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BOROUGH OF PRESTON.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN AND PORT SANITARY AUTHORITIES,

FOR THE

Year ending December 31st, 1910.

H. O. PILKINGTON,

MEDICAL OFFICER OF HEALTH,

MEDICAL OFFICER TO THE PORT SANITARY AUTHORITY,

MEDICAL SUPERINTENDENT ISOLATION HOSPITAL.



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Report of the Medical Officer of Health.



TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

I commenced my Annual Report for 1909 with the statement that the death-rate recorded during that year was absolutely the lowest for any period for which reliable statistics were available, and though the rate for the past year of 1910 is slightly higher, still the increase is so very slight that the two years may in this respect, and for all practical purposes, be placed upon the same level.

As regards climatic conditions, there was a similarity between the two years, but although the amount of Diarrhœa during the year just past was below the average usually met with, it was considerably in excess of the remarkably low figure recorded during 1909.

The vital statistics for the year are based upon a population estimated at 119,253, but how far this is correct will be shown when the results of the census, to be taken on April 1st, in the current year, are made known. When the census is only taken at intervals of ten years, errors must of necessity creep into the calculations, and these increase in proportion to the time which has elapsed since the date when the population was last enumerated. The situation of a town, and the fact that it does, or does not, include a number of outlying suburbs within the limits of the municipal boundary, have an important bearing not only upon the question of population, but also upon the vital statistics—the birth and death rates—since it is to these suburbs that young newly married people migrate, attracted by the smart newly built houses, and the semi-rural nature of the surroundings. In this respect Preston compares unfavourably with many other towns, some of smaller size and much less commercial importance, since districts, like Fulwood and Penwortham, are not included within the Borough boundary, and yet are largely inhabited by those whose business interests are centred in the town, and who, without unduly increasing the mortality, might reasonably be expected to make important additions to the number of births.

These are conditions which unequally affect different towns, which have a marked influence upon the vital statistics, and yet the value of which can only be properly recognised

by those who have an intimate knowledge of the local conditions of each town, and of the nature and residence of its population.

Before dealing in detail with the different diseases which have combined to form the list of mortality during the past year, I would—as in previous Reports—point out that the figures contained in Table No. 5 are derived from the returns of the Registrar General, and consequently include the deaths in the Fulwood Workhouse of all persons who formerly were resident in the Borough. Again, the various deaths in the Isolation Hospital are not put down to Deepdale Ward, but are divided amongst the various districts in which the patients were resident prior to their removal to hospital.

The main features of the various Tables, Plans and Chart are the same as those of former Reports, the object being to maintain a ready means of comparing the nature, age, and locality of the different deaths with those which have been recorded in former years.

It is again satisfactory to be able to record an entire absence of Small Pox throughout the year. Only 74 cases occurred in different parts of the kingdom, 19 deaths representing the total mortality from this cause. But a possible introduction of the infection at any time must not be overlooked, nor the fact that a considerable part of the younger population is no longer protected by vaccination. This is brought to light during the routine examination of the children, at the various schools, when many are found without the marks of vaccination, or with such slight ones as to show that the operation had only been done in a perfunctory manner, and that the protection afforded is consequently insufficient and unsatisfactory. Again, the re-vaccination of candidates for public appointments, as in the Post Office, is no longer insisted upon, exemption being obtainable upon the slightest pretext, and with the least possible amount of trouble. The future effect of all this remains to be seen, and it can only be hoped that the too probable result may be long delayed. When the country has for a considerable length of time been entirely free from Small Pox, it is at the principal seaports that the infection may first be expected to make its appearance, and so many of such cases as occurred during the past year were reported from London, Hull, Bristol, Cardiff and Swansea. No doubt the various Port Sanitary Authorities form an efficient first line of defence against the importation of this, as of other, sea borne forms of infection, but no matter what care or vigilance may be exercised, it is difficult to prevent the spread of infection into inland towns, either through the medium of undeveloped cases of contact, or of articles of merchandise, clothing, &c., which, having once become infected, may retain the poisonous germs for a considerable period. And just as the spread of a conflagration depends in a great measure upon the combustible nature of the material with which it comes into contact, so the extent of a Small Pox epidemic is mainly governed by the vaccinated or unvaccinated condition of the community amongst whom the first cases occur.

Efficient vaccination in infancy, especially if followed, at a suitable interval, by re-vaccination, practically ensures immunity from Small Pox, or in the rare cases when infection, under these conditions, is contracted, a serious and frequently fatal disease is converted into one of comparatively slight significance. Since vaccination is now placed within the easy reach of all who desire it, it is the duty of the head of every household to secure for himself, and for those over whom he has control, the undoubted protection which is thus afforded.

Of late years, with the advance of medical knowledge, the use of animal serums and vaccines for the treatment and prevention of disease has steadily gained ground, but there are probably none so efficacious and reliable in action as is vaccine lymph in its antagonistic effect upon Small Pox.

And yet many persons who, for themselves and others, would repudiate with loathing the use of a few drops of lymph passed through the body of a calf would, when threatened with Diphtheria, eagerly seek for the protection afforded by a copious injection of antitoxin serum derived from the blood of a horse which has itself by means of repeated injections become immunized to the disease. The example set and the results obtained, in other countries, where vaccination is enforced, the history of Small Pox Epidemics before the date of Dr. Jenner's great discovery, and the statistics in recent years of Small Pox Hospitals, should suffice to convince the most incredulous as to the value of vaccination, but it looks as though nothing but a widespread epidemic would serve to drive the lesson home, and to make England once more a well vaccinated country.

The mortality from Typhoid Fever was represented by 20 deaths, a number nearly double that for the previous year, but less than that for 1908, while it just equals the average spread over a period of the past six years. The number of cases of illness from this disease, notified by medical certificate, was 119, so that the percentage of deaths was equal to 16.80 of the persons affected. Considerably more than one half of the reported cases were removed to Hospital, with a resulting mortality of 10 deaths, but as will afterwards be shown in dealing with the Hospital returns, many of these deaths were directly due to other causes, or to complications which, running concurrently with the Typhoid Fever, by the severity and urgency of their symptoms completely overshadowed the last-named disease.

As usual, upon receipt of a notification, careful enquiry was made into the circumstances attendant upon the case, and as to any conditions of the house and its surroundings which might possibly have led up to infection. The patient's occupation, if an adult, the milk supply, the previous family history with a view to the detection of any possible "carrier," the recent consumption of shell fish, were all matters for careful investigation, but in the

majority of instances, and especially as regards the first case in a house, no very definite or satisfactory result could be obtained. Where the patient was nursed at home, and other members of the family were subsequently affected, there was often good cause to suspect that the infection had been transmitted through the want of strict cleanliness on the part of someone who combined the duties of nurse with those of looking after—and very possibly cooking for—the rest of the household.

I would take this opportunity of warning the public against the consumption of shell-fish—especially mussels—derived from the beds in the immediate neighbourhood of St. Annes. Recently Dr. H. Timbrell Bulstrode has completed a survey of the English coast with a view to ascertaining and describing the positions of the various beds of shell-fish—other than oysters—and to the collection of evidence showing the relation existing between the consumption of such shell-fish and disease. In his report to the Local Government Board, speaking of the liability of St. Annes mussels to contamination, he says “. . . there can be no question but that the mussels hereabouts are seriously liable to sewage pollution, in fact some of them are literally bathed in sewage. Needless to say the St. Annes' mussels should not be eaten at any period of the year, and numerous cases of enteric fever have been ascribed to these molluscs at Blackpool and elsewhere.”

Scarlet Fever was prevalent at the beginning of the year, and continued to be so for the first three or four months, after which there was an improvement, although at no time was the town clear of this form of infection.

A great deal of the spread of the disease was due to unrecognized cases, which were so slight as to escape observation in the early stages, and only attracted attention to the true nature of the illness, when desquamation, or some of the numerous sequelæ common to Scarlet Fever had set in. It is very desirable that greater care should, in this respect be exercised by parents and guardians, especially when it is known that the disease is more or less present throughout the town; and this not only in the interests of the Public Health, but for the safety of the patient, since the after consequences of even a mild attack of Scarlet Fever are often very serious, and of a lasting character. The cases of sickness notified during the year numbered 369, and of these 8 terminated fatally, the deaths thus standing at the low rate of 2·17 per cent. of the reported cases of illness. Although the disease at no time attained such severe proportions as to call for the closing of any of the Schools, several of these were at different times thoroughly disinfected, whilst the children in attendance were also examined with a view to the discovery of unsuspected cases which might be serving as agents in spreading the disease. Throughout the year the prevailing form of Scarlet Fever was a mild one, but in the later months cases from time to time occurred, in which the symptoms were much more severe, and seemed to indicate a return to the type so commonly seen in former years, when a fatal termination was more frequently met with.

Diphtheria showed an increase as regards the number of cases reported, but the percentage of deaths—15·38, was lower than in recent years. Of the 117 cases notified, 18 terminated fatally—3 of these deaths occurring at the Isolation Hospital, to which 45 of the patients were removed. Several of these cases were moribund upon admission, and only survived removal by a few hours.

There is considerable doubt as to whether or not all the cases reported were true Diphtheria, but in a disease of this kind it is better to err upon the side of caution, and to treat cases of sore throat with septic symptoms as being the graver disease. This is especially the case when the illness shows itself in a family of children, and the housing accommodation is limited.

In Diphtheria much depends upon the timely injection of the anti-toxin serum, and for this reason medical advice should at once be sought in all doubtful cases, and where removal to Hospital is desirable, this should be carried out with as little delay as possible. Where time is lost before obtaining medical assistance it often becomes a question as to whether the patient will bear removal, and though it is evident that the nursing and accommodation afforded at home will be ineffectual, it is not very satisfactory to receive into Hospital a case about the immediate and fatal termination of which there can be little doubt.

Under Sec. 133 of the Public Health Act, 1875, any Local Authority may, with the sanction of the Local Government Board, make provision for the temporary supply of medicine and medical assistance for the poorer inhabitants of their district. In August of last year the Board made an order sanctioning the provision of "Diphtheria Anti-toxin," in order to facilitate its prompt use among persons who may be attacked by, or exposed to, the infection of, Diphtheria. A circular, accompanying the Order, explained that arrangements for the keeping, distribution, and use of the Anti-toxin were to be made in accordance with the advice of the Medical Officer of Health, and that where the patient was under the care of a medical practitioner, the latter should under ordinary circumstances be the one to administer it. It further explained that this provision of Anti-toxin must not be looked upon as a substitute for the removal of a patient to hospital, nor as implying that a patient to whom it had been administered might be retained for treatment at home, unless there were, in the opinion of the Medical Officer of Health, efficient means for isolation. The arrangements made for the supply of the Anti-toxin were to be brought to the knowledge of all the medical practitioners of the district, and I accordingly issued the following notice :—

Medical Officer of Health's Department,

Preston, October 6th, 1910.

Sir,

The Local Government Board in a recent Order, have sanctioned the provision, by Local Authorities, of a temporary supply of Diphtheria Anti-toxin, and of medical assistance in connection with such supply, for the poorer inhabitants of their district.

This provision must not be regarded as a substitute for removal to hospital of a diphtheria case, or as implying that such case may be retained at home, unless it can be efficiently isolated.

The Board also desire to lay emphasis on the importance of prompt treatment by Anti-toxin, and on the saving of life which may be thereby effected.

The arrangements for the keeping and distribution of the Anti-toxin are to be made on the advice of the Medical Officer of Health. I have therefore named the Isolation Hospital, Deepdale Road, as a suitable centre for this purpose.

Upon written, or personal, application, any registered medical practitioner in the Borough may obtain, for suitable cases, a supply of the Anti-toxin, with loan of syringe.

If required, I shall be prepared to give medical assistance in connection with its use.

I remain,

Your obedient Servant,

H. O. PILKINGTON,
Medical Officer of Health.

The Hospital was in all respects a suitable and convenient centre, being situated upon the tram route, and at all hours available for communication by telephonic message. Up to the close of the year, 9 applications for the serum were received and dealt with.

To Measles 26 deaths were ascribed, of which number 6 were recorded in St. John's, and 7 in St. Peter's Ward. Although the disease was present throughout the whole of the year, the greatest mortality occurred in the summer months, 13 deaths, or just one-half of the total number, being registered during the months of June and July.

In former Reports reference has frequently been made to one dangerous feature of this disease, viz., that it is infectious—and therefore capable of being transmitted from one child to another—before the appearance of the rash conclusively proves the actual nature of the illness. Since the spread of the infection is so frequently capable of being traced to the contact of children when at school, it is most desirable that teachers should not only be acquainted with the early symptoms of the disease, but also that they should keep a close watch over the children under their control, and at once exclude all those who show any signs which may reasonably be regarded as suspicious. This is especially necessary when the disease is known to be prevalent in the town, or even in that portion of the town from which the children attending any particular school are drawn. At different times throughout the year the Schools Medical Officer visited certain schools in which cases of Measles had recently appeared, examined the children in attendance, and excluded all those who showed any signs of impending illness. By this means, on several occasions a threatened epidemic was cut short, and the timely exclusion of a comparatively few children prevented what might very probably have been a serious inroad upon the register of school attendance.

With a view to assisting teachers, the following notice of instructions was drawn up, and issued to all the elementary schools in the town :—

Medical Officer of Health's Department,
Preston, April 22nd, 1910.

NOTICE TO SCHOOL TEACHERS.

In view of the threatened outbreak of Measles it is essential that Teachers should keep a close watch over the children, especially over those attending the Infant Schools.

In the early stages—and before the appearance of the rash—the disease may be recognized by the swollen suffused face, slight cough, tenderness and running at the eyes and nose, headache and sickness.

Such cases should at once be sent home, with instructions to the parents to obtain medical assistance.

The child's school place, and any books or slates which it may have used, should be carefully wiped over with a disinfectant.

H. O. PILKINGTON,
Medical Officer of Health.
Medical Superintendent of Schools.

Whooping Cough caused very little trouble throughout the year, the cases of sickness being very few in number, and not of a severe type, so that only 5 deaths resulted from this cause. These all occurred in children under the age of 5 years, the districts affected being chiefly those to the north and western sides of the town. The preventive means adopted in the case of Measles were also employed in dealing with this disease. The schools were visited in which cases of Whooping Cough were known, or suspected, to exist, and all children presenting even doubtful signs of infection were for a time excluded.

