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Cumberland County Council.

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# ANNUAL REPORT

OF THE

Medical Officer of Health,

F. H. MORISON, M.D., D.P.H.

WITH A

Summary of the Annual Reports of the

District Medical Officers of Health,

FOR THE YEAR 1911.

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# County Council of Cumberland.

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TO THE CHAIRMAN AND MEMBERS OF THE HEALTH  
COMMITTEE.

Gentlemen,

I have the honour to present to you my Fourth Annual Report on the Health of the Administrative County of Cumberland, together with a summary of the reports of the District Medical Officers of Health.

Some of the District Councils in the Administrative County have carried out important public works during the year in connection with water supplies, sewerage, and sewage disposal, but it is almost superfluous to add that much yet remains to be done in these matters, as well as in the matters of housing and isolation hospital provision.

As will be seen from the table showing the principal statistics, the record for the year cannot be considered a bad one.

The birth-rate has slightly increased and is a little higher than that for England and Wales.

The general death-rate is somewhat lower than in the previous year, and is also lower than that for England and Wales.

The Zymotic death-rate and the Infantile Mortality rate are both somewhat higher than last year, but are both lower than the rates for the whole country.

Since the publication of my last report we have suffered a grievous loss in the death of the first Chairman of the Health Committee—the Earl of Carlisle. His genial presence and kindly and valuable counsel continue to be much missed by all those who were associated with him in the work to which he was so devoted—the health conditions of his native county.

My thanks are due to the Committee for their continued consideration, and also to the officials of the various districts, for the readiness with which, in most cases, they have given me any information desired.

I am,

Mr. Chairman and Gentlemen,

Your obedient Servant,

Devonshire Chambers,

F. H. MORISON.

Carlisle,

October, 1912.



### PRINCIPAL VITAL STATISTICS

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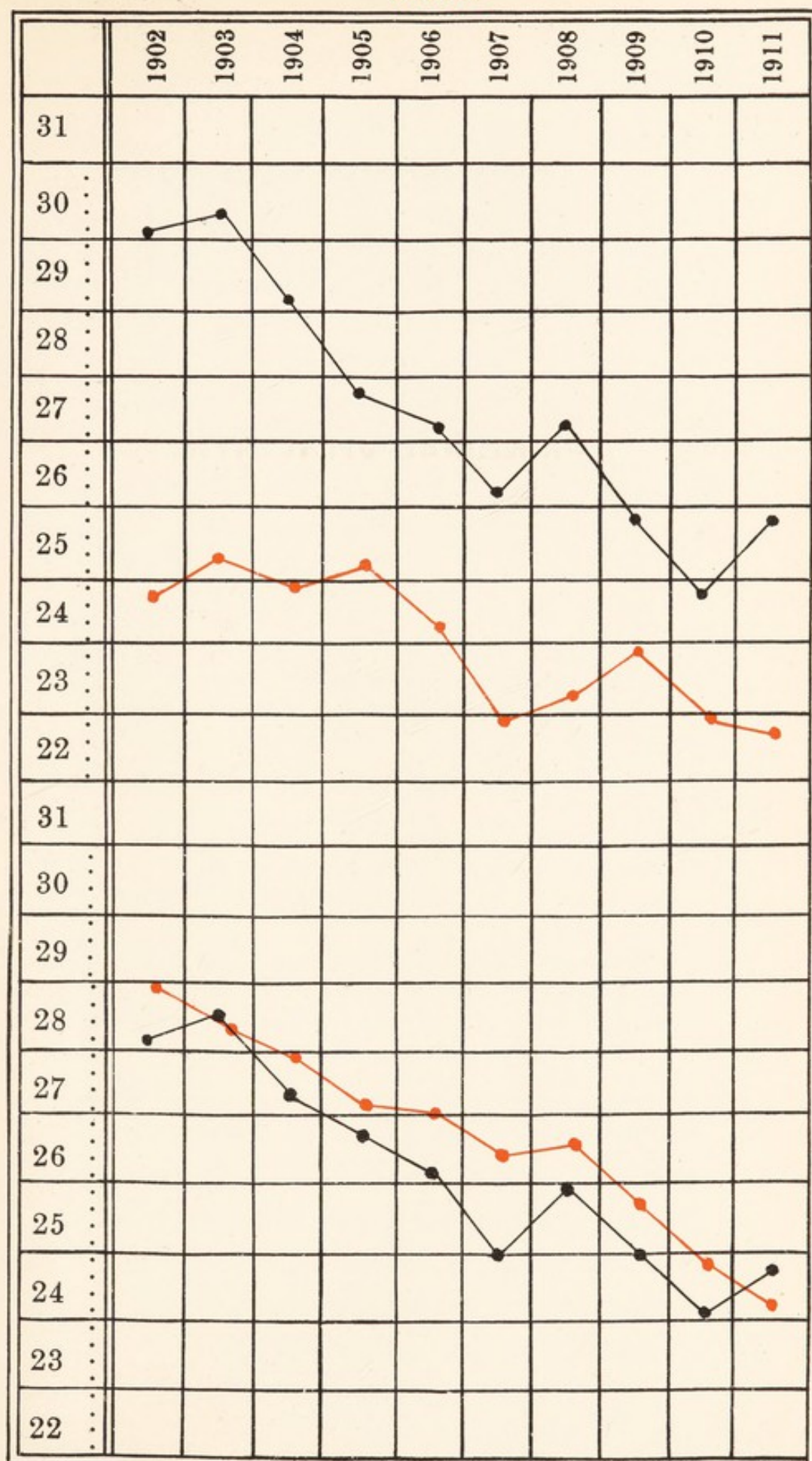
		<i>England &amp; Wales.</i>	<i>Administrative County.</i>	
		<i>1911.</i>	<i>1911.</i>	<i>1910.</i>
Birth-rate	...	24.4	24.7	24.1
Death-rate	...	14.6	14.3	14.8
Zymotic Death-rate		1.8	1.1	0.9
Phthisis Death-rate		—	0.9	0.9
Total Tuberculosis				
Death-rate	...	—	1.3	1.4
Respiratory Diseases				
Death-rate	...	—	2.1	2.3
Infant Mortality Rate				
per 1,000 births		130	117	110

# BIRTH RATES.

URBAN.

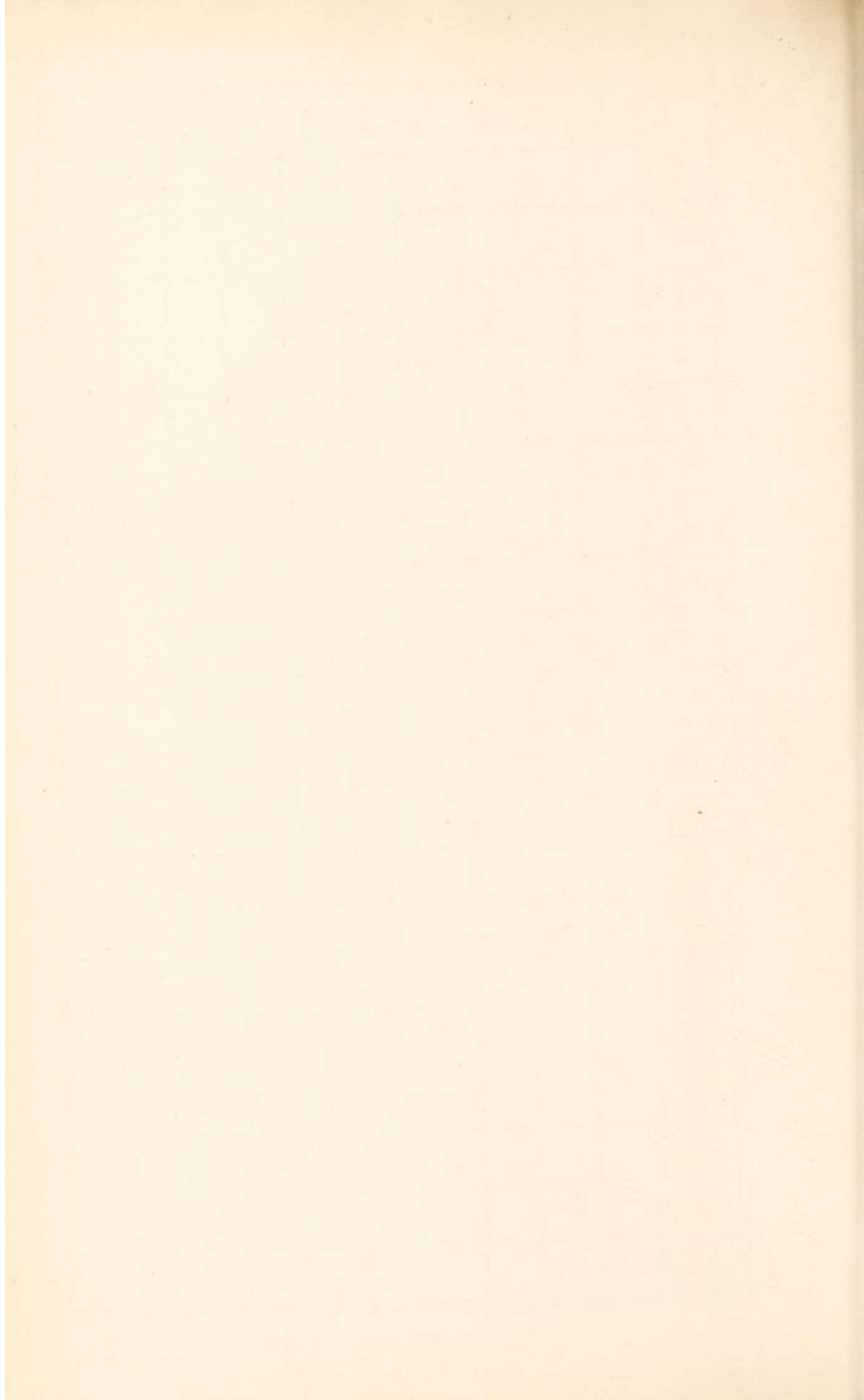
RURAL.

CHART I.



COUNTY OF CUMBERLAND.

ENGLAND AND WALES.





## AREA AND POPULATION.

Cumberland is the only county in England and Wales of which it can be said that the ancient county is co-extensive with the Administrative and with the Registration County.

The Administrative County contains an area, exclusive of that covered by water, of 973,086 acres, and a population enumerated 1st April, 1911, of 265,780.

The population of the Urban districts is 164,844, and that of the Rural districts 100,936.

## BIRTHS.

The births registered in the County during 1911 numbered 6,581; 5 of these, however, belonged to districts not in the County, leaving the net number of births 6,576, giving a rate of 24.7 per 1,000 of population, compared with 6,650 and a rate of 24.1 per 1,000 in 1910.

In the Urban districts there were 4,281 births, giving a rate of 25.9, and in the Rural districts 2,295, giving a rate of 22.7 per 1,000 of population.

The following table and chart show for comparison the birth-rates for the County and for its Urban and Rural districts for the past 10 years, with those for England and Wales :—

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
England and Wales ...	28.6	28.4	27.9	27.2	27.0	26.3	26.5	25.6	24.8	24.4
Administrative County	28.1	28.6	27.4	26.6	26.2	25.0	26.04	25.0	24.1	24.7
Urban Districts ...	30.2	30.5	29.1	27.6	27.3	26.3	27.5	25.8	24.8	25.9
Rural Districts ...	24.6	25.4	24.7	25.2	24.2	22.8	23.4	23.8	22.9	22.7

Arranged in the order of their birth-rates the Urban districts stand thus:—

Arlecdon and Frizington ...	34.9	Cockermouth ...	26.5
Harrington ...	30.8	Workington ...	26.3
Whitehaven ...	30.4	Carlisle ...	23.8
Cleator Moor ...	30.2	Millom ...	21.5
Aspatria ...	29.6	Penrith ...	20.7
Maryport ...	29.3	Wigton ...	19.7
Egremont ...	28.5	Holme Cultram ...	19.5
		Keswick ...	17.0

And the Rural districts thus:—

Whitehaven ...	27.0	Alston ...	20.1
Cockermouth ...	26.4	Brampton ...	20.1
Longtown ...	23.0	Bootle ...	19.6
Wigton ...	23.0	Carlisle ...	19.0
Penrith ...	20.5		

### DEATHS.

The total number of deaths registered was 3,854; of these 251 were deaths of non-residents who died in the County, and whose deaths have been transferred to the district to which they belonged, and so must be subtracted from the total. But 198 persons belonging to the County died in districts outside, and so must be added, so that the net number of deaths of persons belonging to the County is 3,801, giving a death-rate of 14.3 per 1,000 of population, compared with 4,080 and a rate of 14.8 per 1,000 in 1910.

In the Urban districts there were 2,487 deaths, giving a rate of 15.0, and in the Rural districts, 1,314 deaths, giving a rate of 13.0 per 1,000.

Thus it will be noticed that the death-rate this year is somewhat lower than in 1910.

The following table and chart show the death-rates for the County and for its Urban and Rural districts during the past 10 years, and those for England and Wales during the same period:—

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
England and Wales ...	16.3	15.4	16.2	15.2	15.4	15.6	14.7	14.5	13.4	14.6
Administrative County	15.4	15.7	16.1	15.5	14.9	15.8	15.3	15.0	14.8	14.3
Urban Districts ...	16.3	16.6	17.2	16.2	15.6	16.5	15.8	15.6	15.2	15.0
Rural Districts ...	14.0	14.3	14.3	14.3	13.7	14.5	14.6	14.03	14.0	13.0

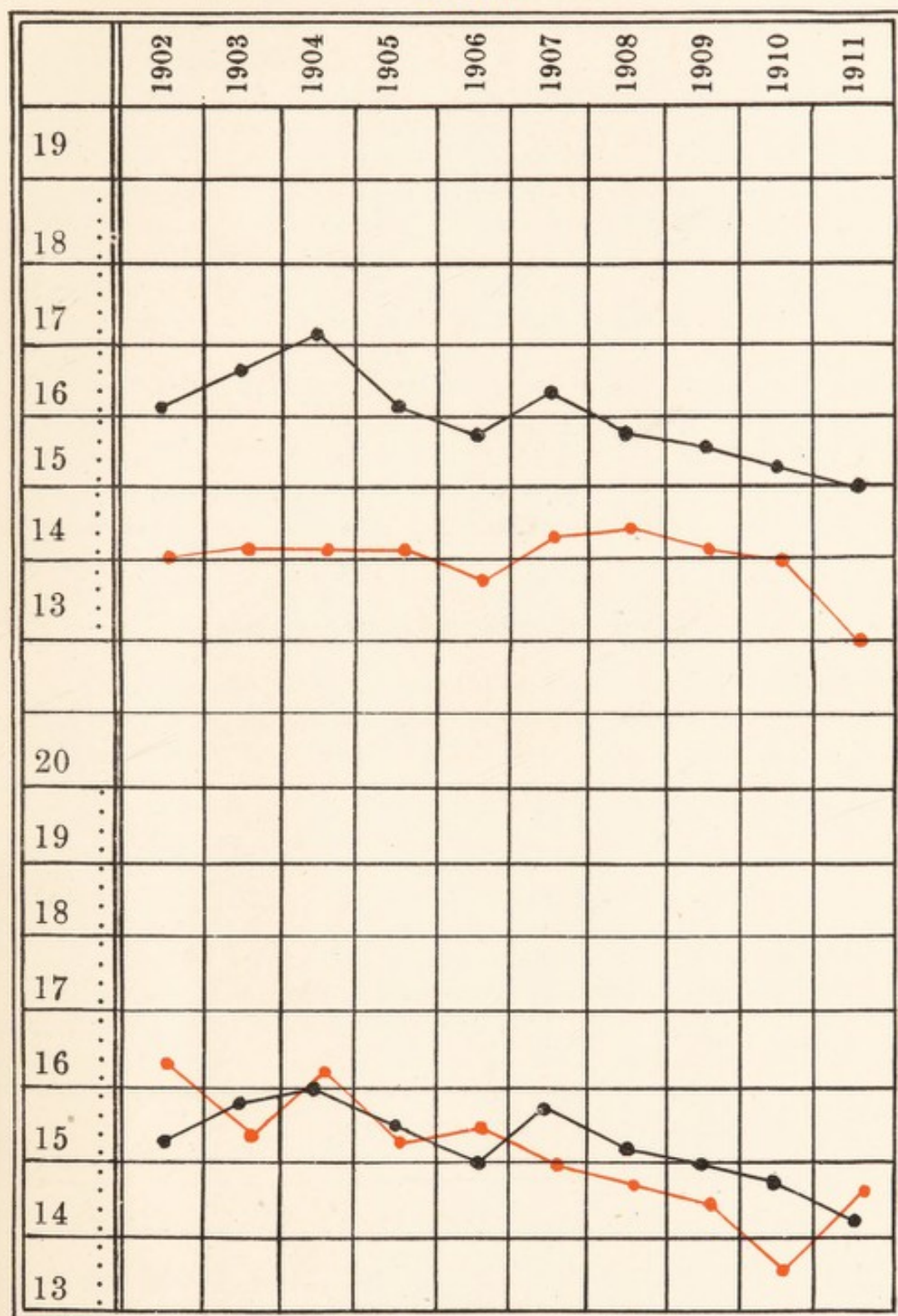


# DEATH RATES.

CHART II.

