflam: of Brain or Membr:  Apoplexy.  Softening of Brain.  Hemiplegia, Brain Paralysis.  Paralysis Agitans.  Insanity, Gen: Paral: of Insane.  Chorea.  Epilepsy.  Convulsions.  Laryngismus Stridulus.  Idiopathic Tetanus.  Paraplegia, Dis: of Spin: Cord.  Other Dis: of Nerv: System.</p> <p><b>Diseases of Org: of Spec: Sense.</b>  Otitis, Otorrhœa.  Epistaxis and Dis: of Nose.  Ophthalmia and Dis: of Eye.</p> <p><b>Diseases of Circulatory System.</b>  Endocarditis, Valvular Disease.  Pericarditis.  Hypertrophy of Heart.  Angina Pectoris.  Syncope.  Aneurism.  Senile Gangrene.  Embolism, Thrombosis.  Phlebitis.  Varicose Veins.  Other Dis: of Circul: Syst:</p> <p><b>Diseases of Respiratory System.</b>  Laryngitis.  Croup.  Other Dis: of Larynx and Trach:  Emphysema, Asthma.  Bronchitis.  Pneumonia.  Pleurisy.  Other Dis: of Respir: Syst:</p> <p><b>Diseases of Digestive System.</b>  Stomatitis.  Dentition.  Sore Throat, Quinsy.  Dyspepsia.  Hæmatemesis.  Melæna.  Diseases of Stomach.  Enteritis.  Ulceration of Intestine.  Ileus, Obstruction of Intestine.  Strict: or Strang: of Intestine.  Other Dis: of Digest: System.  Intussusception of Intestine.  Hernia.  Fistula.  Peritonitis.  Ascites.  Gallstones.  Cirrhosis of Liver.  Other Diseases of Liver.</p> <p><b>Dis: of Lymph: Syst: and Ductless Glands.</b>  Diseases of Lymphatic System.  Diseases of Spleen.  Bronchocele.  Addison's Disease.</p>	<p><b>Diseases of Urinary System.</b>  Acute Nephritis.  Bright's Disease.  Uraemia.  Suppression of Urine.  Calculus.  Hæmaturia.  Dis: of Bladder &amp; Prostate.  Other Dis: of Urinary Syst:</p> <p><b>Dis: of Organs of Generation.</b>  Ovarian Disease.  Dis: of Uterus and Vagina.  Disorders of Menstruation.  Pelvic Abscess.  Perineal Abscess.  Dis: of Testes, Penis, Scrotum, etc.</p> <p><b>Diseases of Parturition.</b>  Abortion, Miscarriage.  Puerperal Mania.  Puerperal Convulsions.  Placenta Prævia, Flooding.  Phlegmasia Dolens.  Other Accidents of Childbirth.</p> <p><b>Dis: of Organs of Locomotion.</b>  Caries, Necrosis.  Arthritis, Ostitis, Periostitis.  Other Dis: of Org: of Locom:</p> <p><b>Dis: of Integum: System.</b>  Carbuncle.  Phlegmon, Cellulitis.  Lupus.  Ulcer, Bed sore.  Eczema.  Pemphigus.  Other Dis: of Integum: Syst:</p> <p><b>Accident or Negligence.</b>  Fractures, Contusions.  Gunshot Wounds.  Cut, Stab.  Burn, Scald.  Poison.  Drowning.  Suffocation.  Otherwise.</p> <p><b>Homicide.</b>  Murder, Manslaughter.</p> <p><b>Suicide.</b>  Gunshot Wounds.  Cut, Stab.  Poison.  Drowning.  Hanging.  Otherwise.</p> <p><b>Execution.</b>  Hanging.</p> <p><b>Ill-defined and not specified Causes.</b>  Dropsy.  Debility, Atrophy, Inanition.  Mortification.  Tumour.  Abscess.  Hæmorrhage.  Sudden (cause unascertained).  Other ill-defined causes.</p>
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almost invariably below the normal rate in the whole of England. SECTION VI.  
The rate during 1882 was 4·6 at the age 5-20 years, and 9·1 from 20-40 years, the life-table rate at these ages being 7·1 and 10·3 respectively.

**Mortality amongst Males and Females.**—Table E. on page 33 shows that, of the 4,265 deaths registered in 1882, 2,126 were males and 2,139 females. The normal rate of mortality in Salford, calculated on the life-table standard, with due allowance for age and sex proportions, is 21·5 per 1,000; namely, 22·4 for males and 20·7 for females. The Salford rate of mortality at all ages in 1882, exceeded the corrected normal rate by 7·9 per cent; the excess was 8·4 per cent. among males, and 6·8 per cent. among females.

### CLASSIFICATION OF THE CAUSES OF DEATH.

The 4,265 deaths registered in the 52 weeks of the year were thus distributed, the classification adopted being the recently amended one of the Registrar-General:—

	Deaths.	Percentage to Total Deaths.
Specific Febrile Diseases or Zymotics	826	19·4
Constitutional Diseases	747	17·5
Developmental Diseases	257	6·0
Local Diseases	2,023	47·4
Other Diseases not classified	412	9·7

More than 90 per cent. of the total deaths are thus shown to have been due to diseases included in one or other of the above four classes, the remaining 10 per cent. approximately, being due to violence, or to causes either uncertified, or too imperfectly defined to fall under any useful form of classification.

**I.—Specific Febrile Diseases or Zymotics.**—To this large and sanitarily most important category, 826 deaths, or 19 per cent. of the total mortality, were due—a number equal to a rate of 4·5 per 1,000 of the population. The rate due to the six\* more familiar infectious diseases, known as miasmatic, was equal to 2·7 per 1,000, as compared with 3·9, the average annual rate in the preceding 10 years. The prevalence of these diseases in other parts of England and Wales during 1882 is shown by the following table, which has been deduced from the Quarterly Returns of the Registrar-General, and gives the rate of mortality from infectious diseases per 1,000 of the population:—

England and Wales	2·02
28 Great English Towns	2·73
Salford	2·71
50 other English Towns	2·17
England and Wales, less 78 Towns	1·59

\* These are Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, and Fever.



TABLE F.

ESTIMATED POPULATION, BIRTHS, BIRTH-RATES, DEATHS, AND RATE OF MORTALITY PER 1000 OF THE POPULATION DURING THE YEAR 1882, AND TEN PRECEDING YEARS, IN THE BOROUGH OF SALFORD, AND IN EACH OF ITS FOUR STATISTICAL SUB-DIVISIONS, FROM ALL CAUSES, FROM EIGHT CLASSES, AND FROM CERTAIN SUB-CLASSES, OF DISEASE, AFTER DISTRIBUTION OF THE BIRTHS AND DEATHS OCCURRING IN PUBLIC INSTITUTIONS.