Although the amount of Diarrhoea was considerably more than that recorded during 1909, the past year with regard to this disease was by no means a bad one, and compares favourably with the majority of its predecessors. The total number of deaths attributed to this cause was 93, and of this number 89 were those of infants or children under the age of 5 years, leaving only 4 for distribution amongst the years of adult life. Of the 74 deaths occurring amongst infants under the age of twelve months, 4 were registered in the first month, after which the numbers increase until the end of the eighth month, beyond which they again show a reduction.

Since most infants are suckled for the first few weeks of their lives, these figures would show that breast feeding is a great protection against Diarrhoea, and that the danger increases in the succeeding months until the child has become old enough to deal with, and digest, the artificial foods upon which, after the first month or two, the majority of them are fed. It was

during the latter half of August, September, and the first fortnight of October that Diarrhoea was especially prevalent, and it is at the end of summer and beginning of autumn that food stuffs, and especially milk, are liable to be affected by conditions of temperature. It is at this time also that flies begin to come into the houses, bringing with them the hurtful germs derived from middensteads and refuse heaps in which they have been bred, and upon which they have since lived. All foodstuffs, and especially milk, should be covered over, and so protected from their attacks, whilst no refuse or decaying matter should be allowed to remain in the neighbourhood of the house.

Consumption—Tubercular disease of the lungs—again exacted its toll of victims, but it is satisfactory to note that the number of deaths is below that of the preceding year, and shows a still more marked improvement upon an average extending over the past six or ten years. A total of 97 deaths was recorded during the year, and the position as regards this disease in comparison with former years is shown in the following Table:—

PHTHISIS AND OTHER TUBERCULAR DISEASES RATES,
per 1,000 of the Population, for each Year from 1900 to 1910.

Year.	Phthisis.	Other Tubercular Diseases.
1900	1·30	0·95
1901	1·02	1·30
1902	1·01	1·20
1903	0·96	0·80
1904	1·07	1·01
1905	1·08	0·70
1906	1·05	0·46
1907	1·09	0·54
1908	0·98	0·64
1909	0·90	0·50
1910	0·81	0·75

The "Other Tuberculous Diseases" include the Tuberculous Peritonitis and Meningitis of children, and Tuberculosis affecting the bones, joints, or other organs. Of recent years public attention has been largely directed to the subject of Tuberculosis, its causes and effects. Its infectious nature and general method of transmission have now been scientifically proved and are popularly accepted, and this constitutes the first step in the crusade against the disease. Though not included in the list of diseases which must in all cases be notified, an Order of the Local Government Board dated 1908 made all cases notifiable which occurred either in the Workhouses or in the practice of Union Medical Officers. A still more recent

Order, coming into force on May 1st of the current year, provides for the notification of cases of Pulmonary Tuberculosis occurring amongst the patients of hospitals, or similar institutions, which are supported wholly or partially otherwise than by contributions from the patients, or from rates and taxes.

But whilst a knowledge of the situation of the cases of disease is absolutely necessary, it is obvious that this must be followed up not only by treatment of the patient himself, but by measures taken for the protection of those with whom he must of necessity be brought into contact.

By the Order just mentioned, a Health Authority is empowered, whilst respecting the privacy of the information received, to take such steps as may be of assistance in preventing the spread of infection.

Previous to the issue of the two Orders just referred to, the only means of ascertaining the situation of cases of Phthisis was through the registration of deaths from this cause, when the house could be visited and disinfected, and certain measures taken for the protection of the remaining inmates. Now an opportunity is afforded for dealing with cases—limited certainly in number—during life; of giving advice for the benefit both of the patient and his relatives, and of supplying portable spittoons for the sputum, which, when carelessly thrown about in all directions, becomes, in its dried state, one great agent in the spread of the disease.

The provision of hospital or sanatorium accommodation for phthisical patients has at different times been discussed, and the importance and advantage of such provision has been fully recognised, if only as a means of education for patients in the early stages of the disease, but, mainly on the ground of expense, no action has been taken.

Tubercular dispensaries would to some extent offer a solution to the difficulty, since the patients can continue at their occupations whilst still under treatment, but the results would probably not be very complete unless the scheme were allied to some form of hospital residence and training. With regard to any action in this direction, in face of the very unsettled and uncertain future of medical practice, both public and private, I would for the present advise an attitude of observant delay. Meanwhile anything which tends to improve the social conditions and homes of the people helps to lessen the dangers of Consumption, whilst the education as to the causes, dangers, and safeguards of the disease, which is gradually being diffused, also tends in the same direction.

Respiratory disease, as meaning affections of the lungs, other than Consumption, and of which Bronchitis and Inflammation of the lungs are the chief forms, accounted for 308 deaths, of which 188 were caused by the first, and 120 by the last named of these diseases.

This is somewhat lower than the number ascribed to the same causes during the preceding year, when the climatic conditions were very similar, and is still more below the average extending over the past six years. Under 5 and over 60 years were the age periods at which the greatest number of deaths was recorded, and naturally the mortality from these causes was heaviest at the beginning and close of the year.

These diseases are not so much controlled and influenced by insanitary conditions as are those of a zymotic nature, nor, unlike the infectious fevers, are they amenable to disinfection or to measures intended to prevent their spread. In this sense they are non-preventible, but in addition to weather and temperature they are in extent and severity undoubtedly influenced by social conditions, such as poverty, intemperance, bad ventilation and insanitary surroundings.

The extent of such diseases can therefore be reduced, and the rate of mortality lowered by extending a knowledge of the first laws of health, and by improving the sanitary conditions of homes, workshops and factories.

The deaths due to causes which can only come into operation at the very beginning of life, which can only affect the newly-born and those who have not attained their first year, number 289, but to these may be added the deaths of 66 other children, who, though somewhat older, have died under the age of five years, and this from causes which have been present, though probably in a latent form, from the time of their birth. Details as to the causes of the purely infantile deaths, those under the age of twelve months, are set forth in Table VA, which in addition shows the deaths from all causes, under the age of one year.

These include deaths from Measles, Diarrhœa, Respiratory diseases, and other causes already referred to, and make a total of 438 deaths registered as under the age of one year.

Premature Births account for 53 deaths, all failing to survive the first month, whilst 4 other children, though living slightly longer, failed to make good their hold on life, which from the very first, owing to prematurity, had been of the feeblest. Amongst other causes of death in the very early stages of life are Congenital defects, Convulsions, Tubercular diseases, and what is somewhat indefinitely described as Atrophy, Debility, Asthenia, &c., a condition which in some instances might be connected with the growing desire on the part of some parents to limit the extent of their families.

The deaths attributed to Old Age number 126, and whilst slightly below those for the preceding year, are in excess of the average extending over a period of six or ten years.

Violence accounted for 51 deaths, of which 12 were cases of suicide, and the rest were various forms of accident.

Under the heading "Other Diseases" are included 641 deaths, further details concerning which are given in Table IV_A, which also takes into account the deaths at the Fulwood Workhouse. Diseases of the Heart caused 184 deaths, whilst 111 were ascribed to Cancer or some form of malignant disease.

During the year 7 cases of Puerperal Fever were notified as occurring in the Borough, and of these, 3—or 42·86 per cent.—terminated fatally. The cases occurred in various parts of the town, and at different times of the year, nor was there any reason to suspect that infection was carried from one patient to another. Accidents, and diseases of a non-septic nature, connected with parturition, accounted for 6 more deaths. An additional death from some cause of this description, as also a death from Puerperal Fever were returned from Fulwood Workhouse.

Reports to the number of 84 were received in relation to Erysipelas, but only 1 death—that of an adult—resulted from this cause. This disease is included in the list for which notification is compulsory, and it is well that it should continue to be so, both on account of its possibly being connected with some insanitary condition of the houses, and also because of the danger attendant upon contact with it under certain conditions, of which parturition may be cited as an example.

The births registered throughout the year amounted to 2,812, equal to a rate of 23·58 per thousand, the lowest upon record, and below that—24·80—for the whole of England and Wales. In spite of this low figure, and mainly owing to the reduction in the death rate, the natural increase for the year was equal to 1,054 lives, a number which, although below the average for the past ten years, is still sufficient to more than compensate for the excess of emigrants over the number of persons entering the town.

The Notification of Births Act, 1907, continues to work satisfactorily. The total number of births recorded by the Registrars was 2,812, and of this number 2,696 were notified to the Health Office, leaving a deficit of 116. The notifications received were divided between the midwives, and the relatives, 1,236 being accounted for by the former, and 1,460 by the latter agency. No reports of births were received from Medical Practitioners. Those sent in by the midwives are made upon the stamped forms with which they are gratuitously supplied, and are sent in regularly, and as a rule within the prescribed time—36 hours after the birth.

Where notification devolves upon the parents or other relatives delay occasionally takes place, but this would appear to be from ignorance, and not from any wilful intention of breaking the law. Such delays are less frequent than formerly, and as the provisions of the Act become more widely known, and its good effect more generally recognized, these will probably almost entirely cease.

As soon as the notifications are received, they are divided amongst the Health Visitors, according to their respective districts, and by them the various houses are at once visited. In this way the main object of the Act is attained, and mother and child receive skilled assistance and advice at a time when this is most required, and most likely to be of service.

During the year the bodies of 181 still-born children were interred in the Cemetery, but only 56 cases of still-birth were reported by the various midwives. The law with regard to the burial of still-born, or so-called still-born children, is in an unsatisfactory state, and the absence of any definite rule of registration, or any enquiry into the circumstances of each case renders it possible for children that have breathed and lived, to be called still-born, and buried as such. This opens the door not only to deception, but to offences of a more serious nature.

Under the Midwives' Act, 1902, the names of 6 women have, during the past year, been added to the Register. The names of 4 have however been removed for the following reasons:—Retirement 1, Death 1, Removal from District 2—so that the number at present remaining upon the Register is 57, as against 55 for the preceding twelve months. Of the recent additions, 2 hold certificates of training recognised by the Board, and the other 4 were admitted under the new Rule lately sanctioned by the Privy Council, which enables the Board at its discretion, to grant certificates, without examination, to women, who, though duly qualified under Section 2 of the Midwives' Act, 1902, failed to claim the Board's certificate during the two years period of grace which expired on March 31st, 1905.

In granting such certificates, the Board, in addition to requiring evidence of character and competence, are guided by the requirements of the district in which the applicant proposes to practice.

There has been an increase in the number of Midwives holding certificates of training. There are now 11 such upon the Register, equal to 19 per cent. of the number practising, as against 7 per cent., so qualified at the time of the passing of the Act. In the course of time the old school of midwives must gradually die out, and be replaced by a more modern type, better instructed, and consequently more careful as to the practice of strict cleanliness.

At the beginning of the year, all the midwives upon the Register, together with their records and equipments, were personally inspected. At different times I have had occasion to see a number of them with reference to cases occurring in their practice, but have not found it necessary to report any for malpraxis or neglect of duty.

The Local Authority ordered proceedings to be taken against a woman who, not being certified, habitually and for gain was attending women in confinement otherwise than under the supervision of a Medical Practitioner. This was contrary to Sec. 1 (2) of the Midwives'

Act, 1902, coming into force after April, 1910, to the provisions of which I had directed the attention of a number of unqualified women by circular, a copy of which was printed in last year's report. In the case in question, after receiving a promise that the offence should not be repeated, I advised that the proceedings should be withheld.

Table No. 9 gives a return of the work done by the Sanitary Inspectors in their respective districts.

This is drawn up on the lines adopted in recent years, and taken in conjunction with the Table dealing with Inspections of Factories, Workshops, &c., furnishes a summary of the routine work for the year. But a great deal of valuable work has been accomplished which does not lend itself to tabulation, and concerning which it has not been necessary to serve formal notice. Nor can the amount of time and labour expended on any particular piece of work be indicated by the heading under which it is entered, since the attendant conditions are necessarily varying.

The abolition of the old privies and ashpits is now practically finished, though occasionally one or two come to light which have either been overlooked, or concerning which there has been some reason for delay. The advantages of the conversion to the water-carriage system cannot be over-estimated, but the successful and satisfactory working of this system depends upon a sufficient and regular Water Supply, and good drainage, so that the excreta may be, as intended, at once and effectually carried away from the dwelling. The new regulations with regard to water-fittings will have a good effect, in as much as they will ensure an adequate flush to each closet, while at the same time they will tend to prevent unnecessary waste.

The iron trough closet, although regarded, when it first came into use, as a sanitary improvement, is in many respects objectionable. It becomes rough and corroded, and in consequence is difficult to keep clean. Where possible these iron troughs have been superseded by others of smooth strong earthenware, or what is better still, by separate closets of the pedestal type.

The work of flagging yards, and adjacent lobbies, which formerly were pebble-paved, has been continued, and in every instance the change has been attended with marked improvement in the sanitary condition.

The tenants of cottage houses who reap the benefit of these alterations should remember that they can not be effected without considerable expense to the owner, and should certainly endeavour not to increase the initial cost by careless treatment or even by wilful damage. For instance, the life of an ashpail depends upon the treatment it receives, and so

in the case of adjoining houses, the pails, supplied at the same time, will at the end of a year or two present very different appearances, the one will appear very little the worse for wear, whilst the other is so battered and knocked about, as to be almost beyond recognition, and unfit for further service.

The Housing and Town Planning Act, 1909, will confer additional powers upon the Health Authority of a town, but the extent to which its provisions will be of service depends in a great measure upon the housing conditions, and the accommodation provided, in each town. Here the work of house to house inspection has for a great number of years been carried out, and any insanitary conditions found have been remedied, either by arrangement with the owner, or by notice under the Public Health, or a Local, Act. Under the Housing &c. Act, a great number of minor, but still important, defects—such as broken staircases, windows that will not open, &c.—may be included, and dealt with, in one notice, so effecting a considerable saving of time and trouble. Houses unfit for habitation, of which fortunately there are not many here, can now be dealt with and closed by order of the Town Council, without having recourse to the Magisterial bench. The owner is however invited to appear before the Health Authority and show cause why a closing order should not be made, and is further at liberty to appeal against their decision to the Local Government Board. Up to the close of the year, beyond making the necessary arrangements and obtaining the required registers and forms of notice, no steps have been taken under this Act. A number of areas were however marked out as suitable for action during the current year.

Table No. 10 gives a summary of the work done by the Inspectors under the Factory and Workshops Act, and the succeeding Table—No. 11—furnishes a return of the various trades and occupations on the Register.

