

**[Report 1906] / Medical Officer of Health, Lincoln City.**

**Contributors**

Lincoln (England). City Council.

**Publication/Creation**

1906

**Persistent URL**

<https://wellcomecollection.org/works/frqnrav>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

City of  Lincoln

URBAN SANITARY AUTHORITY.

---

---

ANNUAL REPORT

OF

THE MEDICAL OFFICERS OF HEALTH

**For the Year 1906.**

---

LINCOLN :

W. K. MORTON & SONS, LTD., PRINTERS, 290, HIGH STREET.

1907.

**CITY OF LINCOLN.**

---

**ANNUAL REPORT FOR 1906**

BY

CHARLES HARRISON, M.D., D.P.H., MEDICAL OFFICER OF HEALTH, \*

AND

E. W. REES JONES, M.D., D.P.H., DEPUTY MEDICAL OFFICER OF HEALTH.

---

MEMBERS OF THE HEALTH COMMITTEE.

---

COUNCILLOR J. S. RUSTON (MAYOR)

ALD. M. H. FOOTMAN, (Chairman).	COUN. C. T. PARKER.
„ H. A. COTTINGHAM.	„ T. C. HALKES.
COUN. C. PRATT.	„ E. TEESDALE.
„ J. MILLS	„ W. H. KILMINSTER.
COUN. C. H. NEWSUM.	

HEALTH DEPARTMENT,  
CORPORATION OFFICES,  
LINCOLN.

TO THE MAYOR AND COUNCIL OF THE  
CITY OF LINCOLN.

MR. MAYOR AND GENTLEMEN,

We have the honour to present our report on the health of the city and the work of the Health Department during the year 1906.

The birth-rate was 26·8 per 1000, the death-rate 13·5 per 1000, and the zymotic mortality was 1·93 per 1000.

We have prepared tables and charts giving statistics as to Enteric and Scarlet Fever and Diphtheria, which latter disease continued prevalent throughout the year, but we are pleased to be able to state that there has been a decided improvement during the present year (1907) in the number of cases notified.

The additions to the Infectious Diseases Hospital now enable us to treat three infectious fevers in separate blocks, and the further requirements now necessary are bedrooms for nurses, and a lodge for the accommodation of a porter who would also have charge of the disinfecting apparatus and be able to carry out various other duties arising in the good management of such an institution.

We have the honour to be,

Mr. Mayor and Gentlemen,

Your obedient servants,

C. HARRISON.

E. W. REES JONES.

July 17, 1907.



POPULATION.	Census of 1871.	26,766
	„ „ 1881.	37,312.
	„ „ 1891.	41,491.
	„ „ 1901.	48,784.

Estimated population at middle of 1906. 52,611.

AREA.—3,891 acres.

DEATHS.—During the year 877 deaths were registered. These, divided into sexes for each quarter of the year, are as follows :—

	Males.	Females.	Total.
1st quarter	128	116	244
2nd „	112	104	216
3rd „	100	105	205
4th „	109	103	212
	<u>449</u>	<u>428</u>	<u>877</u>

This total compares with previous years as follows :—

DEATHS	...	...	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
			718	775	786	790	872	784	769	800	816	962

Fifty-four persons died in the Workhouse, 89 in the County Hospital, 2 at the Lawn Asylum, 1 at H.M. Prison, and 21 in the City Hospital.

Of the 877 deaths 292 were children under 5 years of age, of which 208 were infants under 12 months. There were also 119 over 60, 102 over 70, 58 over 80, and 11 over 90.