	BOROUGH OF SALFORD.	REGISTRATION SUB-DISTRICTS.			
		Regent Road.	Green- gate.	Pendle- ton.	Brough- ton.
Population estimated to middle of 1882 .....	184,001	73,255	31,018	45,434	39,293
Births registered in 52 weeks of 1882 .....	7,130	2,974	1,285	1,711	1,160
Birth rate per 1000 living .....	38.8	40.6	41.5	37.7	29.5
Deaths registered in 52 weeks of 1882 .....	4,265	1,824	924	931	586
Rate of mortality per 1000 persons living from ALL CAUSES .....	23.2	24.9	29.8	20.5	14.9
I.—SPECIFIC FEBRILE DISEASES OR ZYMOTICS					
1.—Miasmatic Diseases .....	2.7	3.2	2.9	2.3	1.8
2.—Diarrhoeal Diseases .....	1.3	1.7	1.8	1.0	0.4
3.—Other Zymotics .....	0.5	0.6	0.7	0.3	0.3
II.—PARASITIC DISEASES .....					
..	..	..	..	..	..
III.—DIETIC DISEASES .....					
0.1	0.2	0.3	..	..	..
IV.—CONSTITUTIONAL DISEASES .....					
4.1	3.9	5.3	4.0	2.9	..
V.—DEVELOPMENTAL DISEASES .....					
1.4	1.6	1.6	1.2	0.8	..
VI.—LOCAL DISEASES.					
1.—Diseases of Nervous System .....	3.5	3.8	4.6	3.3	2.1
2.—Diseases of Circulatory System .....	1.0	0.8	1.3	1.2	0.9
3.—Diseases of Respiratory System .....	4.9	5.2	7.1	3.8	3.2
4.—Diseases of Digestive System .....	0.9	0.9	1.2	0.7	0.6
5.—Other Local Diseases .....	0.7	0.7	0.9	0.7	0.4
VII.—VARIOUS FORMS OF VIOLENCE .....					
0.5	0.5	0.7	0.5	0.3	..
VIII.—ILL-DEFINED CAUSES .....					
1.6	1.8	1.4	1.5	1.2	..



TABLE G.

ANNUAL RATE OF MORTALITY IN SALFORD DURING THE YEAR 1882, AND THE AVERAGE RATE FOR THE PREVIOUS DECADE, FROM EIGHT CLASSES, AND FROM CERTAIN SUB-CLASSES OF DISEASE, AT FIVE GROUPS OF AGES, PER 1000 PERSONS ESTIMATED TO BE LIVING AT THOSE AGE-GROUPS RESPECTIVELY.

	1872-81.	1882.					
	All ages (av'rage rate.)	All ages.	0-5 years.	5-20 years.	20-40 years.	40-60 years.	60 and upw'rds
ALL CAUSES .....	27.1	23.2	81.7	4.6	9.1	22.7	68.4
I.—SPECIFIC FEBRILE DISEASES OR ZYMOTICS.							
1.—Miasmatic Diseases .....	3.8	2.7	15.0	1.0	0.5	0.6	0.6
2.—Diarrhoeal Diseases .....	1.8	1.3	8.5	0.1	..	0.1	1.2
3.—Other Zymotics .....	0.5	0.5	1.9	..	0.3	0.4	0.6
II.—PARASITIC DISEASES .....	..	..	..	..	..	..	..
III.—DIETIC DISEASES .....	0.1	0.1	..	..	0.1	0.6	0.3
IV.—CONSTITUTIONAL DISEASES ..	4.4	4.1	8.3	1.5	3.9	5.5	4.3
V.—DEVELOPMENTAL DISEASES ..	1.5	1.4	4.8	..	..	0.2	13.8
VI.—LOCAL DISEASES.							
1.—Diseases of Nervous System ..	3.3	3.5	14.4	0.6	0.7	2.6	12.6
2.—Diseases of Circulatory System	1.1	1.0	0.1	0.1	0.7	2.6	6.9
3.—Diseases of Respiratory System	5.8	4.9	16.7	0.5	1.0	6.4	20.0
4.—Diseases of Digestive System	1.1	0.9	1.8	0.2	0.5	1.2	3.4
5.—Other Local Diseases .....	0.7	0.7	0.2	0.1	1.0	1.2	1.5
VII.—VARIOUS FORMS OF VIOLENCE	0.8	0.5	0.8	0.4	0.3	0.7	1.0
VIII.—ILL-DEFINED CAUSES .....	2.2	1.6	9.2	0.1	0.1	0.6	2.2

**Small Pox.**—During the year under notice, 72 cases of small pox were reported in Salford, and of these 18 died, giving a mortality of 25 per cent. on the attacks.

SECTION VI.

Termination of  
Small-pox  
Epidemic.

Of the above cases, 60 were promptly removed to hospital, and by the end of the first half of the year the epidemic, which primarily threatened to become so serious, was at an end. Two further cases occurred during the later months of the year, but these were freshly imported from outside, and being removed to hospital with all possible despatch, the disease did not spread beyond the persons first attacked. The following are the rates of mortality caused by small pox in various parts of the country :

England and Wales .....	0.05 per 1000	Local incidence of Small-pox.
28 great English Towns .....	0.08 „	
Salford .....	0.10 „	
50 other Towns .....	0.06 „	
England and Wales, less 78 Towns ..	0.03 „	

**Measles.**—One hundred and sixty-seven deaths from measles were registered during the year, as compared with 38 in 1881 and 134 in 1880, the corrected decennial average being 144.

The following figures show the seasonal incidence of measles\* in 1882, compared with the corrected average number of deaths in the previous ten years.

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1882 .....	50	73	26	18
Corrected average 1872-81	37	43	23	42

It thus appears that, as compared with the previous corresponding quarters, measles was exceptionally fatal during the first half of the year, and that the mortality gradually declined towards its close.

The following statement shows the local incidence of Measles mortality† throughout the country generally:—

Local incidence  
of Measles.

England and Wales .....	0.47 per 1000
28 great English Towns .....	0.67 „
Salford .....	0.90 „
50 other English Towns .....	0.58 „
England and Wales, less 78 Towns ..	0.33 „

**Scarlet Fever.**—This disease gave rise to 81 deaths during 1882, as compared with 84 in 1881 and 279 in the year imme-

\* These are simply the deaths from measles, not the death-rates.

† That is, the annual rate of mortality per 1,000 living.



SECTION VI. diately preceding; the corrected average in the preceding 10 years being 200. The deaths were distributed throughout the year as follows:—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1882 .....	28	21	18	12
Corrected average 1872-81	51	38	42	69

Local incidence  
of Scarlet Fever.

The following figures show the rate of mortality in Salford from Scarlet Fever, as compared with other parts of the country:—

England and Wales .....	0.51 per 1,000.
28 great English Towns .....	0.55 „
Salford .....	0.44 „
50 other English Towns .....	0.64 „
England and Wales, less 78 Towns..	0.46 „

It thus appears that Scarlet Fever mortality was heavier in the 50 smaller towns of England, than either in the large English towns or in our own borough.

