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WHICKHAM URBAN DISTRICT COUNCIL,

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# REPORT

OF THE

**MEDICAL OFFICER OF HEALTH**

FOR THE

**YEAR ENDING DECEMBER 1909.**

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# **REPORT,**

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WHICKHAM,  
*January, 1910.*

MR. CHAIRMAN & GENTLEMEN,

I beg to submit my Annual Report for 1909.

The official estimate of the population of the whole Urban District at mid year 1909 is 16,719. This is probably a considerable underestimate though not to such an extent as for the past few years. The rapid increase of house building and consequent rapid increase of population which were so conspicuous over the whole district during the first half of the present intercensal period have greatly diminished in all the wards except Dunston, where they still continue though there are many empty houses there. The official estimate is now probably just a little over 1500 below the actual population.

As on former occasions, I will present the Statistics for the whole district as based on the official estimate for the reasons assigned in previous reports and will afterwards, when comparing the different wards, give in tabular form the principal rates for these and the whole district based on what we consider the actual populations.

As, according to the County Medical Officer of Health, the population of the whole County is also probably officially underestimated, the mortality statistics will be more truly comparable with one another while both will appear less favourable than they really are,

**BIRTHS:**—There were registered 605 births, This is an increase of 25 over last year and is the largest number ever registered in the

district. Of these, 585 were legitimate and 20 illegitimate, ~~303~~ were males and 288 females.

In the different wards the numbers were:—Whickham 91,—an increase over last year of 8, Swalwell 155,—an increase of 5, Marley Hill 51—~~an increase of 1~~, and Dunston 308—~~an increase of 11~~.

The birth rate is 36·18 which is an increase from last year of 0·3, but is still 1·5 less than the average of the last ten years.

It is 0·6 higher than the County rate at 35·5 and 0·7 higher than the average County rate for the past ten years and 10·5 higher than the whole of England and Wales at 25·6.

It is quite clear therefore that our birth rate as well as that for the County is keeping up very well and is showing very little of that decline which is so general, not only in our own Country but in our Colonies and most of the more highly civilised States.

While we may congratulate ourselves on this, it is well to remember that it has a considerable effect on the death rate, tending always to keep this higher than it ought to be in counties and countries where the birth rate is persistently lower, for the reason that where the birth rate is continuously high, there is a proportionally larger population at the most fatal age periods of under one year and between one and five years.

DEATHS:—The number of deaths registered in the district was 208, which is 16 less than last year. In addition, there were 15 deaths of residents in Public Institutions outside the district viz:—11 in the Union Workhouse, Gateshead, 2 in the County Asylum, 1 in the Conjoint Isolation Hospital at Norman's Riding and 1 in the Workhouse Infirmary, Durham.

The total deaths of residents within and without the district were thus 223. Of these total deaths 112 were males and 111 females. Belonging to the different wards the numbers were:—Whickham 39,—an increase over last year of 4. Swalwell 52,—a decrease of 7, Marley Hill 22,—an increase of 3, and Dunston 110,—a decrease of 15. Whickham and Marley Hill thus show a slight

increase while Swalwell and Dunston show a much greater decrease and the tendency is towards a greater equality in the different wards.

The death rate is 12·44 within the district and 13·33 when the deaths of residents outside the district are included. This is in the former case 1·4 and in the latter 1·3 lower than last year, and 5·1 and 4·7 lower than the average of the last ten years. It is in the former exactly the same as and in the latter only 0·6 higher than in 1905 when there was the lowest death rate ever recorded for the district. It is, taking the whole corrected death rate, 2·4 lower than the County and 4·6 lower than the average County rate for the past ten years. It is 1·2 lower than the rate for England and Wales at 14·5.

This must be regarded as extremely satisfactory, not only because of the very low death rate of the year under consideration but because, with annual variations there is, as shown in Table I. at the end of this report, a steady tendency of the rate downwards, for instance the average death rate for the last five years is actually 5·1 less than that for the previous five. This means a very great saving of life and it is a sure index of successful sanitary administration and it shows that money spent on sanitary improvements results in a great saving of life, and what must go with it a great improvement in the health of the Community.

At the same time we must not make too much of the very satisfactory figures for the year nor be greatly disappointed if in all subsequent years they are not maintained for in many respects the year has been an exceptional one and throughout the County the rates are low. It was not a year favourable for Diarrhoea for instance and so the infantile mortality has been low and there have been no very serious epidemics, though these have not been altogether absent.

Still though the County Statistics are exceptionally favourable, ours are still more so and our district has had its full share in lowering the mortality of the County.

INFANTILE MORTALITY:—The deaths under one year numbered 58,—a decrease of 16 from last year. They were distributed as

follows:- Whickham 3,- a decrease from last year of 4, Swalwell 15,- an increase of 1. Marley Hill, 4- a decrease of 1 and Dunston 36,- a decrease of 12.

This gives an infantile mortality rate of 95 per 1000 births per annum. This is 32 lower than last year and is the lowest ever recorded in the district, being 26 lower than the previous record. It is 68 lower than the average of the previous ten years, 29 lower than the County for the year and 64 lower than the County average of the past ten years and 14 lower than the rate for England and Wales at 109.

The rate amongst legitimate children was 92 and amongst illegitimate 200.

For the different Wards the rates are:--Whickham 33, Swalwell 96, Marley Hill 78 and Dunston 116.

These are all extremely good and though Dunston is considerably higher than the others, it is still low and it shows the greatest decline of all from last year when it was 161 and it is lower than the County.

The immediate and precise cause of all the deaths is set forth in Table V appended to this report, and a comparison of this with the similar Tables in the four previous reports is very interesting. With this year we have now five of these Tables to compare with one another and it is possible to draw up comparative averages of the main factors of infantile mortality and consequently arrive at some conclusions as to how best to direct efforts towards its diminution.

In making a slight attempt to do this, I will follow the classification of the Tables.

One of the most striking facts is the comparatively small effect of the COMMON INFECTIOUS DISEASES. During last year there was only one death due to these viz:-- a case of Measles complicated with laryngitis at Dunston.

During all the five years there has not been a single infantile

death from any of the so called most serious of the infective diseases, Small Pox, Scarlet fever, Diphtheria and Typhoid fever. The only infective diseases which constantly figure are Measles and Whooping Cough. Measles caused 10 deaths in the five years and Whooping Cough 18. This bears out what I am never tired of saying that Whooping Cough is not only a most serious and fatal disease in children up to five years of age, but is specially fatal when it attacks infants under one year.

To most of these diseases very young infants, especially when they are breast fed, do not seem to be so susceptible as when they are a little older,—from 1 to 5 years. As regards Measles especially I have frequently noted when the other children in a crowded house have got Measles, the baby has altogether escaped, intense as the infection is. In other cases when they have been attacked, the course is often mild, but on the other hand if they get Bronchitis or Pneumonia as a complication, they are very liable to succumb; especially is this true of Bronchitis which is so liable to pass into a fatal Broncho-pneumonia. I do not think that the prognosis of a genuine Pneumonia is nearly so bad.

With Whooping Cough it is different, I know it has been stated that young infants especially when breast fed, are also less susceptible than when a year or two older, but this has not been borne out by my experience. I am in the habit of saying that the younger the child the greater at least is the danger if not the susceptibility and it causes intense suffering always, and for long afterwards it retards the normal development. No efforts should be spared to protect young children from this infection, and unless more is done than is done we will constantly have this as a factor in the causation of infantile mortality.

Unquestionably when they are attacked, the prognosis is infinitely better in the breast fed than in hand fed children, so that by doing everything possible to promote breast feeding of children, we can do much to reduce infantile mortality from this cause as from all of the other infectious diseases.

DIARRHOEAL DISEASES.—The prevalence of these is perhaps the main factor which determines the high or low infantile mortality rate from year to year, and this prevalence is mostly determined by the character of the season. A hot and dry Summer and Autumn always increases the prevalence of these diseases as a cold and wet season inhibits it. It is not the mere temperature and dryness which are the cause. It is that these specially favour the putridity of organic matter and the growth of the organisms which cause the disease, they favour the drying of putrid masses and their consequent dispersion by winds into dwellings where they settle on food and drink, they hinder free flushing of drains, and above all perhaps they favour the breeding of flies. The infective germs are swallowed in contaminated food and drink and one of the main factors, if not the main factor is, in the words of a distinguished Edinburgh physician and teacher, the ‘filthy feet of fœcal feeding flies’.

The remedy is clear. it is the promotion of the most absolute cleanliness possible of person, house and surroundings,—perfect sanitation. The essentials are a plentiful uncontaminated water supply, efficient drainage and thorough scavenging. All this we have secured to a very great extent. The abolition of open middens and ashpit privies has been a further gain. Though the substitution has been mostly by ashclosets, as these are lined by impermeable cement and cleaned weekly, I do not think that in our district they are inferior to water closets, especially in colliery houses where the proportion of ashes to fœcal matter is so high. Then the paving of streets, back streets, cementing of yards, &c. have all been great features of our recent sanitary work, so that there is now very little excuse for the existence of polluted soil in and about dwellings though the utmost surveillance of the Sanitary Inspector is required to keep even many of the well paved yards reasonably clean.

More recently and since the conversion of ashpit privies into ashclosets has been practically completed, which entailed a great amount of work, the Sanitary Inspector has commenced a thorough

crusade against the existence of erections in back yards for poultry, pigeons, rabbits etc., which had become much too common. These constitute a serious nuisance most injurious to health, and I have no doubt that, with his usual energy, Mr. Dinsdale will soon have effected a clearance to the great advantage of the public health.

All these sanitary improvements must have influenced for good the health of babies as well as of the people generally. But as I have in former reports shown, they did not for a time apparently do so because there went with them a distinct increase of bottle feeding due to the invention, and great advertisement of bottles and patent foods, etc., which did so much harm that the advantage gained by improved sanitary conditions was more than counter-balanced.

This I hope we have now to a great extent remedied, as I will point out later.

Altogether we ought to get a great reduction in the deaths from infantile diarrhœa, but as this year has not been a typical diarrhœa year, we have not had a good test. So far as it goes however, the report is favourable. During the year there were only 3 infantile deaths from these diseases, and only six deaths from these altogether and as they were all at Dunston, three out of the four wards gave no such deaths at all.

No doubt similar improvements to those I have described are going on all over the County, in varying degree in different districts so that the reduction of infantile mortality from this cause should be general as I believe it is, still we are much below the County for the year as well as the County average.

WASTING DISEASES:—I must confess to a considerable disappointment at the number of deaths from wasting diseases having risen so much from last year, as one is rather inclined to think that this should be a good criterion of the carefulness displayed in the general management of children,

In the following Table the cases are given for the last five years.