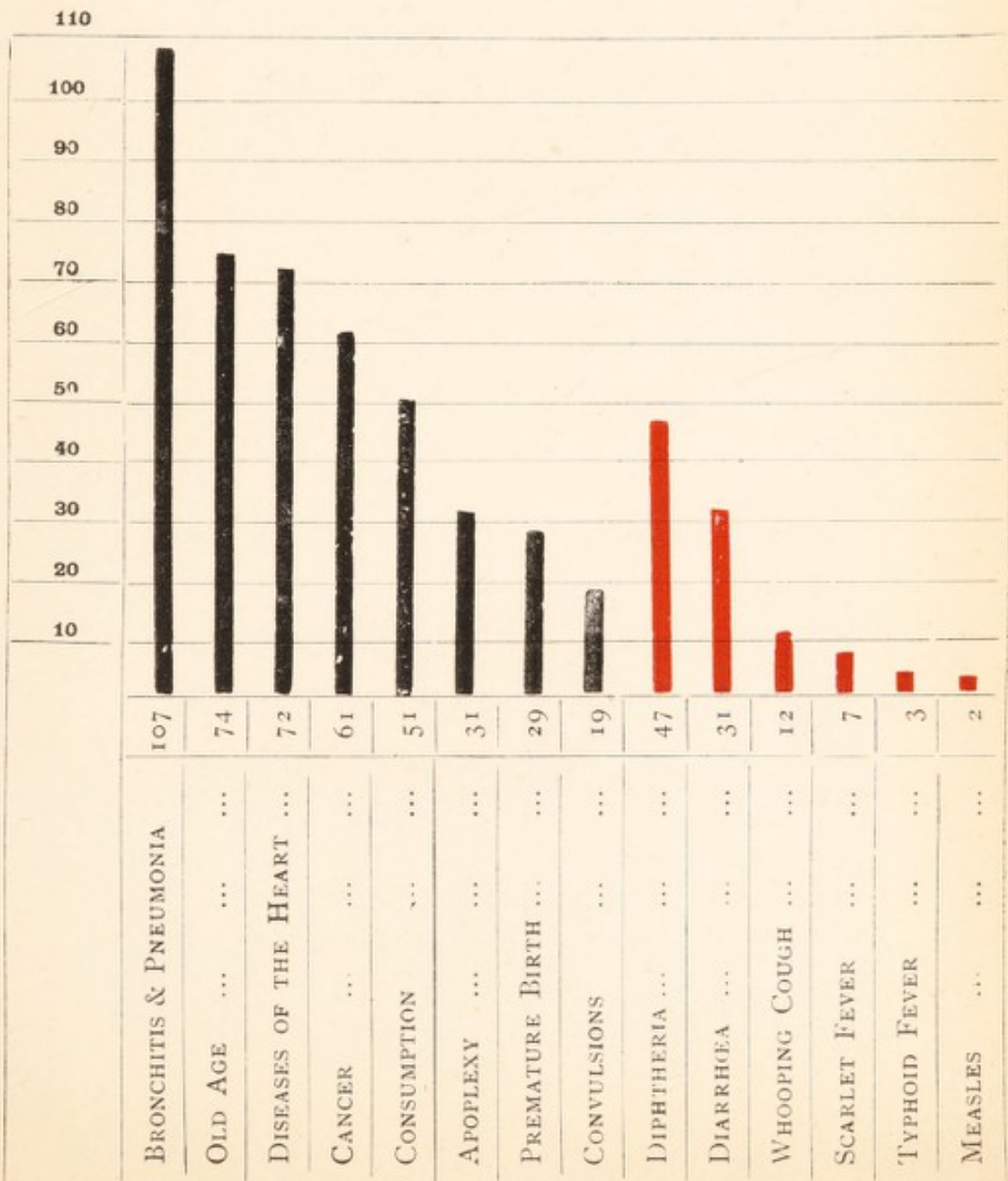
Of the 877 deaths, there were :—

Under 1 year	...	...	208	30 and under 40 years	...	...	50
1 and under	5 years	...	84	40 „	50 „	...	54
5 „	10 „	...	49	50 „	60 „	...	69
10 „	15 „	...	17	60 „	70 „	...	119
15 „	20 „	...	15	70 „	80 „	...	102
20 „	25 „	...	23	80 „	90 „	...	58
25 „	30 „	...	18	90 „	100 „	...	11

# CHART

SHOWING THE COMPARATIVE NUMBER OF THE PRINCIPAL CAUSES OF DEATH DURING 1906.