All these have been systematically inspected during the year; many of them, as in the case of the offensive trades, at very frequent intervals. Trades of this latter description, situated in the midst of a town, must always be a source of difficulty, this difficulty increasing as the temperature rises with the summer months, since the materials with which they deal are then so much more likely to become decomposed and offensive. At such seasons nothing but constant care and vigilance on the part of those responsible can prevent the creation of a nuisance, which, arising from a single business, is capable of causing discomfort to a great number of persons living in, or passing through, the surrounding area. There is naturally ground for complaint that one individual should for his own profit and advantage be a nuisance to a considerable section of the community, but the existing law makes it difficult to deal with businesses of this class, especially with those which have been long established.

Cellar dwellings have practically ceased to exist in the town, and the few which do

remain are occupied by single couples—often old people—and are regularly visited, and kept in as good sanitary condition as possible.

With the exception of the holiday time—Easter and Whitsuntide—not many vans or tents are found in the town. A few pass through on their way to and from the seaside, but the regular show people as a rule are good to deal with, take a pride in their dwellings, and, outside and in, keep them in a clean and smart condition.

The same may be said about the Canal boats, the occupants of both these classes of dwellings making up for the very limited nature of their household accommodation, by their outdoor lives and the amount of fresh air which they enjoy in the course of their travels from place to place.

The following Report dealing with the conditions of those Canal Boats, which come under the control of this Authority, was in the early part of the year forwarded to the Local Government Board.

COUNTY BOROUGH OF PRESTON.

CANAL BOATS ACTS, 1877 AND 1884.

This Report, for the year 1910, deals with the condition of the Canal Boats, coming under the jurisdiction of this Sanitary Authority.

No change has been made in the method of inspection, the work of supervision being carried out by Inspector Crossthwaite, in addition to his other Sanitary duties, and without special remuneration.

The number of boats upon the register also remains unchanged, a total of 55 having in all been entered, whilst of this number 22 have at different times been cancelled, leaving 33 still upon the books.

In the case of the boat "Hope," No. 32, a transfer has taken place from one owner to another, whilst at the same time the name has been changed to "Harold."

During the year all the boats have been inspected, as have also a number of others registered by the Lancaster Authority.

Owing to lack of employment, three of the boats—Belle No. 3, Kate No. 24, registered at Preston, and Elizabeth No. 4, registered at Lancaster—have been out of use, and laid up for practically the whole of the year.

Whenever the certificate was found to be torn or otherwise disfigured, a new copy has been issued.

No case of Infectious disease has been reported, or found, upon any of the boats. The daughter of one of the Captains was reported to be suffering from Typhoid Fever, but investigation showed that she had not been in contact with the boat. She was removed to hospital, and made a good recovery, no further case occurring amongst the family.

One child of school going age was found on board the Lancaster, No. 12, suffering from some affection of the ear. This was the reason of her absence from the school at Carnforth, which she was in the habit of attending. Upon representation, the parents undertook not to again bring her upon the boat.

In several cases, infringements of the Regulations were found, consisting chiefly of cabins requiring painting, defective decks and cabin floors, and dirty condition of cabins. These have now all been remedied, and the necessary work done, with the exception of the painting required in the cabins of Florence No. 52, Wasp No. 16, Stella No. 50, Redwing No. 17, Olive No. 51, Benjamin No. 48, and Kenneth No. 41. When notice was served, these boats were found to be in the Court of Chancery. They have since been sold, although as yet the purchase has not been completed. When this is done, there is reason to believe it will be followed by an immediate compliance with the terms of the notice.

Four notices served by other Authorities have been investigated; and the forms, after being duly signed, have been returned to the Authorities by whom they were issued.

The following Table shows the details of occupation and inspection during the past ten years.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Number of Inspections	68	96	103	105	113	111	132	129	138	123
Males in occupation ..	88	104	113	140	142	146	169	162	167	150
Females	40	48	38	64	71	59	67	78	82	81
Children	48	46	29	53	68	53	46	79	87	81

All other details are shown on the attached statistical supplement.

H. O. PILKINGTON,
Medical Officer of Health.

The Cowsheds, Dairies, and Milkshops have been regularly inspected, and from time to time various improvements have been effected. The provision made by cowkeepers in the town both for the housing of the cows and for dealing with milk and the milk vessels, as a rule compares favourably with that which is met with in the country districts. Still, much that is desirable still remains to be done, especially in the direction of greater cleanliness both in the process of milking, in the washing of the milk vessels, and in the handling and distribution of the milk itself.

The Smoke observations for the year would seem to show that as regards the emission of dense smoke from factories and other large industrial concerns, there has during the past year been a decided improvement. It remains to be seen how far this will be continued, when better trade and increased amount of product call for a greater consumption of fuel.

The Public Abattoir, Slaughter houses, and markets have received constant attention, and though a large amount of meat and fish has been condemned and destroyed, it has all been voluntarily submitted for examination, and there has consequently been no need for magisterial condemnation, or for further punitive proceedings.

The greater part of the meat has been taken at the Abattoir, although certain of the registered slaughter houses contribute a fairly regular proportion; and practically the whole of the fish has been taken from the wholesale market at the railway station.

The Common Lodging Houses have been regularly visited, and though there has been no great improvement in their condition, they have been made to comply with the conditions under which they were registered. Proceedings were taken against the keeper of one house for a breach of the Bye-laws, and a penalty of ten shillings and costs was obtained. In another instance, where the keeper of an unregistered house was carrying it on as though it were a Registered Lodging House, and was admitting casual nightly lodgers, a penalty of twenty shillings and costs was obtained. In such a case, although the house may not present all the structural advantages that might be desired, it is better that it should be placed upon the register, and so come more immediately under the control both of the Police and the Sanitary Authorities. The registration of one house, which for a long time had been unfit for the purpose to which it was put, was voluntarily given up by the tenant, and since then though application has been made by the owner on behalf of another tenant, registration has been refused.

Under the Food and Drugs Adulteration Act, samples to the number of 189 were purchased, and afterwards submitted to analysis. Two samples of milk were found to be somewhat deficient in fat, and the vendors received cautionary letters. A sample of whiskey was found to have been diluted to the extent of ten per cent below the statutory limit, but owing to the death of the analyst—Dr. Campbell Brown—no further action was taken. All the other articles, the nature and number of which are shown on Table No. 15, proved to be of genuine quality. In addition 64 other samples were purchased informally, and of these 6 were found to be of unsatisfactory character. The vendor, in these cases, was not informed of the purpose for which the sample had been bought, and the result of the analysis was used as a guide in making future purchases.

Table No. 12 gives the year's record of work done by the Health Visitors. One of the principal duties is that of visiting the births, at any rate all reported from localities where their services are likely to be wanted and well received. In certain instances it is necessary for these visits to be repeated at varying intervals, since without such attention there is often a tendency for the improvement first effected gradually to be lost. Visits to the minor infectious diseases, occurring amongst school children, forms another branch of their work, the result of which has been that often necessary medical assistance has been obtained, and the patients have been isolated, and spread of infection has been prevented. The following

TABLE B.

	0—3	3—4	4—5	5—6	6—7	7—8	8—9	9—10	10—	Total.
Typhoid Fever	1	1	1	2	1	1	4	11
Scarlet Fever	1	6	19	9	12	15	6	11	79
Measles ...	2	106	209	281	188	94	29	20	49	978
Whooping Cough...	...	1	4	9	7	3	...	1	2	27
Diphtheria	1	2	5	3	...	...	1	5	17
Chicken Pox	6	15	22	19	18	7	4	15	106
Mumps	5	21	94	112	76	64	29	72	473
Ringworm, Eczema, Sore Eyes, Heads, &c.	1	26	57	69	45	37	35	61	331

In consequence of infantile Diarrhoea being somewhat more prevalent than in the previous years, there is an increase in the number of visits paid to homes in which deaths from this cause have been reported. The inspection of the heads of children, both whilst in attendance at school, and at home, has been continued. This is work requiring constant repetition, otherwise the good results obtained at first are lost, and there is a gradual falling back into the original dirty conditions. Another duty recently added to the work of the Health Visitors is that of visiting the homes of children who have been reported by the Schools Medical Officer to be suffering from some defective condition requiring medical treatment. This work of "following up" these cases so as to ensure as far as possible their receiving the necessary attention was only commenced towards the close of the year and is not dealt with in this year's Table.

It is work which must prove to be beneficial, since it will help to complete the work of the Schools' Medical Officer, who in the course of his examination of the children finds that certain of them are suffering from defects calling for medical interference. He at once acquaints the parents, but cannot insure that his advice will be followed, or, even if followed in the first instance, that treatment will be persevered with for the required length of time. The Health Visitor will often be able to secure for the child the assistance needed, and so free it from conditions, which might increase in severity, and in the course of time become incur-

able. The work of medical inspection of school children during the past year has been carried out by Dr. McKeague, and full details concerning it are given in his able Report, recently published. In several of the schools improvements have been effected, and structural defects remedied; and in one a re-arrangement of the sanitary accommodation has been planned, although not carried out, during the past year. Greater space in many of the cloak rooms, so as to prevent the children's hats and outer garments from being in close contact, combined with better ventilation, would be of great advantage, and would assist in checking the spread of infectious and contagious diseases. The lighting of a school, like the ventilation, is a matter of primary importance, and in certain of them the natural lighting might be improved both in character and amount, whilst in others a better system of artificial illumination would result, amongst other advantages, in a much purer atmosphere.

The surfaces of many of the playgrounds require levelling, and covering with some impermeable material. This is the more necessary since drill and physical exercises form an important part of the curriculum. Under the present conditions, mud and dust are carried into the school room, and settle not only upon the floor, but also upon ledges and rough surfaces, from which the fine particles are constantly being disturbed, and diffused throughout the atmosphere. Not only is this an evil of itself, but the dust often becomes a vehicle for the conveyance of moulds, bacteria and infectious germs, and a consequent agent in the transmission of disease from one child to another.

For this reason dry sweeping should be avoided, the floors should be sprinkled with a disinfectant before being cleaned, and the furniture, as well as any ledges or projections likely to retain dust, should be wiped over with a cloth moistened with carbolacene or some suitable, but not unpleasant, disinfectant.

This latter course is especially suitable for the cloak rooms, which might with advantage at certain periods be thoroughly sprayed. All this involves time, labour, and consequent expense, especially if, in order to ensure its being done in a thorough and satisfactory manner, the work is carried out under skilled supervision.

H. O. PILKINGTON,

Medical Officer of Health.

THE ISOLATION HOSPITAL.

Although the extent to which the Hospital has been used has, of course, varied in accordance with the prevalence of the different forms of infectious disease, it has during the whole of the year been in active operation, and the number of patients treated shows an increase over that for either of the two previous years. The following table gives the number of inmates at the end of 1909, the admissions, recoveries, and deaths during the past year, and the number of patients remaining under treatment on December 31st, 1910:—

Disease.	In Hospital 31st December, 1909.	Admissions.	Recoveries.	Deaths.	In Hospital 31st December, 1910.
Typhoid Fever ...	4	76	58	11	11
Scarlet Fever ...	51	187	220	5	13
Diphtheria ...	...	45	37	3	5

Throughout the year the average daily number of patients was 26·4, and the average duration of stay in hospital was 31·3 days. This latter average is, of course, greatly reduced by those cases which died very shortly after admission, as well as by those patients in whom the exact nature of the disease did not receive early recognition, and who were admitted when convalescing, or, in the case of Scarlet Fever, after desquamation had commenced. Several of the cases of Typhoid Fever having fatal results, were complicated by other diseases as Pneumonia, Peritonitis, &c., which caused death within a short interval after the patients admission.

The cases of Scarlet Fever were especially numerous during the early part of the year, when the accommodation provided for this disease was taxed to its utmost capacity.

Although the general type of Scarlet Fever was of a benign character, there were at intervals, and more especially towards the end of the year, admissions in which the disease assumed a more severe, and in some cases even a malignant, aspect. Such patients with septic conditions of throat, mouth, nose, &c., naturally give cause for anxiety not only on their own account, but on that of other children, from whom it is necessary they should as far as possible be isolated. There was fortunately no spread of these septic conditions from the cases admitted to the other children resident in Hospital.

The chief expenses for maintenance are shown in the following table, which gives the amounts for the three complete years during which the Hospital has been in operation.

MAINTENANCE ACCOUNT.

Nature of Expense.	1908			1909			1910		
	£	s.	d.	£	s.	d.	£	s.	d.
Food—Patients and Staff	562	19	8	581	5	4	671	18	3
Drugs, Surgical Dressings, &c.	50	2	0	38	15	0	46	13	8
Coal, Slack, Coke... ..	212	12	5	212	0	0	222	3	0
Salaries	435	5	5	476	10	1	483	5	0
Paid to other Corporation Departments for Ground Rent, Rates, Water, Electric Current	355	6	8	367	11	10	378	14	5

The daily cost of food for each person (Patients and Staff) has been 9¼d., or at the rate of 5s. 4¾d. per week, or £14 os. 7d. per annum.

The average daily expenditure has been £5 19s. 6d., making a total expenditure for the year of £2,181. 8s. 10d.

The average total cost for each patient treated in the Hospital has been £7. 1s. 8d.

The grounds and garden have been maintained in good order, and the growth of the shrubs and trees has been followed by a general improvement in appearance. This is a matter of considerable importance, since there is less reluctance on the part of relatives to allow patients—especially children—to enter an Institution of a bright, cheerful, and ornamental character. It also does much to remove the prejudice and opposition generally shown against the erection of an Isolation Hospital in any neighbourhood, and in the present instance the open space and attractive appearance of the grounds would seem to act as an incentive to the erection of new houses in the vicinity.

I would place on record my appreciation of the manner in which the Matron, and Staff generally, have striven to enable the Hospital to carry out the good work for which it was erected.

H. O. PILKINGTON,
Medical Superintendent.

PORT SANITARY.

During the past year there has, both with respect to numbers and amount of tonnage, been an increase in the vessels entering the dock or coming to the quay side. This refers to the steamers, as the sailing vessels, if anything, show a slight falling off in numbers. The defects found are very similar to those of former years, and are set forth in Table No. 17. Many of them are of comparatively slight importance, and are due to want of care and cleanliness on the part of the crews rather than to structural defects. One such condition frequently met with is the foul state of the provision lockers. This is so common that only the extreme cases have been included in the tabulated returns, but in all instances, for a time at any rate, the unsatisfactory condition has, upon the representation of the Inspector, been remedied. Indeed a verbal request was sufficient to obtain the remedying of all the defects found, whether attributable to crew, captain, or owners, and therefore in no instance was it necessary to serve a formal notice.