## INFANTILE DEATHS FROM WASTING DISEASES

	Total Births.	Premature Births.	Congenital Defects.	Injury at Birth.	Marasmus	Total
1905.	510	12	1	0	17	30
1906.	542	16	8	0	19	43
1907.	570	15	16	0	13	44
1908.	580	11	0	0	8	19
1909.	605	13	3	1	17	34

The variations in premature births are but slight while those of congenital defects are considerable. It is difficult to see at present how these could be avoided, their causes are prenatal and this pathology has not yet been fully investigated. No doubt the general health and habits of the parents have much to do with this and very specially the questions of temperance and syphilis, but up to the present few efforts have been directly made to deal with these cases. The injury at birth was due to the absence of skilled assistance. It is the Marasmus column which is most important. These are cases of children born at full term of defective vitality, puny weaklings which seem only born to die, they take the breast badly or not at all, no kind of feeding seems to make much difference, or they get on for a time and then gradually waste away without evidence of definite disease. They generally suggest defective care and management on the part of the parents, but this is not always the case.

There are varieties amongst them, but most are inherently weak and incapable of full healthy developement and on the whole it is perhaps just as well that they should die in infancy, but they are not all so, and as we cannot tell which will respond to careful treatment, we, as medical men, have no excuse for not doing everything in our power for every case.

I have not only seen many puny prematurely born children get on extremely well under careful management, but I have seen the same in similar children born at full term, and in others who have been steadily going back after a few months life, they have again changed and ultimately developed into fine healthy children.

I have seen examples of all these during the past year, some most unlikely cases have survived and done well with the help of

our nurses, while others have ultimately succumbed in spite of the most persistent efforts of parents, doctors and nurses.

**TUBERCULOUS DISEASES:**—According to the returns these seem to play a small part in infantile mortality. During the year there was only one death registered, a case of Tubercular Meningitis, and during the five years only 6 deaths from these diseases. It is just possible that some of the deaths attributed to Marasmus may be due to undetected tubercle.

Amongst those classed as **OTHER CAUSES**, the only ones worthy of comment are deaths due to the acute respiratory diseases especially Bronchitis and Pneumonia.

These take the same place in the winter months as diarrhœal diseases do in summer, and they are just about as serious and fatal and are also probably just as preventable. Last year a great part of the infantile mortality was due to them especially in the last quarter; this year the fatalities have declined from 15 to 9, in both years two were registered as due to Pneumonia and the rest to Bronchitis or Broncho-pneumonia.

I do not think that the climatic conditions were more favourable this year, as the weather both in the early part of the year and in the latter months was severe and very changeable, and in my experience Pneumonia was very much more common both in adults and children, and yet we had only two deaths in infants. Bronchitis was perhaps equally common but the cases did better and more seldom developed the severe symptoms of capillary bronchitis or broncho-pneumonia. This I believe has been largely due to the greater care of the children, and an improved stamina, the result of greater care and knowledge on the part of the parents as the result of the teaching and general attention of our lady nurses and health visitors. Here again the prognosis in these cases depends largely on how the children are fed. Breast fed babies get through these attacks in a most astonishing way, while bottle fed babies are very liable to succumb.

The incidence of these diseases however mostly depends on the

general care of the children as regards clothing, regular washing and exposure to weather, while on the amount of fresh air which they habitually receive a great deal also depends.

When babies are well fed, properly clothed, kept clean and live in well ventilated houses, they may be taken out of doors in almost any weather with impunity.

The proper clothing of children is a subject on which much ignorance prevails and popular fashion in different sections of society more often determines the clothing than ideas about health. A popular fashion amongst many of open necks, short dresses, short sleeves, leaving much of the arms and legs bare is I am sure wrong. Children are very susceptible to cold, and proportionally to adults they part with heat more rapidly, simply because the ratio of surface to bulk is greater. They should therefore be more rather than less covered. I am strongly of opinion that children should be wholly covered in cold weather with light woollen garments except the face and hands.

The room in which they mostly live and the bedroom should be well ventilated and, where the rooms are small, and indeed in all cases, the windows should be constantly open. Warmth should be promoted by clothing and not by stuffiness and closeness.

It would be a great gain if light wicker or basket cradles could be got to universally take the place of the old fashioned solid wooden ones with the covered in head. The latter corresponds for babies to the wooden four poster heavily curtained beds for adults and ought to go as the latter have gone. The pillow should fit the cradle and be only something for the head to rest on, and not, as is most commonly the case, so much larger that it literally surrounds the head. This latter must be a source of great discomfort to the child, making the head unduly hot and rendering it very liable to get cold as any one can see who notices a child taken out of one of these cradles with its head steaming with perspiration and immediately exposed with the head quite bare.

It is impossible for mothers to be always at home, they have

many duties which necessitate their leaving their houses. and in many cases of poor mothers, they must take their babies with them even in the most inclement weather, but I am sure that if only proper attention were given to their clothing, and reasonable care taken, no harm need result. This is no apology for carelessness and indifference in unnecessarily exposing children improperly clad. It is the latter which causes these serious chest diseases.

One of the most valuable aids in diminishing infantile mortality and in promoting the health, comfort and happiness of our babies has I am sure been the adoption of the Notification of Births Act and the consequent appointment of lady health visitors who are at the same time district nurses.

After a year's experience, I have no hesitation in saying that it has been a great success, and that it has been a great factor in causing our record low infantile mortality.

The Act officially came into force on February 15th, 1909, but it was some weeks later before the machinery of books, post cards, cards of instruction to mothers on the feeding and management of children etc., were prepared, and before the fact of its adoption was generally known, but everything was in full operation by the end of the first quarter. Before that time much had been done in preparing for it, especially in the education of public opinion in its favour.

For the greater part of the year it was in full operation and it has worked with the utmost smoothness,

Every one connected with it has acted most loyally, all the doctors and mid-wives send their notifications promptly, and cases which are attended by neither and are only managed by neighbours are almost as promptly notified, so that I get notifications by almost every post. These are at once entered in a book and notified to the nurse visitors. These again just as promptly visit the patients and give all the advice and assistance necessary to help the mothers in the management of the children, on the lines which I have indicated above and in accordance with a card of general instructions, a copy of which they leave in every case and which is hung up, and is a prominent object in almost every house where there is a baby.

These nurse visitors are most heartily welcomed and their assistance is very highly appreciated, all the more so, I am sure, because they are at the same time their own nurses to whose salaries they are nearly all contributors, and whose services in serious illness and in operations, so many more of which are now done at home, they have learnt to appreciate. After the children have got fairly on the breast and on the safe road for successful development their visits cease, unless anything goes wrong, in which case at the request of the doctors they again attend and give further assistance. I believe this course is general throughout the district, in any case throughout my own practice it is so, but I also ask their assistance in all cases of serious illness or whenever I think their assistance will be useful and I never consider whether their service is being rendered as the Health visitor of the District Council or the District nurse. This is just where the great advantage of the combined system is shown, there is no overlapping.

So although this report is a report to the Council concerning matters only under the direct control and supervision of the Council I cannot help expressing my knowledge of the fact that these ladies acting as District nurses under the voluntary Nursing Association financed by the people themselves directly, have been, and are a great boon to the whole district and are doing an incalculable amount of good in promoting the public health, relieving suffering and saving life. They are all very well trained and have a thorough knowledge of their work as nurses, are earnest and enthusiastic in their work, sympathetic and tactful, and if, as they undoubtedly are, they are loyal to their patients they are no less loyal to the doctors. They have too sound a knowledge of their work to be otherwise, they know that their duty is to assist the doctors and not in any case to supersede them. Two of them have recently passed the necessary examinations and obtained the Special Certificates granted by the Royal Sanitary Institute to Health Visitors. That is but a further guarantee of their efficiency.

As a result of their work as Health Visitors, I am sure from my own experience that there has been a great increase in breast-feeding and a great improvement in the general care and management of children with a consequent marked improvement in general health.

When breast feeding has failed, in most cases this has been of necessity and not until the utmost efforts have been made to avoid it and then bottle feeding has been conducted mostly on the best lines. The best type of bottle has been selected and careful instructions given as to its proper management. Amongst other evidences of improvements I may mention that that hitherto common complaint of babies, Thrush, has almost disappeared from my practice, due to the instructions given as to the hygiene of the mouth.

The only matter of importance in which they have hitherto failed is in banishing the dummy teat and that has not been without very great efforts. The almost constant use of this is an abomination and is responsible for much mischief and I hope that ultimately, though I am afraid it will be slowly, even this will be abolished.

Altogether there were notified, from the adoption of the Act to the end of the year, 487 births of which 16 were still born. There were 10 cases of twins—20 children.

**ZYMOTIC DISEASES:**—From the chief Zymotic diseases there were 14 deaths which is 18 less than last year. This gives a Zymotic death rate of 0·83.

It is 1·14 less than last year, 0·78 less than the County rate for the year, 1·44 less than the average County rate and 0·29 less than that for England and Wales at 1·12.

The deaths per ages and districts are given in the following Table.

## DEATHS FROM ZYMOTIC DISEASES.

	Under 1 year	1 to 5 years	5 to 15 years	15 to 25 years	25 to 60 years	Over 60 years	Whickham	Swalwell	Marley Hill	Dunston	Total
Smallpox											nil.
Measles ... ..	1	3					2	1		1	4
Scarlet Fever ... ..											0
Whooping Cough ... ..		1					1				1
Diphtheria (including Membranous Croup)			3				1	1		1	3
Fever Typhoid ... ..											0
Diarrhœa (including Enteritis)	3	2	1							6	6
Totals	4	6	4				4	2	0	8	14

This Table again shows the preponderance in infancy and childhood and the small share which the most dreaded diseases have in the mortality.

This is much better than for many years. The County rate is also very low, but ours is little more than one half of it.

**PHTHISIS PULMONALIS:**— There were 19 deaths from this cause of which 4 occurred in Public Institutions outside the district viz:— 2 in the Gateshead Union Workhouse and 2 in the County Asylum. This is exactly the same as last year though of deaths actually occurring in the district there is a decrease of 2.

This gives a Phthisis death rate of 1·13 which is 0·03 less than last year, but 0·22 above the rate for the County and 0·06 above the average County rate.

The following Table shows ages and districts

## DEATHS FROM TUBERCULAR PHTHISIS.

Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 60 years.	Above 60 years.	Whickham.	Swalwell	Marley Hill	Dunston	Total
0	0	1	4	14	0	2	7	0	10	19

From other Tubercular diseases there were 12 deaths, being one more than last year. This is equal to a death rate of 0.71 which is 0.02 less than the County and 0.13 less than the County average at 0.84.