DEATHS FROM ZYMOTIC DISEASES █  
 DEATHS FROM OTHER DISEASES █





Digitized by the Internet Archive  
in 2017 with funding from  
Wellcome Library



## THE PARISHES IN WHICH THE DEATHS OCCURRED ARE—

St. Swithin .. .. .	198	St. Benedict .. .. .	7
„ Martin .. .. .	63	„ Catherine .. .. .	4
„ Peter-at-Gowt's .. .. .	77	„ John .. .. .	4
„ Peter-in-Eastgate .. .. .	22	„ Ann .. .. .	1
„ Peter-at-Arches .. .. .	8	South Park .. .. .	2
„ Nicholas .. .. .	92	Workhouse .. .. .	54
„ Botolph .. .. .	70	County Hospital .. .. .	89
„ Andrew .. .. .	48	Lawn .. .. .	2
„ Mary-le-Wigford .. .. .	75	H.M. Prison .. .. .	1
„ Mary Magdalen .. .. .	3	City Hospital .. .. .	21
„ Michael .. .. .	19		
„ Paul .. .. .	13	Total .. .. .	877
„ Mark... .. .	4		

## CAUSES OF DEATHS.

Abscess .. .. .	3	Disease of Spine... .. .	1
Accident .. .. .	15	„ Spinal Cord .. .. .	1
Alcohol .. .. .	2	„ Stomach .. .. .	4
Anæsthetic .. .. .	1	„ Skin .. .. .	7
Apoplexy... .. .	31	„ Uterus .. .. .	3
Appendicitis .. .. .	4	„ Veins .. .. .	1
Asthma .. .. .	2	Enteritis .. .. .	2
Atrophy .. .. .	3	„ Tubercular .. .. .	1
Bronchitis, Pneumonia and Con- gestion of Lungs .. .. .	107	„ Gastro .. .. .	17
Burning .. .. .	4	„ Zymotic .. .. .	13
Cancer .. .. .	61	Epilepsy .. .. .	4
Childbed... .. .	1	Erysipelas .. .. .	1
Chorea .. .. .	1	Fever, Scarlet .. .. .	7
Convulsions .. .. .	19	„ Enteric .. .. .	3
Croup .. .. .	1	Gangrene .. .. .	4
Debility .. .. .	32	Goitre .. .. .	1
Dentition .. .. .	6	Hæmorrhage .. .. .	1
Diabetes .. .. .	4	Inanition... .. .	4
Diarrhœa .. .. .	18	Influenza... .. .	13
Diphtheria .. .. .	47	Malformations .. .. .	1
Drowning .. .. .	3	Marasmus .. .. .	17
Disease of Bladder .. .. .	6	Measles .. .. .	2
„ Blood .. .. .	2	Meningitis .. .. .	10
„ Bone... .. .	3	„ Tubercular .. .. .	14
„ Bowel .. .. .	7	Natural Causes .. .. .	12
„ Brain... .. .	12	Old Age .. .. .	74
„ Ear .. .. .	6	Overlaying .. .. .	2
„ Eye .. .. .	1	Paralysis .. .. .	11
„ Glands .. .. .	2	Peritonitis .. .. .	4
„ Heart .. .. .	72	„ Tubercular .. .. .	5
„ Kidney .. .. .	23	Poisoning, Fish .. .. .	1
„ Liver .. .. .	2	„ Lead... .. .	1
„ Nerves .. .. .	2	Phthisis .. .. .	51
„ Ovaries .. .. .	2	Prematurity .. .. .	21
		Puerperal Convulsions .. .. .	1



## CAUSES OF DEATHS—(contd.)

Rheumatism ... ..	3	Tuberculosis ... ..	5
Rickets ... ..	1	Whooping Cough ... ..	12
Septicæmia ... ..	2	Syphilis ... ..	3
Suicide ... ..	4	Laryngismus Stridulus ... ..	1
Strangulated Hernia and Obstruction of Bowels ... ..	15	Tonsillitis ... ..	1
Suicide ... ..	1	Total ... ..	877
Syncope ... ..	1		