**Whooping Cough.**—152 deaths were attributed to this disease in 1882, against 160 in the preceding year and 219 in 1880, the corrected decennial average being 170. The following figures show the fluctuations of whooping cough mortality with the time of the year:—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1882 .....	82	41	14	15
Corrected average 1872-81	57	49	28	36

The rate of mortality from whooping cough in other parts of the country was as follows:—

England and Wales .....	0.55 per 1,000.
28 great English Towns .....	0.90 „
Salford .....	0.83 „
50 other English Towns .....	0.48 „
England and Wales, less 78 Towns..	0.37 „

**SECTION VI. Diphtheria.**—The deaths from this disease in Salford do not vary much from year to year. During 1882, 18 deaths were referred to it, and 20 in the year before, this latter number representing the corrected annual average for diphtheria.

Local incidence  
of Diphtheria.

The following shows the distribution of mortality from this disease in—

England and Wales .....	0·14 per 1,000.
28 great English Towns .....	0·16 „
Salford.....	0·10 „
50 other English Towns .....	0·08 „
England and Wales, less 78 Towns..	0·14 „

The seasonal distribution of diphtheria in Salford was as follows :—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1882 .....	3	5	5	5
Corrected average 1872-81	4	4	5	6

**Fever.**—Three principal forms of pyrexial disease find a place in this order—viz., typhus, enteric, and continued fever.

During the year under notice, 12 deaths were referred to typhus, 46 to enteric, and 5 to ill-defined forms of fever, which were returned as “continued.”

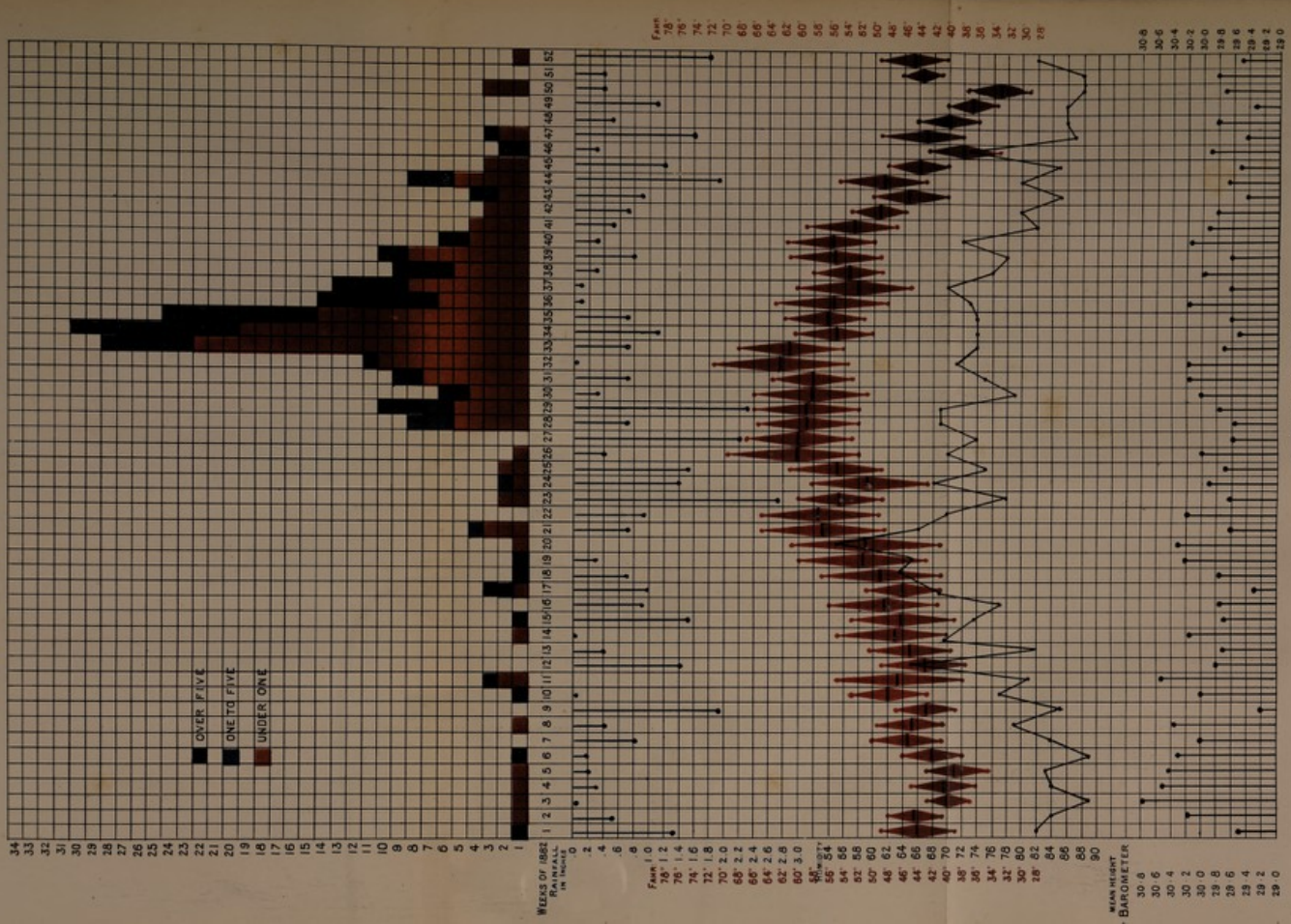
The following statement shows the seasonal incidence of fever in 1882, compared with the average numbers in each quarter of the preceding 10 years, corrected for increase of population :—

Year.	March Quarter.	June Quarter.	September Quarter.	December Quarter.
1882 .....	10	17	14	22
Corrected average 1872-81	27	21	29	38

Taken collectively, these deaths give a rate of mortality equal to 0·34 per 1,000 of the population, as compared with 0·64, the Salford average rate from fever in the preceding 10 years.



SALFORD - 1882.  
DIARRHŒA MORTALITY AND METEOROLOGY.



Henry F. Jenkins





The fever rates throughout the country are here compared with those of our own borough:—

		Local incidence of Fever.
England and Wales .....	0.30 per 1,000.	
28 great English Towns .....	0.37 „	
Salford.....	0.34 „	
50 other English Towns .....	0.33 „	
England and Wales, less 78 Towns..	0.26 „	

**Diarrhœal Diseases.**—240 deaths were referred to diarrhœal diseases in 1882, as compared with the unusually small number of 164 in 1881, and 322 the corrected average in each year of the preceding decennium. Of the above 240 deaths from diarrhœa, 173 occurred in the third quarter of the year, 159 of the victims being children, most of them under 12 months old.

The following figures show the incidence of mortality from diarrhœal diseases in various parts of England:—

		Local incidence of Diarrhœa.
England and Wales .....	0.62 per 1,000.	
28 great English Towns .....	0.86 „	
Salford.....	1.30 „	
50 other English Towns .....	0.78 „	
England and Wales, less 78 Towns..	0.48 „	

**Constitutional Diseases.**—The mortality attributable to these diseases in 1882 differed little from the average. The 747 deaths referred to one or other of them, being equal to 17.5 per cent. of the total deaths, and to 4.1 per 1,000 of the population, as compared with 4.4 in the previous 10 years. Phthisis, the most fatal disease of this class, accounted for 437 deaths in 1882, as compared with 495 the corrected decennial average.