The continuance of Cholera in various parts of Russia made it necessary to keep a close watch upon foreign coming vessels, especially upon those from the Baltic ports.

No case of infectious disease was found upon any of the Ships, nor was there in any instance a history of sickness of a suspicious nature. Such cases of illness as were found existing, or were reported as having occurred during the voyage, were neither infectious nor contagious. The possibility of the introduction of Small Pox by means of coasting vessels from Liverpool, Glasgow, or other ports was kept in view, but nothing suspicious came under observation.

From time to time notice was received from various ports of passengers who had landed from vessels in which this or some other infectious disease had been present, and had afterwards travelled to Preston. Such cases were visited and watched, until the period of possible incubation had expired.

The hospital erected many years since, near the entrance to the dock, for the purpose of dealing with sea-borne Cholera has been subjected to slight repairs, and maintained in serviceable condition. The possible dangers resulting from the presence of rats about the vessels and warehouses has not been lost sight of, and although no systematic crusade has been made against them, there have been various efforts to reduce their numbers.

H. O. PILKINGTON,
Medical Officer of Health,
Port Sanitary Authority.

TABLE No. 1.

Number and Causes of Deaths at different Ages, for the year 1910.

Cause of Death.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over.	Total.	Corres- ponding year, 1909.	Corres- ponding year, 1908.	Corres- ponding year, 1907.	Average for the past six years.
Small Pox .....	..	..	..	..	..	..	..	..	..	..	1'33
Fever .....	..	1	2	3	13	1	20	11	25	17	20'00
Scarlatina .....	..	4	2	1	1	..	8	7	1	7	7'66
Measles	8	18	..	..	..	..	26	19	96	22	71'66
Diarrhoea	73	16	..	..	4	..	93	28	104	57	113'50
Whooping Cough	2	3	..	..	..	..	5	65	18	63	43'83
Diphtheria .....	..	10	8	..	..	..	18	12	11	14	15'17
Croup .....	..	..	..	..	..	..	..	4	7	6	8'00
Consumption	1	1	8	26	60	1	97	107	116	128	120'33
Bronchitis	40	30	3	1	47	67	188	237	240	291	252'00
Inflammation of Lungs....	16	20	8	8	55	13	120	82	96	163	111'83
Teething, Premature Births and Debility	289	59	17	..	..	..	365	320	366	358	358'17
Old Age .....	..	..	..	..	5	121	126	139	120	111	110'83
Violence, &c.	4	2	8	6	26	5	51	62	74	65	65'66
Other Diseases	5	8	35	30	362	201	641	628	701	701	660'17
Total.....	438	172	91	75	573	409	1758	1721	1975	2003	1960'14

TABLE No. 2.

Number and Causes of Death in each Month of the Year during 1910.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November	December	Total.
Small Pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever	1	...	2	1	...	4	...	1	1	2	3	5	20
Scarlatina.....	...	1	2	2	1	...	...	...	...	1	...	1	8
Measles.....	...	...	...	3	4	7	6	1	...	3	1	1	26
Diarrhœa .....	...	...	...	1	2	2	3	33	36	14	1	1	93
Whooping Cough.....	1	2	...	1	...	1	...	...	...	...	...	...	5
Diphtheria .....	...	1	3	2	2	3	1	3	1	1	1	...	18
Croup .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Consumption	11	9	9	7	7	8	5	11	5	9	9	7	97
Bronchitis.....	22	18	16	18	14	11	7	7	13	9	28	25	188
Inflammation of Lungs ...	11	11	10	22	12	7	2	4	5	5	17	14	120
Teething, Convulsions, &c.	32	31	40	23	40	29	25	47	24	29	33	22	365
Old Age	12	9	19	15	5	8	8	11	10	6	14	9	126
Violence, &c.	6	...	2	3	5	8	3	5	5	4	3	7	51
Other Diseases.....	54	61	66	47	45	51	51	56	45	43	65	57	641
Total.....	150	143	169	145	137	139	111	179	145	116	175	149	1758

TABLE No. 3.

Number and Causes of Death in each Ward for the year 1910.

Wards.	Small Pox.	Fever.	Scarlatina.	Measles.	Diarrhoea.	Whooping Cough.	Diphtheria.	Croup.	Consumption.	Bronchitis.	Inflammation of Lungs.	Teething, Pre-mature Births, & Debility	Old Age.	Violence, &c.	Other Diseases.	Total Deaths.	Rate per 1000 per annum.	Total Births.	Rate per 1000 per annum.	Population.
St. John's Ward	1	1	6	9	..	2	..	13	20	10	40	15	3	76	196	16.35	249	20.77	11985
Avenham Ward	1	..	1	3	..	1	..	4	6	9	11	5	4	38	83	10.85	125	16.34	7651
Christ Church Wd.	..	1	1	1	10	..	3	..	5	17	9	24	7	2	33	113	12.31	207	22.55	9177
Ashton Ward	2	..	..	3	1	2	..	4	14	7	13	4	2	46	98	12.12	172	21.27	8088
Maudland Ward	1	..	..	9	..	3	..	16	11	11	28	8	3	42	132	16.11	228	27.83	8193
St. Peter's Ward..	..	2	..	7	10	1	..	..	6	16	11	42	9	2	57	163	14.42	305	27.00	11300
Moor Brook Ward	..	1	2	2	8	1	1	..	8	19	6	30	9	3	44	134	14.12	230	24.23	9490
Park Ward	3	..	4	9	2	5	..	8	21	19	51	18	1	81	222	14.26	369	23.71	15564
Trinity Ward	5	2	4	20	..	..	..	12	27	12	36	16	5	49	188	16.00	260	22.12	11751
Deepdale Ward	1	1	1	5	..	1	..	8	18	11	41	10	..	42	139	14.71	272	28.78	9450
Ribbleton Ward	1	..	..	3	..	..	..	9	9	4	25	9	3	34	97	10.85	222	24.84	8938
Fishwick Ward	1	..	4	..	..	..	4	8	5	21	8	1	39	91	12.00	173	22.57	7666
Gaol, Infirmary, &c.	..	1	..	..	..	..	..	..	..	2	6	3	8	22	60	102	..	..	..	..
Total.....	..	20	8	26	93	5	18	..	97	188	120	365	126	51	641	1758	14.74	2812	23.58	119253

Death Rate per annum, per 1,000 of Population for the Year14.74
 Do. Do. Do. Average for 10 years16.88
 Infantile Mortality (Deaths under one year per 1,000 Births) for the year ..156.00
 Do. Do. Do. Average for 10 years170.00
 Per centage of Deaths under one year to total deaths for the year24.81
 Do. Do. Do. Average for 10 years27.87

TABLE No. 4.

Number of Deaths in each Ward during each Month of 1910.

Wards,	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November	December.	Total.
St. John's Ward	21	13	27	17	11	17	8	25	12	17	15	13	196
Avenham Ward	8	9	6	3	9	6	5	11	5	6	10	5	83
Christ Church Ward	10	11	13	10	7	3	9	16	8	4	13	9	113
Ashton Ward	9	6	10	5	10	10	7	5	7	8	9	12	98
Maudland Ward	6	12	20	10	9	12	5	11	11	10	18	8	132
St. Peter's Ward.....	11	13	15	19	12	12	14	18	13	6	17	13	163
Moor Brook Ward	14	7	12	12	13	13	6	11	17	8	12	9	134
Park Ward	19	17	22	16	23	20	17	14	18	20	20	16	222
Trinity Ward	16	13	12	13	20	11	12	19	22	15	11	24	188
Deepdale Ward	14	15	14	15	8	8	8	15	14	7	14	7	139
Ribbleton Ward	11	11	7	7	6	11	3	12	3	7	13	6	97
Fishwick Ward	5	9	9	6	2	5	5	12	8	2	6	12	91
Gaol, Infirmary, &c.	6	7	2	12	7	11	12	10	7	6	7	15	102
Total.....	150	143	169	145	137	139	111	179	145	116	175	149	1758

TABLE IA.

Vital Statistics of Whole District during 1910 and Previous Years

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number	Rate*	Under 1 Year of Age.		At all Ages.					Number	Rate*
				Number	Rate per 1000 Births registered	Number	Rate*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1900	118,902	3410	28.67	814	236	2636	22.16	66	..	200	2836	23.85
1901	113,117	3418	30.21	737	218	2213	19.56	75	...	149	2362	20.88
1902	113,766	3278	28.81	618	188	1998	17.56	61	...	144	2142	18.82
1903	114,404	3453	30.18	541	156	1955	17.08	66	...	135	2090	18.26
1904	115,055	3314	28.26	609	183	2091	17.83	79	...	149	2240	19.10
1905	115,721	3259	28.16	490	150	1906	16.47	90	...	169	2075	17.93
1906	116,399	3317	28.49	665	200	2065	17.74	85	...	170	2235	19.20
1907	117,093	3124	26.68	495	158	2003	17.10	118	...	211	2214	18.90
1908	117,799	3369	27.56	516	156	1975	16.45	84	28	175	2122	17.67
1909	118,519	3027	25.54	416	137	1721	14.52	104	52	173	1842	15.54
Averages for years 1900-1909	116,077	3290	28.35	590	178	2056	17.64	82	...	167	2215	19.01
1910	119,253	2812	23.58	438	156	1758	14.74	102	42	213	1929	16.17

* Rates calculated per 1,000 of estimated population.

TABLE IA.—Continued.

Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
1	2	3
Preston Royal Infirmary	Preston Union Workhouse	Borough Isolation Hospital
Nurses' Home, Garstang Road	Ribchester Workhouse	
St. Joseph's Hospital ...	Hospital for Women, Liverpool	
	Bolton Infirmary	
	Leigh Infirmary	
	Moffat Hydropathic, Dumfries	
	County Lunatic Asylum, Lancaster	
	Royal Albert Asylum, Lancaster	
Is the Union Workhouse within the District? No.		

Total population at all ages112,982
 Number of Inhabited Houses24,194
 Average number of persons per house ...4.66

Area of District in acres (exclusive of area covered by water) } 3,721.
 At Census of 1901.

TABLE 2A.

Vital Statistics of separate Localities in 1910 and previous years.

Localities.	1901				1902				1903				1904				1905				1906				1907				1908				1909				1910			
	Popula- tion estimated to middle of year.	Births regis- tered.	Deaths at all ages.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.	Popula- tion regis- tered.	Births at all ages.	Deaths under 1 year.	Deaths under 1 year.				
St. John's Ward ...	11409	378	212	65	11495	354	217	71	11555	373	193	39	11630	346	232	64	11685	314	211	62	11745	345	219	73	11805	329	191	54	11855	323	197	60	11915	301	190	51	11985	249	196	47
Avenham Ward	7363	132	110	22	7394	101	82	13	7422	135	91	16	7462	141	116	14	7482	141	107	19	7502	146	105	44	7542	131	109	20	7582	161	98	13	7617	139	91	12	7651	125	83	17
Christ Church Ward	8753	254	159	48	8787	239	147	42	8837	269	137	48	8887	271	123	48	8972	242	137	35	8987	258	153	25	9037	238	140	37	9087	228	145	39	9127	251	124	33	9177	207	113	29
Ashton Ward	7688	210	98	33	7728	205	109	26	7758	231	110	32	7798	235	135	39	7838	220	108	21	7903	231	100	20	7953	197	106	21	8003	208	113	22	8038	185	105	19	8088	172	98	18
Maudland Ward ...	7783	215	130	50	7823	238	138	44	7873	227	125	38	7908	224	146	49	7948	231	123	39	7998	224	108	31	8058	200	124	32	8113	253	141	46	8153	226	123	41	8193	228	132	35
St. Peter's Ward ...	10597	332	213	67	10635	324	176	61	10735	383	201	63	10820	346	180	64	10900	372	192	65	10970	357	220	82	11040	373	209	63	11100	358	190	58	11200	343	150	42	11300	305	163	48
Moor Brook Ward...	9080	315	183	78	9119	264	138	47	9167	253	153	42	9201	239	156	44	9250	241	120	33	9300	257	147	46	9350	241	164	44	9410	242	123	38	9440	223	122	27	9490	230	134	37
Park Ward	14592	492	290	124	14701	482	265	91	14791	490	280	81	14880	447	271	80	15030	456	247	76	15125	466	267	104	15209	414	262	76	15304	454	250	62	15464	391	193	46	15564	369	222	65
Trinity Ward.....	11098	338	243	66	11185	319	249	83	11267	318	202	50	11330	323	218	71	11400	304	209	46	11455	298	239	97	11495	320	191	51	11581	290	209	62	11681	282	167	44	11751	260	188	46
Deepdale Ward	8986	272	156	62	9020	284	149	51	9060	281	129	30	9120	301	187	53	9170	280	151	39	9240	307	167	56	9310	262	144	36	9360	318	162	44	9400	265	116	36	9450	272	139	43
Ribbleton Ward ...	8506	266	201	68	8547	248	144	54	8597	273	159	56	8630	212	139	37	8670	247	111	27	8728	264	147	54	8778	250	137	42	8838	265	152	41	8878	249	129	40	8938	222	97	30
Fishwick Ward	7262	195	143	50	7302	196	123	35	7324	212	109	34	7380	227	109	39	7421	208	100	28	7466	182	108	33	7516	168	108	19	7566	208	93	28	7606	163	107	17	7666	173	91	23
Public Institutions...	...	1	75	5	...	5	61	4	...	1	66	2	...	2	79	5	...	3	90	2	85	1	118	1	84	3	...	7	104	8	102	3

TABLE 5A.

Deaths from stated Causes in Weeks and Months under One year of Age during the Year 1910.