URBAN.

RURAL.



COUNTY OF CUMBERLAND.

ENGLAND AND WALES.





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In the order of their net death-rates the Urban districts stand thus:—

Whitehaven	...	18.9	Harrington	...	13.5
Wigton	...	17.0	Penrith	...	13.5
Egremont	...	16.3	Aspatria	...	13.4
Cleator Moor	...	16.2	Keswick	...	13.1
Carlisle	...	15.7	Arledon and Friz-		
Cockermouth	...	14.4	ington	...	12.9
Maryport	...	14.3	Millom	...	12.0
Workington	...	13.8	Holme Cultram	...	11.1

And the Rural districts thus:—

Alston	...	18.8	Cockermouth	...	12.4
Longtown	...	15.0	Carlisle	...	11.7
Whitehaven	...	14.6	Penrith	...	11.5
Brampton	...	14.2	Bootle	...	11.4
Wigton	...	13.7			

### INFANTILE MORTALITY.

The rate of mortality amongst infants, or children who have not yet attained the age of one year, is generally expressed as so many per 1,000 births.

There were 6,576 births registered during the year, and 769 deaths of children under one year of age. The infantile mortality was therefore at the rate of 117 per 1,000 births, somewhat higher than that in 1910.

The following table and charts show the infant mortality in the County and its Urban and Rural districts compared with that of England and Wales for the past 10 years:—

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
England and Wales	133	132	146	128	133	118	121	108	106	130
Administrative County	109	130	136	129	124	129	126	111	110	117
Urban Districts	113	143	149	141	139	128	134	123	119	127
Rural Districts	102	104	112	106	99	132	109	89	92	98

Arranged in the order of their infant mortality the Urban districts stand thus:—

Wigton	...	...	219	Penrith	...	...	102
Whitehaven	...	...	160	Arlecdon and			
Carlisle	...	...	145	Frizington	...	...	93
Egremont	...	...	144	Harrington	...	...	89
Millom	...	...	130	Cockermouth	...	...	87
Workington	...	...	123	Keswick	...	...	80
Cleator Moor	...	...	123	Maryport	...	...	77
Aspatria	...	...	111	Holme Cultram	...	...	56

And the Rural districts thus:—

Whitehaven	...	...	156	Longtown	...	...	77
Cockermouth	...	...	112	Carlisle	...	...	70
Alston	...	...	96	Brampton	...	...	68
Wigton	...	...	87	Bootle	...	...	63
Penrith	...	...	81				

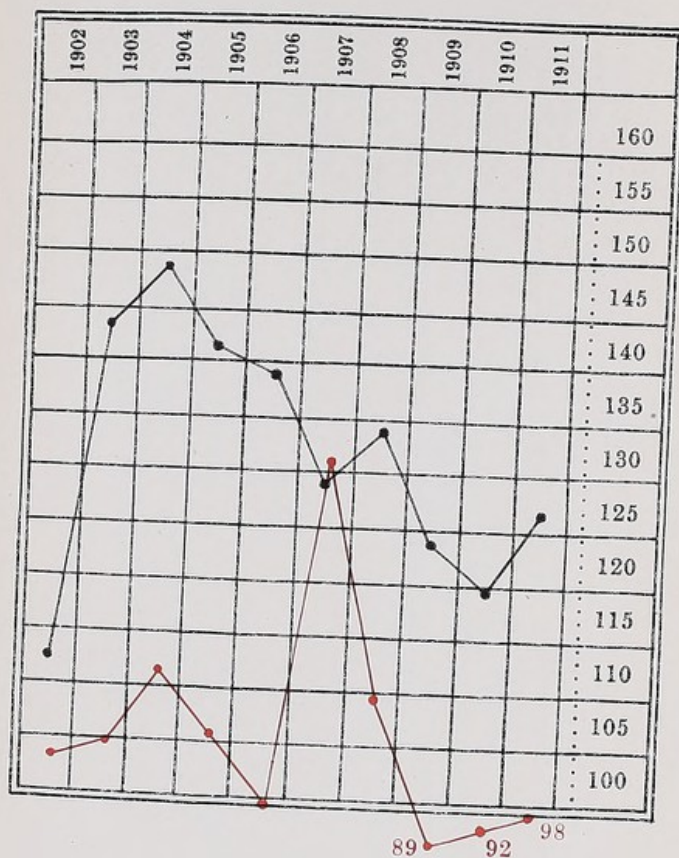
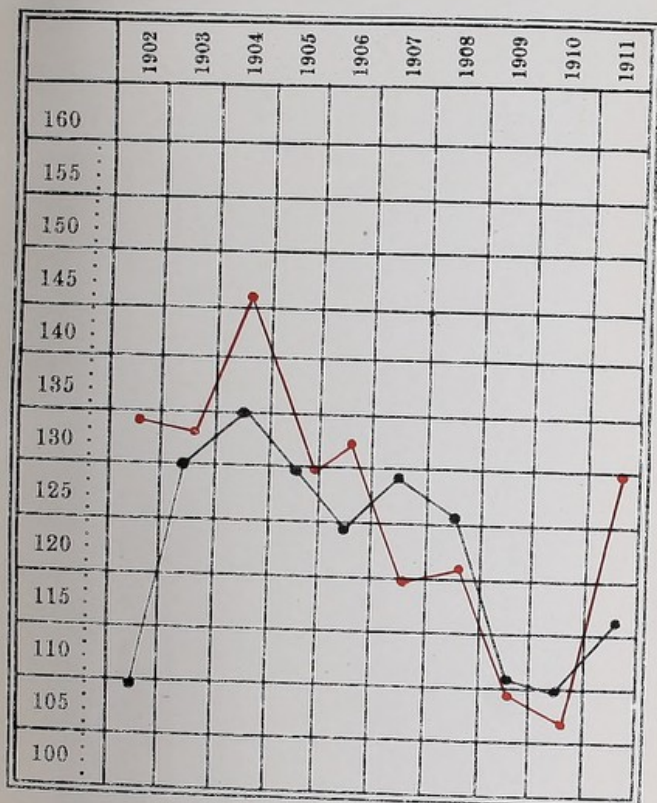


COUNTY OF CUMBERLAND.  
ENGLAND AND WALES.

# INFANTILE MORTALITY.

URBAN.  
RURAL.

CHART III.





## INFANT MORTALITY.

1911. **Nett Deaths from stated causes at various Ages under 1 Year of Age.**

CAUSE OF DEATH.		Under 1 Week		1-2 Weeks		2-3 Weeks		3-4 Weeks		Total under 1 Month		1-3 Months		3-6 Months		6-9 Months		9-12 Months		Total Deaths under 1 Year		Administrative County									
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural										
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	5	...	6	1	7	...									
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...									
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	...	2	...									
Whooping Cough	...	...	...	...	...	2	1	...	1	2	2	4	5	5	13	2	6	1	27	14	41	...									
Diarrhoea	...	...	...	1	...	...	2	...	3	...	7	2	15	...	11	1	5	...	41	3	44	...									
Enteritis	...	...	...	1	...	1	...	1	2	1	17	3	11	3	12	3	5	2	47	12	59	...									
Tuberculous Meningitis	...	...	...	...	1	...	...	...	1	...	1	...	4	1	4	1	...	1	10	3	13	...									
Abdominal Tuberculosis (b)	...	...	...	...	...	...	...	...	...	...	4	...	4	...	2	...	3	...	13	...	13	...									
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...									
Congenital Malformations (c)	...	8	9	1	2	1	2	2	1	12	14	2	1	3	1	...	...	...	17	16	33	...									
Premature Birth	...	63	22	8	4	5	2	4	2	80	30	5	3	...	...	...	...	...	85	33	118	...									
Atrophy, Debility, and Marasmus	...	23	19	3	5	6	4	5	5	37	33	17	5	18	6	3	2	4	74	46	120	...									
Atelectasis	...	8	2	2	1	1	...	...	...	11	3	...	1	...	...	...	...	...	11	4	15	...									
Injury at Birth	...	2	1	...	...	1	...	1	...	4	1	...	...	...	...	...	...	...	4	1	5	...									
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...									
Syphilis	...	...	...	...	...	...	...	...	...	...	5	...	2	...	...	...	...	...	7	...	7	...									
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Meningitis (not Tuberculous)	...	1	...	...	...	...	...	...	...	1	1	...	1	...	3	...	2	2	7	3	10	...									
Convulsions	...	7	2	1	...	1	...	2	2	11	4	9	3	11	3	9	5	5	45	17	62	...									
Gastritis	...	...	1	...	...	2	...	1	...	3	1	1	2	4	...	7	1	3	18	8	26	...									
Laryngitis	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	1	2	3	...									
Bronchitis	...	1	...	1	2	1	1	1	1	4	4	14	6	10	6	10	6	5	43	23	66	...									
Pneumonia (all forms)	...	...	...	...	...	1	...	2	...	3	...	8	8	11	6	10	5	14	46	23	69	...									
Suffocation, overlying	...	1	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	2	...	2	...	...									
Other Causes	...	10	4	...	2	2	...	4	...	16	6	4	4	10	2	2	4	1	33	18	51	...									
		123	62	18	16	23	11	26	12	190	161	97	42	105	34	90	31	60	19	542	227	769									
		185		34		34		38		291		139		139		121		79		769											
Nett Births in the year		legitimate ..... 6188										Nett Deaths in the year of										legitimate infants ..... 698									
		illegitimate ..... 393																				illegitimate infants..... 71									



The figures given above show that of the 6,576 children born during the year, 28.0 per 1,000 died before they reached the age of 1 week, that 44 per 1,000 died before they reached the age of 1 month, and that 117 per 1,000 died under 1 year of age. To put it in another way—of the 769 infants who died during the year, 24.0 per cent. died before they reached the age of 1 week, and 37.8 per cent. before they reached the age of 1 month.

If we take the Urban and Rural districts separately :--

		Percentage of Infant Deaths.	
		Under 1 Week.	Under 1 Month.
Urban (542 births)	... ..	22.8	35.0
Rural (227 births)	... ..	27.3	40.0

As regards the total death-rate, the infant mortality constitutes 20.0 per cent., and the deaths of children under 5 years of age 27.2 per cent.

From the table it will be seen that the main causes of deaths of infants are Whooping Cough (41), Diarrhoea and Enteritis (103), Premature Births (118), Atrophy, Debility, and Marasmus (120), Convulsions (62), Gastritis (26), Bronchitis (66), and Pneumonia (69).

The problem of the prevention of excessive infant mortality is one to which a good deal of attention has been directed within recent years, but in this county, at any rate, not much progress has been made.

A glance at the chart showing the infant mortality for the past ten years proves how little has been done, or, it may be, attempted.

We are told by the Chief Medical Officer to the Local Government Board in his report on infant mortality: "There are strong reasons for concluding that much of this mortality in the first year of life is preventable if appropriate action is taken."

What is appropriate action, and by whom has it to be undertaken? Undoubtedly the first step is the adoption by all Sanitary Authorities of the Notification of Births Act, and the appointment of such Health Visitors as may be deemed necessary.

The only districts in which this Act is adopted, and in which a Health Visitor is employed, are the City of

Carlisle, the Borough of Workington, and the Urban district of Penrith.

Good work has been done in these districts, and the visits, I understand, have been much appreciated by the people.

Not only is it the duty of a Health Visitor to advise parents on the care and management of infants, but she also advises, and, if necessary, gives practical demonstrations, on household management, including such items as diet, cleanliness (domestic and personal), ventilation of the house, &c. She would also report all insanitary conditions in and around houses to the Medical Officer of Health, all of which conditions have an important bearing on infant mortality.

If, as we are told in the report above quoted, "Infant mortality is the most sensitive index we possess of social welfare and sanitary administration, especially under Urban conditions," several of the Sanitary Authorities have little reason to be proud of their administration.

### CANCER.

Under this heading are included deaths registered as due to Cancer, Carcinoma, Malignant Diseases, Scirrhus, Epithelioma, Sarcoma, &c.

The following table gives in order the death-rates from Cancer in the Urban and Rural districts:—

URBAN.				RURAL.			
Arlecdon and Friz-				Alston	...	...	2.6
ington	...	...	1.3	Longtown	...	...	1.1
Holme Cultram	...	...	1.3	Penrith	...	...	1.1
Penrith	...	...	1.2	Wigton	...	...	1.1
Keswick	...	...	1.1	Carlisle	...	...	1.0
Cleator Moor	...	...	1.08	Whitehaven	...	...	0.9
Carlisle	...	...	0.9	Brampton	...	...	0.8
Cockermouth	...	...	0.9	Bootle	...	...	0.7
Whitehaven	...	...	0.8	Cockermouth	...	...	0.5
Aspatria	...	...	0.8				
Wigton	...	...	0.8				
Maryport	...	...	0.7				
Egremont	...	...	0.6				
Harrington	...	...	0.6				
Millom	...	...	0.6				
Workington	...	...	0.5				



The Cancer death-rate is in the Urban districts 0.9, in the Rural districts 0.9, and in the whole County 0.9 per 1,000 of population.

The corresponding figures last year were 0.8, 1.6, and 0.9 respectively.

The Cancer death-rate thus shows a considerable decrease in the Rural districts, although it is the same for the whole County.

### **ZYMOTIC DISEASES.**

The diseases usually included under this heading are Smallpox, Scarlet Fever, Diphtheria, and Membranous Croup, Fevers (Enteric, Continued, &c.), Measles, Whooping Cough, and Diarrhœa. They were responsible in 1911 for 293 deaths, equal to a death-rate of 1.1 per 1,000 of population. In the Urban districts the death-rate was 1.4, and in the Rural districts 0.6 per 1,000. The corresponding figures for 1910 were for the County 0.9, Urban districts 1.0, and Rural districts 0.9 per 1,000, the increased rate this year being due to the increase in deaths from Diarrhœa and Whooping Cough.

### **INFECTIOUS DISEASES (NOTIFICATION) ACT.**

Of the ordinary notifiable diseases there were 1,469 cases notified during the year, 952 in Urban and 517 in Rural districts, compared with 1,882 cases, 1,132 in Urban and 750 in Rural districts, in the previous year, the difference being almost entirely due to the diminished prevalence of Scarlet Fever.

### **SMALLPOX.**

One case was notified in the Maryport Urban district during the year.

Although only one case occurred in the County, a considerable number were notified in different parts of the country during the year, and it was only by the greatest care on the part of the authorities concerned that epidemics were prevented.



Past experience has shown that an epidemic is preceded, it may be for several years, by odd cases occurring now and then in different areas. Such cases have been occurring for some considerable time, and I venture to predict that before very long this country will be visited by an epidemic of Smallpox such as has not been seen since the pre-vaccination days.