**Developmental Diseases.**—261 deaths, or 6 per cent. of the total mortality, were caused by diseases of this class, which is principally constituted by two death causes—“Premature birth” and “Decay of nature.” These deaths give rise to an annual rate per 1,000 persons living, equal to 1.4, which is almost identical with the average rate—namely, 1.5 per 1,000.

**Local Diseases.**—This large and important class, to which 2,023, or 47 per cent. of the total deaths were referred in 1882, consists mainly of diseases of the nervous, circulatory, respiratory, and digestive systems, which are fatal principally to the very old and the very young. This will be seen by reference to Table G on page 37. These deaths are equal to a rate of 11.0 per 1,000 of the population, which is almost the same as the rate recorded last year, and less than the average by 1.0 per 1,000 living.



TABLE H.

DEATHS FROM SEVERAL CAUSES AT ALL AGES, AND AT SIX GROUPS OF AGES, IN THE BOROUGH AND IN ITS REGISTRATION SUB-DISTRICTS, DURING THE YEAR 1882.

	All Ages.		Deaths at the following Ages.							Deaths in the Registration Sub-districts			
	Corrected Average, 1872-81.	1882.	Under 5 years.		5-20.	20-40.	40-60.	60 and upwards.		Regent Road.	Greengate.	Pendleton.	Broughton.
			0-1.	1-5.									
All Causes .....	4993	4265	1261	869	264	556	691	624	1824	924	931	586	
Small Pox .....	64	18	1	4	2	7	4	..	6	5	7	..	
Measles .....	144	167	47	116	4	..	..	..	82	30	35	20	
Scarlet Fever .....	200	81	5	54	22	..	..	..	33	13	24	11	
Typhus .....	13	12	..	..	1	5	3	3	5	3	4	..	
Whooping Cough .....	170	152	54	89	9	..	..	..	77	28	23	24	
Diphtheria .....	20	18	2	8	7	1	..	..	9	1	1	7	
Ill-defined Fever .....	22	5	1	1	1	..	1	1	3	1	..	1	
Enteric Fever .....	81	46	..	8	12	16	9	1	17	10	9	10	
Simple Cholera .....	2	3	1	2	..	..	..	..	2	1	..	..	
Diarrhoea, Dysent: .....	322	237	159	60	3	1	3	11	120	56	46	15	
Veneral Affections .....	38	38	32	4	..	1	1	..	20	13	3	2	
Erysipelas .....	19	25	9	..	..	2	9	5	10	8	3	4	
Pyæmia .....	6	7	1	1	..	3	2	..	5	..	2	..	
Puerperal Fever .....	10	13	..	..	..	13	..	..	5	1	5	2	
Other Zymotics .....	22	4	2	1	1	..	..	..	3	..	..	1	
Parasitic Diseases .....	4	2	2	..	..	..	..	..	1	..	..	1	
Dietic Dis: Intemp: .....	18	26	..	..	..	6	17	3	12	8	3	3	
Rheumatic Fever .....	23	11	..	1	5	1	3	1	5	2	2	2	
Cancer .....	87	77	..	1	..	11	40	25	25	15	17	20	
Tabes Mesenterica .....	76	98	56	36	4	1	1	..	30	24	33	11	
Tubercul: Mening: .....	84	82	38	32	11	1	..	..	35	12	22	13	
Phthisis .....	495	437	15	20	56	223	115	8	177	103	97	60	
Scrofula .....	35	19	5	5	7	..	2	..	9	4	3	3	
Constit: Dis: (other) .....	12	23	1	7	1	4	5	5	7	4	6	6	
Prem: Birth .....	91	106	106	..	..	..	..	..	53	25	14	14	
Devel Dis: & Cong: Def: .....	14	19	18	1	..	..	..	..	5	2	6	6	
Old Age .....	156	132	..	..	..	..	6	126	63	23	33	13	
Apoplexy and Paralysis .....	132	150	..	1	2	13	51	83	58	37	34	21	
Epilepsy .....	22	18	..	1	1	7	7	2	8	5	4	1	
Convulsions .....	263	269	216	48	4	..	1	..	116	64	56	33	
Brain and Nerv: Dis: (other) ..	190	212	42	67	30	22	21	30	95	35	56	26	
Heart Diseases .....	201	191	2	1	7	40	78	63	62	41	53	35	
Croup .....	46	46	3	36	7	..	..	..	27	11	4	4	
Bronchitis .....	667	495	110	76	8	19	129	153	208	130	85	72	
Pneumonia .....	286	314	74	105	13	40	58	24	124	71	78	41	
Lung and Respir: Dis: (other) ..	81	49	11	20	2	2	8	6	18	9	12	10	
Teething .....	24	3	2	1	..	..	..	..	2	1	..	..	
Diges: Org: Dis: of .....	172	153	36	7	10	31	38	31	64	35	30	24	
Urinary Org: Dis: of .....	73	63	..	5	5	14	26	13	28	16	13	6	
Parturition, dis: of .....	30	48	..	..	1	41	6	..	18	8	15	7	
Gener: Orgs: dis: of .....	8	7	..	..	..	3	4	..	3	1	1	2	
Other Local Diseases .....	13	5	..	1	1	1	1	1	1	3	1	..	
Accident .....	127	80	8	12	20	13	18	9	31	20	22	7	
Homicide .....	2	3	..	..	1	2	..	..	2	1	..	..	
Suicide .....	10	8	..	..	..	4	4	..	5	..	1	2	
Atrophy .....	307	187	149	28	4	..	4	2	92	15	47	33	
Ill-defined Causes .....	111	106	53	9	2	8	16	18	43	29	21	13	



TABLE I.

CAUSES OF DEATHS REGISTERED IN SALFORD IN EACH OF THE TEN YEARS  
1872-81, AND OF DEATHS REGISTERED IN EACH QUARTER OF 1882.