## CAUSES OF DEATHS UNDER FIVE AND UNDER ONE.

	Under 5	Under 1		Under 5	Under 1
Abscess ... ..	1	—	Enteritis Gastro ... ..	13	12
Accident ... ..	2	1	Fever, Scarlet ... ..	3	—
Atrophy ... ..	3	3	Inanition ... ..	4	4
Bronchitis, Pneumonia, Congestion of Lungs	46	24	Malformations ... ..	1	1
Burning ... ..	2	1	Marasmus ... ..	17	14
Convulsions ... ..	19	16	Measles ... ..	2	—
Croup ... ..	1	1	Meningitis ... ..	6	3
Debility ... ..	31	30	„ Tubercular ... ..	5	3
Dentition ... ..	6	4	Natural Causes ... ..	5	4
Diarrhoea ... ..	18	16	Overlaying ... ..	2	2
Diphtheria ... ..	20	2	Peritonitis, Tubercular	4	4
Disease of Blood ... ..	1	—	Phthisis ... ..	1	—
„ Bone ... ..	1	1	Prematurity ... ..	29	29
„ Bowels ... ..	2	2	Rheumatism ... ..	1	—
„ Brain ... ..	1	—	Rickets ... ..	1	1
„ Ear ... ..	3	3	Strangulated Hernia, and Obstruction of Bowels ... ..	2	2
„ Eye ... ..	1	1	Tuberculosis ... ..	2	1
„ Glands ... ..	1	—	Whooping Cough ... ..	12	5
„ Kidney ... ..	1	1	Syphilis ... ..	1	1
„ Stomach ... ..	1	1	Laryngismus Stridulus	1	—
„ Skin ... ..	3	3	Total ... ..	292	208
„ Veins ... ..	1	1			
Enteritis ... ..	1	—			
„ Tubercular ... ..	1	—			
„ Zymotic ... ..	13	11			

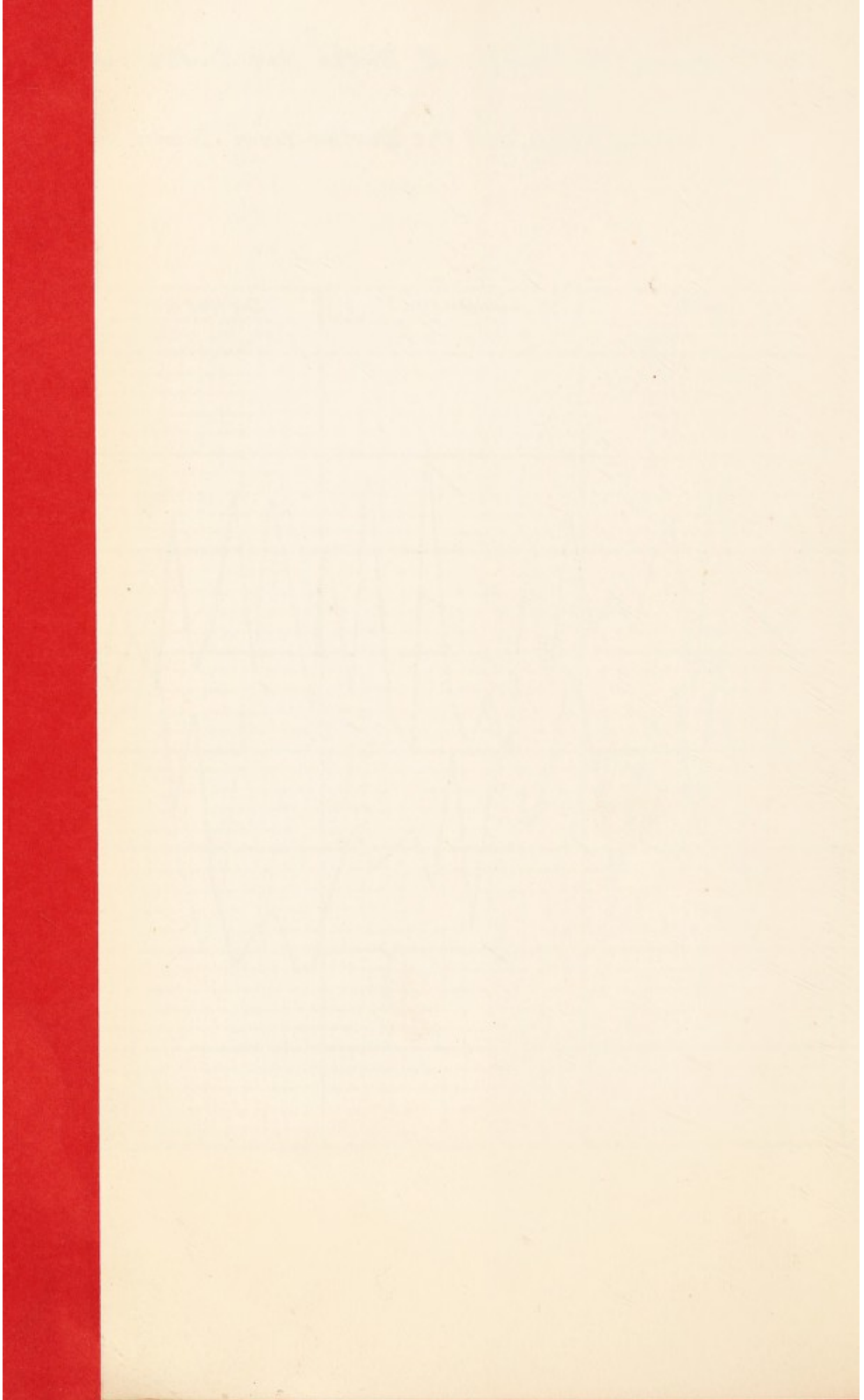
One-hundred and seven deaths from Inflammatory diseases of the Respiratory Organs were registered, equal to 12 per cent. of the total deaths, 72 from Heart Disease, equal to 8 per cent., and 51 from Phthisis, equal to 6 per cent.