Warnings have been given time after time to this effect, but it would appear that nothing short of a severe epidemic will make people realise that there is only one protection against Smallpox, namely, efficient vaccination of children and re-vaccination of adults.

From statistics compiled during the medical inspection of children, the conclusion is forced on us that at least 25 per cent. of children of the present day are totally unvaccinated, and at least one-third of the remainder, although they have been vaccinated, are not sufficiently done to be protected against attack, although they may be protected against death from Smallpox. The subject of vaccination is dealt with in many of the district reports:—

WHITEHAVEN.—Dr. Fisher says:—"I have in previous reports referred to the absence of separate hospital accommodation for Smallpox in the Borough. A time will surely come when this deficiency will be severely felt. The few cases we have had for several years have been accommodated at Bransty Hospital, and, owing to the admirable administration there, have in no way interfered with the ordinary work of the hospital. It is too much, however, to expect that when Smallpox breaks out again, as it is certain to do under the present inadequate vaccination laws, it will be possible to treat Smallpox and other infectious diseases concurrently with any reasonable hope of success."

ASPATRIA.—Dr. Briggs says:—"Our population is becoming more pronouncedly each year an unvaccinated one, and to such the disease proves very fatal."

HARRINGTON.—Dr. Cullen says:—"I am no alarmist, but I think from experience gained as a Public Vaccinator that we will have a very rude awakening one

of these days from a visitation of this dread disease, owing to the number of unvaccinated children in our midst. During the past few years the number of unvaccinated children has risen to quite 40 per cent., if not more, in my district, to say nothing of what is going on all over England, owing to the absurd and easy manner in which exemptions can be obtained."

MILLON.—Dr. Stoney says:—" . . . . . those who have in the past had to deal with Smallpox know as an absolute certainty that sanitation and quarantine are hopeless in controlling an epidemic. . . . . But until the public and those who represent them believe that prevention is *cheaper* than cure, vaccination will remain in its present very unsatisfactory condition."

### SCARLET FEVER.

Although this disease has been again prevalent, not so many cases were notified as in the previous year. 980 cases were notified, 607 in Urban and 373 in Rural districts, compared with 1,356 cases, 776 in Urban and 580 in Rural districts, the previous year.

Only 18 deaths were registered as due to Scarlet Fever, and generally the disease was of a mild type, which increases to some extent the difficulty of control, owing to the fact—to which attention is drawn in some reports—the attack is so mild as to go unrecognised until two or three members of the same family commence to "peel." In the meanwhile these children have been mixing with others, either in school or elsewhere, and so spreading the disease. The case mortality, 1.8 per cent., is somewhat lower than last year.

### DIPHTHERIA & MEMBRANOUS CROUP.

245 cases were notified, 156 in Urban and 89 in Rural districts, compared with 247, 150 and 97 respectively, in 1910.

The case mortality, 11.8 per cent., is somewhat lower than the previous year, 13.7, but is still higher than it should be if antitoxin were used early enough. .

Many District Councils supply antitoxin free, but in some reports there is no information on the matter.



**TYPHUS FEVER.**

No case was recorded during the year.

**ENTERIC FEVER.**

30 cases were notified, and 7 deaths.

6 cases in Workington and 9 in Whitehaven.

In no other district were there more than two or three cases.

**PUERPERAL FEVER.**

17 cases were notified, 12 in Urban and 5 in Rural districts. 10 cases are recorded as having died, but only 1 case is notified as having occurred in the Borough of Workington, whilst 7 deaths are recorded.

**MEASLES.**

23 deaths were registered as due to Measles, 13 of these in the City of Carlisle, against 34 the previous year.

The recorded death-rate from Measles is the only method we have of judging of its prevalence, but it must not be forgotten that the number of deaths registered is very little guide to the ravages of this disease, for many deaths occur, and are registered as caused by respiratory diseases, primarily set up by Measles.

In no district was there excessive mortality from this disease.

**WHOOPING COUGH.**

This disease has again been much more prevalent than during the previous year. 74 deaths were registered as due to it, against 55 the previous year.

It appears to have affected both Urban and Rural districts, the only Urban districts which do not furnish their quota of deaths being Arlecdon and Frizington, Aspatria, Cleator Moor, Harrington, and Millom, and the Rural districts of Alston, Bootle, Carlisle, Longtown, and Wigton.



The prevalence of both Measles and Whooping Cough is in great measure due to the culpable neglect arising from the popular belief that all children must contract them some time, and that there is very little use, therefore, in endeavouring to take any protective steps when either disease is prevalent. The consequence is that the epidemic continues so long as any susceptible victims are to be found in the community, and only dies out for a time when all these have been attacked.

Both Measles and Whooping Cough are much more fatal in the early years of life, in fact the younger the child is when it contracts either disease, the more likely is that disease to be fatal.

Of the 23 deaths registered as due to Measles, all of them were of children under 5 years of age, and of the 74 deaths registered as due to Whooping Cough, 69 of them were of children under 5.

### **DIARRHŒA.**

From Diarrhœa and Enteritis 142 deaths were registered, 103 of which were under 1 year of age.

Although the deaths from this disease have not been so numerous as the climatic conditions would lead one to expect, in most districts conditions favourable to it undoubtedly exist.

Manure heaps close to houses, ashpits close to the back door, surface soil polluted by drainage and slops, choked drains, dirty houses, and the like are always more liable to make this disease more prevalent.

The close relationship between the presence of flies and the prevalence of diarrhœal diseases has been amply proved, and it remains with us therefore to use every endeavour to limit the number of flies. They breed most freely in places where dirt of all kinds collects, and to get rid of them the most scrupulous cleanliness of houses, premises, and persons is necessary.

### ERYSIPELAS.

195 cases were notified during the year, against 224 the previous year.

Personally I cannot see any good object obtained by the notification of this disease, but as it is one of the infectious diseases scheduled in the Act, it must, I suppose, continue to be notifiable.

### PHTHISIS & TUBERCULOSIS.

264 deaths were registered as due to Phthisis, 190 in Urban and 74 in Rural districts, compared with 264 deaths, 169 in Urban and 95 in Rural districts, in 1910.

This gives a death-rate for the Administrative County from Phthisis of 0.9 per 1,000 of population, for the Urban districts of 1.1, and for the Rural districts of 0.7; the corresponding figures for last year were 0.9, 1.02, and 0.9 respectively.

The death-rate from Phthisis for the County is thus the same as in the previous year, although it is somewhat higher in Urban districts, and slightly lower in the Rural districts.

In addition to the 264 deaths from Phthisis Pulmonalis (Consumption) there were 104 registered as due to other forms of Tuberculosis, 84 in Urban and 20 in Rural districts, compared with the previous year, the figures for which were County 134, Urban districts 114, Rural districts 20.

The death-rates for all forms of Tuberculosis for the past three years are:—

			1909	1910	1911
Urban districts	...	...	1.6	1.7	1.6
Rural districts	...	...	1.1	1.1	0.9
Administrative County	...	...	1.4	1.4	1.3



Arranged in the order of their Phthisis mortality the Urban districts stand thus:—

Aspatria	...	1.8	Workington	...	0.8
Carlisle	...	1.6	Penrith	...	0.8
Cleator Moor	...	1.5	Wigton	...	0.8
Whitehaven	...	1.1	Cockermouth	...	0.7
Egremont	...	0.9	Keswick	...	0.6
Harrington	...	0.9	Millom	...	0.6
Holme Cultram	...	0.9	Arlecdon and Friz-		
Maryport	...	0.9	ington	...	0.5

And the Rural districts thus:—

Longtown	...	1.4	Wigton	...	0.6
Brampton	...	1.2	Cockermouth	...	0.4
Carlisle	...	1.1	Penrith	...	0.4
Bootle	...	0.7	Whitehaven	...	0.4
Alston	...	0.6			

Arranged in the order of their death-rates from all forms of Tuberculosis (including Phthisis) the Urban districts stand thus:—

Whitehaven	...	2.2	Millom	...	1.3
Carlisle	...	2.0	Workington	...	1.2
Aspatria	...	2.0	Maryport	...	1.2
Cleator Moor	...	1.9	Arlecdon and Friz-		
Egremont	...	1.9	ington	...	1.1
Harrington	...	1.6	Keswick	...	1.1
Wigton	...	1.6	Cockermouth	...	0.9
Penrith	...	1.4	Holme Cultram	...	0.9

And the Rural districts thus:—

Alston	...	1.6	Bootle	...	0.7
Longtown	...	1.4	Whitehaven	...	0.7
Brampton	...	1.3	Cockermouth	...	0.6
Carlisle	...	1.2	Penrith	...	0.5
Wigton	...	0.8			

In addition to the Tuberculosis Regulations already issued and referred to in my previous report, further regulations have now been issued, making Pulmonary Tuberculosis a notifiable disease from the 1st January, 1912.



The following are the chief requirements of these Regulations:—

*Article II.*—These Regulations shall come into operation on the 1st January, 1912, and subject to the provisions of Article XIV shall then and thereafter apply and have effect throughout England and Wales, and shall be enforced and executed by every Council and their officers.

*Article III.*—Refers to the forms which each Council will have to supply for notification of cases.

*Article IV.*—(1) Subject as provided in Articles X, XI, and XII of these Regulations, every Medical Practitioner attending on or called in to visit any person shall, within 48 hours after first becoming aware that such person is suffering from Pulmonary Tuberculosis, complete, sign, and transmit a notification of the case in the form shown in the Schedule A to these Regulations to the Medical Officer of Health for the area within which the place of residence of the person is situate.

Provided that a Medical Practitioner shall not be required under these Regulations to notify any case of Pulmonary Tuberculosis which has already, to his knowledge, under these Regulations or under the Poor Law Regulations or under the Hospital Regulations, been notified to the Medical Officer of Health for the area within which the place of residence of the patient is situate

(2) Provides that any School Medical Inspector shall, within 48 hours, notify the Medical Officer of Health of the area in which the school is situated any case of which he becomes aware in the course of his inspection.

*Article V.*—Specifies in what method such notifications are to be sent to the Medical Officer of Health.

*Article VI.*—Fees to be paid for such notification.

*Article VII.*—(1) If a notification is received by a Medical Officer of Health of a patient who does not belong to his district, he must send it to the Medical Officer of

Health of the district to which the patient belongs, and also send the Medical Practitioner who notified the case the name and address of the Medical Officer of Health to whom he has sent the notification.

Any expenses so incurred shall be defrayed by the Council of the area for which he is Medical Officer of Health.

(2) Every Medical Officer of Health must keep a register of cases containing full particulars of all notified cases.

The register shall be kept in the custody of the Medical Officer of Health, and shall not be open to inspection by any person other than a person specially authorised by resolution of the Council, the Medical Officer of Health for the Administrative County within which the area is situate, any School Medical Inspector acting within the area, or an Officer of the Local Government Board or of the Board of Education.

(3) Refers only to London.

*Article VIII.*—Upon receipt of any notification the Medical Officer of Health, or an Officer acting under him, shall make such enquiries and take such steps as may appear to him to be necessary or desirable for preventing the spread of infection, and for removing conditions favourable to infection.

This Article does not authorise a Medical Officer of Health to take any steps in a Poor Law Institution or in a Hospital.

*Article IX.*—(1) A Council, on the advice of their Medical Officer of Health, may supply all such medical or other assistance, and all such facilities and articles as may reasonably be required for the detection of Pulmonary Tuberculosis, and for preventing the spread of infection, and for removing conditions favourable to infection, and for that purpose may appoint such officers and do such acts, and make such arrangements as may be necessary.

No measures may be taken by a Council in a Poor Law Institution or a Hospital.



(2) A Council, on the advice of their Medical Officer of Health, may provide and distribute leaflets, placards, &c., giving information and instructions respecting Pulmonary Tuberculosis and precautions to be taken against the spread of infection.

*Article X*.—Specifies to whom these Regulations shall not apply.

*Article XI*.—A notification need not be sent in respect of any person whose place of residence is not in England or Wales.

*Article XII*.—Specifies certain cases which need not be notified.

*Article XIII*.—Nothing in these Regulations shall have effect so as to apply, or so as to authorise or require a Medical Officer of Health or a Council, or any other person or authority, directly or indirectly, to put in force with respect to any patient in relation to whom a notification in pursuance of these Regulations has been transmitted to a Medical Officer of Health, any enactment which renders the patient, or a person in charge of the patient, or any other person, liable to a penalty, or subjects the patient to any restriction, prohibition, or disability affecting himself, or his employment, occupation, or means of livelihood, on the ground of his suffering from Pulmonary Tuberculosis.

Many Local Authorities are now distributing leaflets advising patients how to prevent infection being conveyed to others, and on the best methods of treatment for themselves.

Reference is made to this subject in many of the Annual Reports:—

Dr. Beard, after drawing attention to the prevalence of Tuberculous Diseases, goes on to say:—"The town dweller more easily falls a victim to the disease than one who lives in the country, and there is a close relationship between the overcrowding of rooms, houses, and work places, and this disease; the overcrowding of houses very often indicating poverty, and is almost invariably associated with an impure atmosphere.



Many trades predispose the worker to this disease . . . . Intemperance and other debilitating conditions are also important factors in the predisposition to this disease. Phthisis depends upon known and remediable conditions, and improvement in hygiene and other matters has led to a decline in the death-rate from this disease, but the great difficulty experienced is to get the consumptives of the labouring classes to carry out the simplest hygienic rules or methods of precaution, the result being that persons in dangerous stages of the disease occupy the same bed as another or several other members of the same household. It is thus that the disease secures most of its victims, finally, in many instances, resulting in the infection of a whole household, whereas the precaution where possible of a separate bedroom, or, in the absence of this, a separate bed for the consumptive, and the carrying out of certain simple rules would prevent this danger and minimise the chances of infection of healthy persons."

The Medical Officer of Aspatia, after detailing the various steps which have led up to the notification of all cases, says:—"The importance of these different measures in the prevention and cure of consumption it is difficult to over-estimate. They will provide data for reliable statistics, and ensure from the health department of every district greater attention to disinfection, water supply, food inspection, housing, better sanitary conditions, and more intelligent views. They will enable us to gauge the reciprocal relations between the incidence of Consumption and the existence of insanitary conditions, such as filth, overcrowding, &c., and to forecast the amount of sanatorium accommodation required under the National Insurance Act, while the value of the immense work of School Medical Inspection should be greatly increased, particularly in the direction of early detection of the disease, and in such treatment as the removal of adenoids and the limitation of measles.

The efforts of your Council have hitherto been confined to the giving of advice, the distribution of literature, and the disinfection of houses, clothing, &c., although indirectly the strict carrying out of the Housing Act of 1909 is a very formidable weapon in the fight against Consumption."



In Millom a small dispensary has been opened two days a week at certain hours; here Tuberculin has been used and the results obtained have been excellent.

The Medical Officer, after detailing the various steps before the dispensary was instituted, says:—

“I hold a strong opinion as to the great gain to the community of this Dispensary in enabling the Health Authority to attack this disease in its earliest and most curable stage, and register and keep in touch with each case, to teach them the necessary lessons in sanitation and hygiene, thus curing the great majority and enabling them to become useful citizens.”

There can be no two opinions on the advance in stamping out Tuberculosis which must accrue from the “Sanatorium benefits” of the National Insurance Act, if they are properly carried out.

The one stumbling block, which must be apparent to everyone, is the financial consideration. As the name of the Act implies, it is a National question, and certainly the great burden of expense ought to be borne by the State.

I am firmly of opinion that unless Insurance Committees decide, and decide early, to extend, as they have power to do, the benefits to dependents of insured persons, more especially children, large sums of money will be expended without compensating benefit.

The argument is frequently put forward that it is useless to treat consumptive patients in a sanatorium and then bring them back to houses that are unfit for habitation. Whose duty is it to see that the houses are made and kept in a condition fit for habitation? Certainly in the first place it is the duty of the landlord to make them, and of the tenants to keep them, fit for habitation, but if either fails in their duty it clearly then becomes the duty of the Council of the district in which he lives.