Cause of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes:—																	
Certified	70	15	15	11	111	46	42	25	42	24	28	31	16	22	18	12	417
Uncertified	5	...	2	...	7	1	1	1	2	1	3	3	...	1	1	...	21
Common Infectious Diseases:—																	
Small Pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	...	...	1	...	2	1	1	3	8	...
Scarlet Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (Membranous Croup).....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough.....	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2
Diarrhoeal Diseases:—																	
Diarrhoea, all forms .....	...	...	3	1	4	9	9	7	7	8	10	6	5	2	5	2	74
Enteritis, Mucos Enteritis, Gastro	...	...	1	1	2	2	1	1	1	2	1	5	2	...	...	...	17
Enteritis .....	...	...	1	1	2	2	1	1	1	2	1	5	2	...	...	...	17
Gastritis, Gastro-intestinal Catarrh	...	...	1	1	2	3	1	3	3	...	...	...	...	2	...	...	14
Gastritis, Gastro-intestinal Catarrh	...	...	1	1	2	3	1	3	3	...	...	...	...	2	...	...	14
Wasting Diseases:—																	
Premature Birth	38	7	7	1	53	3	...	...	1	...	...	...	...	...	...	...	57
Congenital Defects	16	...	1	2	19	2	2	...	2	1	...	...	...	...	...	...	26
Injury at Birth .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast Milk .....	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
Atrophy, Debility, Marasmus	13	3	1	1	18	12	12	5	10	4	3	1	1	1	1	...	68
Tuberculous Diseases:—																	
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	...	...	1	2	...	...	1	...	4
Tuberculous Peritonitis: <i>Tabes</i>	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Mesenterica</i> .....	...	...	...	...	...	...	2	2	4	...	...	1	...	3	...	1	13
Other Tuberculous Diseases.....	...	...	...	...	...	...	...	1	1	1	...	2	...	1	1	...	7
<i>Erysipelas</i> .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Syphilis</i> .....	...	...	...	1	1	1	...	...	1	1	...	1	...	...	...	...	5
<i>Rickets</i> .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Meningitis (not Tuberculous)</i>.....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
<i>Convulsions</i>	3	2	2	1	8	5	6	2	3	3	4	6	1	5	1	...	44
<i>Bronchitis</i>.....	...	...	...	...	...	6	6	2	7	...	5	4	3	3	2	2	40
<i>Laryngitis</i> .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Pneumonia</i>	1	...	...	1	2	1	...	1	1	1	1	3	...	5	3	...	16
<i>Suffocation, overlying</i> ...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	2
Other causes	4	3	1	...	8	2	3	2	2	3	5	3	2	2	3	4	39
Total	75	15	17	11	118	47	43	26	44	25	31	34	16	23	19	12	438

Population, estimated to middle of 1910	119,253
Deaths from all Causes at all Ages	1,758
Births in the Year, Legitimate	2,680
" " Illegitimate	132

TABLE No. 5.

Birth Rate, Death Rate, and Analysis of the Zymotic Death Rate in 39 of the largest English Towns, for the year ending 31st December, 1910. Compiled from the Registrar General's Returns.

Name of Town.	Estimated Population 1910.	Birth Rate.	Recorded Death Rate.	ZYMOTIC DEATH RATE.								Deaths under One Year to 1,000 Births.
				Small Pox.	Meas-les.	Scar-let Fever.	Diph-theria.	Who'p-ing Cough	Fever.	Diarr-hœa.	Total.	
London	4,872,702	23·9	12·7	0·00	0·41	0·04	0·09	0·28	0·04	0·28	1·14	102
Croydon	164,485	23·2	11·0	0·00	0·20	0·04	0·11	0·12	0·00	0·13	0·61	88
West Ham	328,585	26·4	11·7	0·00	0·30	0·06	0·15	0·25	0·05	0·38	1·20	101
Brighton	131,900	19·9	14·2	0·00	0·60	0·04	0·01	0·14	0·07	0·39	1·26	111
Portsmouth	217,989	26·6	13·8	0·00	0·29	0·14	0·26	0·24	0·18	0·25	1·36	104
Norwich	125,446	23·0	12·5	0·00	0·06	0·09	0·13	0·15	0·03	0·22	0·68	103
Plymouth	126,266	20·2	13·5	0·00	0·37	0·01	0·09	0·30	0·06	0·33	1·17	114
Bristol	382,550	21·7	11·5	0·00	0·08	0·03	0·09	0·17	0·02	0·19	0·60	91
Wolverhampton	105,962	22·5	12·5	0·00	0·17	0·05	0·04	0·26	0·01	0·18	0·71	107
Birmingham	570,113	26·2	13·7	0·00	0·06	0·14	0·11	0·37	0·04	0·38	1·12	130
Leicester	248,374	21·4	11·3	0·00	0·05	0·05	0·04	0·21	0·04	0·29	0·68	127
Nottingham	266,471	24·8	14·2	0·01	0·20	0·06	0·11	0·24	0·05	0·35	1·02	129
Derby	131,256	24·2	11·1	0·00	0·10	0·03	0·17	0·10	0·05	0·10	0·56	85
Birkenhead	122,431	30·4	16·2	0·00	0·27	0·04	0·19	0·52	0·06	0·69	1·78	135
Liverpool	767,606	30·1	17·7	0·00	0·60	0·22	0·13	0·58	0·04	0·71	2·29	140
Bolton	190,315	22·9	13·4	0·00	0·01	0·19	0·15	0·29	0·06	0·37	1·09	117
Manchester	716,354	27·1	16·0	0·00	0·40	0·11	0·14	0·56	0·08	0·49	1·79	132
Salford	244,636	26·7	15·1	0·00	0·34	0·12	0·21	0·41	0·10	0·52	1·70	130
Oldham	144,111	25·8	17·3	0·00	0·58	0·03	0·06	0·54	0·07	0·51	1·81	128
Burnley	107,448	24·9	16·3	0·00	0·55	0·20	0·16	0·36	0·06	1·13	2·46	170
Blackburn	137,972	21·4	14·2	0·01	0·31	0·20	0·16	0·11	0·06	0·46	1·31	137
Preston	119,253	23·6	16·2	0·00	0·27	0·07	0·14	0·07	0·17	0·99	1·71	158
Huddersfield ...	94,702	22·9	16·6	0·00	0·10	0·19	0·16	0·29	0·05	0·31	1·12	99
Halifax	112,818	16·5	12·8	0·00	0·12	0·03	0·21	0·12	0·08	0·14	0·72	91
Bradford	295,865	18·6	14·0	0·00	0·49	0·05	0·13	0·15	0·10	0·33	1·24	127
Leeds	490,985	22·2	13·7	0·00	0·32	0·08	0·13	0·30	0·04	0·38	1·27	132
Sheffield	478,763	26·5	13·4	0·00	0·25	0·07	0·07	0·39	0·03	0·67	1·49	127
Hull	280,006	28·6	15·2	0·00	0·26	0·06	0·17	0·23	0·10	0·93	1·75	135
Sunderland	161,083	28·5	15·9	0·00	0·37	0·08	0·13	0·28	0·06	0·50	1·43	129
Gateshead	133,676	27·2	13·0	0·00	0·18	0·04	0·08	0·52	0·01	0·52	1·36	152
Newcastle	285,951	26·4	13·9	0·00	0·30	0·04	0·14	0·28	0·03	0·36	1·15	121
Cardiff	199,189	24·3	11·9	0·01	0·23	0·09	0·12	0·10	0·03	0·36	0·94	112
Swansea	98,817	32·6	17·6	0·00	0·39	0·03	0·16	0·25	0·02	0·32	1·18	124
Warrington	73,295	30·4	14·5	0·00	0·15	0·06	0·09	0·25	0·12	0·48	1·15	114
St. Helens	96,523	32·6	14·5	0·01	0·16	0·23	0·07	0·16	0·10	0·61	1·35	125
Stockport	105,087	25·6	15·7	0·00	0·38	0·02	0·13	0·34	0·03	0·43	1·33	136
Middlesbrough	107,014	32·2	16·8	0·00	0·09	0·03	0·32	0·29	0·09	1·17	2·00	145
South Shields ...	119,737	28·0	13·6	0·02	0·14	0·05	0·04	0·53	0·05	0·41	1·24	113
Northampton ...	99,113	19·2	11·4	0·00	0·19	0·00	0·07	0·24	0·04	0·22	0·76	112

TABLE No. 6.

The estimated Population, Number of Births and Deaths, Rates per thousand, and natural increase within the Borough, for each year since 1841.

Years.	Estimated Population.	No. of Deaths.	Death Rate per 1000.	No. of Births.	Birth Rate per 1000.	Natural Increase.
1841	51,000	1508	29.57	1974	38.70	466
1842	52,840	1550	29.33	1944	36.79	394
1843	54,680	1459	26.38	1975	36.12	516
1844	56,520	1380	24.42	2200	38.92	820
1845	58,360	1635	28.01	2293	39.29	558
1846	60,200	2189	36.36	2475	41.09	286
1847	62,050	2059	33.18	2268	36.59	209
1848	63,900	1550	24.26	2223	34.79	673
1849	65,750	1751	26.63	2403	36.55	652
1850	67,600	1745	25.81	2649	39.19	904
1851	69,450	2241	32.26	2803	40.36	562
1852	70,850	2284	32.23	2998	42.31	714
1853	72,250	2346	32.47	3072	42.51	726
1854	73,600	2013	27.35	3037	41.26	1024
1855	75,000	2557	34.10	3071	40.95	514
1856	76,400	2251	29.46	3151	41.24	900
1857	77,800	2131	27.39	3286	42.24	1155
1858	79,200	2545	32.13	3082	38.91	537
1859	80,600	2111	26.19	3399	42.17	1288
1860	82,000	2236	27.27	3381	41.23	1145
1861	82,985	2585	31.15	3626	43.69	1041
1862	83,231	2411	28.97	3522	42.32	1111
1863	83,477	2142	25.66	3388	40.57	1246
1864	83,686	2432	29.06	3422	40.89	990
1865	83,932	2708	32.26	3338	39.77	630
1866	84,178	2854	33.90	3535	41.99	681
1867	84,424	2608	30.89	3732	44.20	1124
1868	84,670	2798	33.04	3710	43.82	912
1869	84,916	2248	26.47	3434	40.44	1186
1870	85,162	2406	28.25	3486	40.93	1080
1871	85,427	2541	29.75	3438	40.24	897
1872	85,654	2294	26.78	3704	43.24	1410
1873	86,000	2899	33.71	3558	41.37	659
1874	86,000	2962	34.44	3582	41.65	620
1875	86,000	2581	30.01	3499	40.68	918
1876	86,600	2331	26.92	3623	41.84	1292
1877	87,000	2336	26.85	3601	41.39	1265
1878	87,300	2502	28.66	3697	42.35	1195
1879	87,600	2395	27.34	3403	38.83	1068
1880	88,000	2425	27.35	3475	39.49	1050
1881	96,524	2044	21.17	3489	36.14	1445
1882	97,656	2511	25.71	3785	38.76	1214
1883	98,564	2345	23.79	3576	36.28	1231
1884	99,481	2540	25.53	3745	37.64	1205
1885	100,406	2563	25.52	3868	38.52	1305
1886	101,340	2769	27.32	3961	39.08	1192
1887	102,283	2703	26.42	3870	37.83	1167
1888	103,234	2326	22.53	3823	37.03	1497
1889	104,194	2019	28.97	3912	37.63	902
1890	105,163	2726	25.92	3718	35.35	992
1891	107,864	2807	26.02	3830	35.50	1023
1892	109,038	2481	22.75	3686	33.80	1205
1893	110,225	2753	24.97	3809	34.55	1056
1894	111,425	2186	19.61	3545	31.81	1359
1895	112,638	2528	22.44	3702	32.95	1174
1896	113,864	2191	19.24	3673	32.25	1482
1897	115,103	2687	23.34	3687	32.03	1100
1898	116,356	2107	18.10	3559	30.58	1452
1899	117,622	2492	21.18	3492	29.68	1000
1900	118,902	2636	22.16	3410	28.67	774
1901	113,117	2213	19.56	3418	30.21	1205
1902	113,766	1998	17.56	3278	28.81	1280
1903	114,404	1955	17.08	3453	30.18	1498
1904	115,055	2091	17.83	3314	28.26	1223
1905	115,721	1906	16.47	3259	28.16	1353
1906	116,399	2065	17.74	3317	28.49	1252
1907	117,093	2003	17.10	3124	26.68	1121
1908	117,799	1975	16.45	3309	27.56	1334
1909	118,519	1721	14.52	3027	25.54	1306
1910	119,253	1758	14.74	2812	23.58	1054

TABLE No. 7.

Per centage of Deaths from Zymotic Diseases to Sickness reported during the Year ending December 31st, 1910.

Disease.	No. of Cases Reported.	No. of Deaths.	Per centage.
Small Pox .....	...	...	...
Typhoid Fever	119	20	16·80
Scarlet Fever	369	8	2·17
Diphtheria	117	18	15·38
Puerperal Fever	7	3	42·86
Erysipelas	84	1	1·20

TABLE No. 8.

Meteorological Observations for the Year 1910.

Month.	Attached Thermometer.	Barometer.	Barometer corrected to 32 deg. Fahr.	Hygrometer		Temperature in Shade.		Earth Thermometer		Mean Daily Temperature.	Humidity Saturation=100	Rainfall in inches	Number of Deaths from	
				Dry Bulb.	Wet Bulb.	Maximum.	Minimum.	One Foot.	Four Feet.				Bronchitis.	Diarrhoea.
January	37·9	29·616	29·740	41·4	39·9	41·9	34·7	..	42·8	38·1	89	4·34	22	..
February ..	39·0	29·434	29·553	40·8	39·4	44·3	35·8	..	40·4	40·1	90	3·53	18	..
March.....	42·0	30·016	30·126	43·7	41·4	48·7	36·7	..	42·1	42·7	85	1·23	16	..
April	45·3	29·685	29·783	46·1	43·6	50·8	39·9	..	43·7	45·3	82	2·54	18	1
May	52·9	29·840	29·917	54·7	50·7	60·3	45·4	..	46·1	52·8	76	2·10	14	2
June	59·2	29·743	29·801	59·9	55·4	65·3	52·0	..	51·9	58·6	72	3·37	11	2
July.....	59·1	29·723	29·782	60·5	55·7	65·7	52·8	..	54·1	59·2	72	4·24	7	3
August	59·6	29·825	29·882	60·6	57·0	64·9	54·1	..	55·7	59·5	80	5·39	7	33
September ..	54·6	30·165	30·236	55·9	52·7	48·8	49·1	..	54·1	54·9	79	0·27	13	36
October	51·2	29·969	30·051	52·4	49·6	55·5	47·8	..	52·6	51·6	82	2·38	9	14
November ..	38·6	29·454	29·574	39·6	38·4	43·6	35·1	..	47·4	39·3	91	5·88	28	1
December ..	42·6	29·690	29·800	44·0	42·8	46·2	39·9	..	43·9	42·9	91	3·31	25	1

TABLE No. 9.