The following Table gives the death from all tubercular diseases.

DEATHS FROM TUBERCULAR DISEASES.

Under 1 year.	1 to 5 years.	5 to 15 year.	15 to 25 years.	25 to 60 years	above 60 years	Whickham	Swalwell.	Marley Hill	Dunston	Total
1	4	1	6	19	0	4	9	1	17	31

This gives a death rate from all tubercular diseases of 1.85 which is exactly the same as last year. It is 0.21 higher than the County, but 0.06 lower than the County average.

It shows that 13.9 per cent of all the deaths was due to tubercular diseases. This is higher than last year because of the fewer deaths from all other causes.

This is almost the only case in the mortality statistics which is not quite satisfactory. I think we ought to get a reduction in the deaths from phthisis and other tubercular diseases. I thought we had done so this year, until the deaths in public Institutions were received but the addition of these four made a great difference.

There is no notification, either compulsory or voluntary, of cases of phthisis or other tubercular diseases. Houses are sometimes disinfected after deaths from Phthisis, but the practice is not general, though when the cases are known a thorough cleaning is recommended.

ACUTE RESPIRATORY DISEASES:—There were 32 deaths from these which is 15 less than last year.

This gives a death rate of 1.91 which is 0.99 less than last year. It is 0.47 below the County and 1.12 below the County average.

The following Table shows ages and districts:-

DEATHS FROM ACUTE RESPIRATORY DISEASES

	Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 60 years.	Above 60 years.	Whickham-	Swalwell.	Marley Hill.	Dunston.	Total.
Bronchitis & Broncho- Pneumonia.	7	4	0	0	1	6	3	6	3	6	18
Pneumonia-	2	0	0	0	6	2	0	2	3	5	10
Pleurisy.	0	0	0	0	0	1	0	0	1	0	1
Others	0	1	1	0	1	0	2	0	0	1	3
Total—	9	5	1	0	8	9	5	8	7	12	32

Again it is to be noted that these diseases are specially fatal at the extremes of life, a contrast to Phthisis.

There were no deaths from PUERPERAL FEVER but there were 3 from other diseases and accidents of parturition.

Of deaths from SEPTIC DISEASES there was one from Erysipelas in an infant and one from General Pyæmia from Septic Infection of the umbilicus in a baby whose birth was not attended by either a doctor or a certified mid-wife.

There were no deaths directly attributed to Alcohol, but there was one from Secondary Syphilitic ulcers.

There were 8 deaths from CANCER, exactly the same as last year. They were fairly evenly distributed as 2 were at Whickham, 3 at Swalwell, 1 at Marley Hill, and 2 at Dunston. They declined at Dunston but increased in all the other Wards.

HEART DISEASE was the cause of 15 deaths as against 18 last year, mostly in advanced life. Five were at Whickham, 2 at Swalwell, and 8 at Dunston.

ACCIDENTS;—There were 13 fatal accidents as against 7 last year and 3 the year before. Three were at Whickham, 2 at Swalwell and 8 at Dunston.

As in the past four reports I will now give the most important statistics for the whole district and its component parts as based on what we believe to be the actual population, I accept as before the estimate formed with great care by the Registrar Mr. Jobling.

At Whickham, Swalwell and Marley Hill but few houses have been built, those at Marley Hill have mostly replaced single houses which have been doubled by being made through and through, two houses being made into one, while others were only occupied after the middle of the year. At Swalwell there is a new terrace of superior houses being built, but only a few are yet occupied and these only recently. More have been built on the Whaggs estate, but the population has been but slightly increased, while at Dunston, housebuilding is going on continuously and the population is increasing rapidly, though many of the older houses are always unoccupied. The increase of births over deaths must increase the population of all the districts but it is somewhat modified by the frequent changes and the efforts made to diminish overcrowding.

The following is the estimate we have made of the population at the middle of the year 1909.

ESTIMATED POPULATION			
	Inhabited Houses		Population.
Whickham	664	...	3560
Swalwell	851	...	4270
Marley Hill	406	...	2010
Dunston	1868	...	8585
	<hr/>		<hr/>
Total	3789		18425

The following Table then gives the most important Statistics on this estimate, residents and non-residents being included.

	Whickham	Swalwell.	Marley Hill.	Dunston	Whole District.
Birth rate	25·56	36·29	25·37	35·87	32·83
Death rate	10·95	12·17	10·94	12·81	12·10
Infantile Mortality	33	96	78	116	95
Zymotic	1·12	0·46	nil.	0·93	0·75
Phthisis	0·56	1·63	nil.	1·16	1·03
All Tubercular	1·12	2·10	0·49	1·98	1·68
Respiratory	1·40	1·87	3·48	1·39	1·73
Cancer	0·56	0·70	0·49	0·23	0·43
Heart Disease	1·40	0·46	nil.	0·93	0·81

In comparing this Table with those of previous years, some important facts are brought out.

The birth rates of Whickham and Marley Hill again show an increase though both remain low, and much lower than Swalwell and Dunston. I have in former reports given reasons for the low birth rate in these wards, and with an extension of house building, I feel sure that they would both go up, especially would I expect this at Marley Hill because there the present accomodation is altogether insufficient for the natural increase of population. As the young people grow up and get married they cannot get houses within the district, while the older people adhere to the houses which exist, and these constantly tend to become overcrowded. This evil would be greater but for the fact of a considerable increase of house building immediately beyond our district.

The rate at Swalwell, which had markedly declined last year has again gone up, while that at Dunston has slightly declined, though the actual number of births has there considerably increased. For the whole district there is a slight increase.

The death rate is very satisfactory throughout. It has slightly risen both at Whickham and Marley Hill though it is still very low and almost identical at both places. It has very considerably declined in Swalwell and Dunston, especially the latter. There is a greater approach to uniformity in all the wards than ever I have known before, especially when the difference in the birth rates is taken into consideration. A total death rate of 12·1 must be considered extremely favourable in such a large populous mixed district as this.

I have already commented on the highly favourable infantile mortality rates throughout.

The Zymotic death rates are just as favourable. There is a great decline in all the wards except Whickham which shows an increase and it is the highest of all the wards though still considerably below the County.

This was due to an epidemic of Measles which attacked most of the young children and caused two deaths and to a limited epidemic of Diphtheria which caused one death. It was very low in the other wards, and at Marley Hill it was altogether nil although the incidence of the notifiable diseases was again proportionally high there.

The Phthisis and other tubercular rates again show a slight improvement though less than one would like.

In these we often tend to exceed the County. In Phthisis Whickham shows a marked decline, and the only two deaths were imported cases, that is they both came into the district when the disease was far advanced, bearing out what I have often noted that we often at Whickham get such cases which tend to increase our rate unduly.

Marley Hill is as usual most favourable having had no deaths from Phthisis and only one from other tubercular diseases. Swalwell and Dunston both show a considerable increase.

In acute respiratory diseases there is a great decline in all but Marley Hill where there were three deaths from Bronchitis and three from Pneumonia which raised the rate much above the average for Marley Hill.

#### NOTIFICATIONS:

There were 123 notifications of Infectious diseases during the year. This is 24 more than last year and 61 more than the previous one. Of these 47 were cases of Diphtheria (including membranous croup) 56 of Scarlet fever. 9 of Enteric fever, 8 of Erysipelas and 3 of Puerperal fever.

Forty two were at Whickham, 24 at Swalwell, 24 at Marley Hill and 33 at Dunston.

There were sent to Hospital 17 cases of Diphtheria, 33 of Scarlet fever and 7 of Enteric fever. The others were fairly well

isolated at home.

As a rule there is now not much difficulty in getting cases sent to hospital where home isolation is difficult in any of the districts except Marley Hill, but the opposition there is generally strong.

Whickham and Swalwell show a considerable increase, while Marley Hill and Dunston show a decrease.

The greatest incidence was thus at Whickham and Marley Hill and the least at Dunston.

There were only 3 deaths, all of Diphtheria, one was at Whickham, 1 at Swalwell and one in hospital from Dunston. Only 2 of the notifications were of children under one year.

SMALL POX was entirely absent during the year.

Owing to the facilities given for the securing of vaccination exemptions, these are on the increase so that there is growing up a considerable increase of population unprotected against Small-pox, which is preparing the way for a probably not far distant epidemic of this formidable and loathsome disease.

SCARLET FEVBR;—There were 56 cases, being 16 more than last year and 27 than the year before. Eighteen were at Whickham, 8 at Swalwell, 16 at Marley Hill and 14 at Dunston.

The type was generally mild and no fatalities occurred. It is rather remarkable that out of 96 cases during the past two years there has not been a single death. This is a great contrast to my early experience in practice thirty years ago and many years after. At that time Scarlet fever was a very fatal disease. To what extent improved sanitary conditions have contributed to this decline in virulence it would be difficult to say. I am afraid a change in the type of the disease is the essential cause.

The cases were widely separated in time and place. October was the only month in which no cases occurred. All the districts were affected, though unequally, and there was never any serious epidemic prevalence. At Whickham, Swalwell and Dunston the great majority of the cases, all that could not be efficiently isolated at home, were removed to hospital. On the other hand only

2 out of 16 cases in the Marley Hill area were removed, though the others were not all by any means efficiently isolated.

It was in this area, especially at Byermoor, where the only approach to epidemic prevalence occurred. It was utterly impossible to get permission for hospital isolation of the early cases here, and equally difficult to get reasonable home precautions and I feel confident that it was only by the vigilance of the Sanitary Inspector and by his frequent visits and his enforcement of disinfection under the most difficult conditions that a serious epidemic was averted. It is certainly a curious fact that for years there has been a heavy incidence of Scarlet fever and Diphtheria in the Marley Hill area with a remarkable absence of fatalities.

It is in most cases a very great advantage to have cases of Scarlet fever sent to hospital, and in all parts of our district except Marley Hill the people have come to realize it

In the mild cases which we mostly get nowadays, it is a great gain to the patients because they get out of doors so much sooner, and they have every facility of play with their fellow convalescents in the grounds of the hospital. It is a great relief to the mothers who have generally as much as they can do to attend to their domestic duties, and it is a great gain to regularity of school attendance on the part of the other children of the households affected. In the few severe cases which occur the patients get more efficient nursing than they can possibly get in most houses if the other members of the family are not to be neglected. The risk of infection to others must be minimised though, as I have stated before, with reasonable care in average homes, this risk is not so great as is generally believed.

I only know of one hospital "return" case during the year. I am quite sure that our conjoint hospital authority does not err in sending cases out too soon. I do not think that any harm would result if the period of detention was curtailed provided the patients had no discharge from nose or ears.