Have the various Councils fulfilled their duty in this respect? Representations have been made in many districts time and time again by their own Medical Officer of Health, and nothing has been done.

It is probably the neglect of housing matters in the past that has made the "Sanatorium benefits" of the National Insurance Act a necessity, and if we, as a nation, are to derive the utmost benefits, the two Acts, the Housing and Town Planning, &c., Act, and the Insurance Act will have to be worked as component parts of one great scheme.

A scheme for "Sanatorium benefits" has been prepared by me for the County, and is now under the consideration of the Committee, and will be forwarded to the Local Government Board and the Insurance Commissioners for their approval.

### RESPIRATORY DISEASES.

During the year 564 deaths were registered as due to Respiratory Diseases (excluding Phthisis), compared with 613 in 1910.

Of these 391 occurred in Urban districts and 173 in Rural districts; these give respective rates per 1,000 of population of 2.3 and 1.7, compared with 2.5 and 1.9 in the previous year.

The rate for the Administrative County is 2.1, compared with 2.3 the previous year.

Arranged in their order of death-rates from respiratory diseases, the Urban districts stand thus:—

Whitehaven	...	3.5	Carlisle	...	2.1
Wigton	...	3.2	Harrington	...	2.06
Cleator Moor	...	3.1	Arlecdon and Friz-		
Cockermouth	...	3.0	ington	...	1.7
Aspatria	...	3.0	Penrith	...	1.5
Workington	...	2.5	Millom	...	1.3
Maryport	...	2.5	Egremont	.....	1.2
Keswick	...	2.2	Holme Cultram	...	1.1

And the Rural districts thus:—

Whitehaven	...	2.9	Longtown	...	1.4
Cockermouth	...	1.9	Penrith	...	1.4
Alston	...	1.6	Wigton	...	1.1
Brampton	...	1.6	Bootle	...	0.8
Carlisle	...	1.4			



## ISOLATION HOSPITAL ACCOMMODATION.

### (a) FOR ORDINARY INFECTIOUS DISEASES.

As stated in my report last year, the hospital accommodation in the County is totally inadequate, and no additions have been made during the year.

The Urban districts of Aspatria, Cockermouth, Holme Cultram, and Wigton, and the Rural districts of Alston, Brampton, Longtown, and Wigton, have no accommodation whatever.

The Urban districts of Arlecdon and Frizington, Cleator Moor, Egremont, and Harrington, and the Rural district of Whitehaven, are all served by one hospital containing about 20 beds.

The attention of the District Councils concerned has repeatedly been drawn (in the reports of the Medical Officers of Health) to the want of hospital accommodation, but no action has been taken.

There is no reason why districts should not join and erect suitable hospitals to serve two or more combined areas.

### (b) SMALLPOX HOSPITALS.

The joint hospital for the Workington and Cockermouth districts is, I understand, now completed. With this exception no addition has been made to the hospital accommodation for Smallpox in the County during the year.

The only districts which are prepared to isolate a case of Smallpox are the Urban and Rural districts of Carlisle (12 beds), the Urban and Rural districts of Penrith (10 beds), the Urban district of Keswick (4 beds), and the Urban district of Millom (8 beds).

In several of the district reports reference is made to this subject:—

WHITEHAVEN.—Dr. Fisher says:—"I have in previous reports referred to the absence of separate hospital accommodation for Smallpox in the Borough. A time will surely come when this deficiency will be severely

felt. The few cases we have had for several years have been accommodated at Bransty Hospital, and, owing to the admirable administration there, have in no way interfered with the ordinary work of the hospital. It is too much, however, to expect that when Smallpox breaks out again, as it is certain to do under the present inadequate vaccination laws, it will be possible to treat Smallpox and other infectious diseases concurrently with any reasonable hope of success. Either the hospital must be given up to Smallpox or all other diseases must be excluded. I have said before that no very great expense need be incurred, but the provision must be made beforehand, otherwise the Town Council will find itself unable to cope with an unexpected outbreak, and will fail in its duty, and incur a heavy responsibility."

ASPATRIA.—Dr. Briggs says:—"We have no provision for isolating a case of Smallpox, which with vaccination is the one precautionary measure to be taken on the appearance of such. It would be a wise step on the part of your Council to make some effort at combining with neighbouring districts in the provision of a permanent building for isolating first cases."

Seeing that these District Councils have so persistently ignored the advice of their Medical Officer, I think the County Council ought to exercise the powers conferred on them by the Isolation Hospitals Act, 1893 and 1901.

### **DISINFECTION.**

Few of the districts appear to be provided with satisfactory means of disinfection, and in many of the reports nothing is mentioned on the subject beyond the statement "disinfection is carried out."

Almost all Local Authorities distribute disinfectants free in cases of infectious diseases.

### **NOTIFICATION OF BIRTHS ACT.**

In addition to the two districts—the Borough of Workington and the Urban district of Penrith—mentioned in my last year's report, the City of Carlisle has now adopted this Act and employs a Health Visitor.



Reports from the districts—not only in this, but in other counties—which have adopted the Act speak highly of the work done by Health Visitors.

Personally I think the Act should be adopted for the whole County.

### MIDWIVES ACT.

Each midwife is visited at least once every three months, but several have been visited more frequently by the County Midwives' Inspector, Miss March, and she presents a report of her work to me each quarter.

A very marked improvement in the cleanliness and efficiency of the midwives is now to be noted.

The number of midwives who notified their intention to practise during 1911 was 121, being an increase of 14 on the number practising in the previous year.

Of the 121, 53 were *bona fide* midwives, having practised before the Act came into force, and 68 were certificated.

The number of births attended by certified midwives during 1911 was 2,160, equivalent to a fraction over 32 per cent. of the total registered births.

The number of intimations received by me of midwives sending for medical help was 105, the number of still-births reported in the practices of midwives 24, also 2 notifications of death were received, and in addition 12 notifications of having prepared or assisted to prepare a dead body for burial were received.

Two prosecutions have taken place in the County of women who practised "habitually and for gain otherwise than under the direction of a qualified medical practitioner," and a conviction was obtained in each case.

I have good reason to suppose that a large amount of unqualified practice still goes on, and I have written to many women whom I have heard of, warning them, but owing to the words in the Act "habitually and for gain," it is exceedingly difficult to get sufficient evidence. The people attended by these unqualified women are very reluctant to "get them into trouble."

## WATER SUPPLY.

The Urban districts in the County appear from the reports of the district Medical Officers to be supplied abundantly and with wholesome water. In Egremont, however, the supply is insufficient although the quality is good. In the Holme Cultram district the Urban part of it is supplied with good water, but in the rest of the district the supply is mainly from shallow wells, most of which are liable to be, and probably are, polluted.

In July I had occasion to enquire into the water supply of part of the Whitehaven Rural district, supplied from the reservoir of the Urban district of Cleator Moor.

Part of this water supply was filtered through sand and part was not filtered, before entering the reservoir.

Both the unfiltered water and the mixed water in the reservoir was found to contain bacillus coli, and the former also contained bacillus enteritidis sporogenes. Of course the mixed water contained much fewer bacilli than the unfiltered water.

I understand that arrangement has been made to filter the whole of the water, when a further bacteriological examination will be made.

Maryport pumps its water supply from a mill race from the River Derwent below Cockermouth.

The river is by no means free from sewage pollution above the intake, and this supply, therefore, cannot be considered as free from danger.

In the Rural districts the more populous parts are generally well supplied from public sources. The greater part of the Penrith Rural district is so supplied, and the remaining houses are rapidly being connected up.

The Carlisle and Wigton Rural District Councils have had the matter of public supply under consideration, and it is to be hoped will before long adopt some satisfactory scheme to supply the whole of their districts.

Many polluted supplies, mostly from wells and pumps, have been reported on several times in several districts, but so far nothing has been done to remedy the conditions.



## DRAINAGE & SEWERAGE.

In the Urban districts the drainage and sewerage systems generally are described as satisfactory.

In Aspatria, however, the Medical Officer says:—"The drainage of this town is as unsatisfactory as it could possibly be, and has been condemned absolutely by me for many years." A new system is now under consideration.

In the Holme Cultram Urban area the system is satisfactory, but in the more rural parts it is not. Dr. Crerar remarks:—"The conditions of Green Row, West Silloth, and the Bungalow portion of Skinburness remain pretty much as they were when the Council decided that a sewerage scheme was required. The rest of the district is rural and possesses no modern sewerage system."

The great fault in Rural districts is the direct running of all drains into water courses. Water supplies are bound to suffer, and there are many isolated cottages which get their only water supply from these streams.

The condemnation of the midden privy continues to be general, but the action following on the condemnation is not so vigorous as one would like to see.

It is no uncommon thing to see a large midden, which is only emptied once in six months or even once in twelve months, within a few yards of the back door of a cottage.

The conversion of these privies into good earth-closets is such a small matter as regards expense, that there does not seem to be any reason why it should not be universally adopted.

It is no exaggeration to say that the dry earth-closet is as great an advance on the ordinary midden privy as the water-closet is on the earth-closet, and for isolated houses and small villages the dry earth-closet is to be much preferred to the insanitary cesspool, with open sides, and which overflows freely over the surrounding ground, which one so commonly sees.

The dry earth-closet, when well constructed and properly managed, is a very satisfactory substitute for the water-closet. The mistake nearly always made is to

have the receptacle too large, and in consequence difficult to remove and empty, and as a result not emptied often enough. The disposal of the contents of these pails is not a difficult matter if proper methods are employed.

As a rule a hole is dug a foot or two deep, into which the pails are emptied, and then the hole is filled up. If this is again dug up at the end of several weeks, or even several months, it is found in pretty much the same condition as when buried, but if the contents of the pails are only covered with a light layer of soil an inch or two deep, after three or four days it is impossible to distinguish between the contents of the pail and the earth.

I do not wish it to be supposed, however, that I am advocating the dry closet in preference to the water-closet. The former is only recommended when it is impossible to make satisfactory arrangements for the latter.

Scavenging and the removal and disposal of house refuse has now, in the light of our increased knowledge of the part that flies play in the spread of disease, assumed an important place in sanitation.

It would appear that the City of Carlisle is the only district in the County in which refuse is disposed of by burning in a destructor, and even here only part of the refuse is so disposed of.

In the Borough of Whitehaven the refuse is collected two or three times a week, and is taken out to sea in hoppers.

With these two exceptions all the other districts get rid of their refuse at tips, generally situated some distance away.

The nuisance and danger to health arising from these tips is serious enough when composed only of house refuse, but when in addition to this the contents of many midden privies is added, the seriousness of the danger cannot be overstated.

In many villages, and indeed in some Urban districts, I have no doubt infection is often conveyed into houses through the medium of cats, whose main feeding places are the huge middens in close proximity to houses. These



cats, after a full diet of all sorts of filth, and after disporting themselves in the middens of a whole row of houses for several hours, often afterwards become the playthings of children, and I have no doubt are the cause of many of the unexplained outbreaks of disease.

### **FOOD—(A) MILK SUPPLY.**

Large quantities of milk are sent from this County into the City of Newcastle-on-Tyne. On two occasions during the year I have had intimation that milk containing tubercle bacilli was being received in Newcastle. This milk was traced to certain farms, and in both cases the cows were all tested with Tuberculin. In each case certain cows were found to react and were disposed of. These are the only two instances in which attention has been drawn to the matter, but I have no doubt a large number of cows are at the present time affected with Tuberculosis and are still supplying milk.

The Dairies, Cowsheds, and Milkshops are regularly inspected in all the districts; many of them are kept in good condition, but many are totally unfit for cows to live in if they are to remain healthy and the milk supply is to be free from contamination.

SLAUGHTER-HOUSES.—In the reports these premises are as a rule commented on favourably. In several districts, however, the Medical Officer of Health advocates the erection of a public abattoir.

Some of the existing slaughter-houses are too near dwelling houses, and in others difficulty seems to be experienced in removing the offal. In such cases it is most desirable that District Councils should arrange for the systematic and regular removal of all offal from slaughter-houses.

Section 48 of the Public Health Acts Amendment Act, 1907, empowers the owner or occupier of any premises to require the local authority to remove any trade refuse, a reasonable sum being paid for such removal.

### SALE OF FOOD & DRUGS ACT.

This Act is carried out by the Police, the following report being given by the County Analyst:—

(COPY ANNUAL REPORT.)

Laboratory and Assay Office,  
40 Lowther Street,  
Whitehaven,

Gentlemen, 2nd January, 1912

#### *Sale of Foods and Drugs Act.*

During the year 1911 I analysed 305 samples submitted to me by officers of the police whom you have appointed as Food Inspectors under these Acts. I found 13 of these samples to be adulterated. The percentage of total adulteration for the year is therefore 4.2. This is less than half that of the previous year, the total adulteration in 1910 having been 9.6 per cent. of the samples submitted for analysis.

In 1911 the adulteration was confined to milk, all other articles examined having been found to be genuine.

The total number of samples of milk received for analysis was 169, and 13 (7.7 per cent.) of these fell below the standards fixed by the Board of Agriculture as the minima for genuine milk. The deficiency below the minimum in eight of these samples was so slight that the vendors were cautioned and not summoned. With the remaining five the deficiency was so much greater that an "appeal to the cow" was decided upon and carried out, with the result that it was found in two cases that the cows were producing milk of such poor quality as to fall below the Board of Agriculture's standards. The vendors of these samples were, of course, not prosecuted. In the other three cases it was found that the cows were producing normal milk, and legal proceedings were taken against the vendors of the samples, which had thus been proved to have been adulterated.

The average composition of the 169 samples of milk analysed during the year 1911 is:—

Milk-fat	...	...	...	...	3.53
Non-fatty Solids	...	...	...	...	8.96
Water	...	...	...	...	87.51
					<hr/>
					100.00
					<hr/>



Comparing this with averages of previous years we find that the average composition of Cumberland milk is remarkably constant.

Taking the average for each quarter of 1911, we have:—

	<i>Jan. to Mar.</i> <i>44 samples.</i>	<i>April to June.</i> <i>41 samples.</i>	<i>July to Sept.</i> <i>42 samples.</i>	<i>Oct. to Dec.</i> <i>42 samples.</i>
Milk-fat	... 3.59	... 3.38	... 3.40	... 3.75
Non-fatty Solids	8.89	8.94	8.86	9.17
Water	... 87.52	... 87.68	.. 87.74	... 87.08
	<hr/> 100.00	<hr/> 100.00	<hr/> 100.00	<hr/> 100.00

These also differ but slightly from the similar averages of previous years.

I append a list of all the articles which I have analysed during 1911 under the Sale of Food and Drugs Acts.

*Fertilisers and Feeding Stuffs Act.*

During 1911 the farmers of Cumberland have sent me 44 samples for analysis. These consisted of nine fertilisers and 35 feeding stuffs.

The result of the analyses of these samples was to show that the composition of 39 was closely in accordance with the guaranteed analysis, whilst that of five fell further below the guarantee than is permissible under Limits of Error Regulation of the Board of Agriculture.

There have, however, been no prosecutions under the Act, but I have received from farmers several letters expressing their high appreciation of the value of these analyses, since they find that some manufacturers readily make good any deficiencies which the analyses may show to exist in the quality of the fertilisers or feeding stuffs purchased from them.

I am, Gentlemen,

Your obedient Servant,

ROBERT HELLON, Ph.D., F.I.C.,

*County Analyst.*

## ARTICLES.

Examined under the Sale of Food and Drugs Acts during  
the year 1911.