Summary of Work done during the year 1910.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Complaints received	294	774	301	341	1,710
Inspections of Dwelling Houses	2469	2051	3002	3100	10,622
" Infected Houses	268	278	248	287	1,081
" Lodging Houses	21	1456	100	2308	3,885
" Cellars and Cellar Dwellings .....	...	2	69	33	104
" Canal Boats .....	...	...	...	129	129
" Vans and Tents	6	51	40	4	101
" Schools	28	6	10	13	57
" Cowsheds, Dairies and Milkshops ...	64	18	149	272	503
" Slaughter Houses.....	20	4	100	76	200
" Markets .....	...	153	40	994	1,197
" Drains and Yards.....	2809	2429	2989	3534	11,761
Re-Inspections	1889	1757	1702	2505	7,853
Smoke Observations	121	125	117	148	511
Circular Letters sent	245	174	146	202	767
Number of Voting Papers delivered and collected	25	82	48	62	217
Notices served for Defective Slopstone Pipes	33	16	76	46	171
" " Drains	127	260	226	171	784
" " Spouts	72	34	90	52	248
" " Water Closets ...	97	124	184	160	565
" " Water Closet Doors...	20	...	...	16	36
" " Lobby Pavement	28	...	...	...	28
" " Yard Pavement	12	66	15	29	122
" " Roofs .....	...	...	34	...	34
" Overcrowding	1	2	4	...	7
" Limewashing.....	46	73	104	30	253
" Manure Accumulation	9	14	12	11	46
" Stagaant Water .....	...	...	1	...	1
" General Nuisances ...	67	128	76	92	363
Notices served to Flag Yards	30	179	12	317	538
" Flag Lobbies	28	60	...	128	216
" Convert Privies into W.C's	5	3	20	33	61
" Abolish Ashpits .....	...	35	...	38	73
" Supply Ashpails	44	91	18	72	225
" Close Houses unfit for Habitation	...	...	...	21	21
House Drains Tested	109	68	43	111	331
Number of Houses Disinfected	188	234	199	201	822
Number of Schools	8	5	12	6	31
Number of Places of Amusement Disinfected	2	2	2	...	6
Parcels of Bedding Disinfected	22	12	13	30	77
Number of Animals removed ...	47	72	43	42	214
" Ashpails cleansed .....	...	...	...	...	1,689,624
" Ashpits .....	...	...	...	...	1,302
Fish Condemned and Destroyed.....	...	...	{ Shell Wet Dry	822 lbs. 22622 " 4409 "	} 27,853

TABLE No. 6A.

Factories, Workshops, Laundries, Workplaces and Home-Work.

1.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	198		...
Workshops (including Workshop Laundries)	2511	10	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	104		...
Total	2813	10	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness	28	28		
Want of Ventilation ... ..	...	...
Overcrowding ... ..	...	...
Want of drainage of floors... ..	...	...
Other Nuisances	59	54		
Sanitary accommodation {	insufficient	11	11	
	unsuitable or defective	56	56	
	not separate for sexes ... ..	...	...
<i>Offences under the Factory and Workshops Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ... ..	...	...
Breach of special Sanitary requirements for bakehouses ss. 97 to 100) ... ..	...	...
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)... ..	...	...
Total	154	149		

TABLE 1. Summary of the results of the analysis of variance for the dependent variables of the study.

Source of variation

Between groups (F, p, η²)

Within groups (F, p, η²)

Total (F, p, η²)

Error (F, p, η²)

Interaction (F, p, η²)

Residual (F, p, η²)

Adjusted R²

Adjusted R²

Adjusted R²

Adjusted R²

3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.										Number of Inspections of Outworkers premises	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Number of Addresses of Outworkers received from other Councils.	Number of Addresses of Outworkers forwarded to other Councils.	Prosecutions.			Instances.	Notices served.	Prosecutions	Instances.	Orders made (S. 110)	Prosecutions (Sections 109, 110).
	Twice in the Year.			Once in the Year.					Falling to keep or permit Inspection of Lists.	Falling to send Lists.							
	Lists.	Outworkers.	Workmen.	Lists.	Outworkers												
Wearing Apparel :—																	
(1) making, &c. ...	36	2	59	3	8	2	2	...	...	135	...	...	...	...	...	...
(2) cleaning and washing...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	72	4	18	3	8	2	2	...	...	135	...	...	...	...	...	...

4.—REGISTERED WORKSHOPS.

5.—OTHER MATTERS.

Workshops on the Register (s. 131) at the end of the year.							Number.	Class.							Number.
Factories	...	...	...	...	...	...	120	Matters notified to H.M. Inspector of Factories :—							
Workshops	...	...	...	...	...	...	821	Failure to affix Abstract of the Factory and Workshop Act (s. 133)							...
Workplaces	...	...	...	...	...	...	84	Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)							47
Retail Bakehouses...	...	...	...	...	...	...	132	Other ...							47
Public do.	...	...	...	...	...	...	21	Underground Bakehouses (s. 1C1) :—							
								Certificates granted during the year							...
Total number of Workshops on Register	...	...	...	...	...	...	1178	In use at the end of the year							4

TABLE No. 10.

Summary of Work done under the Factory and Workshop Act during the Year 1910.

	No. 1 District.	No. 2 District	No. 3 District.	No. 4 District.	Total.
Number of Factories and Workshops on Register	196	406	167	409	1178
„ Circular Letters sent re Out-workers ...	...	46	2	27	75
„ Out-workers reported	3	63	2	51	119
Visits to Factories and Workshops	350	529	352	612	1843
„ Retail Bakehouses	63	292	74	299	728
„ Public Bakehouses	43	34	34	131	242
„ Home-workers premises	12	40	50	33	135
Drains tested	6	3	2	2	13
<i>Defects found and Remedied:—</i>					
Defective Drains	4	1	5	5	15
„ Spouts and Roofs	2	...	2	4	8
„ Water Closets... ..	20	17	7	12	56
Limewashing required	8	5	8	7	28
General Nuisances	4	3	6	9	22
Smoke Nuisances .....	...	1	...	...	1
Insufficient W.C. accommodation for Females	1	...	4	...	5
„ „ Males	1	1	2	2	6
No receptacle for Refuse	1	...	...	5	6
Manure Accumulations ... ..	...	...	...	1	1
Various .....	...	...	...	6	6

TABLE No. 11.

List of Factories and Workshops on Register during the Year 1910.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.	
Bakers and Confectioners (Retail)	26	48	18	40	132	
Bakers (Public)	5	7	4	5	21	
Basket Makers .....	...	2	2	1	5
Beer Bottlers	4	2	1	6	13	
Biscuit Makers ... ..	...	4	1	...	5
Boot, Shoe and Clog Makers, Leather Carriers	24	55	22	30	131	
Brass Founders	1	2	2	2	7	
Breweries .....	...	4	2	3	9
Brush Makers	1	1	...	2	4	
Cabinet Makers, Wood Carvers, Upholsterers	4	11	3	18	36	
Coach Builders	1	5	...	5	11	
Cotton Waste Cleaners and Dealers .....	...	1	...	2	3
Cotton Manufacturers	23	14	20	8	65	
Coopers	1	3	1	1	6	
Cycle Makers and Enamellers... ..	6	11	4	7	28	
Engravers	3	...	...	6	9
French Polishers..... ..	1	2	...	3	6	
Ironfounders	4	5	5	4	18	
Joiners, Builders, Wheelwrights, Wood Turners...	12	23	6	15	56	
Laundries	3	...	3	1	7	
Marine Store Dealers .....	...	4	...	4	8
Milliners, Dressmakers, Underclothing Manufacturers	24	78	24	66	192	
Picture Framers, Mount Cutters, Gilders	2	4	3	6	15	
Photographers	4	3	1	3	11	
Plumbers, Painters	10	13	8	20	51	
Printers, Bookbinders .....	...	1	1	18	20
Restaurant Keepers... ..	6	4	3	4	17	
Rope and Twine Makers... ..	2	...	2	...	4	
Saddlers ... ..	...	6	1	4	11
Smith, Black and White and Tinplate	5	9	5	26	45	
Stone and Marble Masons	4	4	3	3	14	
Sugar Boilers	4	1	1	...	6	
Tailors	8	36	8	55	107	
Watch Makers and Jewellers	6	12	8	10	36	
Wire Workers .....	...	1	1	1	3
Offensive Trades	Fell Mongers..... ..	...	...	1	1
	Soap Boilers .....	...	1	3	4
	Fat and Tallow Melters ... ..	...	4	3	7
	Tripe Boilers	1	2	...	1	4
	Knacker Yards	1	1
	Gut Scrapers .....	...	4	...	4
Various	2	20	3	22	47	

TABLE No. 12.

HEALTH VISITORS.

Summary of Work done during the Year 1910.

		District A.	District B.	District C.	District D.	Total.	
Visits, Births.	Number of Houses visited	740	661	644	720	2765	
	" " Found Clean	680	622	628	629	2559	
	" " Found Dirty	60	39	16	91	206	
	Children.	{ Breast Fed	674	606	615	678	2573
		{ Partially Breast Fed ...	10	3	13
		{ Artificially Fed	55	52	29	42	178
	Occupation of Mother.	{ Home Permanently	529	370	468	493	1860
{ Home Temporarily		201	275	171	193	840	
{ Home and Work .....		...	15	5	34	54
{ At Work when visited...		...	1	...	...	1
Visits, House to House.	Number of Houses visited	369	50	297	588	1304	
	" " Found Clean	284	38	183	180	685	
	" " Found Dirty	85	12	114	408	619	
Visits, Infectious Disease.	Number of Houses visited	554	401	576	554	2085	
	Measles	345	230	253	293	1121	
	Whooping Cough	5	11	13	8	37	
	Chicken Pox	9	22	53	19	103	
	Mumps, Ringworm, Eczema, Sore Head, &c.	186	108	272	234	800	
Visits, Measles, Deaths.	Number of Houses visited	8	...	3	4	15	
	" " Found Clean	6	...	3	2	11	
	" " Found Dirty	2	...	...	2	4
Visits, Diarrhoea Deaths.	Number of Houses visited	16	8	17	18	59	
	" " Found Clean	13	4	17	5	39	
	" " Found Dirty	3	4	...	13	20	
	Children.	{ Breast Fed	2	2
		{ Partially Breast Fed ...	3	...	1	3	7
		{ Artificially Fed	13	6	16	15	50
	Number of Re-visits	1447	1825	1272	1290	5834	
" Tubc Bottles in use	38	75	40	125	278		
" Cards distributed	740	661	644	720	2765		
Inspection of Heads.	Number of Schools visited	5	7	10	8	30	
	" Children Inspected in School	873	1410	1696	1232	5211	
	" Children visited at Home ...	106	28	24	20	178	
	" Half-days in School	15	15	25	8	63	

TABLE No. 13.

Return of Work done by Inspector of Food and Drugs, &c., during the year 1910.

Food and Drugs, Samples purchased	.....	.....	253
Visits to Cow-sheds and Dairies	.....	.....	162
Visits to Slaughter-houses	.....	.....	4431
Meat Condemned and Destroyed	.....	.....	122,094 lbs.
Fruit Do. Do.	.....	.....	20 lbs.

TABLE No. 14.

Contagious Diseases (Animals) Act, 1878.

Name of Disease.	Situation of Premises.	Date of Outbreak.	Number of Diseased Animals.	Number of Healthy Animals.	Slaughte'd by Owner.	Slaughtered by Order of Board of Agriculture.	Number of Visits.
Parasitic Mange ...	Singleton Row ...	Jan. 7	1	...	1	...	3
Do. ...	Fleetwood Street ...	Feb. 19	1	1	1	...	4
Do. ...	Old Vicarage ...	Mar. 11	1	...	...	...	6
Do. ...	Old Vicarage ...	May 13	1	...	...	...	5
Do. ...	Lune Street ...	June 7	1	...	1	...	7
Do. ...	Cragg's Row ...	June 25	1	...	...	...	12
Do. ...	Sowerbutts Yard, Aqueduct Street ...	Dec. 12	1	...	...	...	6
Anthrax ...	Cattle Market Slaughter-houses...	Oct. 16	1	...	...	...	4
Swine Fever	Chestnuts, Ribbleton...	Oct. 20	2	2	...	2	4
Do. ...	Old Lime Kilns ...	Oct. 20	1	56	...	56	6
Do. ...	Old Lime Kilns ...	Oct. 20	7	39	...	39	8

TABLE No. 15.

Substances submitted for Analysis during the year 1910.

Name of Article.	No. of Samples.	Result.
Arrowroot	1	Genuine.
Beer	1	Do.
Brandy	1	Do.
Bread	1	Do.
Butter	46	Do.
Cheese	4	Do.
Coffee	17	Do.
Cornflour	1	Do.
Flour	2	Do.
Ice Cream.....	1	Do.
Lard	40	Do.
Milk	43	Do.
Milk (Skinmed) ...	1	Do.
Pepper (White) ...	2	Do.
Sweets (Mixed) ...	6	Do.
Sweets (Chocolates)	2	Do.
Whisky	17	Do.
	<hr/> 186	Genuine.
Milk	1	Contained 2·55 per cent. fat, 9·24 per cent. other solids = 11·79 per cent. total solids. Cautioned by Town Clerk.
Milk	1	Contained 2·59 per cent. fat, 9·17 per cent. other solids = 11·76 per cent total solids. Cautioned by Town Clerk.
Whisky.....	1	35 per cent. under proof, which is 10 per cent. below the Statutory limit.

TABLE No. 16.

Substances informally purchased and submitted for Analysis during the year 1910.

Name of Article.	No. of Samples.	Result.
Butter	19	Genuine.
Coffee	5	Do.
Cream	1	Do.
Cream of Tartar ...	1	Do.
Flour	9	Do.
Flour, Self-rising ...	1	Do.
Ginger (Ground) ...	1	Do.
Honey	1	Do.
Lard	6	Do.
Jam (Raspberry) ...	1	Do.
„ (Strawberry)	1	Do.
„ (Black Currant)	1	Do.
Margarine.....	1	Do.
Milk	6	Do.
Seidlitz Powder ...	1	Do.
Syrup	1	Do.
Tincture of Rhubarb	1	Do.
Whisky.....	1	Do.
	<hr/> 56	Genuine.
Brandy	1	Of very doubtful quality.
Coffee	1	Contained upwards of 25 per cent. of Chicory.
Cream	1	Contained 0.5 per cent. of Borates, calculated as Boracic Acid.
Lard	1	Consisted of Cocoa Nut Oil.
Milk	1	Contained 2.95 per cent. fat, 7.54 per cent other solids = 10.49 per cent. total solids; 10 per cent. added water.
Potted Shrimps ...	1	Contained 1.25 per cent. of Borates, calculated as Boracic Acid.

TABLE No. 17.

Return of Port Sanitary Work for the Year ending December 31st, 1910.