In my last report I expressed my own convictions as to the general management of Scarlet fever so fully that I need not say

more.

In view of certain remarks I made in my last annual report it may be interesting to refer to a case reported by myself as one of puerperal fever. It was a midwife case in which I was called in because of the occurrence of fever. The patient was very ill and caused me considerable anxiety but, from the further progress of the case, though there never was a distinct rash, I became convinced that it was, like the one I reported last year, a true case of Scarlet fever in a puerperal woman.

Considering the very frequent occurrence of Scarlet fever, I would urge the most careful consideration in all cases of fever in puerperal women of the possibility of Scarlet fever infection, believing as I do that the puerperal woman is specially susceptible to Scarlet fever infection, but that the infection always causes Scarlet fever and not ordinary septic puerperal fever.

DIPHTHERIA, INCLUDING MEMBRANOUS CROUP:—There<sup>n</sup> were 47 cases, being 3 more than last year and 24 than the year before. This constitutes a record. Distributed over the district there were 22 at Whickham, 10 at Swalwell, 2 at Marley Hill and 13 at Dunston,

There were 3 deaths, which gives a case mortality of 6·38 per cent, which is 1·84 higher than last year though still very low for such a severe and fatal disease. It gives a death rate of 0·17, which is 0·02 higher than last year and exactly the same as the County but lower than the County average for the past ten years. Considering the high incidence of the disease this is very satisfactory.

A very large number of the cases were of the laryngeal type, the so called Membranous Croup, a type which in the days before antitoxin was introduced was almost invariably fatal. Contrasting these cases with those with which I was familiar before the days of antitoxin, I do not hesitate to say that we would have been fortunate if one half of all the cases had recovered without antitoxin. I think it is putting the case very moderately to say that 20 lives have been saved by antitoxin.

In estimating the value of this remedy, it is well to state the immediate cause of death in all fatal cases. In one Dunston case

of the laryngeal type, the patient was hopeless when first seen unless tracheotomy was done without delay, as the home surroundings were altogether unsuitable for this operation, the doctor notifying had the case removed to hospital at once but death occurred a few hours after admission without the operation having been performed.

I think the doctor acted with commendable promptitude in this case. Of all cases of Diphtheria this is the type which ought to get most benefit from hospital treatment. It is never too late to send such cases because it is never too late to do tracheotomy in them so long as the patient is alive. We ought even to risk the chance of the patient dying on the way in order to give it the chance of recovery by operation under the most favourable conditions of hospital nursing.

A second death occurred at Whickham in a boy who had been ill a week and had laryngeal symptoms two days before medical advice was sought. Though antitoxin was then given it was necessary to perform tracheotomy the same day, the operation was completely successful in averting death by suffocation, but death occurred two days later from heart failure due to the poison of Diphtheria, absorbed before the administration of antitoxin, owing to the unfortunate delay in seeking medical advice, the third death occurred on the same day as laryngeal symptoms first appeared after only a few days of apparently slight illness, the child died quite suddenly from heart failure on being lifted out of bed. This case emphasises the extreme importance of absolute rest in all cases of Diphtheria however seemingly mild.

All the other cases recovered quickly under antitoxin treatment alone without operation except one which had to have tracheotomy on the same day and which was completely successful. Most of the cases were confirmed bacteriologically.

In addition to these I saw two cases of severe croup entirely indistinguishable from these, one of which required tracheotomy but in which bacteriological examination proved negative for two consecutive swabs from each. In the last case membrane was freely coughed up on the day after operation, and the second swab

was not merely taken from the throat, but scrapings from the tracheotomy tube with what appeared shreds of membrane were attached to the swab and yet it was found negative.

This seems to show clearly enough that cases of Croup of a most severe character do occur independently of Diphtheria, and may even be membranous.

At the same time the only safe treatment in my opinion is to give antitoxin at once on the presumption that the cases are diphtheritic for undoubtedly the vast majority of them are so even when there is no membrane on the throat, and it is only wasting valuable time to wait for bacteriological confirmation.

Another important fact clearly established during the year is that in these laryngeal cases, even when the tonsils have not been visibly affected, the bacilli remain for a very long time on the throat, and the patients thus remain infective for many weeks after complete recovery, quite as much so, if not more so, than the ordinary pharyngeal cases.

In every case that I have had under my care, and during the year I have had about forty, not only have I had bacteriological confirmation of the diagnosis, but during convalescence repeated swabs have been examined and the patients have been isolated until the swab was pronounced negative. The earliest date that I have had such negative report has been four weeks but the majority have been much later going to nine, ten, eleven, and twelve weeks. Most of the cases have been treated at home so that there was no question of reinfection from others in hospital but the same is true of hospital cases, one of mine a laryngeal case, was kept in hospital twelve weeks because up to then the swabs were constantly positive.

It is this fact which seems to account for the many cases of Diphtheria which occur without our being able to trace the source of infection, for it is clear that if such cases were allowed to mix freely with the community, there would be constant foci of infection.

This is certainly what constantly occurs for it is far from a routine practice to have swabs regularly examined, though on such evidence as I have given above, it clearly ought to be.

The cases were fairly distributed over the year, the only month in which no cases were notified was August. With one exception it never attained epidemic prevalence and it was but rarely that the origin of any case could be ascertained.

The exception was a small epidemic of 11 cases in June and July at Whickham which was of a peculiar if not unique character.

At the end of June one case occurred and at the beginning of July a series of others in rapid succession, living widely apart in the village. It was noted that they were all of the same age and on enquiry I found they were all attending the same class in the infant school. I visited the school and found that they were all even in this room usually close together; as others came in the area widened, but still they were all from the same class room. It was obvious that they were all coming from some source of infection in the school. At this time the school was within a week of closure for the summer holidays. It was too great a task to get swabs taken from all the children, because we have no power to do so without consent of parents and the time was too short to get this and carry out the work. I however suspected a probable origin in a child that I had attended five months previously for laryngeal diphtheria and who had had a chronic discharge from the ear since it was two years old. This child was isolated until throat swabs were negative about the sixth week and it did not return to school till several weeks later, as it continued under treatment for ear discharge. Treatment failing, it was sent to the Newcastle Infirmary with a view to operation, but it was decided to continue local treatment—antiseptic syringing and eardrops. This had been persistently carried out but still discharge continued. My suspicion fell on this discharge and I sent a swab from the ear for bacteriological examination and it proved positive, diphtheria bacilli were present and that in spite of the long continuance of antiseptic treatment.

Another swab taken in the same way after all antiseptic treatment was stopped for three days was again returned positive, as was also a swab from the throat. A consultation with a throat and ear specialist was then held, and on his advice the case was admit-

ted to the Isolation hospital and there operated on for radical cure of chronic otitis media, enlarged tonsils and adenoids being removed at the same time. The removed tonsils, adenoids, a swab from the antrum and a swab from the tympanum were all submitted to bacteriological examination. All gave a negative result except that from the tympanum which contained the discharge as it was coming from the middle ear.

It was clear therefore that the middle ear had been acting as an incubating chamber for the diphtheria bacilli and that these were being constantly passed with the discharge from the ear and occasionally also down the eustachian tube to the throat and this had apparently been going on for six months which was the interval between the attack of diphtheria and the operation.

The school was closed for the usual summer holidays in the same week as this child was again isolated and no more cases occurred, indeed there were no cases at all throughout the whole district during the next month, when all the schools were closed, after that isolated cases occurred as usual but without any obvious connection with any of the schools.

During 1907 and 1908 the greatest incidence of the disease was in the Marley Hill ward, but during the year under consideration there were only two cases, both at Byermoor, Dunston has decreased while the greatest incidence was at Whickham, and at Swalwell, which has formerly been wonderfully exempt, the incidence has been gradually increasing.

Throughout the district, as in the County, there has undoubtedly been a considerable increase during the last few years and there does not yet seem much evidence of its decline.

It is of the utmost importance that everything possible should be done to stop this increase.

There can no longer be any doubt that the general sanitary conditions play quite a subordinate part in the causation of this disease. The real cause is direct infection from patients, convalescents and contacts.

The essential preventive measures are early diagnosis and prompt treatment by antitoxin, immediate isolation, and the prolongation of isolation until all bacilli disappear from the throat, which can only be determined by systematic bacteriological examination of swabs taken from the throat.

The importance of these examinations cannot be too strongly impressed on all medical practitioners and, when they do not care to undertake them personally, it would be well if they would use their influence to have the cases isolated in hospital where such examinations would be undertaken.

The difficulty with contacts would still remain, but I feel sure that if the above precautions were promptly taken infected contacts would be greatly reduced in numbers.

TYPHOID OR ENTERIC FEVER—There were 9 cases notified, which is 7 more than last year and more than in any of the past five years. Four were at Swalwell, 3 at Marley Hill and 2 at Dunston. Except where two occurred in the same house, as at Marley Hill and Dunston there was no connection between the cases. Cases occurred at Swalwell, one each in March, May, June and December, the first three were in the same terrace, but, as far as could be ascertained, unconnected with one another, the December case was in all probability due to eating raw mussels. An itinerant seller of these has for some time been having a large sale in Swalwell, and the patient was a regular customer eating largely of them, but he also did so in his frequent visits to Newcastle. As no other cases occurred in Swalwell from mussel eating, we can scarcely blame the local vendor. The Dunston cases were mother and daughter, and they were both ill at the same time. The origin could not be ascertained. Of the Marley Hill cases, one was at Old Sunnyside and must have been contracted before entering the district, and the others were two brothers at the Hill itself, the second occurring shortly after the removal of the first to hospital. The origin of this first case was obscure, but the sanitary conditions were very unfavourable. The drainage here is by open channels and the cleaning

of these had been in abeyance, and the outlet underground at the end of the row had become obstructed. I regarded this outbreak under the circumstances as most dangerous and brought the matter before the Council, urging that the proposed scheme of drainage which had been already approved by the Council, should be proceeded with at once. This by resolution they decided to do with the least possible delay, but it is still, I regret to say, only a resolution on paper. In the meantime we had only to do our best with what existed. The channels were cleaned and repeatedly flushed, the terminal drain opened and cleared, excreta were efficiently dealt with. With much persuasion we were allowed to send the first case to hospital where he had a long and precarious time but ultimately recovered, but no persuasion could induce the parents to permit removal of the second one. He had to be treated in the common living room of a back to back overcrowded house, not conspicuous for order and cleanliness. After commencing convalescence he had a relapse so that he was a very long time ill and yet there was no extension of the disease.

This was a much better result than we had any right to expect and I am bound to say, better than we deserved.

Paper resolutions can scarcely be considered satisfactory sanitary improvements.