Milk	...	...	...	169	samples
Spirits	...	...	...	24	„
Pepper	...	...	...	13	„
Butter	...	...	...	12	„
Coffee	...	...	...	12	„
Cheese	...	...	...	9	„
Lard	...	...	...	8	„
Sugar	...	...	...	7	„
Confectionery and Jam	...	...	...	7	„
Margarine	...	...	...	6	„
Vinegar	...	...	...	6	„
Flour	...	...	...	5	„
Bread	...	...	...	4	„
Tea	...	...	...	3	„
Oatmeal	...	...	...	3	„
Rice	...	...	...	3	„
Cream of Tartar	...	...	...	2	„
Golden Syrup	...	...	...	2	„
Tapioca	...	...	...	2	„
Cornflour	...	...	...	2	„
Cocoa	...	...	...	1	sample
Mustard	...	...	...	1	„
Baking Powder	...	...	...	1	„
Ground Ginger	...	...	...	1	„
Peas	...	...	...	1	„
Arrowroot	...	...	...	1	„

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### HOUSING, TOWN PLANNING, &c., ACT, 1909.

In September, 1910, the Local Government Board issued an order making Regulations—the Housing (Inspection of District) Regulations. Under Section 17 (1) of this Act it is obligatory on all Local Authorities:—

- (a) To cause periodical inspection of houses in their districts to be made, and
- (b) To comply with such regulations and to keep such records as may be prescribed by the Local Government Board.



The requirements of these regulations briefly stated are as follows:—

*Article I.*—The Local Authority is, as soon as possible, to determine on the procedure to be adopted for inspection, and is to make provision for a thorough inspection being carried out periodically.

The Local Authority is also required to have made out from time to time by the Medical Officer of Health, or by an officer under his direction, lists of dwelling houses needing early inspection.

*Article II.*—Requires that inspection be made by the Medical Officer of Health, or an officer acting under his direction and supervision, and lays down in detail the various conditions which are to be noted and reported on.

*Article III.*—Requires detailed record to be kept of the inspections. These are to be prepared under the supervision of the Medical Officer of Health, and the information obtained is to be set out according to a list of items given in the regulations.

*Article IV.*—The Local Authority must at each of their ordinary meetings consider the records and give directions and take the necessary action and add to the records a note of the action taken.

*Article V.*—Requires the Medical Officer of Health to give in tabular statement in his Annual Report all information with regard to inspections and action taken as an outcome of the inspections.

By previous order of the Local Government Board it is the duty of the Inspector of Nuisances or Sanitary Inspector, by inspection of the district, both systematically and at certain periods, and at intervals as occasion may require, to keep himself informed in respect of nuisances existing therein which require abatement, and the official letter accompanying the Housing Regulations states that “the Local Authority will no doubt usually designate the Inspector of Nuisances or Sanitary Inspector as the officer who is to act under Article 1 (3) of the Regulations.”

The table given on the next page summarises the work done in the different districts.





The methods of control over Tuberculosis are fully dealt with in the report I have already submitted under "Sanatorium benefits" of the National Insurance Act, and it would only be unnecessary repetition to deal with it here.

### **FACTORIES & WORKSHOPS.**

In only a few reports is any detailed reference made to the sanitary circumstances of these places, but in most districts they appear to have been visited on one or more occasions.

In some cases the statistical table issued by the Secretary of State for inclusion in the annual report is not included in the report.

**CARLISLE (BOROUGH).**

J. BEARD, F.R.C.S., Ed., D.P.H., &amp;c.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
				1911.	1910.	1911.	1910.
				—	—	—	—
				<i>(Estimated)</i>			
Population ...	...	...	46,432	51,433	Total notifications ...	325	357
Birth-rate ...	...	...	23.8	22.2	Smallpox ...	Nil	Nil
Death-rate ...	...	...	15.7	12.6	Scarlet Fever ...	139	248
Zymotic death-rate ...	...	...	2.0	0.4	Diphtheria ...	44	37
Phthisis death-rate ...	...	...	1.6	1.01	Fevers (Enteric, &c.) ...	3	6
Total tuberculosis death-rate ...	...	...	2.0	1.5	Puerperal Fever ...	6	6
Respiratory diseases death-rate ...	...	...	2.1	1.9	Cases treated in Hospital	139	202
Infant mortality rate per 1,000 births ...	...	...	145	110	Measles ...	(13)	(3)
					Whooping Cough ...	(21)	(11)
					Diarrhoea ...	(56)	(3)

**WATER SUPPLY—**

The quality of the water has been uniformly good. Chemical and bacteriological examinations have been made quarterly, and show the water to be of excellent quality.

A determination of the plumbo-solvent action of the water was made according to the methods of the Local Government Board in all samples taken during the year. The table published shows that the samples of water were only capable of taking up minute and innocuous quantities of lead under the most stringent experimental conditions.

**DRAINAGE AND SEWERAGE—**

Continue satisfactory. 69 house drains have been tested either by the water or smoke test.

The work at the sewage disposal works is carried out in a careful manner, and the effluent is satisfactory.

**SCAVENGING—**

13,022 loads of refuse were collected and returned to the refuse tip or destructor.



### SANITARY INSPECTIONS OF DISTRICT—

1,028 notices have been served for the abatement of various nuisances detailed in the report.

171 complaints received attention.

In no case was it necessary to institute proceedings.

The four common lodging-houses have been frequently visited. Generally satisfactory.

The premises where offensive trades are carried on have received attention, the business being conducted in a proper manner.

### FOOD—(a) MILK SUPPLY—

3,142 examinations have been made by the Veterinary Surgeon to ascertain the presence of disease likely to affect the milk supply.

All cow byres have been visited regularly.

### (b) OTHER FOODS—

24,000 animals was slaughtered at the public abattoir.

95 carcasses were examined—74 were condemned as unfit for food, portions of 21 were pronounced as unfit for food, and 57 (56 oxen and 1 pig) were found affected with tuberculosis.

Premises where food is exposed for sale are frequently visited.

The condition of the bake-houses is generally good.

### SALE OF FOOD AND DRUGS ACT—

155 samples were taken for analysis, 136 were found to be genuine and 19 adulterated—4 of milk, 5 of whiskey, and 10 of coffee.

### HOUSING—

501 houses have been inspected, excluding 104 under the provisions of the Housing, Town Planning, &c., Act, 1909, and various defects discovered.

## ACUTE INFECTIOUS DISEASES—

The number of cases notified was 241, being a decrease of 116 on the previous year.

139 cases were removed to the isolation hospital, where there is ample accommodation.

A small Defries disinfecter has been erected at the Fever Hospital, and arrangements have been made for the disinfection of bedding, &c.

## TUBERCULOSIS—

84 cases notified under the different regulations. Upon receipt of notification the residence of the patient is visited and advice given, a copy of a memorandum drawn up by the Medical Officer is left, and when the patient is too poor to buy one, an enamelled spit bottle or cup is provided by the Health Department. Disinfection by means of formaldehyde is carried out on death or removal.

**WORKINGTON (BOROUGH).**

FRED G. HARPER, M.D., DEPUTY MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>					
				1911.	1910.			1911.	1910.
				_____	_____			_____	_____
				<i>(Estimated)</i>					
Population ... ..	25,099	27,500	Total notifications ...	245	144				
Birth-rate ... ..	26.3	26.4	Smallpox ... ..	Nil	Nil				
Death-rate ... ..	13.8	12.5	Scarlet Fever ... ..	182	38				
Zymotic death-rate ...	1.0	0.65	Diphtheria ... ..	23	44				
Phthisis death-rate ...	0.8	0.4	Fevers (Enteric, &c.) ...	6	17				
Total tuberculosis death-			Puerperal Fever ... ..	1	Nil				
rate ... ..	1.2	1.05	Cases treated in Hospital	128	49				
Respiratory diseases			Measles ... ..	(Nil)	(1)				
death-rate ... ..	2.5	2.65	Whooping Cough ... ..	(13)	(5)				
Infant mortality rate per			Diarrhoea ... ..	(5)	(9)				
1,000 births ... ..	123	129							



## SANITARY INSPECTIONS OF DISTRICT—

From the report of the Sanitary Inspector:—

Number of nuisances dealt with	...	...	810
Informal notices served	...	...	200
Statutory notices served	...	...	20

All the statutory notices have been complied with, and some 25 informal notices are in abeyance.

## MILK SUPPLY—

20 cow-keepers are on the register, 17 purveyors of milk, and traders from outside the district, 12.

Dairies have been frequently visited.

## OTHER FOODS—

In the public abattoir 9,507, and in the private slaughterhouse 1,034, animals were slaughtered. Only one carcase was found affected with tuberculosis—this was destroyed.

## ACUTE INFECTIOUS DISEASES—

245 cases were notified and 128 removed to hospital.

## SCHOOLS—

The Medical Officer has up to the present not been the School Medical Officer. A special report on Schools and Medical Inspection is issued to the Education Committee.

**WHITEHAVEN (BOROUGH).**

J. B. FISHER, M.D., D.P.H., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
	1911.	1910.			1911.	1910.	
	<i>(Estimated)</i>						
Population ...	19,048	19,320	Total notifications	...	102	201	
Birth-rate ...	30.4	31.2	Smallpox	...	Nil	Nil	
Death-rate ...	18.9	25.9	Scarlet Fever	...	47	172	
Zymotic death-rate ...	1.6	1.6	Diphtheria	...	10	9	
Phthisis death-rate ...	1.1	1.3	Fevers (Enteric, &c.)	...	9	1	
Total tuberculosis death-rate ...	2.2	3.0	Puerperal Fever	...	2	1	
Respiratory diseases death-rate ...	3.5	3.6	Cases treated in Hospital	...	43	129	
Infant mortality rate per 1,000 births ...	160	129	Measles	...	(1)	(1)	
			Whooping Cough	...	(9)	(11)	
			Diarrhoea	...	(16)	(12)	

## WATER SUPPLY—

Is from Ennerdale Lake, a distance of 8 miles from the Borough. It is of the highest degree of purity.

## DRAINAGE AND SEWERAGE—

Perfectly efficient.

## SANITARY INSPECTIONS OF DISTRICT—

Systematic inspections have been made.

1,867 inspections have been made by the Inspector of Nuisances.

Number of informal notices	...	...	...	348
Number of statutory notices	...	...	...	42
All these notices have been complied with.				

The 4 common lodging-houses have been regularly inspected, and have been kept in a clean and satisfactory condition. The Medical Officer remarks: "Some of them are of an antiquated type, and improvement in structure is desirable, but the condition is as good as is possible under the circumstances." One cellar dwelling was closed on notice being given.

## FOOD—(a) MILK SUPPLY—

12 owners of dairy cattle in the Borough. The cowsheds have all been visited from time to time and found in a generally satisfactory condition as to cleanliness, ventilation, water supply, and drainage.

The cows are regularly inspected by a Veterinary Surgeon.

The milk is sold directly to the customers. There are no registered milk-shops or dairies.

## (b) OTHER FOODS—

11 registered slaughter-houses. 4 whole carcasses and portions of 4 others were condemned, presumably on account of tuberculosis, but this is not stated.

In addition, 20 boxes of codling, 12 boxes of kippers, 1 barrel of grapes, and 2 hampers of plums were destroyed.



## HOUSING—

195 houses have been inspected. In 84 no defect was found. 111 notices were served, 43 of these were complied with, and 28 cases "the owner was at the end of the year making arrangements for meeting the wishes of the Council."

## ACUTE INFECTIOUS DISEASES—

The number of cases notified was 86; of these 43 were removed to the isolation hospital.

After the termination of a case or on removal to hospital, rooms are fumigated with sulphur or with formalin according to circumstances. Clothing, floors, &c., are washed with perchloride of mercury.

## TUBERCULOSIS—

16 cases were notified. These were visited and advised as to the precautions they ought to take for their own sake and those in the same house.

The Medical Officer of Health is also the School Medical Officer, and issues a special report to the Education Committee.

**ARLECDON AND FRIZINGTON.**

JOHN CLARK, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>			<i>Infectious Diseases Cases (and deaths).</i>		
	1911.	1910.		1911.	1910.
	<i>(Estimated)</i>				
Population ... ..	5,184	5,200	Total notifications ...	45	15
Birth-rate ... ..	34.9	28.2	Smallpox ... ..	Nil	Nil
Death-rate ... ..	12.9	18.4	Scarlet Fever ... ..	30	12
Zymotic death-rate ...	0.1	Nil	Diphtheria ... ..	5	Nil
Phthisis death-rate ...	0.5	0.95	Fevers (Enteric, &c.) ...	Nil	Nil
Total tuberculosis death-rate ... ..	1.1	1.1	Puerperal Fever ... ..	2	Nil
Respiratory diseases death-rate ... ..	1.7	2.8	Cases treated in Hospital ...	5	5
Infant mortality rate per 1,000 births ... ..	93	156	Measles ... ..	(Nil)	(Nil)
			Whooping Cough ... ..	(Nil)	(Nil)
			Diarrhoea ... ..	(Nil)	(Nil)

## WATER SUPPLY—

Is from springs in the Cogra Valley. Is abundant and wholesome, and is a constant one. No inhabited houses above the springs.

## DRAINAGE AND SEWERAGE—

Satisfactory. Disposal by means of settling tanks and broad irrigation.

## SCAVENGING—

Is done by the Council, refuse being carted to tips some distance from the town.

## SANITARY INSPECTIONS OF DISTRICT—

998 inspections have been made, and 55 statutory notices served, all of which were complied with.

No lodging-houses and no offensive trades.

## FOOD—(a) MILK SUPPLY—

Is carried direct from the local farms to the consumer. No milk-shops in the district.

## (b) OTHER FOODS—

The slaughter-houses are specially reported on. Found fairly satisfactory, although none of them meet the requirements of the Local Government Board, as they are all situated too near dwelling-houses.

No diseased meat dealt with.

## HOUSING—

The housing accommodation is stated to be fairly satisfactory. 860 houses have been inspected.

No work has been done under the Housing, Town Planning, &c., Act.

## ACUTE INFECTIOUS DISEASES—

The number of cases notified was 45; of these 5 were removed to the isolation hospital.

The houses are, after removal of the case, disinfected with sulphur candles and the use of verol in solution.

## TUBERCULOSIS—

No cases were notified under the regulations.



**ASPATRIA.**

W. P. BRIGGS, L.R.C.P., &amp;c., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	3,339	3,331	Total notifications	...	15	123
Birth-rate	...	29.6	25.5	Smallpox	...	Nil	Nil
Death-rate	...	13.4	12.08	Scarlet Fever	...	10	112
Zymotic death-rate	...	0.6	1.8	Diphtheria	...	1	4
Phthisis death-rate	...	1.8	0.6	Fevers (Enteric, &c.)	...	3	6
Total tuberculosis death-rate	...	2.0	0.9	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	3.0	Nil	Cases treated in Hospital	...	No Hospital	(2)
Infant mortality rate per 1,000 births	...	111	129	Measles	...	(Nil)	(Nil)
				Whooping Cough	...	(Nil)	(Nil)
				Diarrhoea	...	(1)	(Nil)

**WATER SUPPLY—**

From Overwater by gravitation. Is of excellent quality and ample in quantity.

One house has been connected during the year.

**DRAINAGE AND SEWERAGE—**

As unsatisfactory as it could possibly be, and has been condemned absolutely by the Medical Officer for years. Plans, &c., for a new scheme are now before the Local Government Board, and Dr. Briggs expresses the hope that the work will be commenced with as little delay as possible.

**SCAVENGING—**

Is done by contractors and conveyed to a disused quarry outside the town.

**SANITARY INSPECTIONS OF DISTRICT—**

474 inspections were carried out. 45 statutory notices and 20 informal notices served.

41 notices were attended to, and 4 cases of overcrowding were not remedied.

No common lodging-houses and no offensive trades in the district.

## FOOD—(a) MILK SUPPLY—

Sufficient care to prevent contamination is not exercised. 6 registered dairies; they are clean and generally airy, and satisfactory.

The cowsheds are not so satisfactory. Defects in lighting, ventilation, and air space have been pointed out. Insufficient drainage or defective floors were marked features when reported upon, some slight improvements have been made.

## (b) OTHER FOODS—

The 3 registered slaughter-houses are frequently visited. The difficulty of efficient supervision is again referred to, and the erection of a public slaughter-house is again advocated. No diseased meat was found.