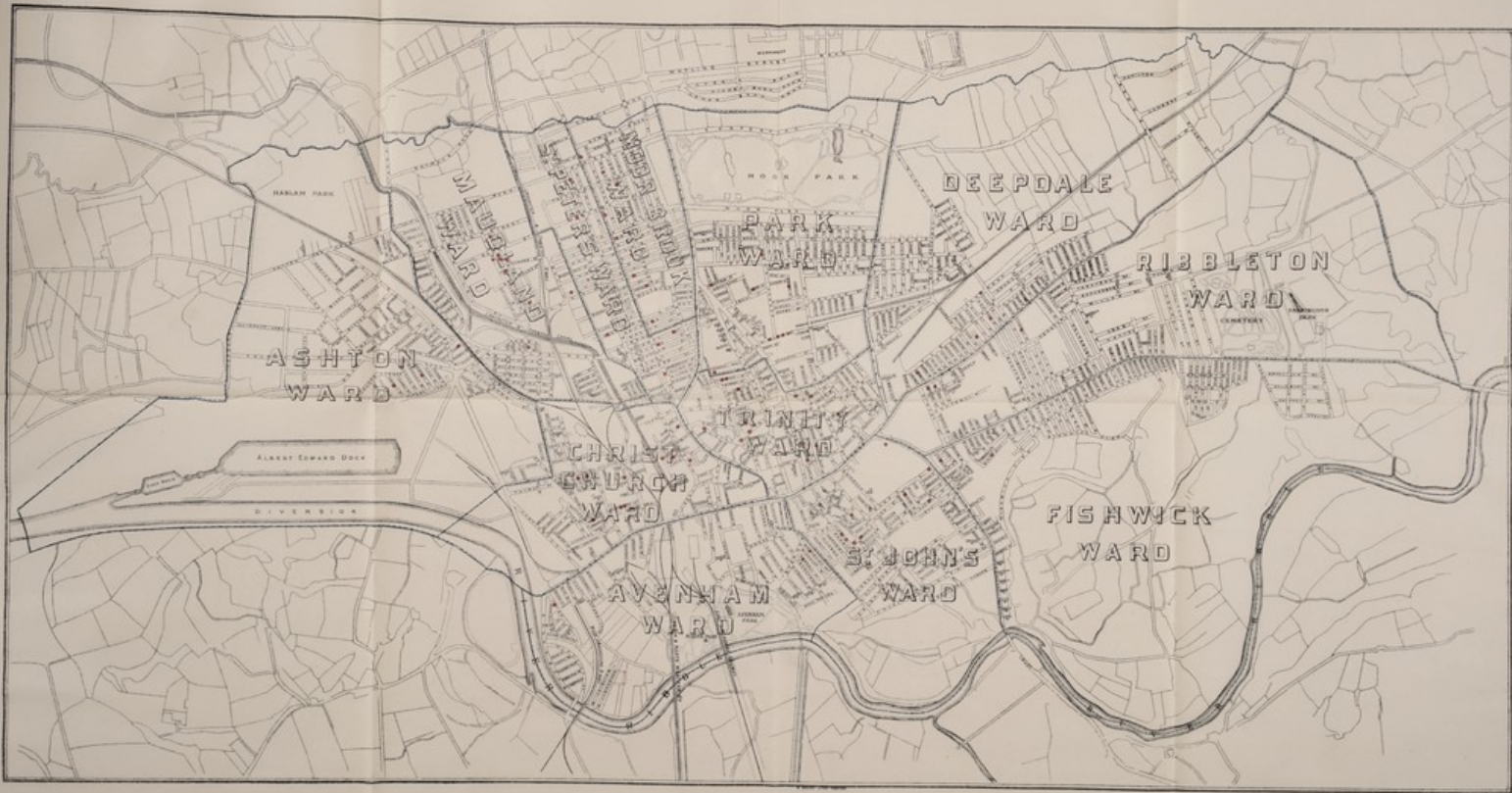
Steamships Inspected	.....	.....	.....	.....	1264
Sailing Vessels Inspected	.....	.....	.....	.....	51
Re-Inspections	.....	.....	.....	.....	140
Condition of Vessels Inspected	{	Good	.....	.....	1128
		Defective	.....	.....	136
<i>Defects Remedied.</i>					
Forecastle Dirty	..	.....	.....	.....	42
Do. Required painting		.....	.....	.....	16
Do. Deck Leaking		.....	.....	.....	2
Do. Ventilation and Light Defective		.....	.....	.....	20
Foul and Defective Water Closets		.....	.....	.....	49
Foul Water Casks and Tanks	....	.....	.....	.....	6
Dirty Provision Lockers	..	.....	.....	.....	80
Do. Bilges		.....	.....	.....	6
Do. Chain Lockers under Forecastle		.....	.....	.....	1

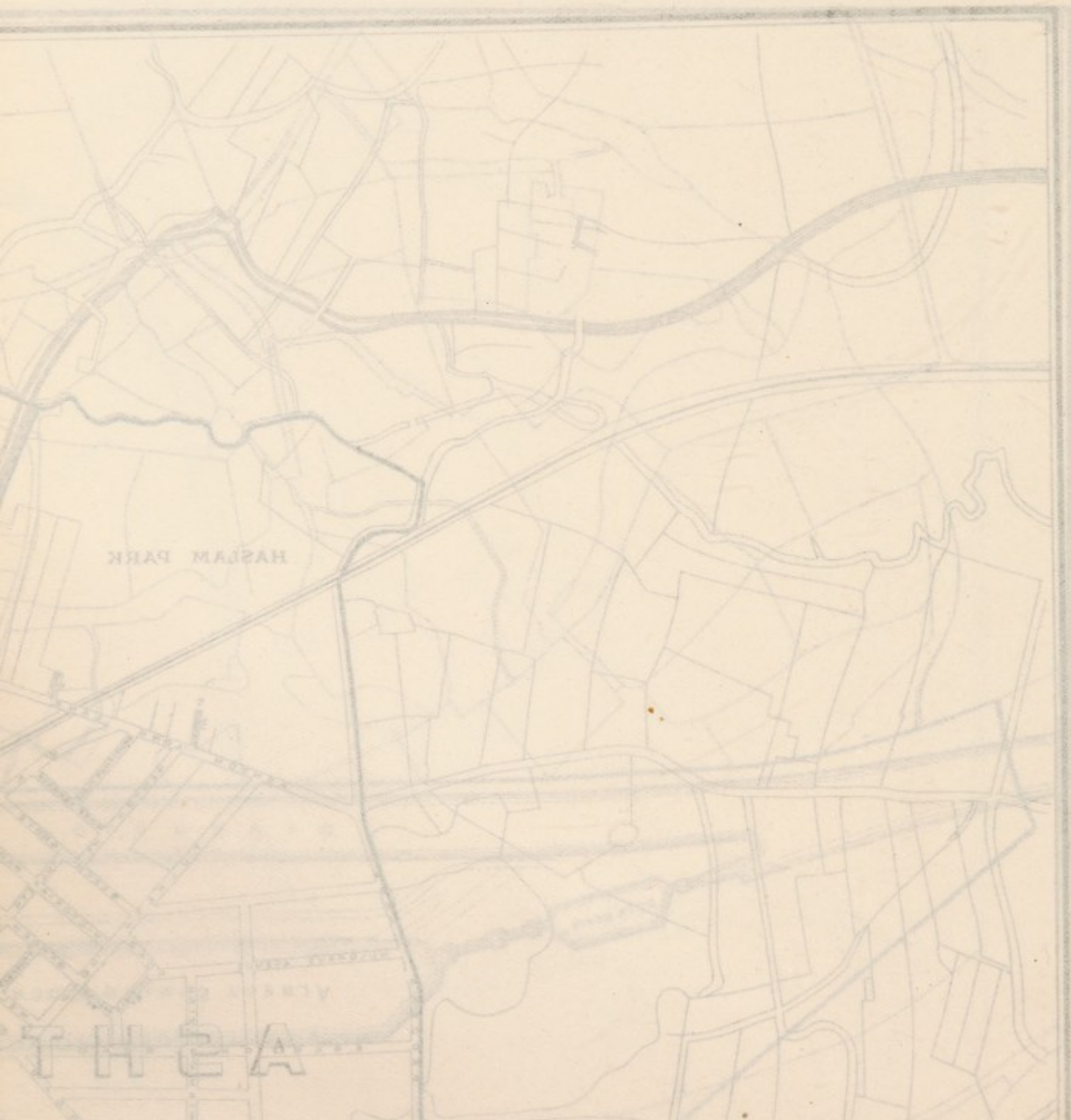
Section of the Survey, Work for the Year ending December 31st

1	General Introduction
2	Survey of the District
3	Geographical Features
4	Population
5	Climate
6	Vegetation
7	Animals
8	Minerals
9	Water
10	Soil
11	Industry
12	Transportation
13	Education
14	Health
15	Religion
16	Government
17	Summary

INFANTILE DIARRHOEA, 1910.

The Red Spots indicate deaths from Diarrhoea under the age of one year.