Altogether seven of the nine cases were removed to hospital and all recovered. It is satisfactory to note that though there was an increased number of cases there were no deaths, and though the centres of infection were greater than usual, there was no extension from them.

**ERYSIPELAS**—There were 8 cases, which is 3 less than last year, Two were at Swalwell, 3 at Marley Hill, and 3 at Dunston. There was one death, an infant at Dunston.

#### **NON-NOTIFIABLE INFECTIOUS DISEASES.**

**MEASLES**—This was not seriously epidemic during the year, though isolated cases occurred in all the wards. It assumed epidemic prevalence at Whickham in July and August. It was introduced by

the annual "Hopping", spread first through a Sunday school, then the infant school became implicated and the epidemic became general, attacking most of the children who had escaped during the severe epidemic of 1907 and those who had been born since then. A very large proportion of the cases were young children and two deaths occurred.

Amongst the isolated cases which occurred there was one death at Dunston and one at Swalwell. There were thus altogether four deaths which gives a death rate of 0.23 which is lower than the County at 0.37 and the County average at 0.40.

The epidemic at Whickham was concurrent with that of Diphtheria and one patient got both diseases at the same time.

WHOOPING COUGH - After the severe and fatal epidemic of last year which affected the whole district, and especially Whickham and Swalwell, a high incidence of the disease was scarcely to be expected this year and on the whole, the district remained fairly clear, though this is a disease which is being constantly introduced from other districts owing to the frequent changes of inhabitants and the facilities of travel and the amazing, I think criminal, indifference of the public towards it. It again became epidemic at Swalwell during the last quarter. For a considerable time it remained confined to the few families first attacked and every effort was made to prevent its extension, but in November fresh cases occurred in rapid succession, and there was evidence that cases were attending school. So many complaints were made to me that both actually definite and suspected cases were not only being permitted to attend school, but were actually being forced into school against the advice of the doctors in attendance that I considered it my duty to make a strong protest to the Council at their meeting in December. A resolution was passed to forward my report to the local education Committee along with a letter by the Clerk on the authority of the Council, asking that the complaints should receive attention.

I have since had a letter from the County Medical Officer of Health to the effect that the accuracy of my statements as well as

of those I made in my last annual report to this Council are denied. I have replied reiterating my charges and giving specific instances. I most emphatically stand by my statements and am prepared to defend them.

There is more than carelessness in permitting children suffering from the non-notifiable infectious diseases to attend school. Parents are terrorised into sending them. I do not believe that this applies to the notifiable diseases; where it has occurred in connection with these (and it has occurred,) it has been through inadvertance or ignorance, but that is not so in connection with the non-notifiable infectious diseases.

In the course of the discussion which arose at the Council meeting on my statement, I was particular to state that I believed I would have the support of the County Health Authority and the School Medical Inspectors in my efforts to prevent children suffering from these diseases attending school. I have had that conviction confirmed.

The County Medical Officer of Health and the School Medical Inspector are just as anxious as I am that these children should be excluded from school.

The antagonism is entirely between the education authority desirous of a high average attendance and the health authority desirous of maintaining the public health by preventing the spread of infectious disease.

I have proved by figures that these diseases, especially Measles and Whooping Cough, are far more serious and fatal to children than the notifiable diseases and it is therefore just as unjustifiable to unnecessarily expose them to the risk of the one as the other, and though the others such as Røtheln, Chicken pox, and Mumps are but seldom fatal, they are disagreeable enough to be avoided, and we have a right to demand that children shall not have them deliberately thrust upon them.

The mortality from Whooping Cough was this year limited to one case of Pneumonia following Whooping Cough in a child at

Fellside village included in the Whickham Ward. It was one of the last cases of the epidemic of 1908. From the epidemic at Swalwell during the whole of the last quarter there were no deaths, but as towards the end of the year numbers of very young children were attacked, and as it is the season for Bronchitis and other Acute Respiratory diseases, it would be too much to expect that immunity from death will prevail through the next few months.

The death rate is 0·05, which is much lower than the County rate at 0·25 and the average County rate at 0·36.

DIARRHŒA:—The year was not a typically diarrhœa year, it was not a prolonged hot, dry summer and autumn, but neither was it a typical non-diarrhœa one for it was not continuously cold and wet. It was, however, distinctly below the average for warmth and dryness.

There was a prevalence, though not a great prevalence of diarrhœa throughout the district and infants were less affected than usual. As bearing on the modern theory of the influence of flies on the incidence of this disease, I think every one will have noticed that these were less of a plague than usual. Certainly the disease gave us less anxiety during the summer and autumn than usual.

Altogether there were only six deaths, three of them only being in infants under one year, and they all occurred at Dunston, so that none of the other wards had any deaths from diarrhœa at all.

The death rate was 0·35, which is 0·63 lower than last year. It is considerably lower than the County at 0·59, and the County average at 0·93.

Low as this general diarrhœa death rate is, I think it is worthy of note that the infantile diarrhœa death rate is still lower. As a rule, the deaths of children under one year have been far in excess of those of greater age, but this year only one half of the deaths have been in children under one year.

The causes of summer diarrhœa have been fully discussed in former reports, and I will content myself in this by explaining what is, in my opinion, the meaning of this much lower mortality. The character of the season comes first, but this was essentially the same

for the whole County, and yet we have little more than one half of the rate for the County.

Our constant sanitary improvements must have had a considerable effect, more especially the abolition of open middens, ashpit privies, and the substitution of well constructed small ash closets, and to a less extent, water-closets, the thorough weekly cleaning of these by the Council's workmen under efficient supervision, and the cementing of yards and spaces immediately surrounding dwellings, so as to prevent pollution of the soil in the immediate neighbourhood of dwellings and the enforcement of the bye laws against the accumulation of organic refuse in the neighbourhood of dwellings. All these matters have been persistently persevered with. A more difficult but equally important task has also been persisted in, viz:- the promotion of cleanliness in the houses themselves and in the cemented yards and other surroundings. How difficult this is in many cases has been impressed on me by the persistence of the Sanitary Inspector in effecting it, and by the frequency with which he has directed my attention to difficult cases and asked for my assistance. A further gain will be effected if our new crusade against the keeping of poultry, pigeons, etc., in unsuitable back yards should prove successful, as I have no doubt it will be by steady perseverance.

In addition to all these general sanitary improvements, I feel confident that another most important factor is the work of the lady health visitors in promoting to the utmost breast feeding of children, preventing hand feeding in all cases except where breast feeding is not possible and then showing the best methods of hand feeding, and generally giving instructions and demonstrating them, in the best methods of rearing children. Besides in no arrogant but in a friendly and womanly way, they convey instruction in general personal and domestic hygiene and their lessons sink in and tell.

Their official title of assistant inspector of nuisances though, as their essential work is to overlook the babies, it has its humorous aspect, is not so very wide of the mark, for inasmuch as it is im-

possible to administer much in advance of public opinion, so it is necessary in the first place to educate public opinion.

I cannot conceive any factor more potent in this education than the quiet, friendly, womanly conversation and action of these ladies. The way they clean up is a lesson which goes home. I have witnessed it myself frequently. Where I have seen it best for myself, has been where they have been acting as nurses in preparation for operations, for our nurses and lady health visitors are one and the same.

Under the most unfavourable conditions slums have been temporarily converted into clean sweet operating theatres.

I have noticed a genuine effort of the people themselves to emulate them when they have seen how easily and simply it is done.

I feel sure that we are going in the right way to reduce diarrhœa fatalities to a minimum, though not to altogether eliminate them, for it is only too obvious that there are incorrigibles. But what is more important, the same efforts that are being made in this direction are precisely those which lead to improved general health and well being.

#### GENERAL SANITATION.

SCAVENGING:—This is done efficiently by the Council's own workmen throughout the district. Now that middens and ashpit privies have been practically abolished, this efficiency has increased.

All ash-closets, which are the prevailing kind of conveniences throughout the villages, are cleaned out regularly once a week. I think this is of great importance, especially in the summer months.

This weekly cleaning has proved entirely effective in preventing undue accumulation of fœcal and other organic refuse. There

should never occur any nuisance in connection with them, for the proportion of ashes to refuse is always high, except where, from carelessness and indifference, extra quantities of organic refuse which should be burnt are placed in the closets. Every effort is made to prevent this, but it is one of the simple lessons which is apparently not easily learnt by many.

The suggestion which I made in last Report, that the usual weekly cleansing might be shortened by a day or two in the hottest months with increased advantage and safety still holds for the reasons given, though it is only right to state that there has been recently published results of careful enquiries into the life history of the common fly, which seem to show that the cycle from the deposited egg to the developed fly, is rather more than a week so that we are quite within the region of safety.

**SLAUGHTER HOUSES**, though unregistered, are all well known and strictly inspected as regards cleanliness.

**COW BYRES** are registered and are frequently inspected to ensure their being in accordance with the Act and Bye-laws. The Bye-laws require a minimum of 500 cubic feet of air space per cow. I do not consider that this is sufficient when we know the importance of fresh air in preventing the development of tuberculosis, to which cows are so prone and when we further know that the presence of tuberculosis in cows, even when the udders are unaffected, means that their milk contains tubercle bacilli, capable of infecting human beings who drink it.

Of all means of preventing tuberculosis in human beings probably the greatest would be the elimination of tuberculosis in cows. This could only be done by systematically testing cows by tuberculin and eliminating all which react, and keeping the others in clean, well-ventilated, and well-lighted byres with sufficient air space. I do not think that 800 cubic feet per cow is extravagant but certainly

the 600 recommended as a minimum by the County Medical Officer of Health is very reasonable.

A Committee of the Council considered this question at a meeting in May. As a result the Sanitary Inspector made a special survey and inspection of all cow byres in the district, and prepared a report which was submitted to the same Committee and brought before the Council in October.

This report gave a list of the cow byres, the number of cows in each, the exact measurements of the byres, the air space in cubic feet per byre, and the same per head. The air space per cow varied from 2618 cubic feet to less than 400, the average being 740. There were 32 byres; of these, 11 gave over 800 cubic feet per cow, 12 between 600 and 800, 5 between 500 and 600, and 4 under 500, but one of them was just under, it was 497.

There were thus only 3 which were distinctly less than the bye-laws required. These contained 25 out of the total of 364 cows. The great majority were over the 600 limit.

Under these circumstances the Council did not consider it advisable to make any alterations in the existing bye-laws. Notices were at once sent requiring the three defaulters to comply with the bye-laws, and this was very quickly done. The general character and management of the byres were considered satisfactory. Ventilation, lighting, and drainage were all in accordance with the bye-laws, though I would not like to say that ventilation and lighting are quite in accordance with modern ideas.