## HOUSING—

The great majority of the working classes are well housed, but there is a minority who occupy badly appointed and structurally defective houses in which there is overcrowding.

Plans for new houses are submitted to the Council, and if not in accordance with bye-laws are rejected. The Surveyor exercises supervision during erection.

## ACUTE INFECTIOUS DISEASES—

Of these there were 15 cases notified.

Premises, clothing, and bedding are disinfected, but it is pointed out that thorough disinfection of bedding and clothing is impossible without a steam disinfecter.

There is no isolation hospital accommodation.

## TUBERCULOSIS—

No cases notified.



**CLEATOR MOOR.**

JOHN CLARK, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			

**(b) OTHER FOODS—**

A special report on the slaughter-houses was submitted in June. Recommendations made with regard to one have been carried out, and it is now satisfactory.

Only two of the slaughter-houses comply with the requirements of the Local Government Board, all the others being too near dwelling houses.

One whole carcase of beef and the organs, and parts of 3 others, were destroyed, presumably for tuberculosis.

**HOUSING—**

About 20 new houses are now being erected. Dr. Clark says: "I am of opinion that the number of houses in the district offer fairly good accommodation for the inhabitants, although there has been a popular cry lately of a scarcity of houses. It is a well-known fact that a considerable number of our present residents find employment in the iron ore mines recently opened on the south side of Egremont, . . . no doubt in course of time a sufficient supply of houses will be erected in proximity to these mines for the employees, and as this would cause a considerable exodus from Cleator Moor, it still remains to be proved whether any considerable increase of houses in our district is justifiable or not.

"On the other hand we have about 60 houses (back to back), which we have condemned as such, and before we get these houses rendered sanitary and converted into good houses with through ventilation and meeting the requirements of the Housing and Town Planning Act, probably they will be reduced in number by nearly one-half."

**ACUTE INFECTIOUS DISEASES—**

Infectious diseases notified during the year 39, an increase of 17 on the previous year.

7 cases were removed to the isolation hospital.

Disinfection is carried out by means of fumigation with a vapiform lamp.

**TUBERCULOSIS—**

Four cases were notified under the regulations.



**COCKERMOUTH.**

JOHN PENNY, M.B., D.Sc., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	5,203	5,410	Total notifications	...	20	4
Birth-rate	...	26.5	24.0	Smallpox	...	Nil	Nil
Death-rate	...	14.4	16.2	Scarlet Fever	...	9	1
Zymotic death-rate	...	1.3	0.5	Diphtheria	...	5	Nil
Phthisis death-rate	...	0.7	2.4	Fevers (Enteric, &c.)	...	Nil	Nil
Total tuberculosis death-rate	...	0.9	3.3	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	3.0	1.6	Cases treated in Hospital	...	Nil	Nil
Infant mortality rate per 1,000 births	...	87	176	Measles	...	(Nil)	(1)
				Whooping Cough	...	(1)	(Nil)
				Diarrhoea	...	(5)	(2)

**WATER SUPPLY—**

From Lake Crummock.

The complaints received last year from residents in the higher parts have been remedied by scraping the mains.

**DRAINAGE AND SEWERAGE—**

The system is described as having been maintained in a most satisfactory condition.

**SCAVENGING—**

Domestic refuse is collected twice a week and trade refuse once a week, and conveyed to a tip outside the town.

**SANITARY INSPECTIONS OF DISTRICT—**

183 nuisances have been reported and 179 notices complied with.

There are 2 common lodging-houses in the town. Both are old buildings and are far from what might be considered desirable. As regards cleanliness they generally complied with the bye-laws.

Offensive trades—The tannery, previously complained about, is now unoccupied, and the gut-scraper's business is now carried on in suitable premises.

**FOOD—(a) MILK SUPPLY—**

9 cow-keepers and 15 milk-sellers in the district. Their premises are inspected regularly. Quarterly reports made by Veterinary Inspector.

**(b) OTHER FOODS—**

4 boxes of smoked haddocks and 20 boxes of kippers destroyed as unfit for human food.

12 bakehouses, 8 of which are registered, are reported as always found clean.

Slaughter-houses frequently inspected and generally found satisfactory.

**HOUSING—**

The same conditions exist as noted in past reports.

**ACUTE INFECTIOUS DISEASES—**

17 cases notified. On receipt of a notification the house is visited as soon as possible and particulars obtained, enquiries made, and directions given to prevent spread.

Disinfection is carried out with formalin and a spray.

No isolation hospital accommodation. The joint small-pox hospital is nearly completed.

**TUBERCULOSIS—**

3 cases notified under the regulations. On notification the house is visited and enquiry made as to other cases. Sanitary conditions are enquired into. Disinfection of premises is carried out after a death.

**EGREMONT.**

GEORGE CALDERWOOD, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>				
				1911.	1910.	1911.	1910.	
				—	—	—	—	
				<i>(Estimated)</i>				
Population	...	...	6,305	6,300	Total notifications	...	115	74
Birth-rate	...	...	28.5	27.9	Smallpox	...	Nil	Nil
Death-rate	...	...	16.3	13.8	Scarlet Fever	...	96	66
Zymotic death-rate	...	...	2.0	0.7	Diphtheria	...	13	2
Pbthsis death-rate	...	...	0.9	0.1	Fevers (Enteric, &c.)	...	1	1
Total tuberculosis death-rate	...	...	1.9	0.6	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	...	1.2	4.1	Cases treated in Hospital	...	55	16
Infant mortality rate per 1,000 births	...	...	144	108	Measles	...	(2)	(Nil)
					Whooping Cough	...	(5)	(Nil)
					Diarrhœa	...	(2)	(1)



**WATER SUPPLY—**

Though good in quality, is insufficient in quantity. An endeavour is being made to obtain a more abundant supply.

**DRAINAGE AND SEWERAGE—**

Satisfactory. Sewage disposal is by means of sedimentation tanks and broad irrigation. There are a few privies still left.

**SCAVENGING—**

House refuse is removed by the Council's men. Privies are cleaned out once a week. Ashpits practically done away with.

**SANITARY INSPECTIONS OF DISTRICT—**

The whole district was inspected 3 times. 98 verbal and 37 written notices and 1 statutory notice served. All complied with with one exception.

**FOOD—(a) MILK SUPPLY—**

In many cases far from being what it ought to be.

The dairies and cow-sheds have been inspected, and the report states that: "There is also plenty of room for improvement in the animals' surroundings, which, too often, is in a dirty and untidy condition."

**(b) OTHER FOODS—**

Slaughter-houses satisfactory. 3 carcasses destroyed during the year (presumably for tuberculosis).

**HARRINGTON.**

GEORGE R. CULLEN, L.R.C.S. & P., &c.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	4,340	3,766	Total notifications	...	7	7
Birth-rate	...	30.8	36.1	Smallpox	...	Nil	Nil
Death-rate	...	13.5	17.2	Scarlet Fever	...	7	2
Zymotic death-rate	...	Nil	1.06	Diphtheria	...	Nil	2
Phthisis death-rate	...	0.9	0.26	Fevers (Enteric, &c.)	...	Nil	1
Total tuberculosis death-rate	...	1.6	1.06	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	2.06	5.04	Cases treated in Hospital	...	5	Nil
Infant mortality rate per 1,000 births	...	89	103	Measles	...	(Nil)	(4)
				Whooping Cough	...	(Nil)	(Nil)
				Diarrhoea	...	(Nil)	(Nil)

## WATER SUPPLY—

From Crummock Lake, is of excellent quality, but in some parts of the district is not sufficient in quantity.

## DRAINAGE AND SEWERAGE—

Is satisfactory. Disposal is by means of precipitation tank and irrigation. Principally water-closets in the district. The midden-closets have been condemned by the Medical Officer, and it is evidently the intention to convert them into water-closets.

## SCAVENGING—

Done by public scavenger 3 times a week. A sanitary pail with a lid is advocated in place of the broken buckets, &c., used at present.

## SANITARY INSPECTIONS OF DISTRICT—

93 nuisances dealt with. No common lodging-houses. No offensive trades.

## FOOD—(a) MILK SUPPLY—

The 11 dairies and cowsheds are kept clean and in fair condition.

The cows are not inspected by a Veterinary Surgeon.

## (b) OTHER FOODS—

The 3 registered slaughter-houses are kept in a satisfactory condition. There is no special appointment with regard to meat inspection.

No unsound food reported and no carcasses or parts of carcasses were condemned.

## HOUSING—

The supply exceeds the demand. All plans are submitted to the Council for their approval before building is commenced. A few cellar dwellings are occupied by single old people in receipt of parish relief.

## ACUTE INFECTIOUS DISEASES—

7 cases notified. Houses are disinfected, and disinfectants supplied.

## TUBERCULOSIS—



**HOLME CULTRAM.**

CHARLES CRERAR, M.B., C.M., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			

## SCAVENGING—

In all the urban parts the house refuse is collected in bins and carted away by contract.

## SANITARY INSPECTIONS OF DISTRICT—

All parts of the district visited and many inspections made; not many nuisances discovered.

No common lodging-houses.

## FOOD—(a) MILK SUPPLY—

No dairies. The milk is brought in tins by the 7 milk-sellers.

The cowsheds are not satisfactory; most of the floors are paved with cobbles and are rough and uneven.

## (b) OTHER FOODS—

No unsound food found. The 6 private slaughter-houses are as satisfactory as can be expected. The bake-houses were found satisfactory, except one which has been put right.

## HOUSING—

The supply is adequate, and there is no overcrowding.

The Sanitary Inspector is also the Building Surveyor; plans are passed by the Council, and he sees that they are carried out before certificates of occupancy are granted.

## ACUTE INFECTIOUS DISEASES—

The district has been remarkably free from infectious disease. The schools, School Medical Officer, and the Sanitary Authority are in close co-operation in dealing with real and suspected cases by means of the notifications from the Teacher and Medical Officer, and any cases so notified are immediately investigated.

The Council defray the cost of any bacteriological work done.

## TUBERCULOSIS—

Two cases notified under the regulations. In case of death the house is disinfected and the risks and nature of infection explained.



**KESWICK.**

J. R. BURNETT, M.D., &amp;C., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	4,403	4,500	Total notifications	...	19	14
Birth-rate	...	17.0	17.7	Smallpox	...	Nil	Nil
Death-rate	...	13.1	14.8	Scarlet Fever	...	4	7
Zymotic death-rate	...	0.2	0.4	Diphtheria	...	4	3
Phthisis death-rate	...	0.6	1.1	Fevers (Enteric, &c.)	...	1	Nil
Total tuberculosis death-rate	...	1.1	1.3	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	2.2	3.3	Cases treated in Hospital	...	5	8
Infant mortality rate per 1,000 births	...	80	112	Measles	...	(Nil)	(Nil)
				Whooping Cough	...	(Nil)	(Nil)
				Diarrhoea	...	(Nil)	(1)

**WATER SUPPLY—**

From reservoirs on Skiddaw, fed by springs and water-courses; an ample and pure supply.

No injurious solvent action on lead.

It is carried at high pressure to all parts of the district, with the exception of some cottages at the Forge, which have their own supply.

**DRAINAGE AND SEWERAGE—**

There are sewers in all parts of the district, except where engineering difficulties prohibit it. They are ventilated by street grids and by the soil-pipe ventilators, interceptors between the house drains and the sewers being the exception.

Purification is carried out by means of a system of septic tanks and constant filtration. Privy system is only adopted in districts in which there are no sewers.

**SCAVENGING—**

House refuse is collected twice a week from dustbins and deposited on the land.

**SANITARY INSPECTIONS OF DISTRICT—**

A large number of inspections have been made. 12 statutory notices have been served; 10 have been complied with and 2 are making arrangements.

One common lodging house, which in several respects is far from complying with the bye-laws; the idea of erecting a new one on model lines has not been lost sight of.

#### FOOD—(a) MILK SUPPLY—

All sources of the milk supply, whether within or beyond the district, are visited quarterly by the Veterinary Inspector, who has reported that the cattle are in good condition, that the byres are clean and well kept. Additional air space has been provided in several instances.

#### (b) OTHER FOODS—

Bakehouses are regularly inspected.

The 6 slaughter-houses have been regularly inspected and found well kept. Some of them are structurally ill-adapted and situated for their purpose. A public slaughter-house is advocated.

No tuberculous meat has been found.

#### HOUSING—

The accommodation is adequate. Much of the older cottage property is crowded together or built back to back.

The want of proper wash-house accommodation is drawn attention to.

The bye-law as to open space about houses has been rigidly enforced.

#### ACUTE INFECTIOUS DISEASES—

13 cases notified. The necessary disinfection is carried out by the Sanitary Inspector. There is no steam disinfectant. Hospital accommodation is provided at the Whinlatter Hospital and White Moss Smallpox Hospital.

Bacteriological work is done by the Lister Institute, 23 specimens being sent during the year.

#### TUBERCULOSIS—

Six cases notified. The house is visited, suggestions made, and disinfection carried out when required.

One free bed is maintained at the Blencathra Sanatorium.



**MARYPORT.**

FRED. PROUD, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>					
				1911.	1910.			1911.	1910.
				—	—			—	—
				<i>(Estimated)</i>					
Population	...	...	11,423	12,600	Total notifications	...	39	97	
Birth-rate	...	...	29.3	24.5	Smallpox	...	1	Nil	
Death-rate	...	...	14.3	13.2	Scarlet Fever	...	17	72	
Zymotic death-rate	...	...	0.4	1.1	Diphtheria	...	18	14	
Phthisis death-rate	...	...	0.9	1.03	Fevers (Enteric, &c.)	...	2	3	
Total tuberculosis death-					Puerperal Fever	...	Nil	Nil	
rate	...	...	1.2	1.03	Cases treated in Hospital		1	Nil	
Respiratory diseases					Measles	...	(1)	(2)	
death-rate	...	...	2.5	1.4	Whooping Cough	...	(1)	(Nil)	
Infant mortality rate per					Diarrhoea	...	(Nil)	(1)	
1,000 births	...	...	77	110					

**MILLOM.**

P. B. STONEY, M.R.C.S., &amp;c.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	8,612	10 000	Total notifications	...	137	18
Birth-rate	...	21.5	21.5	Smallpox	...	Nil	Nil
Death-rate	...	12.0	13.4	Scarlet Fever	...	39	3
Zymotic death-rate	...	0.2	1.3	Diphtheria	...	1	8
Phthisis death-rate	...	0.6	0.9	Fevers (Enteric, &c.)	...	1	1
Total tuberculosis death-rate	...	1.3	1.5	Puerperal Fever	...	1	Nil
Respiratory diseases death-rate	...	1.3	1.7	Cases treated in Hospital	...	Nil	Nil
Infant mortality rate per 1,000 births	...	130	134	Measles	...	(Nil)	(6)
				Whooping Cough	...	(Nil)	(5)
				Diarrhoea	...	(Nil)	(Nil)

**WATER SUPPLY—**

From a reservoir on the slope of Black Combe, about 6 miles distant.

Pure and abundant in quantity.

**DRAINAGE AND SEWERAGE—**

Complete in all parts and carried into estuary of river beyond low water level.

Water-closets only are in use.

**SCAVENGING—**

House refuse is removed by the Council's men, and is very satisfactory.

**SANITARY INSPECTIONS OF DISTRICT—**

85 nuisances dealt with. 4 common lodging-houses.  
No offensive trades.

**FOOD—(a) MILK SUPPLY—**

Most of the milk comes from outside the district. 9 samples were examined, and all were up to the standard.

The 6 cowsheds were inspected. They are of the old type, with low roofs, badly ventilated, and overcrowded.



**(b) OTHER FOODS—**

No tuberculous meat found. 11 slaughter-houses.

**HOUSING—**

There are more than sufficient houses.

**ACUTE INFECTIOUS DISEASES—**

48 cases notified. The premises are disinfected, bedding, &c., removed to steam disinfector. Warnings are given about mixing with others, and a notice is sent to the Librarian and School Attendance Officer.