The DEATH RATE was 16·7 per 1,000, and after deducting the deaths in the public institutions it was 13·5 per 1,000.

The ZYMOTIC DEATH RATE was 1·93 per 1,000, and the INFANTILE MORTALITY was 147·5 per 1,000 births.









The BIRTH RATE was 26·8 per 1,000. The total number of births registered was 1,410. These divided into sexes for each quarter of the year are as follows:—

	Males.	Females.	Total.
1st quarter ... ..	172	201	373
2nd „ ... ..	193	143	336
3rd „ ... ..	179	167	346
4th „ ... ..	179	176	355
	<hr/>	<hr/>	<hr/>
	723	687	1410
	<hr/>	<hr/>	<hr/>

1906.	Annual rates per 1,000 living.			Infantile Mortality per 1,000 births.
	Births.	Deaths.	Zymotic Death-rate.	
England and Wales ...	27·0	15·4	1·73	133
Rural England and Wales	26·3	15·1	1·18	116
76 Great Towns ...	27·9	15·9	2·24	145
142 Smaller Towns ...	26·5	14·5	1·71	138
City of Lincoln ...	26·8	13·5	1·93	147

SCARLET FEVER.—During the year 137 cases of Scarlet Fever were notified and seven deaths from this disease were registered, giving a case mortality of 5 per cent. The total number of notifications compares with previous years as follows:—

1900 ...	441	1903 ...	141
1901 ...	480	1904 ...	250
1902 ...	203	1905 ...	189

The age and sex distribution of the 137 cases is as follows :—

Age.	Male.	Female.
1 year ...	3	1
2 " ...	4	1
3 " ...	8	2
4 " ...	6	5
5 " ...	10	5
6 " ...	4	7
7 " ...	3	8
8 " ...	4	4
9 " ...	2	4
10 " ...	3	4
11 " ...	2	3
12 " ...	5	1
13 " ...	2	1
14 " ...	4	3
15 " ...	1	—
16 " ...	1	—
17 " ...	1	2
18 " ...	1	—
19 " ...	1	—
20 " ...	—	1
20-25 " ...	3	5
25-30 " ...	3	6
over 30 " ...	2	1
	—	—
Total	73	64
	—	—

The months in which these cases occurred are seen on the table on page 11. The seven fatal cases were males of 2, 8, and 3; and females of 2, 19, 21, and 21.