Mean Temperature..	°	°	°	°	°	°	°	°	°	°	1882.			
	49·6	48·5	48·7	49·4	49·3	48·8	48·6	45·8	49·3	48·3	Quarters ending			
Years .....	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	April 1.	July 1.	Sept. 30.	Dec. 30.
All Causes .....	3299	3884	3935	4271	4407	4079	4336	4495	4799	4000	1116	1059	1116	974
Smallpox .....	41	4	4	32	347	93	1	..	..	7	8	9	..	..
Measles .....	23	236	138	138	145	137	76	139	134	38	50	73	26	18
Scarlet Fever .....	78	127	156	251	178	119	185	203	279	84	30	21	18	12
Typhus .....	8	14	20	9	9	8	12	4	20	7	2	5	1	4
Whooping Cough .....	171	49	133	142	155	102	132	144	219	160	82	41	14	15
Diphtheria .....	11	8	14	25	10	13	19	24	22	20	3	5	5	5
Ill-defined Fever .....	..	11	31	32	19	19	22	6	26	9	2	1	1	1
Enteric Fever .....	78	63	73	70	47	83	82	52	84	42	6	11	12	17
Simple Cholera .....	..	1	1	..	4	..	4	1	3	4	..	..	3	..
Diarrhoea, Dysent: .....	249	278	296	283	263	207	340	141	477	160	11	19	170	37
Veneral Affections .....	26	20	37	28	33	39	45	41	33	21	11	8	7	12
Erysipelas .....	8	15	27	19	15	22	11	12	14	15	4	6	7	8
Pyæmia .....	..	9	13	4	4	9	5	3	..	4	3	1	1	2
Puerperal Fever .....	..	9	7	15	5	3	4	7	10	15	5	1	2	5
Other Zymotics .....	..	..	1	2	1	39	60	38	31	11	..	2	1	1
Parasitic Diseases .....	4	2	4	6	9	..	..	..	..	2	..	..	1	1
Dietic Dis: Intemp: .....	6	9	17	29	22	11	13	13	7	22	5	12	6	3
Rheumatic Fever .....	15	18	31	17	19	34	23	17	14	6	4	2	4	1
Cancer .....	49	61	72	73	73	81	80	66	74	89	13	28	16	20
Tabes Mesenterica .....	29	31	49	63	84	64	75	66	91	76	16	29	37	16
Tubercul: Mening: .....	27	35	87	82	62	68	87	86	90	75	24	21	20	17
Phthisis .....	368	374	339	382	405	413	434	480	459	451	124	114	98	101
Scrofula .....	29	37	18	20	10	39	29	59	33	16	4	7	3	5
Constit: Dis: (other) .....	2	..	..	..	2	16	19	17	17	27	7	4	7	5
Prem: Birth .....	70	56	65	63	91	55	64	91	85	117	26	32	22	26
Devel Dis: & Cong: Def: ..	2	2	11	10	16	20	11	28	14	9	3	10	3	3
Old Age .....	128	156	133	159	138	114	95	122	143	108	30	21	31	43
Apoplexy and Paralysis ..	87	108	100	113	98	105	99	121	117	150	33	41	42	34
Epilepsy .....	15	20	13	20	15	18	14	23	22	18	2	3	5	8
Convulsions .....	202	172	213	164	201	238	258	298	246	197	68	69	69	63
Brain & Nerv: Dis: (other)	123	146	130	157	157	152	196	173	170	178	59	47	67	39
Heart Diseases .....	179	195	153	144	142	140	172	191	159	192	48	50	44	49
Croup .....	37	32	41	43	42	27	47	48	30	28	9	13	12	12
Bronchitis .....	398	472	464	585	537	582	577	711	583	636	150	117	82	146
Pneumonia .....	103	134	166	239	250	280	285	304	329	292	96	75	65	78
Lung & Resp: Dis: (other)	36	68	63	66	55	65	84	87	91	56	10	11	7	21
Teething .....	38	40	28	24	43	9	6	4	4	5	1	1	1	..
Diges: Org: Dis: of .....	110	122	148	126	150	156	132	172	170	142	34	33	52	34
Urinary Org: Dis: of .....	48	48	61	66	51	70	56	68	73	64	19	11	23	10
Parturition, Dis: of .....	16	18	36	33	22	21	20	27	19	39	10	9	16	13
Gener: Orgs: Dis: of .....	5	9	9	7	6	4	6	5	11	7	1	3	..	3
Local Diseases (other) ....	6	6	8	11	14	10	16	14	16	11	2	1	1	1
Accident .....	101	128	101	101	100	116	115	112	102	86	26	19	21	14
Homicide .....	2	2	2	1	..	1	5	3	3	3	1	..	1	1
Suicide .....	5	9	12	3	14	4	9	12	9	7	2	1	4	1
Atrophy .....	239	283	203	274	295	253	307	244	246	208	44	41	64	38
Ill-defined Causes .....	127	247	207	140	49	20	4	18	20	86	28	24	24	30