**TUBERCULOSIS—**

A tuberculosis dispensary has been opened and a Health Visitor appointed. Much good work has been done.

**PENRITH.**

F. HASWELL, M.D., &c., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	8,973	9,395	Total notifications	...	31	28
Birth-rate	...	20.7	20.07	Smallpox	...	Nil	Nil
Death-rate	...	13.5	12.3	Scarlet Fever	...	6	16
Zymotic death-rate	...	1.0	0.2	Diphtheria	...	17	11
Phthisis death-rate	...	0.8	0.7	Fevers (Enteric, &c.)	...	Nil	Nil
Total tuberculosis death-rate	...	1.4	1.4	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	1.5	1.4	Cases treated in Hospital	...	17	23
Infant mortality rate per 1,000 births	...	102	107	Measles	...	(2)	(Nil)
				Whooping Cough	...	(3)	(1)
				Diarrhoea	...	(3)	(Nil)

**WATER SUPPLY—**

By gravitation from Hayeswater Lake, 14 miles distant, and at an elevation of 14,000 feet.

A report from the County Analyst states that: "Except for a very slight turbidity the water is of the highest degree of purity, and is in every way excellent for all domestic and most commercial purposes."

Most of the houses are supplied from the main, but about 50 have supplies from wells and other sources.

## DRAINAGE AND SEWERAGE—

The new main sewer and outfall works continue satisfactory; the effluent leaves nothing to be desired.

New sewers have been laid in several parts of the town, and the work of putting all the sewers into proper modern condition is now approaching completion.

House drains are continually being inspected; great improvements have been made in these. Privies are gradually being done away with.

## SCAVENGING—

The Council's own carts take all refuse to the tip about a mile out of the town.

## SANITARY INSPECTIONS OF DISTRICT—

Number of inspections during the year—524.

Nature of inspections—General house inspection as to sanitary condition, air space, ventilation, overcrowding, &c. Inspection upon complaints as to nuisances, inspection of slaughter-houses, dairies, ice cream shops, drain testing, and examination of sanitary arrangements in new works, and alterations.

Total number of notices served during the year—

statutory, 42; informal, 204	...	...	246
Result of service of such notice—complete, 81;			
in hand, 76; nothing done, 89	...	...	246

1 common lodging-house reported upon as being satisfactory.

No cellar dwellings.

## FOOD—(a) MILK SUPPLY—

The 31 dairies and cowsheds have been kept generally in a satisfactory condition. The cows are examined quarterly by a Veterinary Inspector, who drew attention to 2 cows suffering from tuberculosis of the udder—the cows have been slaughtered.

## (b) OTHER FOODS—

The private slaughter-houses have been inspected periodically and slight defects remedied.

There is no public abattoir.



## HOUSING—

The table given shows what has been done under this Act. The outstanding feature is want of light and ventilation.

## ACUTE INFECTIOUS DISEASES—

25 notifications received, 17 of which were Diphtheria.

There are two hospitals for infectious diseases used jointly for the Urban and Rural District Councils. 1 for Smallpox. The other has 3 pavilions with 20 beds. A steam disinfecter is in use for bedding, &c., and house disinfection is done by an equifex sprayer and formalin.

## TUBERCULOSIS—

6 cases were notified. In each case the house was visited and instructions given as to disposal of sputum, &c. Dr. Haswell says: "I have several times considered the possibility of using the Smallpox Hospital for cases of Phthisis, but the site is not quite satisfactory, in consequence of the proximity of the Ballast Pit, from which fumes emanate of a decidedly disagreeable character, also the dust which occurs when carts are emptied would be detrimental to persons with lung diseases."

## WIGTON.

J. BLACKLOCK, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	3,687	3,455	Total notifications	...	13	23
Birth-rate	...	19.7	25.7	Smallpox	...	Nil	Nil
Death-rate	...	17.0	19.6	Scarlet Fever	...	2	14
Zymotic death-rate	...	1.0	0.5	Diphtheria	...	5	7
Phthisis death-rate	...	0.8	0.8	Fevers (Enteric, &c.)	...	Nil	1
Total tuberculosis death-rate	...	1.6	1.4	Puerperal Fever	...	Nil	Nil
Respiratory diseases	...			Cases treated in Hospital		No Hospital	
death-rate	...	3.2	5.2	Measles	...	(1)	(1)
Infant mortality rate per	...			Whooping Cough	...	(2)	(Nil)
1,000 births	...	219	112	Diarrhoea	...	(Nil)	(Nil)

## WATER SUPPLY—

An abundant supply from Bolton Park and Thornthwaite Springs, with no risk of pollution.

**DRAINAGE AND SEWERAGE—**

Continues satisfactory. The water carriage system is in use throughout the district.

**SCAVENGING—**

The movable ashbins are emptied twice a week, and the ashpits are cleaned out at longer intervals.

**SANITARY INSPECTIONS OF DISTRICT—**

A number of premises have been visited by the Nuisance Inspector and verbal notices given.

The 6 slaughter-houses have been regularly visited. They are well drained, ventilated, and kept in a clean condition.

Common lodging-houses—2. They are frequently inspected.

**FOOD—(a) MILK SUPPLY—**

The dairies and cowsheds have been visited and found well kept and clean. More air space is recommended in the byres. Veterinary Inspector reports quarterly on the cattle and sheds.

**(b) OTHER FOODS—**

No carcasses or parts of carcasses have been found to be tuberculous.

The bakehouses have been inspected and found clean and well ventilated. An underground bakehouse, however, requires better ventilation.

**HOUSING—**

The housing accommodation for artisans and labourers is adequate, and the ventilation of a number of houses has been improved by the adoption of sash windows, but the structure and situation of a number leave much to be desired in the matter of sunlight and air space about them.

**ACUTE INFECTIOUS DISEASES—**

10 cases were notified. The usual precautions to prevent spread of infection are adopted.

There is no isolation hospital accommodation.



**TUBERCULOSIS—**

3 cases notified. Instructions are given, both verbal and printed, to prevent the spread of infection, and in case of death disinfection is carried out.

**ALSTON (RURAL).**

STEWART CARSON, M.B., C.M.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	3,075	3,150	Total notifications	...	7	22
Birth-rate	...	20.1	17.1	Smallpox	...	Nil	Nil
Death-rate	...	18.8	15.5	Scarlet Fever	...	Nil	15
Zymotic death-rate	...	Nil	Nil	Diphtheria	...	5	3
Phthisis death-rate	...	0.6	1.2	Fevers (Enteric, &c.)	...	1	3
Total tuberculosis death-rate	...	1.6	1.2	Puerperal Fever	...	1	Nil
Respiratory diseases	...			Cases treated in Hospital		No Hospital	
death-rate	...	1.6	2.2	Measles	...	(Nil)	(Nil)
Infant mortality rate per	...			Whooping Cough	...	(Nil)	(Nil)
1,000 births	...	96	55	Diarrhoea	...	(Nil)	(Nil)

**WATER SUPPLY—**

Is from springs coming generally from the limestone. The water is hard and has no plumbo-solvent action.

The recommendation of the Medical Officer to replace the earthenware by cast-iron pipes at Leadgate has been carried out and is satisfactory.

The supply to Whitehall and Hillersden, in the Nent-head district, is liable to pollution, as is the supply to Nenthall School, which the Medical Officer recommends should be conveyed in pipes. Complaint is again made of the dangerous nature of the supply to North Parkside.

Many supplies are mentioned as being liable to pollution through not being piped.

**DRAINAGE AND SEWERAGE—**

3 sewers were completed in Alston during the year.

In Alston, water-closets are used, pail-closets being commonest in other parts.

## SCAVENGING—

House refuse is collected and removed twice a week in Alston and Nenthead by a public scavenger to refuse tips. It would be advantageous to extend this also to Garrigill, so as to prevent the pollution of the river.

## SANITARY INSPECTIONS OF DISTRICT—

Number of inspections	...	...	...	166
Nuisances reported	...	...	...	10
Notices served	...	...	...	9

1 common lodging-house in the district; it is satisfactory.

No cellar dwellings and no offensive trades.

## FOOD—(a) MILK SUPPLY—

The appointment of a Veterinary Surgeon to examine milk cows is recommended.

5 of the 14 cowsheds are not satisfactory as regards light, ventilation, and drainage.

8 dairies are satisfactory.

## (b) OTHER FOODS—

7 private slaughter-houses. 2 not satisfactory; notice given, but not yet complied with.

No diseased meat has been observed, but the impossibility of efficient supervision over private slaughter-houses in such a scattered district is pointed out.

## HOUSING—

The accommodation is still inadequate.

## ACUTE INFECTIOUS DISEASES—

7 notifications received, compared with 22 in 1910.

2 cases of Acute Poliomyelitis came under the observation of the Medical Officer.

There is no isolation hospital accommodation.

## TUBERCULOSIS—

2 cases notified.

Disinfection of premises is carried out after death.

Early cases are received into the Cottage Hospital for treatment. The provision of shelters for the treatment of residents is suggested.



**BOOTLE (RURAL).**

W. A. JOHNSTON, L.R.C.P. &amp; S.I.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>								
				1911.	1910.						1911.	1910.
				—	—						—	—
				<i>(Estimated)</i>								
Population	...	...	...	5,664	5,050	Total notifications	...				20	35
Birth-rate	...	...	...	19.6	21.5	Smallpox	...	...	...		Nil	Nil
Death-rate	...	...	...	11.4	15.6	Scarlet Fever	...	...			16	21
Zymotic death-rate	...	...	...	0.3	0.5	Diphtheria	...	...			2	6
Phthisis death-rate	...	...	...	0.7	1.7	Fevers (Enteric, &c.)	...	...			Nil	3
Total tuberculosis death-						Puerperal Fever	...	...			Nil	1
rate	...	...	...	0.7	1.9	Cases treated in Hospital					14	24
Respiratory diseases						Measles	...	...	...		(1)	(Nil)
death-rate	...	...	...	0.8	1.7	Whooping Cough	...	...			(Nil)	(3)
Infant mortality rate per						Diarrhoea	...	...	...		(Nil)	(Nil)
1,000 births	...	...	...	63	36							

## DRAINAGE AND SEWERAGE—

Very little work done. Since the completion of the sewerage works at Seascale there have been no complaints.

The "Hill," Millom, is badly in need of a system of sewers. This question was considered, but the time was considered inopportune.

## SCAVENGING—

The Inspector says: "This subject does not receive the attention its importance warrants. In 1 village only, that of Seascale, is any serious attempt made to deal satisfactorily with this question; here there is a contract entered into for the removal of household refuse twice per week, which, at present, is undertaken by a contractor who attends to the work very satisfactorily. The disposal is by means of tipping the refuse in an old peat hole in a field well away from the village, the greatest disadvantage found being the large quantity of paper which is collected, and when deposited at the pit gets blown about, making the roads and fields very unsightly, and an element of danger to health. The Council are issuing notices to the various householders advising the destruction of this paper by burning."

The only other village in which any scavenging is done is the "Hill," Millom; here the privies are emptied by contract, but the matter has been allowed to collect too long at times.

## SANITARY INSPECTIONS OF DISTRICT—

250 premises visited and 111 improvements carried out.

## FOOD—(a) MILK SUPPLY—

No milk shops. The supply is good.

The dairies are well kept. The cowsheds are reportedly as well kept, but the construction is faulty, being in many cases too low, badly ventilated, and very badly lighted.

## (b) OTHER FOODS—

The slaughter-houses are regularly inspected. No unsound food found.



## HOUSING—

The Inspector remarks: "In 2 parishes only, that of the "Hill," Millom, and Eskdale, can it really be said that houses are adequate, although there is little or no overcrowding, but one never finds a cottage standing empty."

## ACUTE INFECTIOUS DISEASES—

19 cases notified.

## TUBERCULOSIS—

**BRAMPTON (RURAL).**

WILLIAM SYMINGTON, M.B., C.M.Ed.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>							
				1911.	1910.					1911.	1910.
				—	—					—	—
				<i>(Estimated)</i>							
Population	...	...	7,982	8,784	Total notifications	...			15	27	
Birth-rate	...	...	20.1	16.3	Smallpox	...	...	...	Nil	Nil	
Death-rate	...	...	14.2	12.5	Scarlet Fever	...	...		6	17	
Zymotic death-rate	...	...	0.2	0.7	Diphtheria	...	...		4	9	
Phthisis death-rate	...	...	1.1	1.1	Fevers (Enteric, &c.)	...	...		Nil	Nil	
Total tuberculosis death-					Puerperal Fever	...	...		Nil	Nil	
rate	...	...	1.3	1.1	Cases treated in Hospital				No Hospital		
Respiratory diseases					Measles	...	...	...	(Nil)	(Nil)	
death-rate	...	...	1.6	1.3	Whooping Cough	...	...		(1)	(Nil)	
Infant mortality rate per					Diarrhoea	...	...	...	(Nil)	(2)	
1,000 births	...		68	62							

## DRAINAGE AND SEWERAGE—

Dr. Symington again draws attention to the fact that “this is most inadequate, and has been previously reported over a large number of years, both specifically and generally, but I again regret to say the work has not been carried out.”

## SCAVENGING—

In the town house refuse is removed daily and deposited on a tip outside the town.

The systematic and regular emptying of privies and pails is recommended; it appears to be done very inefficiently and irregularly. The danger of accumulations of filth about houses is alluded to.

## SANITARY INSPECTIONS OF DISTRICT—

3 common lodging-houses in Brampton, all belonging to private owners. 1 has been ordered to be closed or re-constructed, another has been re-constructed. The third is well kept and clean.

## FOOD—(a) MILK SUPPLY—

Several cowsheds have been re-constructed on order; in others the requirements have not been complied with.

No complaints of infected milk have been received.

## (b) OTHER FOODS—

A special report on slaughter-houses was issued during the year. A public abattoir is advocated.

The appointment of an Inspector for the examination of all carcasses for human food is again urged.

## HOUSING—

The condition of 68 houses reported on. Approximately 100 houses have been entirely re-constructed as dwellings for miners, mostly in the Farlam district.

## ACUTE INFECTIOUS DISEASES—

10 cases notified.

No isolation hospital accommodation.

## TUBERCULOSIS—

5 cases notified.



**CARLISLE (RURAL).**

JAMES MACDONALD, M.D., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	... ..	17,736	17,382	Total notifications	...	55	159
Birth-rate	... ..	19.0	19.7	Smallpox	... ..	Nil	Nil
Death-rate	... ..	11.7	11.5	Scarlet Fever	... ..	25	135
Zymotic death-rate	... ..	0.2	0.4	Diphtheria	... ..	11	13
Phthisis death-rate	... ..	1.1	0.7	Fevers (Enteric, &c.)	... ..	1	1
Total tuberculosis death-rate	... ..	1.2	0.9	Puerperal Fever	... ..	Nil	Nil
Respiratory diseases death-rate	... ..	1.4	1.4	Cases treated in Hospital	...	22	55
Infant mortality rate per 1,000 births	... ..	70	55	Measles	... ..	(1)	(Nil)
				Whooping Cough	... ..	(Nil)	(2)
				Diarrhoea	... ..	(Nil)	(1)

**WATER SUPPLY—**

Roughly two-thirds of the population are provided with public water supplies.

A comprehensive scheme to supply the whole of the district without a public supply has been adopted, and is now under the consideration of the Local Government Board.

**DRAINAGE AND SEWERAGE—**

The water carriage system prevails in Stanwix, part of Belle Vue, Wetheral, and Great Corby, and continues to work satisfactorily. The scheme for the sewerage of St. Cuthbert Without and district remains under consideration.

**SCAVENGING—**

Is done by contract in the populous parts of Stanwix. Its extension to other parts of the district would be an advantage.

**SANITARY INSPECTIONS OF DISTRICT—**

Nuisances have been dealt with as they occurred.

1 instance of overcrowding is reported—it has been remedied.

2 ponds, 1 at Scotby the other at Cumwhinton, have given rise to complaints of nuisance. These are under consideration.