I have never had any complaint as to the quality of milk supplied, and it has never come under suspicion as a factor in the causation of disease.

Milk is of course a common factor in the causation of summer diarrhoea, but in most cases the contamination occurs in connection with domestic storage.

All the farmers and cowkeepers have an abundant supply of water entirely above suspicion.

FACTORIES, WORKSHOPS, ETC:—These are all satisfactory. All the large factories are modern, well ventilated, not overcrowded, well drained, and the Sanitary conveniences are ample.

Apart from the large factories, there are 15 workshops on the register. They are mostly small, are not overcrowded, and all conform to legal requirements.

It was not found necessary to call the attention of the Factory Inspectors to any defects, but we received one notice from a Factory Inspector, which was at once attended to and the sanitary defect remedied.

There are not in the district any of the works specially scheduled where home work is given out, and consequently we have no lists of home workers.

There are four small bake houses, one at Swalwell and three at Dunston. All are satisfactory and none underground.

PUBLIC ELEMENTARY SCHOOLS:— These are precisely as in my last Report, with in addition, a new Council school at Whickham, which was opened after the summer holidays. There is also a large new Council School in course of erection at Dunston,

They are all satisfactory from the sanitary point of view. Because of the epidemics of Diphtheria and Measles at Whickham, the Church school, at that time the only school at Whickham, was thoroughly disinfected by the Sanitary Inspector, then cleaned and re-decorated during the summer holidays.

The action taken to prevent the spread of infectious diseases in schools is the same as that taken to prevent the spread generally.

Every effort is made to prevent children suffering from these

diseases attending school and with certain reservations, from attending from infected houses.

Action is based on the minute of instructions issued by the Local Government Board, and is exactly similar to that recommended and acted on by the school Medical Inspectors.

It is quite necessary to exclude from school all children living in houses where there are cases of Scarlet fever or Diphtheria until these have completely recovered and the house has been disinfected, I do not think the same necessity exists where Typhoid fever is the disease in question, but in this case the question has rarely arisen, because Typhoid cases have nearly always been sent to Hospital, and at any rate, the schools are very loth to admit them, for the word fever frightens the teachers.

When cases are sent to hospital and the house is disinfected other children may resume attendance though it is better to allow a week to elapse before this resumption to cover the incubation period of Scarlet fever and Diphtheria.

Strictly speaking, when Diphtheria is in question, throat swabs should be examined and found negative before other children are allowed to return to school, but this is at present a counsel of perfection not practically attainable. So when children return from hospital they ought to be able to return to school. but when we consider the number of "return" cases, it is advisable to allow at least a week to elapse before doing so..

In Measles and Whooping Cough, as a general rule, children who have already had the disease need not be excluded though there are cases in their homes, but even in these I think it is advisable to exclude from the infant schools. Similar rules apply to the other still minor infections. Cases of Scabies (the itch) should be excluded until recovery is complete but even then unless clothing is thoroughly disinfected or destroyed, reinfection is almost certain to occur. When under careful treatment cases of ringworm need not be excluded.

School Medical Inspection is now an accomplished fact. It is supposed to be part of the Sanitary Authority, and to be effected in conjunction with the public health authority.

The connection is clear enough as far as the County is concerned, but it seems to be entirely out of touch with the district sanitary authority. The district Council, which is the district sanitary authority, as such, scarcely knows of the existence of school medical inspection and the district medical officer of health and the school medical inspector have scarcely a point of connection.

Again the district medical officer of health and the general medical practitioners of the district are constantly brought into connection with one another and when they work in harmony the gain to public health is enormous, but there is no direct connection at all between school medical inspectors and general practitioners any more than there is between the former and the district medical officer of health, and yet if school medical inspection is to be of any real value, if it is to be of the value that it is capable of being the connection between them, indeed between all three, should be of the closest. There seems to me to be a serious organic defect somewhere. Unfortunately the general practitioner is always ignored by the State and his interests never receive a moment's consideration and yet he is at the base of everything in practical medicine, every branch of medicine has grown from him no matter how highly specialised it may now be. And he remains a most essential factor in the knowledge of State medicine and is at the root of it all. He is one of the most important servants of the State and he is not even recognised as a State servant at all. He is simply exploited by the State. The whole structure of vital Statistics which have been, and are, of immense value are based on the certificates of general medical practitioners. These certificates form no part of the contract between doctors and their patients, they are given compulsorily in the interests of the State with-

out either fee, thanks or recognition. Our whole knowledge of the prevalence of infectious diseases is gained from them and though a fee is paid for notification of certain of these diseases it is a mere pittance in comparison to the financial sacrifice entailed by the removal of the patients out of his care to the Isolation Hospitals. He sees his midwifery practice [dwindling almost to extinction in many country districts through the Midwives Act, and passing into the hands of half trained women to whose aid he is supposed to go in all cases of difficulty without adequate provision having been made for his remuneration, though how the young medical practitioners of the future after deprivation of midwifery practice are to be able to render this aid with first class skill is not clear. Besides he sees the irony of the situation when it is expected to be found necessary to subsidise the midwives, and when it is becoming evident that to earn a living wage, the fees of the midwives will have to be raised to equal their own average fees amongst the poor. In School medical inspection he thinks he sees a further effort to curtail his practice especially as school clinics are being talked of, possibly without his co-operation. Naturally enough therefore he regards it with suspicion and though, as a rule, he is in sympathy with school medical inspection he is suspicious of the working of it.

I know nothing of it as district Medical officer of health, but I have seen a good deal of it as private practitioner and have had many of the letters sent to parents brought to me and I must say I believe it is likely to do a great amount of good. I have been surprised at the accuracy of diagnosis of the school medical Inspectors in most cases considering that they see the children only once or at long intervals and that their time for examination is necessarily short. I think it deserves the heartiest support of the private practitioners, I am sure that no one can possibly deal with the defects found in children so far as defective health generally and specific illnesses are concerned as the private practitioner so usually the family doctor, but there are defects beyond his province, for instance the cases of verminous children only require reference to

parents, and remedies can only be enforced through school nurses, defects of teeth belong to the dentist and if primarily the parents consult their own doctors he can only advise them to go to the dentists, and he would do well to impress on them how to preserve the teeth and prevent decay and the need of having partially decayed teeth stopped and not extracted unless beyond other remedy, skilful dentistry being thus required.

As regards eyes and ears and defective sight and hearing he can treat most illnesses with perfect success and deal with enlarged tonsils and adenoids, but in one of the most important matters,— errors of refraction requiring suitable spectacles, most of us prefer the prescription of a specialist, but this is at present difficult to many owing to expense. Considering the numbers of such cases I am sure that there are young specialists who would be very glad to attend at stated times at certain centres to examine and prescribe spectacles at moderate fees quite within the ability of the great majority. Most parents are anxious to make efforts and sacrifices for the benefit of their children and surely the Education Authorities will never condescend to advise resort to charitable institutions in such cases. The same is true with regard to those cases of ear mischief and chronic ear disease which fail to recover without operation.

All difficulties might be easily arranged by co-operation with the medical profession as it exists.

### **Hospital Accommodation.**

The conjoint hospital at Norman's Riding is available for the usual infectious diseases, viz:—Scarlet fever, Diphtheria and Enteric fever, and has proved sufficient for the requirements of the district though at times it has been strained.

At one time, as I see from the report of the hospital physician, the number of patients, chiefly of Scarlet fever, was nearly double

that for which the hospital was originally intended, but the strain was quite well borne. The Small pox hospital at Sealburns has fortunately not been required but it is kept in readiness and will be available when necessary.

### **Water Supply.**

This is ample in quantity and excellent in quality.

Marley Hill is supplied by the Consett & Weardale, and the rest of the district by the Newcastle & Gateshead Water Companies.

Whenever individual houses are found without a convenient supply action is taken to secure it.

With reference to the houses at the brickworks, Swalwell, referred to in last report, negotiations have been tediously prolonged but everything is now settled and the supply will be provided shortly.

### **Drainage.**

The drainage throughout the greater part of the district is very complete and good. Additions have been made from Whaggs Lodge along part of the Sunnyside road to take in a number of new houses along the lane between this road and Grange lane, and at water side Swalwell the new drain referred to in last report has been extended to take in the remaining part of Waterside including Poorhouse Yard. All connections with the houses have been made with properly trapped sinks. Swalwell is now wholly drained on modern principles and the old drains have been abolished.

All new houses and streets are efficiently sewered when constructed.

Marley Hill, High Row, and Byremoor remain as before. High Row and part of the Hill, have a system of their own of quite good drainage with trapped sinks, the drainage passing to fields and waste ground far enough away from all dwellings to prevent a nuisance.

The greater part of the Hill and the whole of Byermoor have still open channels. These are recognised as most objectionable and the Council has determined to abolish them in favour of modern

methods, but the precise scheme is still undetermined for Byermoor, while that for the Hill has been settled, and is only being postponed through pressure of other work. I think this is to be regretted because it is most urgently required both for its own sake and because it is preventing an equally necessary reform in street-making and modification of the houses, which the Colliery Company have undertaken to effect.

On the occasion of an outbreak of Typhoid fever there in June, I made an urgent appeal to have this done, and though it was sympathetically received, I am afraid the successful arrest of the threatened epidemic has caused it once more to sink in abeyance.

In my opinion this is the most urgent sanitary improvement required in the whole district.

The Annual Survey did not take place this year.

I think this is to be regretted, as it gives an opportunity for the officials as nothing else does, to bring to the notice of the members of the Council many matters of great importance which merely written or verbal reports cannot do.

### **Housing.**

On the question of housing there is little to be added to what has been said and dealt with very fully in former reports. There is not a great deal of serious overcrowding in any part of the district though there is plenty of it when judged by the official standard of regarding more than two persons per room as overcrowding. One and two roomed houses constitute now a small proportion of the housing accommodation of the district, three and four roomed ones a large proportion, while the proportion of houses with more than four rooms is constantly increasing. It is in the colliery houses of from two to four rooms where most of the minor cases of overcrowding exist, largely due to the high birth rate.

At Whickham there have been built a few houses about the Whaggs, on Cornmoor Road, and towards Sunnyside; they are all detached and of good type.

At Swalwell, after building had been in abeyance for a year or two, a new terrace of five roomed houses is now being built parallel to Park Terrace.

At Marley Hill, fourteen houses have been built, twelve being colliery houses of a very good type. These however, have done little more than accomodate tenants displaced by the re-building of the back to back houses in Post Office Row. Only half of this row has been dealt with, but there are signs that the others are about to be re-built. The other rows remain as before.

I am glad to say that at last the Cinder Burners' row, which was converted into through houses some years ago, has been completed by the removal of the step ladders, and the substitution of proper stair cases, so that this row now consists of good four-roomed dwellings.