## APPENDIX.





# YEAR 1882.

## METEOROLOGY, BIRTHS, DEATHS, AND MORTALITY FROM CERTAIN PREVALENT DISEASES IN EACH WEEK OF 1882.

Week.		Temperature of the Air.			Air Pres- sure.	Air Movement of Air in Miles.		Mean Humidity, complete Saturation, 100.	Rainfall in Inches.	Mean direction of Wind.	Deaths at all Ages.				Deaths from								
Progressive Number.	Date of ending.	Highest during the Week.	Lowest during the Week.	Mean Temperature.	Extreme range of Barometric changes.	Horizontal	Mean				All Ages.	Under 1 year.	1 to 5 years.	Over 60.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cgh.	Fever.	Diarrhoea.	Respiratory Diseases.	Phthisis.
1	Jan. 7	53.8	37.0	45.0	0.674	3.7	82	1.312	W.	110	33	20	15	..	8	1	..	9	..	1	26	7	
2	" 14	50.1	39.0	44.7	0.441	1.8	84	.530	S.W.	90	27	23	13	..	7	1	..	10	2	1	16	7	
3	" 21	44.6	34.3	39.8	0.276	0.4	89	.034	S.W.	78	15	17	13	..	4	1	..	7	1	1	19	9	
4	" 28	48.2	34.0	41.1	0.522	0.9	84	.310	S.	90	23	27	10	2	4	4	..	6	1	1	24	7	
5	Feb. 4	47.9	31.0	39.2	0.536	1.2	83	.238	S.E.	89	34	13	15	..	1	4	2	6	1	1	22	8	
6	" 11	49.5	34.3	42.0	0.717	0.3	90	.180	S.	95	29	16	18	..	5	4	..	8	2	1	21	10	
7	" 18	55.9	36.1	45.9	0.495	2.8	81	.806	W.	91	26	24	9	1	4	3	..	7	1	..	21	11	
8	" 25	54.9	38.0	45.9	1.139	1.8	80	.388	W.	86	28	19	13	..	3	2	..	7	..	1	28	9	
9	Mar. 4	53.6	36.2	43.6	0.801	1.7	86	1.895	S.W.	79	19	15	10	..	5	1	..	5	1	..	18	12	
10	" 11	57.9	38.4	49.0	0.865	3.1	77	.055	W.S.W.	69	19	12	12	..	2	4	1	4	..	1	11	9	
11	" 18	61.9	36.2	47.0	0.281	0.7	81	—	W.N.W.	61	13	10	11	..	..	2	..	3	..	3	16	16	
12	" 25	57.3	32.8	44.8	0.529	0.3	66	1.415	N.W.	78	22	23	5	..	3	..	..	5	1	..	17	8	
13	April 1	58.8	37.2	45.9	0.565	0.4	82	.415	S.S.W.	98	22	19	16	..	4	1	..	5	..	..	17	11	
14	" 8	62.4	38.2	45.1	0.503	1.9	70	.012	N.E.	81	19	20	14	..	6	1	..	2	1	1	14	12	
15	" 15	59.0	36.0	46.2	1.264	0.9	74	1.548	S.S.E.	98	26	25	16	..	6	1	1	5	1	1	18	16	
16	" 22	61.8	33.0	49.2	0.793	0.5	78	.870	S.W.	91	24	17	16	..	5	2	..	4	..	..	22	10	
17	" 29	58.1	36.0	46.7	0.658	2.2	69	.959	W.N.W.	90	18	19	13	..	6	4	1	4	..	3	16	16	
18	May 6	61.9	37.2	49.9	0.294	1.5	64	.718	W.N.W.	73	22	16	11	..	4	2	1	4	..	1	14	5	
19	" 13	67.7	41.4	52.1	0.365	1.1	65	.325	W.N.W.	77	20	21	12	..	7	..	..	2	2	1	15	7	
20	" 20	68.3	38.8	51.7	0.501	1.0	55	..	N.E.	72	22	17	11	..	4	..	..	4	3	1	14	3	
21	" 27	71.1	45.2	57.3	0.608	2.9	66	.716	S.E.	91	20	24	10	1	9	2	..	4	1	4	17	5	
22	June 3	69.4	47.0	58.9	0.554	0.7	71	.950	S.E.	92	23	26	11	..	11	3	1	6	1	..	12	11	
23	" 10	65.5	49.2	54.3	0.430	2.0	78	2.750	W.	77	25	16	14	..	7	2	..	2	1	2	17	7	
24	" 17	64.0	43.0	51.0	0.460	2.5	68	1.439	W.	71	20	12	3	..	1	2	..	1	2	2	15	7	
25	" 24	68.7	50.0	55.8	0.311	1.0	76	1.494	S.W.	68	20	17	7	..	4	1	..	1	3	2	15	8	
26	July 1	72.5	50.0	60.0	0.221	0.4	69	.390	N.W.	77	21	15	9	2	3	1	1	2	2	1	14	8	
27	" 8	75.3	51.0	60.0	0.872	1.5	74	2.211	S.W.	68	17	18	11	..	3	3	..	2	..	..	19	5	
28	" 15	71.4	50.6	59.4	0.485	1.9	69	.758	S.W.	86	19	20	9	..	..	..	1	2	1	8	22	11	
29	" 22	70.0	51.0	59.6	0.587	2.4	69	2.313	S.W.	85	19	24	9	..	2	3	..	2	..	10	12	7	
30	" 29	73.1	50.2	58.2	0.854	0.9	79	.343	W.	70	25	17	7	..	5	..	..	1	2	6	3	5	
31	Aug. 5	66.8	50.0	58.7	0.324	1.1	76	.537	W.	67	25	12	10	..	1	2	..	..	..	9	9	2	
32	" 12	77.2	51.3	61.6	0.300	0.7	71	.030	S.W.	87	33	14	14	..	1	1	..	1	..	11	11	8	
33	" 19	75.2	49.5	61.2	0.382	1.5	74	.860	S.W.	108	47	19	12	..	3	1	..	..	2	29	14	7	
34	" 26	67.0	48.0	56.1	0.805	2.5	74	1.089	S.W.	113	46	26	13	..	2	5	..	2	3	30	8	5	
35	Sept. 2	66.0	48.5	57.0	0.688	1.9	74	.723	S.W.	94	34	20	7	..	..	..	1	..	2	24	12	10	
36	" 9	69.0	44.0	55.6	0.765	0.4	73	.070	S.W.	81	28	20	7	..	5	..	2	1	2	14	7	6	
37	" 16	66.7	41.0	52.6	0.396	0.5	70	.083	W.N.W.	89	33	16	13	..	2	..	..	..	1	13	12	9	
38	" 23	61.3	43.0	54.4	0.160	1.1	76	.287	N.N.W.	76	24	10	12	..	..	2	..	1	1	9	7	12	
39	" 30	65.6	44.7	54.5	0.685	1.2	78	.786	S.	92	31	12	19	..	2	1	1	2	..	10	18	11	
40	Oct. 7	68.9	46.2	56.6	0.918	1.9	72	.311	N.W.	56	17	6	10	..	..	1	..	..	2	6	9	6	
41	" 14	62.1	43.0	53.0	0.621	0.6	82	.552	S.E.	75	26	21	5	..	2	1	1	1	1	4	17	10	
42	" 21	57.4	45.0	49.8	0.608	1.2	80	.758	S.E.	59	21	6	13	..	1	..	1	1	1	3	9	6	
43	" 28	53.9	35.6	45.3	0.587	1.2	85	.938	W.S.W.	62	21	11	11	..	1	..	..	..	1	4	7	5	
44	Nov. 4	58.2	38.2	48.9	0.388	3.2	80	1.919	S.W.	84	32	11	14	..	4	1	..	..	2	8	20	10	
45	" 11	58.5	36.7	44.3	0.878	2.1	85	1.207	S.W.	79	23	12	15	..	..	1	..	1	2	3	18	5	
46	" 18	45.8	30.0	38.1	0.790	0.8	72	.277	N.E.	77	15	15	13	..	1	1	1	1	2	2	18	7	
47	" 25	55.3	34.0	43.4	0.621	1.9	87	1.606	W.	76	17	15	13	..	1	2	1	3	3	3	19	8	
48	Dec. 2	46.6	30.9	39.7	0.951	1.3	86	.519	N.W.	68	23	10	12	..	1	3	..	2	2	..	16	9	
49	" 9	46.0	30.0	37.3	0.681	1.4	86	1.168	N.	95	27	9	22	..	1	..	1	1	2	..	24	15	
50	" 16	45.6	19.8	33.8	0.282	0.2	88	.390	S.E.	89	24	13	22	..	3	1	..	3	2	3	40	5	
51	" 23	49.6	38.6	43.9	0.690	1.1	88	.422	S.W.	82	22	13	16	..	2	1	..	1	1	..	24	10	
52	" 30	55.5	33.0	45.2	0.427	1.6	82	1.828	S.W.	72	22	11	12	..	1	..	..	1	1	1	24	5	



TABLE I.

CASES OF SICKNESS REPORTED DURING 1882.

Registration Sub-Districts.	All Causes.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.
Regent Road. { All Ages....	7386	35	264	78	4	150	115
Regent Road. { Under 5 years	1707	1	200	39	..	112	25
Green-gate. { All Ages....	4426	18	104	29	7	124	82
Green-gate. { Under 5 years	950	2	69	10	2	102	20
Pendle-ton. { All Ages....	3500	16	24	36	1	31	83
Pendle-ton. { Under 5 years	610	1	10	13	..	27	21
Brough-ton. { All Ages....	456	3	16	11	..	9	21
Brough-ton. { Under 5 years	115	..	10	4	..	7	1
Borough Total. { All Ages....	15758	72	408	154	12	314	301
Borough Total. { Under 5 years	3382	4	289	66	2	248	67



TABLE J.

ANNUAL RATE OF MORTALITY PER 1000 OF THE POPULATION, FROM  
ZYMOTIC DISEASES IN SALFORD DURING THE EIGHTEEN YEARS  
1865-1882.