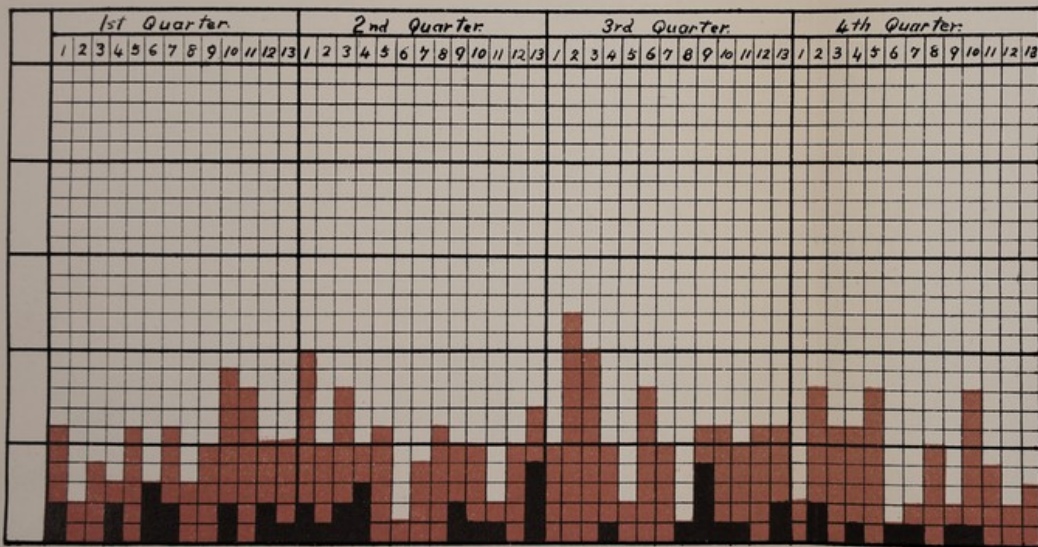
The 137 cases occurred in 107 houses. In one house there were 7 cases, in one house 5, in two houses 3, and in sixteen houses, 2 cases. The new pavilion at the City Hospital is almost completed, and this will allow of the pavilion originally intended for Scarlet Fever, being used for that purpose. No cases of Scarlet Fever were removed to Hospital. The leaflet sent to the infected houses was reproduced at length in the 1905 Annual Report.

**DIPHTHERIA.**—Diphtheria has been prevalent all through the year. 279 cases were notified, and 47 deaths were registered, giving a case mortality of 17 per cent. The total compares with previous years as follows :—