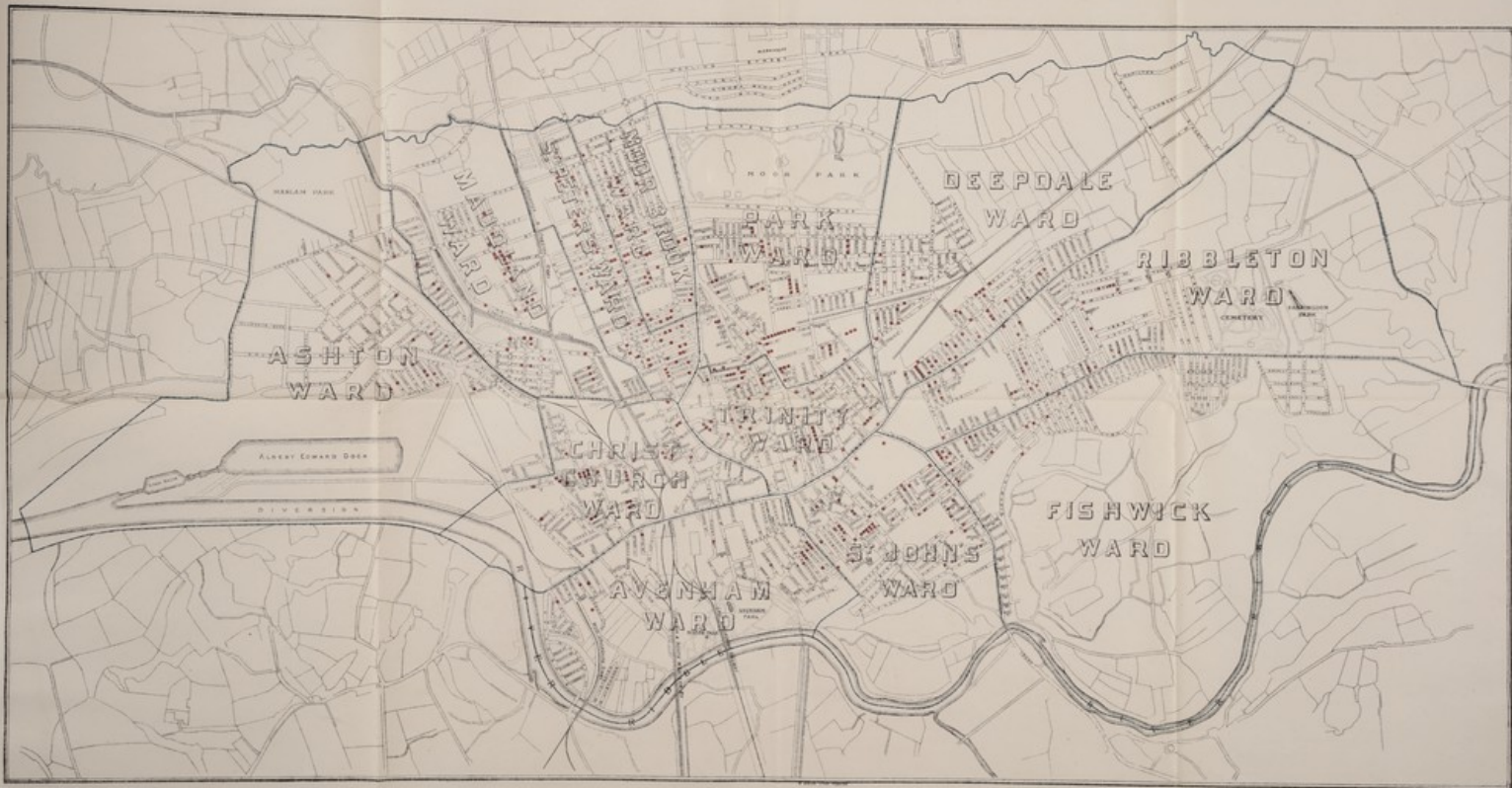


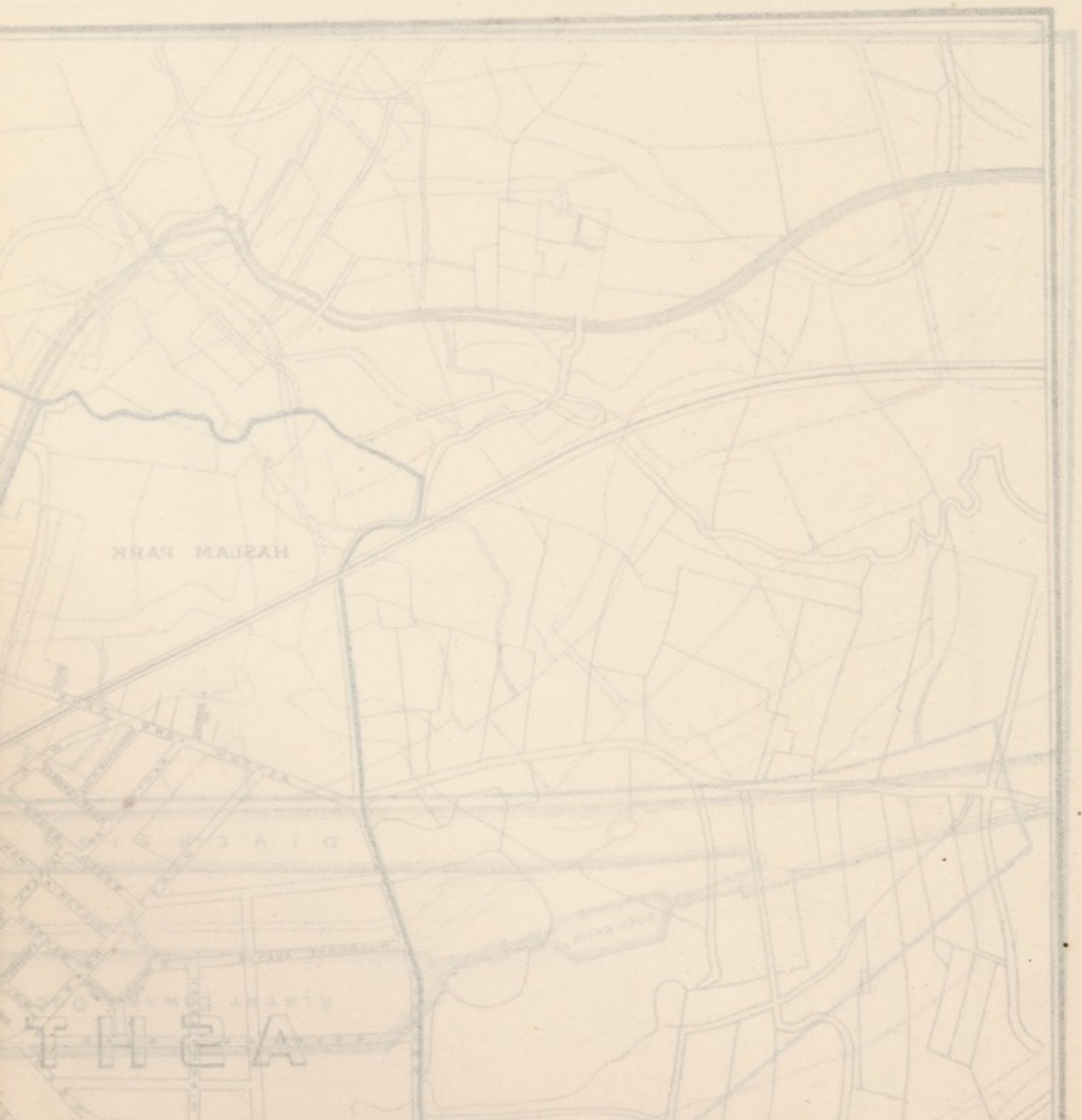


HAGLAM PARK

THE EAST

INFANTILE MORTALITY, 1910.

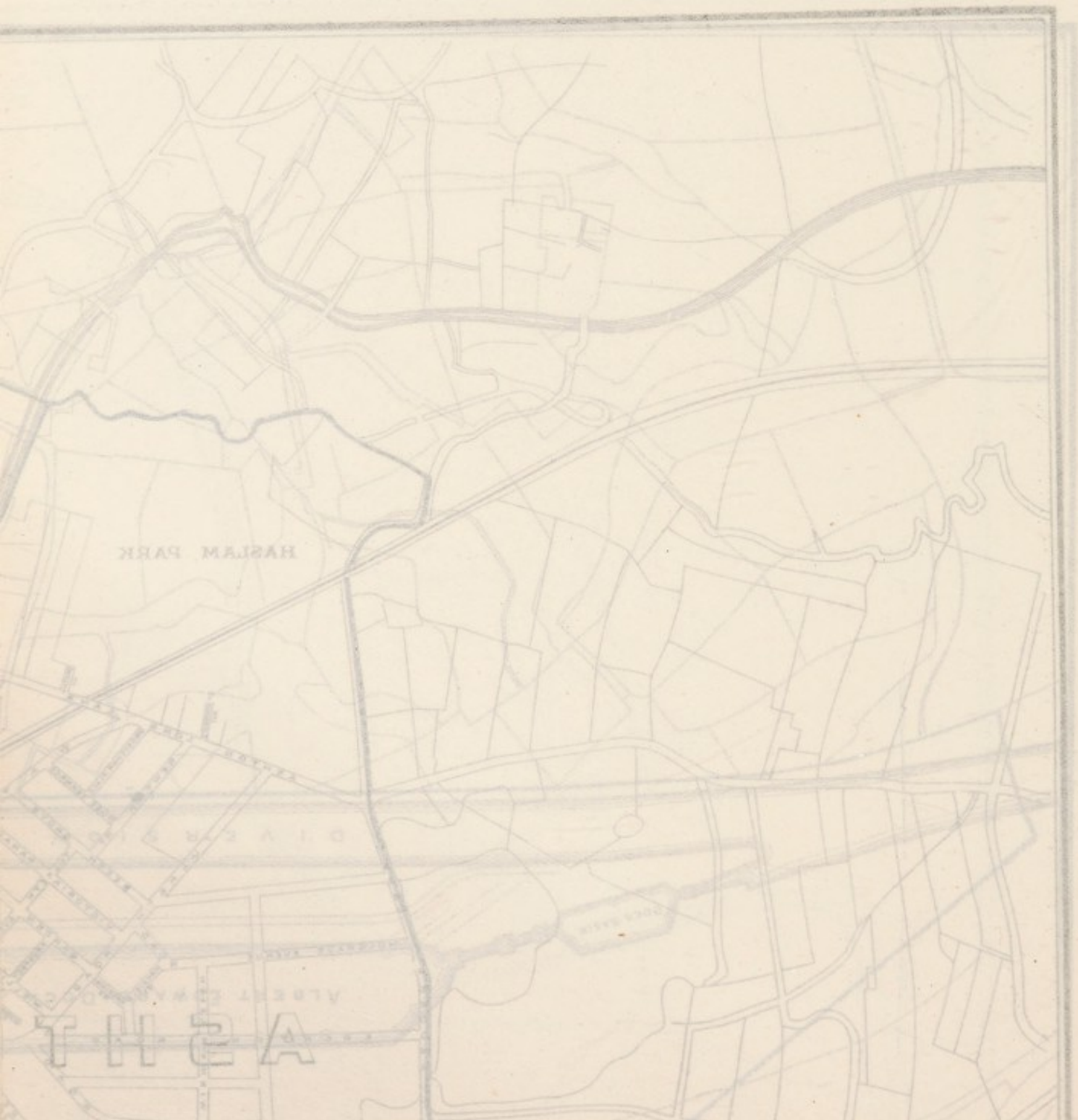




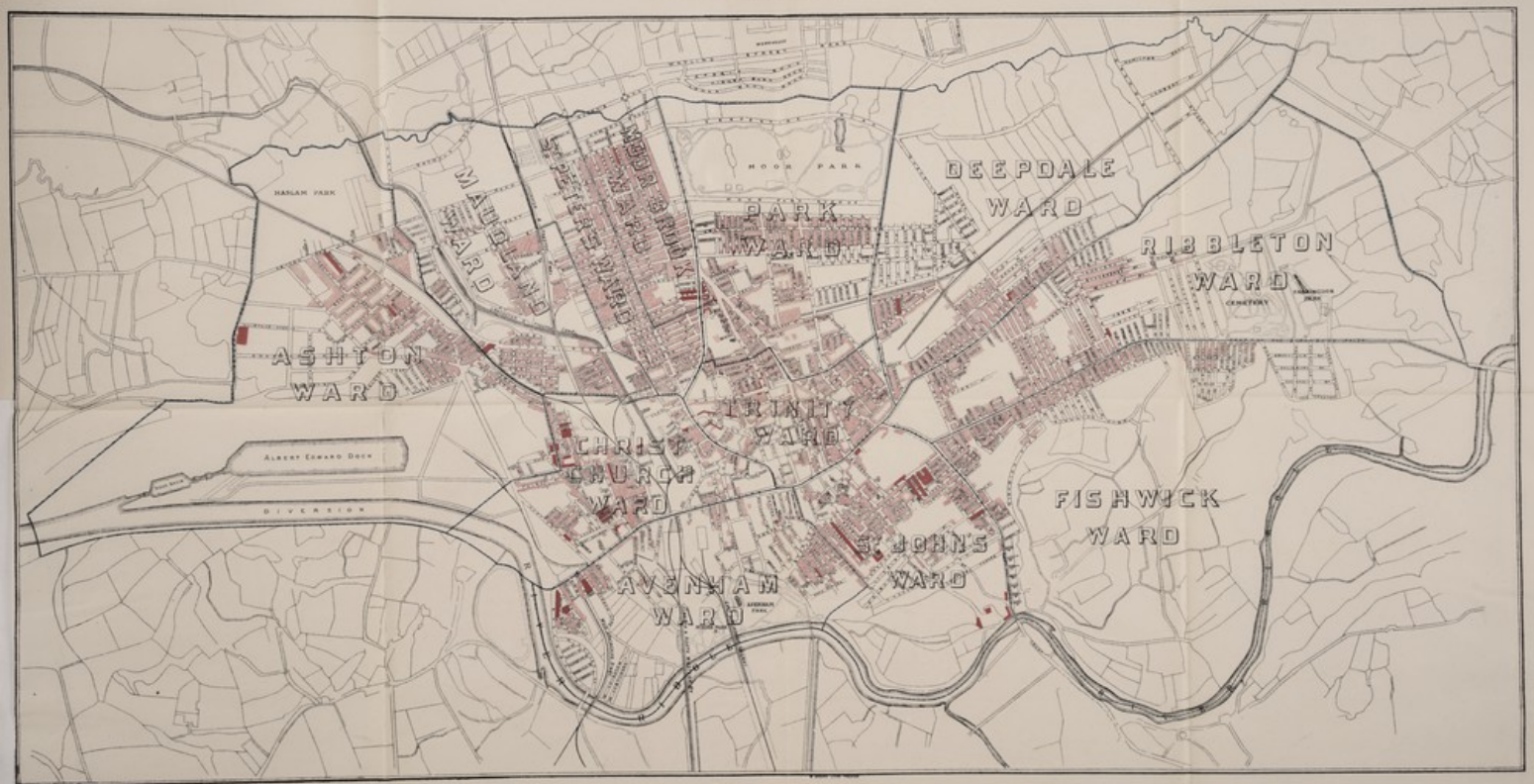
ZYMOTIC DISEASES, 1910.

The Red Spots ■ indicate deaths from Scarlet Fever.
The Blue Spots ■ " " " Typhoid Fever.
The Yellow Spots ■ " " " Diphtheria





Portions coloured Red indicate Property reported upon and Improved during the year 1910.
Those in lighter shade indicate Blocks dealt with during the previous twenty-six years.

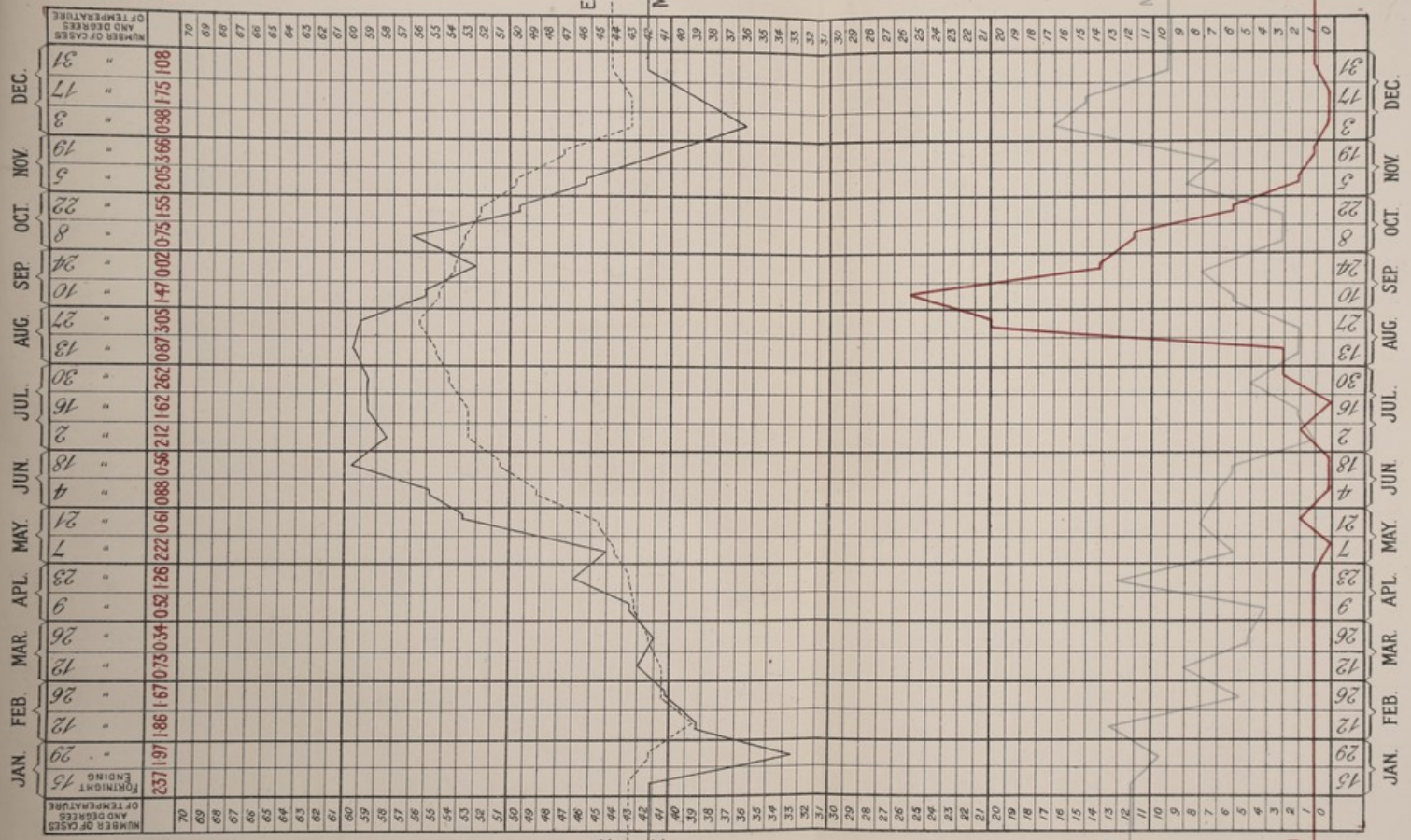




HASLAM PARK

THE EAST

DOCK LANE



RAINFALL IN INCHES

RAINFALL IN INCHES

EARTH TEMPERATURE 4 FT.

EARTH TEMPERATURE 4 FT.

MEAN TEMPERATURE

MEAN TEMPERATURE

MORTALITY FROM BRONCHITIS

MORTALITY FROM BRONCHITIS

MORTALITY FROM DIARRHOEA

MORTALITY FROM DIARRHOEA