One flagrant case of overcrowding occurred here, in which one large family took in another large family as lodgers. This has now been remedied.

The congestion which occurred at Marley Hill and which still tends to occur, has been considerably mitigated by the considerable extension of house building at Sunnyside and Streetgate, outside our area. Still there are numbers of Marley Hill workmen living at Dunston and the Teams. Indeed quite large numbers of workmen at Whickham, Swalwell, and Marley Hill collieries find their accomodation there.

At Dunston, house building continues at a great rate, whole streets being constantly in course of construction.

The Avenue system increasingly prevails and the houses afford excellent accomodation.

At the same time though the new houses find tenants at once there are always many unoccupied houses there. It is the older houses, and those of poorest type, which are mostly unoccupied, while several of the very worst have either been abolished or have become ruinous.

Action has had to be taken in a considerable number of cases against both insanitary dwellings and overcrowding, but in no case have we had to appeal to the Courts. All have been satisfactorily settled without much difficulty.

The owners have always shown a commendable willingness to meet our requirements and undoubtedly the greatest trouble has been with the tenants.

It has frequently happened that again and again both the same houses and the same tenants in other houses, have had to be dealt with. These are the incorrigibles.

I must again express the highest commendation of the way Mr. Dinsdale manages these difficult cases.

In now briefly reviewing the district, we will see what has been accomplished during the year, and what is still in urgent need of attention.

I. WHICKHAM. The greatest work done here has been the completion of the road along Rectory Lane and Whaggs Lane, Rectory Lane is of ordinary macadam and Whaggs Lane of tar macadam, with one footpath in Rectory Lane and two in Whaggs Lane also of tar macadam. This has made a fine broad roadway. Drainage, water supply, lighting etc., are all of the best quality in this area so that this part of the district has been fully opened out and supplied with every convenience; the extension of gas lighting along the continuing Sunnyside road has been a further gain.

The whole of the footpath along the South side of the village has been levelled and tar macadamised.

Edith Cottages have been provided with railed in gardens with cement path leading down to and in front of the houses.

All the ordinary sanitary conditions throughout the village are in good order.

The further requirements are 1st the making up of Millfield Road and its treatment in a way some what similar to Whaggs Lane; Cornmoor Road is not so urgent as there are still but few houses there.

2nd. The making up and paving of Back row. This has long been of an urgent character and it was understood that it was not proceeded with last year because of need of making a new road beside the new Schools and it was considered advisable to wait until the School was finished and do all work at one time. As the School is now finished, it is to be hoped that this matter will be undertaken as soon as the weather is favourable. The other small lanes in the village are of minor importance but no doubt they will be proceeded with at the same time.

They have all been surveyed, specifications prepared and notices served on owners.

SWALWELL. The most important work accomplished here has been the extension of the drain made for the eastern part of Water side during the previous year, to cover the western part taking in Poorhouse yard, and the completion of new drainage with trapped sinks for all the houses in this area, the cementing of yards and footpaths for all this region. This has effected a very great improvement, though it is a pity that as in the other part of Waterside also, the floors were not also cemented, as they are mostly not in good condition—merely bricked.

Axwell Terrace has had its gardens extended so as to make the street of the Avenue style. The same has been done for Hood

Street but the remaining narrow roadway has not yet been cemented.

This is about all that has been done for Swalwell during the year. Though the work is important and has effected a marked improvement, it is but a small part of what is very much required.

The most necessary requirements for Swalwell are mostly streetpaving and cementing round houses and rows of houses as described in former reports. These are chiefly required along the whole of Waterside, the large square in Poorhouse yard and the back street of Poorhouse yard. In spite of the cementing of yards and footpaths there, the rest of the ground is deplorable in wet weather and there is always much pollution of the soil. So long as the present condition remains there can be little encouragement to cleanliness, and every encouragement is needed.

Now that the roadway of Brewery bank has been cleared and the unsightly ash closets removed from the middle of the street and new ones erected in yards in proximity to the houses, the whole roadway should be paved and the yards properly cemented. The same is true of Spencer's bank, Quality row and the whole of this part of Swalwell west of Quality row with its many narrow yards and lanes.

**MARLEY HILL.** Apart from the erection of fourteen new houses, twelve of which are colliery houses completing Cuthbert Street, practically nothing has been done at Marley Hill during the year except the completion of Cinder burners row.

The most important requirement is the extension of drainage to include the whole of Marley Hill proper and if possible High row to be followed by the reconstruction of the streets according to methods and plans agreed upon by the Company in accordance with the recommendations of the Surveyor.

It is quite evident that nothing of the latter can be done until the drainage is accomplished so that it is clearly the Council which stops the way.

The next is the completion of the conversion of Post Office row from back to back to through houses and the erection of other houses to accomodate the tenants displaced, to be followed by the gradual similar conversion of others as more houses are built in accordance with the undertaking of the Company.

And finally the construction of modern drainage in substitution of open channels at Byermoor

DUNSTON. One can only again record the rapid and continuous extension both of works and houses. Again new streets have been built providing excellent accomodation, and of late the avenue system has been preferred, The building byelaws are strictly enforced. A great amount of work has been done in street paving and yet it scarcely keeps up with the extensions, as a consequence some of the old streets and squares have been deferred, such as Atkinson Square and Stokoe Square and yet these are the parts which are in greatest need. Again some of the oldest parts have been removed, such as a number of old houses behind the Post Office to make way for a public building.

Of all the wards Dunston offers least excuse for overcrowding as it has ample accomodation and there are many unoccupied houses and yet the newer and better houses are generally occupied.

With a greatly increased population the sanitary conditions are enormously better than they were not many years ago.

I have again much pleasure in appending the tabular report of Mr. Dinsdale, the Sanitary Inspector, and in directing attention to it as a record of most valuable sanitary work. His enthusiasm, earnestness and energy seem not to wane with advancing years and his intimate knowledge of the district is such that his services are indispensable, and I am sure that no Council has a more faithful servant.

Appended also are the Stastitical Tables as required by the  
Local Government Board,

I am,

MR. CHAIRMAN AND GENTLEMEN,

Your obedient servant,

ANDREW SMITH,

MEDICAL OFFICER OF HEALTH.



## County of Durham.

*SUMMARY of Work done in the Inspector of Nuisances' Department during the year 1909 in the URBAN DISTRICT of WHICKHAM.*

1. PUBLIC HEALTH ACTS.	Number of Informal written notices by Inspector	Number of Formal Notices by order of Authority	Number of Nuisances abated after Notice	General Remarks
Dwelling-houses and Schools.	Foul Conditions Structural Defects Overcrowding ...	146 85 12	146 85 12	
Lodging-houses ...	...	nil	nil	
Dairies and Milkshops ...	...	nil	nil	
Cowsheds ...	...	32	32	
Bakehouses ...	...	nil	nil	
Slaughter-houses ...	...	...	...	
Ashpits and Privies ...	...	19	19	
Deposits of Refuse and Manure ...	...	106	106	
Waterclosets... ..	...	7	7	
Defective Yard Paving ...	...	26	26	
House	Defective Traps ... No Disconnection from sewers	nil nil	nil nil	
Drainage	Other Faults	49	49	
Water Supply ... ..	...	nil	nil	
Pigsties ... ..	...	...	...	
Animals improperly Kept	...	...	...	
Offensive Trades ... ..	...	nil	nil	
Smoke Nuisances ... ..	...	nil	nil	
Other Nuisances	...	445	445	
TOTALS ... ..	...	958	927	

To whitewash Cowsheds, Stables, Piggeries, etc., with Council's machine  
These were notices re-served and will complete the whole of the Privy Middens in the villages of Whickham, Swallow, Marley Hill, & Dunston.

Building in original yard space contrary to Bye-law 60. The Clerk to write the owners.

*Inspector's Report continued:-*

	Number	Remarks.
<b>II. HOUSING OF THE WORKING CLASSES ACT 1890.</b>		
Formal Notices served ... ..	1	Time not yet expired.
Dwellings dealt with ... ..	1	
Dwellings made habitable after formal notice		
Closing Orders applied for		
Closing Order granted by Magistrates		
Dwellings permanently closed ... ..		
<b>III.</b>		
Number of New Houses erected during the year (or in course of erection)	154	
Number of such houses occupied during the year. ... ..	109	
<b>IV. WATER, FOOD AND DRUGS</b>		
Samples of Water taken for analysis	nil	
"  "  condemned as unfit for use ... ..		
Seizures of Unwholesome Food ... ..		
Convictions for exposing or selling Unwholesome Food ... ..		
Samples of Food and Drugs taken for Analysis ... ..		
"  "  found Adulterated ... ..		
<b>V. PERCAUTIONS AGAINST INFECTIOUS DISEASE</b>		
Lots of Infectious Bedding stoved or destroyed	112	
Houses disinfected after Infectious Disease	112	
Schools do. do.	1	
Prosecutions for exposure of infected persons or things		
Convictions for do. do do.		

JOHN DINSDALE,  
Inspector of Nuisances

Jan. 18th 1910.

# Annual Report of the Medical Officer of Health

For the year 1909, for the URBAN DISTRICT of WHICKHAM, on the administration of the Factory and Workshop Act, 1901, in connection with  
**FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.**

## 1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTOR OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notice.	Prosecutions.
Factories ... .. (including Factory Laundries).	Two	None.	None.
Workshops ... .. (including Workshop Laundries).	Two	None.	None.
Workplaces ... .. (Other than Outworkers' premises included in Part 3 of this report.	Two	None.	None.
Total ... ..			

## 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 ... ..	None		None	None
Want of Ventilation ... ..	—		—	—
Overcrowding ... ..	—		—	—
Want of drainage of floors ... ..	—		—	—
Other nuisances ... ..	—		—	—
Sanitary accomodation } insufficient ... ..	—		—	—
Act has been adopted } unsuitable or defective	—		—	—
No standard fixed } not separate for sexes	—		—	—
<i>Offences under the Factory &amp; Workshop Act:</i>				
Illegal occupation of underground bakehouse (s.101)	—		—	—
Breach of special sanitary requirements for Bakehouses (ss. 97 to 100).	—		—	—
Fail; re as regards lists of outworkers (s. 107).	—		—	—
Other offences ... .. (Excluding offences relating to outwork which are included in part 3 of this report.)	—		—	—
Total ... ..				