1900 ...	28	1903 ...	29
1901 ...	27	1904 ...	90
1902 ...	23	1905 ...	190

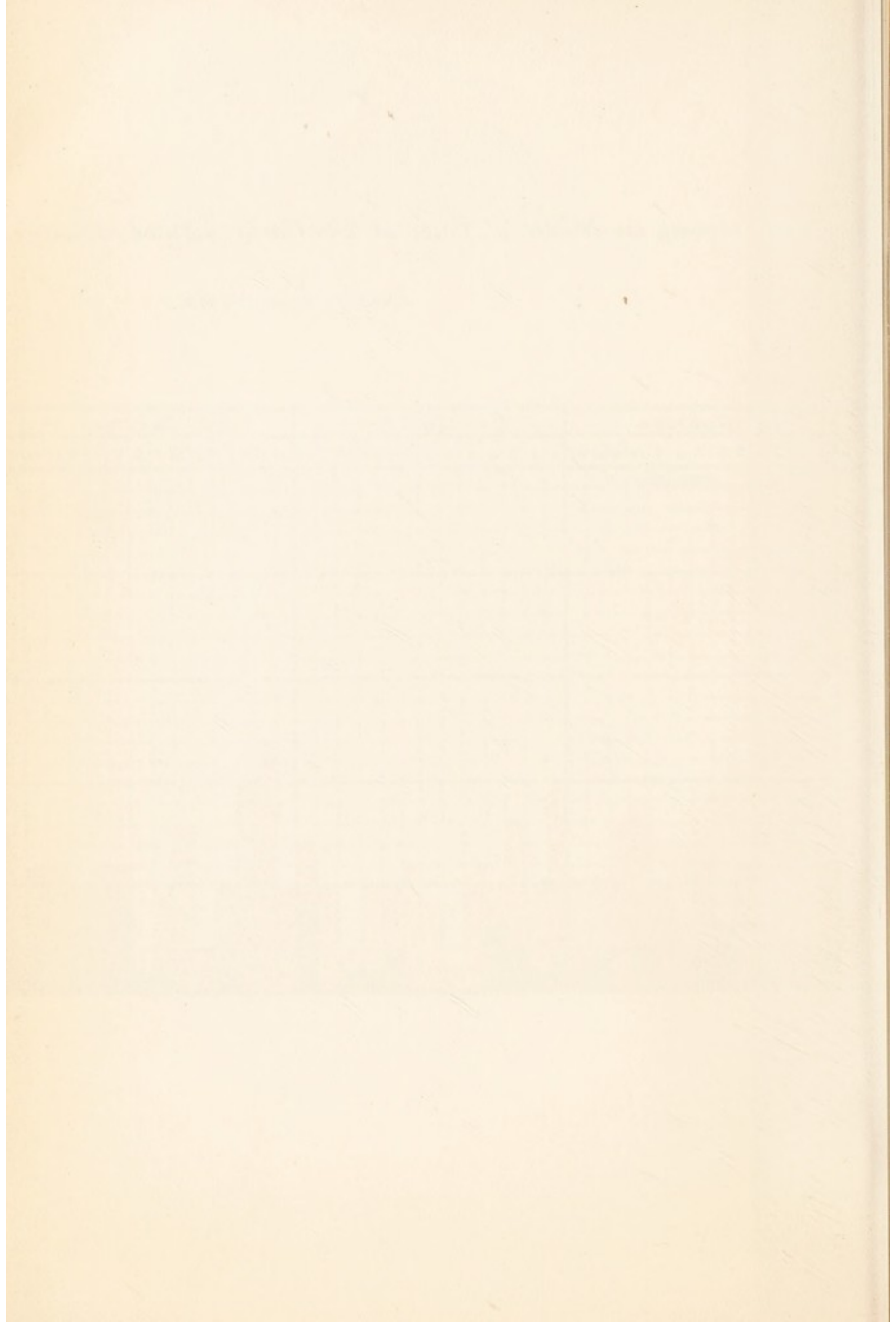
The months in which the cases occurred are seen on the table on page 11. The cases were scattered indiscriminately all over the city and there was no special incidence in any district. A spot map of the cases as they occurred was submitted to the Health Committee at each monthly meeting. The age and sex distribution of the 279 cases is as follows :—

Chart showing the Number of Cases of Diphtheria notified Weekly during 1906, and Deaths from same.



Diphtheria, Notifications. █  
 Diphtheria, Deaths █





Age.	Male.	Female.
1 year	4	1
2 "	6	1
3 "	9	11
4 "	11	11
5 "	17	21
6 "	9	17
7 "	11	10
8 "	10	13
9 "	9	10
10 "	6	14
11 "	4	12
12 "	3	5
13 "	1	5
14 "	2	1
15 "	1	1
16 "	3	3
17 "	—	2
18 "	3	1
19 "	1	2
20 "	1	1
20-25 "	—	3
25-30 "	4	6
30-35 "	2	3
35-40 "	4	1
over 40 "	—	3
Total	121	158

In twenty-nine houses 2 cases occurred, in four houses 3 cases, in one house 4 cases, and in one house 5 cases. One hundred and seventy-nine of the cases, or 64 per cent. occurred in children of school age (5-14). The ages and sexes of the fatal cases are as follows:—

Age.	M.	F.	Age.	M.	F.	Age.	M.	F.
1	1	1	6	1	1	11	—	2
2	—	1	7	3	3	15	1	—
3	3	4	8	1	2	18	—	1
4	3	7	9	1	1	Total ...	18	29
5	4	4	10	—	2			

One hundred and forty-one cases were taken to the City Hospital for treatment, equal to about 50 per cent. of the total. Particulars of these cases are given under the "City Hospital" heading.