	1.	2.	3.	4.	5.	6.	Miasmatic Diseases, cols. 1-6.	7.
	Small Pox.	Measles.	Scarlet Fever.	Whoop- ing Cough.	Diph- theria.	Fever.		Diar- rhœa.
1867-71	0·47	0·78	1·32	0·89	0·16	1·26	4·89	2·62
1872-76	0·58	0·97	1·12	0·93	0·09	0·69	4·39	1·96
1877-81	0·13	0·64	1·05	0·90	0·12	0·58	3·42	1·60
1865	0·22	0·83	0·79	0·90	0·13	1·70	4·57	3·04
1866	0·05	0·39	0·66	1·13	0·11	2·23	4·57	2·14
1867	0·01	0·87	0·55	1·15	0·18	1·18	3·94	2·47
1868	0·03	0·63	3·42	0·69	0·32	2·05	7·14	3·10
1869	0·22	1·06	1·35	0·66	0·11	1·37	4·77	2·04
1870	0·29	0·06	0·81	1·04	0·09	1·04	3·33	2·66
1871	1·80	1·27	0·48	0·90	0·09	0·68	5·22	2·85
1872	0·32	0·18	0·60	1·31	0·08	0·66	3·15	1·91
1873	0·03	1·75	0·94	0·36	0·06	0·65	3·79	2·06
1874	0·03	0·99	1·12	0·95	0·10	0·89	4·08	2·12
1875	0·22	0·96	1·74	0·98	0·17	0·77	4·84	1·95
1876	2·32	0·97	1·19	1·04	0·06	0·50	6·08	1·76
1877	0·60	0·89	0·77	0·66	0·08	0·71	3·71	1·34
1878	0·01	0·47	1·16	0·82	0·12	0·72	3·29	2·12
1879	0·00	0·84	1·22	0·87	0·14	0·37	3·44	0·84
1880	0·00	0·78	1·63	1·27	0·13	0·76	4·57	2·78
1881	0·04	0·21	0·47	0·90	0·12	0·33	2·07	0·90
1882	0·10	0·90	0·44	0·83	0·10	0·34	2·71	1·30

TABLE K.

QUARTERLY DEATHS AND DEATH-RATES IN SALFORD FROM INFECTIOUS DISEASES.

		1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Death-Rates.	
													1872-81	1882.
Small Pox.	First Quarter	33	1	1	2	48	55	1	..	..	..	8	0.37	0.17
	Second „	6	..	..	4	107	36	..	..	..	1	8	0.39	0.17
	Third „	..	1	..	5	93	2	..	..	..	..	1	0.26	0.02
	Fourth „	2	1	3	21	99	..	..	..	..	6	1	0.34	0.02
Measles.	First Quarter	6	114	7	20	26	37	5	56	14	24	50	0.81	1.09
	Second „	6	105	19	33	17	81	11	48	33	4	73	0.94	1.59
	Third „	1	9	48	45	19	13	17	14	21	1	26	0.50	0.57
	Fourth „	10	8	64	40	83	6	43	21	66	9	18	0.92	0.39
Scarlet Fever.	First Quarter	13	22	56	35	74	32	36	89	44	24	30	1.12	0.65
	Second „	13	18	21	33	33	29	21	32	100	14	21	0.81	0.46
	Third „	14	27	30	74	14	18	50	35	66	22	18	0.92	0.39
	Fourth „	38	60	49	109	57	40	78	47	69	24	12	1.49	0.26
Diphtheria.	First Quarter	2	2	1	5	2	5	1	9	4	5	3	0.10	0.07
	Second „	2	3	4	3	2	1	4	5	6	4	5	0.10	0.11
	Third „	1	3	7	5	2	4	4	4	6	6	5	0.10	0.11
	Fourth „	6	..	2	12	4	3	10	5	6	5	5	0.13	0.11
Whooping Cough.	First Quarter	90	5	53	10	73	21	32	44	117	28	82	1.23	1.78
	Second „	60	13	41	34	47	46	50	28	56	29	41	1.04	0.89
	Third „	19	1	30	36	22	20	28	27	25	25	14	0.60	0.30
	Fourth „	2	30	9	62	13	15	22	45	21	78	15	0.78	0.33
Fever.	First Quarter	16	20	32	30	22	28	26	17	17	15	10	0.58	0.22
	Second „	13	15	26	18	19	23	17	18	21	8	17	0.47	0.37
	Third „	26	23	23	27	14	23	36	18	34	15	14	0.63	0.30
	Fourth „	31	30	43	36	20	36	37	8	58	18	22	0.84	0.48
Diarrhoea.	First Quarter	13	12	17	27	17	19	17	18	13	12	11	0.44	0.24
	Second „	9	27	26	26	13	16	17	13	20	17	19	0.47	0.41
	Third „	189	219	222	193	187	134	273	75	388	92	173	5.15	3.70
	Fourth „	38	20	31	37	46	38	33	38	56	32	37	0.97	0.80



TABLE L.

RATE OF MORTALITY AT THE VARIOUS AGE GROUPS IN SALFORD DURING THE LAST ELEVEN YEARS, COMPARED WITH THE LIFE TABLE RATES AT THOSE AGE GROUPS.

	Ages.	English Life Table.	Average 1872-81.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
Persons.	All Ages.	21.5	27.1	25.3	28.3	28.2	29.5	29.5	26.3	27.1	26.7	27.9	22.5
	0-5	65.7	94.1	85.9	96.0	97.0	99.6	102.4	90.7	99.7	92.8	106.6	71.6
	5-20	7.1	6.5	6.0	6.4	7.0	7.4	8.2	5.1	6.3	6.3	7.3	5.1
	20-40	10.3	10.6	10.4	11.2	11.2	11.2	12.3	11.2	9.6	9.7	9.6	9.2
	40-60	18.3	25.8	23.9	27.6	27.7	29.6	26.4	26.6	23.9	25.1	23.5	23.6
	60 and upwards.	71.7	80.6	78.0	90.6	78.9	91.3	80.4	76.8	77.5	84.7	70.9	76.5
Males.	All Ages.	22.4	29.4	28.8	30.5	30.4	31.4	31.8	28.8	28.7	29.1	30.3	24.3
	0-5	70.1	100.4	98.5	103.9	99.3	104.1	108.0	95.6	103.5	101.9	112.6	76.8
	5-20	7.0	6.9	6.5	6.8	7.8	7.4	7.8	5.3	6.7	6.6	7.7	6.1
	20-40	10.1	11.6	11.7	11.0	12.5	12.2	14.5	13.6	10.4	9.6	10.9	9.8
	40-60	19.4	29.0	27.4	31.0	32.8	32.3	29.1	31.2	24.9	28.2	26.6	26.5
	60 and upwards.	73.9	85.4	87.4	96.2	84.0	98.0	84.8	77.0	82.8	92.3	73.4	78.0
Females.	All Ages.	20.7	25.1	22.2	26.4	26.2	27.9	27.4	24.2	25.6	24.5	25.8	20.9
	0-5	61.3	88.0	73.2	88.0	95.3	95.1	96.9	85.1	95.8	83.6	100.5	66.4
	5-20	7.2	6.2	5.6	6.0	6.3	7.3	8.5	5.0	5.8	6.0	6.9	4.2
	20-40	10.5	9.6	9.3	11.2	10.2	10.4	10.3	9.1	8.9	9.8	8.4	8.7
	40-60	17.2	23.0	20.9	24.7	23.3	27.3	24.0	22.7	23.1	22.4	20.9	21.1
	60 and upwards.	69.7	77.1	71.3	86.8	75.2	86.5	77.2	76.6	73.7	79.3	69.2	75.4