## Annual Report continued:-

## 3. OTHER MATTERS.

Class.		Number.	
Matters notified to H.M. Inspectors of Factories:—		None.	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)		None	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act (s. 5)		None	
Other		None	
Underground Bakehouses (s. 101)		There are none...	
Certificates granted during the year		...	
In use at the end of the year		...	
Home work:—		Number of	
<i>Lists of Outworkers</i> (s. 107)		Lists:	Outworkers.
Lists received...		None	None
Addresses of outworkers		{ forwarded to other Authorities .. { There are none { received from other Authorities ...	
<i>Homework in unwholesome or infected premises:—</i>		Wearing Apparel	Others
Notices prohibiting homework in unwholesome premises (s. 108)		None	None
Cases of infectious disease notified in homeworkers' premises		None	None
Orders prohibiting homework in infected premises (s. 110)		None	None
Workshops on the Register (s. 131) at end of the year		Number, (2)	
M. A. Tait, 1, Ravensworth Road, Dunston. Millinery. Exs of Isaac Bewley, Clock Mill yard, „, Artificial stone. Mary Gallon, 5, Ravensworth Road, Dunston, Dress Maker. Emily Allison, Front Street Whichham, Dressmaking. C. Williamson, 111, Ravensworth Road, Dunston, Laundry. John Robinson, 8, Ellison Road Dunston Stocking Knitting. William Laws, Ellison Road, Dunston, Baker. Stephenson & Mallam 2 & 4 Ravensworth Rd. Dunston Baker. Thomas Handy 238 Ravensworth Road Dunston Baker, William Watts 153 Ravensworth Road Dunston Boots. Thomas Surtees 125 Ravensworth Rd. Dunston Boots. Lawrence Lockwood 7, Davison Place Dunston Boots. Edward Hilliary, Front Street, Whichham, Boots. Co-operative Society, Market Lane, Swalwell, Boots.		Millinery 1 Dressmaking 2 Boots 5 Bakers 3 Artificial Stone 1 Stocking Knitting 1 Laundry 1	
Total number of workshops on Register		Total	
14		14	

ANDREW SMITH,  
Medical Officer of Health.

## Vital Statistics for the Whole District during 1909 and Previous Years.

YEAR.	Popu- lation estimated to middle of each Year	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT			TOTAL DEATHS IN PUBLIC INSTI- TIONS IN THE DISTRICT	Deaths of Non- residents registered in Public Insti- tutions in the District.	Deaths of Residents registered in Public Insti- tutions beyond the District	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.		
		Number	Rate	At all Ages		number				Rate		
				Under 1 Year of age	Rate per 1,000 Births registered						Number	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	10300	416	40.3	78	176	204	19.6			2	206	20.0
1900	10440	446	42.1	73	163	232	22.2			2	234	22.4
1901	12852	524	40.0	137	261	318	24.7			2	320	24.8
1902	13752	520	37.8	68	130	204	14.8			8	212	15.4
1903	13808	527	38.1	87	165	253	18.3			8	261	18.9
1904	14255	523	36.6	101	193	252	17.6			6	258	18.0
1905	14717	510	34.6	62	121	183	12.4			5	188	12.7
1906	15194	542	35.6	87	160	237	15.5			9	246	16.1
1907	15686	570	36.3	79	138	264	16.8			12	276	17.5
1908	16195	580	35.8	74	127	224	13.8			14	238	14.6
Aver- ages for years 1899 1908	13719	515	37.7	84	163	237	17.5			6	243	18.0
1909	16719	608	36.1	58	95	208	12.4			15	223	13.3

\* Rate in Columns 4, 8, and 13 calculated per 1000 of estimated population

NOTE.—The deaths to be included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of District in acres (exclusive of  
area covered by water)—5,914

Total population at all ages.....12,852 At  
Number of inhabited houses..... 2,574 } Census of  
Average number of persons per house 4.99 } 1901

**Table I continued**  
**Vital Statistics of whole District continued.**

I. Institutions within the District receiving sick and infirm persons from outside the District	II. Institutions outside the District receiving sick and infirm persons from the District	III. Other Institutions, the deaths in which have been distributed among the several localities in the District
None	Gateshead Union Workhouse County Asylum.	Workhouse Infirmary Durham.

Is the Union Workhouse within the District?      No.

## Cases of Infectious Disease Notified during the Year 1909

Notifiable Disease.	Cases Notified in the Whole District.					Total Cases Notified in each Locality—				No. of Cases re-moved to Hospital from each Locality				Total cases re-moved to Hospital	
	At all Ages.	At Ages.—Years.				Whickham	Swalwell	Marley Hill.	Dunston	Whickham.	Swalwell	Marley Hill	Dunston		
		Under 1.	1 to 5.	5 to 15	15 to 25										25 to 65
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous croup)	47	10	34	1	2	...	22	10	2	13	8	0	4	5	17
Erysipelas ...	8	1	...	1	5	1	...	2	3	3	...	...	...	...	...
Scarlet fever ...	56	19	31	4	1	...	18	8	16	14	15	2	10	6	33
Typhus fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever ...	9	...	4	...	5	...	...	4	3	2	...	1	2	4	7
Relapsing fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ...	3	...	...	1	2	...	2	...	...	1	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	123	29	69	7	15	1	42	24	24	33	23	15	3	16	57

ISOLATION HOSPITAL:—Blaydon, Whickham, Ryton Conjoint Hospital, Norman's Riding, in Blaydon Urban District  
 Total available beds, 41. Number of Diseases that can be concurrently treated 3, and similar Conjoint Smallpox  
 Hospital at Sealburn in Ryton Urban District 12 beds.

TABLE IV.

Causes of, and Ages at, Death during Year 1909.

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all ages)			
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Whickham	Swalwell	Marley Hill	Dunston
Small-pox ... ..	4	1	3	...	...	...	...	2	1	...	1
Measles... ..	0	...	...	...	...	...	...	...	...	...	...
Scarlet fever ... ..	1	...	1	...	...	...	...	1	...	...	...
Whooping-cough ... ..	3	...	...	3	...	...	...	1	1	...	1
Diphtheria and Membranous Croup ... ..	...	...	...	...	...	...	...	...	...	...	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus... ..	...	...	...	...	...	...	...	...	...	...	...
{ Enteric... ..	...	...	...	...	...	...	...	...	...	...	...
{ Other Continued	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ... ..	1	...	...	...	...	1	...	1	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	6	3	2	1	...	...	...	...	...	...	6
Diarrhœa... ..	...	...	...	...	...	...	...	...	...	...	...
Enteritis ... ..	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever... ..	1	1	...	...	...	...	...	...	...	...	1
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis ... ..	19	...	...	1	4	14	...	2	7	...	10
Other Tubercular Diseases	12	1	4	...	2	5	...	2	2	1	7
Cancer, Malignant Disease	8	...	...	...	...	4	4	2	3	1	2
Bronchitis ... ..	18	7	4	...	...	1	6	3	6	3	6
Pneumonia ... ..	10	2	...	...	...	6	2	2	3	3	5
Pleurisy ... ..	1	...	...	...	...	...	1	...	1	...	...
Other Diseases of Respiratory Organs...	3	...	1	1	...	1	...	2	...	...	1
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver } ... ..	...	...	...	...	...	...	...	...	...	...	...
Veneral Diseases ... ..	1	...	...	...	...	1	...	1	...	...	...
Premature Birth ... ..	13	13	...	...	...	...	...	4	...	...	9
Diseases and Accidents of Parturition ... ..	3	...	...	...	1	2	...	2	...	...	1
Heart Diseases ... ..	15	...	...	1	...	9	5	5	2	...	8
Accidents... ..	13	3	1	1	3	4	1	3	2	...	8
Suicides ... ..	1	...	...	...	...	1	...	1	...	...	...
All other causes ... ..	90	27	8	3	3	23	26	15	18	13	44
All causes... ..	223	58	24	11	13	72	45	39	52	22	110

**TABLE V.**

**INFANTILE MORTALITY**

Deaths from stated Causes in Weeks

CAUSE OF DEATH		Under 1 Week,	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.
<b>ALL CAUSES.</b>	Certified ... .. Uncertified ... ..	14 1	5	2	5
Common Infectious Diseases	Small Pox ... ..				
	Chicken-pox ... ..				
	Measles ... ..		...	...	...
	Scarlet Fever ... ..				
	Diphtheria, Croup ... ..				
Diarrhæal Diseases,	Whooping Cough ... ..				
	Diarrhœa, all forms ... ..	...	...	...	...
	Enteritis, (not Tuberculous) ... ..	...			
Wasting Diseases	Gastritis, Gastrointestinal Catarrh ... ..	...			
	Premature Birth ... ..	9	1	1	1
	Congenital defects ... ..	1	1	...	1
	Injury at Birth ... ..	1		...	...
	Want of Breast-milk ... ..	...			
Tuberculous Diseases.	Atrophy, Debility, Marasmus ... ..	3	2	...	2
	Tuberculous Meningitis ... ..				
	Tuberculous Peritonitis: Tabes Mesenterica ... ..				
	Other Tuberculous Diseases ... ..				
	Erysipelas ... ..	...	...	...	...
	Syphilis ... ..	...	...	...	...
	Rickets ... ..	...	...	...	...
	Meningitis (not Tuberculous) ... ..	...	...	...	...
	Convulsions ... ..	1	...	...	...
	Bronchitis ... ..	...	1	1	...
	Laryngitis ... ..	...	...	...	...
	Pneumonia ... ..	...	...	...	...
Suffocation, Overlying ... ..	...	...	...	...	
Other Causes ... ..	...	...	...	1	
		15	5	2	5

District (or sub-division) of Whickham.

Births in the year } legitimate 585  
                                  } illegitimate 20

Deaths from all Causes at all ages 208

# DURING THE YEAR 1909.

and Months under one Year of age.

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.
26 1	10	6 1	2	2	3			4		1	1 1	55 3
...	...	...	...	...	...	...	...	1	...	...	...	1
...	1	1	...	...	...	...	...	1	...	...	...	3
12 3 1	1 ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	13 3 1
7	5	2	1	... 1	1 ...	... ...	... ...	... ...	... ...	... ...	1 ...	17 1
...	...	1	...	...	...	...	...	...	...	...	...	1
1 2	1 1	1 1	... ...	1 ...	... ...	... ...	... ...	... 2	... ...	1 ...	... 1	5 7
...	...	...	...	...	2	...	...	...	...	...	...	2
...	1	...	1	...	...	...	...	...	...	...	...	2
1	...	1	...	...	...	...	...	...	...	...	...	2
27	10	7	2	2	3			4		1	2	58

Population Estimated to middle of 1909. 16719  
 deaths in the year of ) legitmate infants 54  
 illegitimate infants 4

1900-1901

No.	Name	Age	Sex	Color	Height	Weight	Build	Complexion	Hair	Eyes	Teeth	Other
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
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100												

1900-1901