2 offensive trades are carried on in the district—a knacker's yard and fat boiling trade.

**FOOD—(a) MILK SUPPLY—**

95 cowsheds on the register, all regularly inspected.

Samples of milk are taken from time to time by the officials. No complaints have been received as to the quality of the milk.

**(b) OTHER FOODS—**

10 licensed and 2 registered slaughter-houses. They have been regularly inspected. Their condition was satisfactory, and no fault was found with the way in which the business was conducted.

**HOUSING—**

The general character of defects observed related to light and ventilation, but the prevailing defect was dampness.

**ACUTE INFECTIOUS DISEASES—**

52 notifications received—the smallest number recorded since 1891. Isolation hospital accommodation adequate.

The steam disinfectors at Crozier Lodge is utilized.

**TUBERCULOSIS—**

Provision is being made by the Guardians for the isolation of advanced cases.

**COCKERMOUTH (RURAL).**

JOHN PENNY, M.B., D.Sc., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	22,233	22,250	Total notifications	...	164	233
Birth-rate	...	26.4	26.9	Smallpox	...	Nil	Nil
Death-rate	...	12.7	15.7	Scarlet Fever	...	124	190
Zymotic death-rate	...	0.9	1.3	Diphtheria	...	27	24
Phthisis death-rate	...	0.4	1.03	Fevers (Enteric, &c.)	...	1	2
Total tuberculosis death-rate	...	0.6	1.3	Puerperal Fever	...	2	Nil
Respiratory diseases death-rate	...	1.9	2.3	Cases treated in Hospital	...	53	84
Infant mortality rate per 1,000 births	...	112	110	Measles	...	(Nil)	(13)
				Whooping Cough	...	(6)	(2)
				Diarrhoea	...	(8)	(5)



### WATER SUPPLY—

That derived from Crummock and Overwater has been most satisfactory and of exceptional purity. The supply to the villages from the Maryport supply appears to be sufficient.

Several samples from different parts of the district have been taken for analysis; they all show serious pollution.

### DRAINAGE AND SEWERAGE—

Attention is drawn in the report to many insanitary conditions.

### SCAVENGING—

### SANITARY INSPECTIONS OF DISTRICT—

Number of complaints received, 30. Nuisances, 577.  
Number of informal notices, 146. Number of statutory notices, 331. Number of notices complied with, 417.  
Number of nuisances still in existence, 60.

No common lodging-houses.

1 offensive trade only carried on.

### FOOD—(a) MILK SUPPLY—

69 cowsheds, all are visited regularly. The conditions do not appear to be satisfactory.

### (b) OTHER FOODS—

The condition of the slaughter-houses does not appear to be satisfactory.

### HOUSING—

Not mentioned in the report.

### ACUTE INFECTIOUS DISEASES—

164 cases notified, compared with 140 in the previous year.

### TUBERCULOSIS—

A suggestion is made that the joint smallpox hospital might be used for phthisis cases, and that shelters be erected in the grounds.

**LONGTOWN (RURAL).**

S. F. Mc.LACHLAN, M.B., C.M.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>					<i>Infectious Diseases Cases (and deaths).</i>				
					</				



**FOOD—(a) MILK SUPPLY—**

1 dairy and 16 cowsheds. Systematically inspected.  
A number of the cowsheds have been structurally improved.  
No action taken regarding tuberculous milk.

**(b) OTHER FOODS—**

4 private slaughter-houses. Three have been improved since the bye-laws came into operation. 1 is in an unsuitable situation and cannot be made satisfactory for registration.

The 3 bakehouses are regularly inspected and are satisfactory.

**HOUSING—**

Is sufficient, and on the whole fairly good.

**ACUTE INFECTIOUS DISEASES—**

70 notifications. No isolation hospital accommodation.

**TUBERCULOSIS—**

No notifications.

**PENRITH (RURAL).**

FRANCIS HASWELL, M.D., M.R.C.S.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>					
				1911.	1910.			1911.	1910.
				—	—			—	—
				<i>(Estimated)</i>					
Population	...	...	12,549	12,485	Total notifications	...	21	41	
Birth-rate	...	...	20.5	22.1	Smallpox	...	Nil	Nil	
Death-rate	...	...	11.5	11.8	Scarlet Fever	...	9	11	
Zymotic death-rate	...	...	0.3	0.32	Diphtheria	...	5	26	
Phthisis death-rate	...	...	0.4	0.4	Fevers (Enteric, &c.)	...	1	Nil	
Total tuberculosis death-					Puerperal Fever	...	Nil	Nil	
rate	...	...	0.5	0.6	Cases treated in Hospital		8	26	
Respiratory diseases					Measles	...	(Nil)	(Nil)	
death-rate	...	...	1.4	1.2	Whooping Cough	...	(3)	(2)	
Infant mortality rate per					Diarrhoea	...	(Nil)	(Nil)	
1,000 births	...	...	81	57					

### WATER SUPPLY—

The greater part of this district is now supplied by gravitation schemes. Houses are gradually being connected up in all parts of the area.

### DRAINAGE AND SEWERAGE—

A large number of villages in this area have sewers, with outfalls on to fields. These are regularly inspected and are quite satisfactory.

Nuisances from drainage of private houses have been mostly attended to as soon as pointed out.

### SCAVENGING—

Is done by individual householders, and “although nuisances from a public health point of view do not often occur, still large collections of refuse are allowed to remain in the privy middens; persons clean them out regularly enough when they are told, but of their own initiative they appear sluggish and wait until the midden is quite full before moving.” The remedy for this will come gradually with the adoption of the buildings bye-laws, which confine the space to quite restricted limits.

### SANITARY INSPECTIONS OF DISTRICT—

Number of complaints, 8. Number of inspections, 663, and re-inspections, 322.

There are no lodging-houses, cellar dwellings, or offensive trades.

### FOOD—(a) MILK SUPPLY—

The dairies and cowsheds are in good order and quite satisfactory. They are regularly inspected. The milk supply is good, and no complaints have been received.

The condition of the milk cans on return to the railway station is again referred to as decidedly objectionable. “They ought to be scalded out before they are returned.”



**(b) OTHER FOODS—**

No bakehouses.

The 13 slaughter-houses are regularly inspected. Considerable improvement is manifested in them. No tuberculous meat was found.

**HOUSING—**

The chief defect found is want of ventilation, and in a less degree want of light.

**ACUTE INFECTIOUS DISEASES—**

20 cases notified.

Hospital accommodation is ample for this and the urban district jointly.

Disinfection of bedding, &c., is done by a steam disinfecter, and of houses by means of formalin through a sprayer.

**TUBERCULOSIS—**

Only 1 notification. Houses are disinfected after a death.

The Guardians have provided an open-air shelter for the treatment of consumption among paupers, the main object being to remove these cases from the general wards of their infirmary.

**WHITEHAVEN (RURAL).**

J. B. FISHER, M.D., D.P.H., MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>				<i>Infectious Diseases Cases (and deaths).</i>			
		1911.	1910.			1911.	1910.
		<i>(Estimated)</i>					
Population	...	14,147	13,000	Total notifications	...	132	117
Birth-rate	...	27.0	29.6	Smallpox	...	Nil	Nil
Death-rate	...	14.6	14.0	Scarlet Fever	...	107	97
Zymotic death-rate	...	0.7	0.3	Diphtheria	...	12	6
Phthisis death-rate	...	0.4	1.5	Fevers (Enteric, &c.)	...	1	1
Total tuberculosis death-rate	...	0.7	1.7	Puerperal Fever	...	Nil	Nil
Respiratory diseases death-rate	...	2.9	2.2	Cases treated in Hospital	...	75	73
Infant mortality rate per 1,000 births	...	156	116	Measles	...	(Nil)	(Nil)
				Whooping Cough	...	(7)	(2)
				Diarrhoea	...	(1)	(Nil)

## WATER SUPPLY—

Not mentioned in the report.

## DRAINAGE AND SEWERAGE—

It is suggested that the drainage and sewage disposal of Middletown, Beckermeth, Gosforth, and Low Mill should be attended to without delay.

## SCAVENGING—

Not mentioned in the report.

## SANITARY INSPECTIONS OF DISTRICT—

Systematic inspections have been made and many nuisances discovered. 53 written notices were served during the year, most of which have been complied with. In addition a large number of nuisances have been abated on verbal notice being given.

1 common lodging-house, quite clean and satisfactory.

## FOOD—(a) MILK SUPPLY—

The cowsheds belonging to 57 cow-keepers have been visited and found on the whole in a satisfactory condition.

No arrangement for the inspection of dairy cattle by a Veterinary Inspector.

## (b) OTHER FOODS—

5 slaughter-houses visited from time to time. No diseased meat found during the year.

## HOUSING—

The main defects are in light and ventilation.

## ACUTE INFECTIOUS DISEASES—

131 notifications. Disinfection is carried out on removal of patient to hospital or on termination of case. Printed instructions as to the precautions necessary are left, and disinfectants are given free.

## TUBERCULOSIS—

1 case notified.



**WIGTON (RURAL).**

W. PERRY BRIGGS, L.R.C.P., L.R.F.P.S., &amp;c.,

MEDICAL OFFICER OF HEALTH.

<i>Vital Statistics.</i>					<i>Infectious Diseases Cases (and deaths).</i>				

Matters are made worse by the refuse from slaughter-houses, household refuse, and contents of privy middens. Animal matter, either in a state of solution or suspension, whether derived from drains, from farm yards, or manured lands, is always dangerous to health. The products of decomposition of these matters produce diarrhœa and other disorders of digestion, and steadily undermine the general health, lessen the powers of resistance and general fitness, and render persons drinking such easy victims to diseases, not depending upon water-borne poison. Again the presence of organic filth in water shows that access is easy for specific poisons, such as those of cholera, typhoid fever, and dysentery."

The village of Blennerhasset is also much in need of an improved supply.

101 samples have been analysed, and of these 78 were polluted, 3 were doubtful, and 20 were good.

#### DRAINAGE AND SEWERAGE—

Defects in the drainage of the villages of Hayton, Blennerhasset, and Kirkbride are referred to in the report. These have been previously reported on by the Medical Officer, but nothing has been done.

Several villages have no drainage at all.

#### SCAVENGING—

No public scavenging. All is done privately and not often enough.

#### SANITARY INSPECTIONS OF DISTRICT—

Systematic inspections are made monthly. Many nuisances observed and remedied.

#### FOOD—(a) MILK SUPPLY—

Dairies and cowsheds are regularly inspected. Ventilation and lighting is defective in the majority. Greater cleanliness is advocated.

No Veterinary Inspector is appointed to examine cattle.



(b) OTHER FOODS—

20 slaughter-houses, which are frequently inspected. No unsound meat has been seized. Difficulty of supervision is again referred to.

HOUSING—

There are plenty of houses in the district, indeed, more than sufficient. The great majority of the working classes are well housed.

ACUTE INFECTIOUS DISEASES—

44 cases notified, compared with 93 in 1910.

There is no isolation hospital accommodation.

Printed and verbal instructions are given to each case on notification. Disinfectants are supplied.

TUBERCULOSIS—

This report contains a short and useful paragraph on phthisis and the means of prevention.



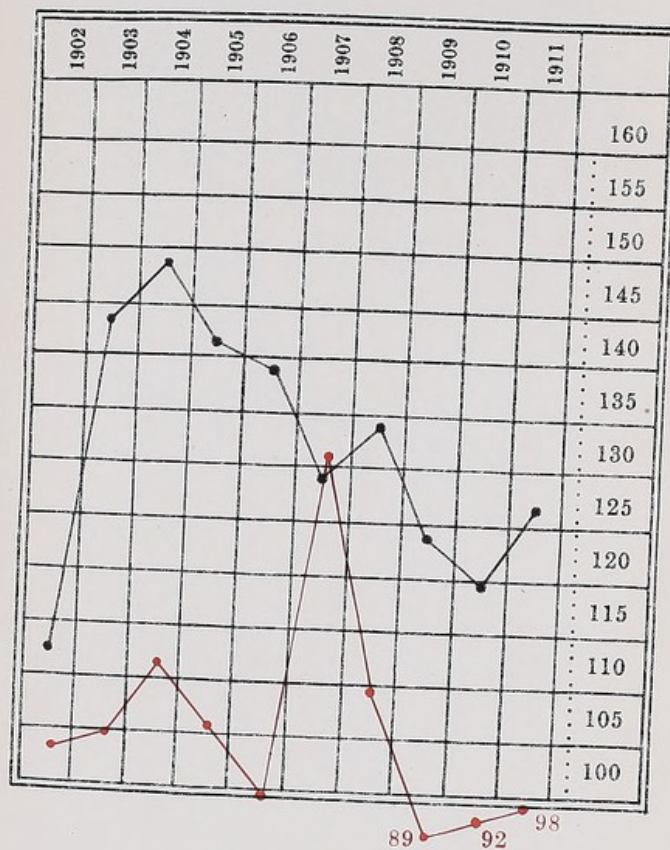
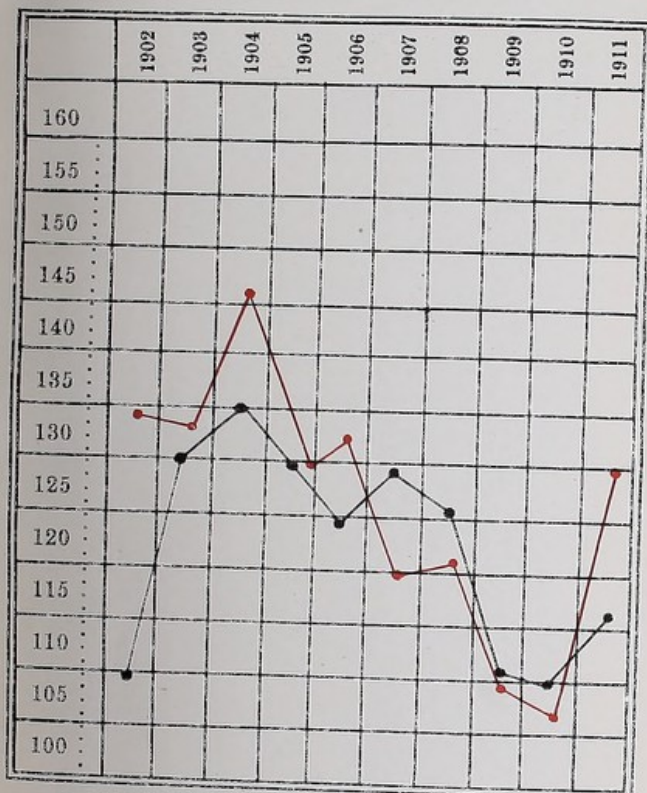


COUNTY OF CUMBERLAND.  
ENGLAND AND WALES.

# INFANTILE MORTALITY.

URBAN.  
RURAL.

CHART III.







CASES OF INFECTIONS NOTIFIED DURING THE YEAR 1911.

Table II.

DISTRICT.	NUMBER OF CASES NOTIFIED.								NUMBER AND CLASS OF CASES NOTIFIED.														NUMBER AND CLASS OF CASES REMOVED TO HOSPITAL.														Isolation Hospital Accommodation.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	AT AGES—YEARS.								Smallpox.	Cholera.	Dysentery (including Bacillary Group).	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Purpura Fever.	Plague.	Phthisis.				Smallpox.	Cholera.	Dysentery (including Bacillary Group).	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Purpura Fever.	Plague.	Phthisis.				Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	All ages.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 45 Years.	45 to 65 Years.	65 and upwards.												Under Tubercle, loose Regeneration, 1911.	Under Tubercle, loose Regeneration, 1911.	Under Tubercle, loose Regeneration, 1911.	Others.												Total.	Under Tubercle, loose Regeneration, 1911.		Under Tubercle, loose Regeneration, 1911.		Under Tubercle, loose Regeneration, 1911.	Others.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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CAUSES OF, AND AGES AT DEATH, DURING YEAR 1911.

Table III.

[illegible]