*Record of Cases taken before the Magistrates during 1882, with result of proceedings.*

Particulars of Complaint.	No. of Cases.	How disposed of.	Amount of Fines.
			£ s. d.
Adulteration of food and drugs ..	28	{ Twenty-three fined, in all £40; } { three withdrawn, two dismissed }	40 0 0
Being in possession and exposing for sale diseased meat ..	5	{ Four fined, in all £17 3s.; one } { dismissed .....	17 3 0
Dressing carcase of calf on unlicensed premises .....	1	Fined £3 .....	3 0 0
Neglecting to limewash slaughter-house .....	1	Fined 2s. 6d. ....	0 2 6
Neglecting to have manure removed from cowshed ....	1	Fined £2 .....	2 0 0
Using furnaces not constructed to consume their own smoke }	6	{ Five fined £19 10s.; one not } { proceeded with .....	19 10 0
Negligently using furnaces constructed to consume their own smoke .....	9	{ Seven fined, in all £8 15s.; one } { withdrawn and one dismissed }	8 15 0
Permitting smoke nuisance ....	1	{ "Order to abate" made under } { Public Health Act .....	....
Ashpits, privies, drains, and premises in such a state as to be a nuisance .....	14	{ One order to abate made. 11 } { withdrawn, and two dismissed }	....
Letting houses in lodgings without being registered .....	9	{ Seven fined, in all £1 16s.; one } { dismissed, and one not served }	1 16 0
Keeping common lodging-house without being registered .....	1	Fined 10s. ....	0 10 0
Permitting more persons to sleep in rooms than they are registered to accommodate ..	10	{ Six fined, in all £1 12s. 6d.; } { three withdrawn, one dismissed, and one not served .. }	1 12 6
Neglecting to limewash lodging-houses .....	2	One fined 10s.; one withdrawn ..	0 10 0
Removing offensive matter through the streets during prohibited hours .....	9	Nine fined, in all £6 10s. ....	6 10 0
Depositing offensive matter on land not being a wharf for the shipment of the same }	4	{ Four fined, in all £2 3s. .... }	2 3 0
Disobeying orders to abate ....	2	Two withdrawn .....	....
To show cause why continuing penalty should not be enforced .....	2	Two penalties, £8 each .....	16 0 0
Exposing small pox patient without proper precautions being taken .....	1	Fined £2 .....	2 0 0
Improperly fouling a privy .....	1	Withdrawn .....	....
Threatening inspector .....	1	Withdrawn .....	....
	108		£ 121 12 0



PARTICULARS OF WORK DONE BY THE HEALTH DEPARTMENT  
DURING THE YEAR 1882.

	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton	
No. of Complaints lodged at Health Office	2508	974	750	176	608	
Inspections made.	Of Dwelling-houses .....	19712	9134	4710	3626	2242
	„ Lodging-houses .....	1980	1140	760	80	..
	„ Slaughter-houses .....	2236	728	364	832	312
	„ Dairies and Milkshops .....	1551	852	309	270	120
	„ Shippons .....	1664	260	..	832	572
	By Smoke Inspector—Observations taken .....	453	112	200	111	30
	Under Adulteration Act—Samples collected for Analysis .....	465	195	95	102	73
	By Meat Inspector—Seizures made .....	208	182	18	7	1
	Miscellaneous Sanitary Inspections .....	1078	439	260	200	179
	Re-inspections after Service of Notice .....	7158	3250	1586	1492	830
Total Inspections made by Staff ..	36505	16292	8302	7552	4359	
Orders issued for Abatement of Nuisances	3203	1279	941	696	287	
Nuisances abated pursuant to order.	Houses and Premises cleansed, repaired, and limewashed .....	1731	719	639	316	57
	Houses disinfected after infectious disease .....	800	349	127	188	136
	House Drains repaired, trapped, or disconnected .....	1458	683	349	200	226
	Ashpits and Privies repaired or reconstructed .....	955	262	196	435	62
	Accumulations of Manure and Refuse removed .....	140	35	61	31	13
	Number of Ashpits attended to after complaint .....	2035	562	444	227	802
	Improperly-kept Animals removed .....	83	29	30	11	13
	Overcrowding of Dwellings abated .....	54	10	30	14	..
	Passages and Yards repaired, drained, and flagged .....	1624	761	143	519	201
	Total number of Nuisances abated ..	8880	3410	2019	1941	1510
Registered.	Lodging-houses .....	45	19	26	..	..
	Slaughter-houses .....	43	14	7	16	6
	Dairies and Milkshops .....	604	252	92	94	166
	Shippons .....	32	5	..	16	11
	Marine and Second-hand Stores ..	204	95	60	36	13
Patients removed to Fever Hospital ....	216	99	39	49	29	
Infected bedding and clothing disinfected ..	167	71	28	47	21	
Infected bedding destroyed .....	106	42	36	20	8	
Legal proceedings taken (see page) ..	..	..	..	..	..	



PRICES OF COAL, FLOUR, POTATOES, AND BUTCHER'S MEAT, AND THE  
NUMBER OF PAUPERS RELIEVED IN SALFORD—1871 TO 1882.

	AVERAGE PRICES OF FOOD AND FUEL.					PAUPERISM.		
	Coal, per ton.	Flour, per stone.	Potatoes, per load.	Butchr's Meat, per lb.	Weekly Average of Paupers relieved.			
					Indoor.	Outdoor	Proportion to Population.	
	£ s. d.	£ s. d.	£ s. d.	d.				
1871	0 7 5½	0 2 0	0 8 8¼	6¾	791	2343	1 in 40	
1872	0 10 0¼	0 2 1¼	0 4 6¾	6½	764	1839	1 in 50	
1873	0 15 9¾	0 2 3	0 13 0¼	7¾	817	1711	1 in 53	
1874	0 16 1¾	0 2 2	0 11 4	7½	853	1842	1 in 52	
1875	0 12 4	0 1 7½	0 10 6¾	7½	872	1652	1 in 57	
1876	0 11 6	0 1 9¼	0 10 7½	7½	944	1409	1 in 64	
1877	0 10 5	0 2 1½	Various.	7¼	1037	1662	1 in 57	
1878	0 9 10	0 1 7½	Various.	7¾	1146	2326	1 in 46	
1879	0 7 5	0 1 11½	0 14 0	6¾	1442	4023	1 in 30	
1880	0 7 11	0 2 5¾	0 10 0	7½	1559	3488	1 in 34	
1881	0 7 8	0 1 8¾	0 10 0	7¼	1640	3039	1 in 38	
1882	0 7 7	0 1 7¼	0 12 0	7½	1379	2300	1 in 56	





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