The possible causation of the continued prevalence of Diphtheria was discussed in the 1905 Report and the leaflet sent to infected houses and extracts from the minutes of the school attendance committee were reproduced in that

report. The difficulty in dealing with the disease has been owing to its widespread incidence over the town. Had it been confined to any given area, or street, or school, swabs of the children could have been taken and the infective ones isolated; but it would be impracticable to do this with the 8,000 school children of Lincoln. All the cases notified have been efficiently isolated (in hospital if necessary), and the contacts also isolated until it is clear they had not contracted the disease.

In connection with this outbreak of Diphtheria special attention has been paid to the ventilation of the drains and to abolishing the open brick ashpits.

**ENTERIC FEVER.**—Twenty-two cases of Enteric Fever were notified during 1906, and three deaths were registered. This, in the first year after a severe epidemic, is very satisfactory. The total notifications in previous years have been :—

1901	...	15	1904	...	17
1902	...	12	1905	...	1045
1903	...	32			

There have not been fewer than three deaths from Enteric Fever in any one year since 1891, in which year there were two. The months in which the 22 cases of 1906 were notified are seen on the table on page 11. The three fatal cases were a male of 33 and females of 36 and 28 years. Twelve of the cases were removed to the City Hospital. In those cases which are treated at home, Typhoid pails are sent, with instructions that all excreta from the patients shall be put into them and not down the drains. These pails are changed daily and their contents burned in the destructor at the City Hospital.

**SMALL POX.**—No cases of Small Pox were notified during the year. Visits are constantly being paid to the Sanatorium and the place is always ready for immediate use.

Two deaths from **MEASLES** and twelve from **WHOOPIING COUGH** were registered. These numbers are satisfactory as will be seen on reference to page 12.

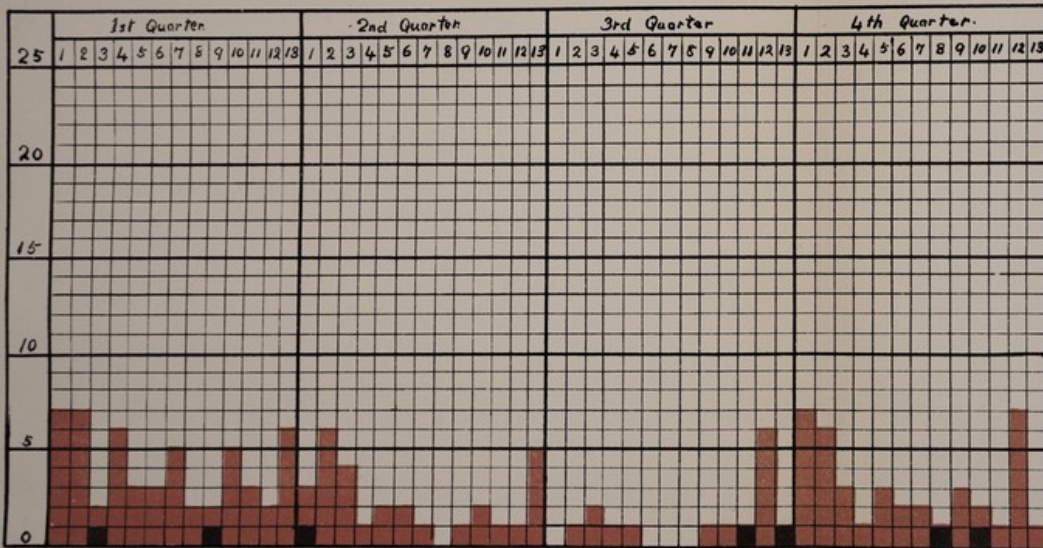
Fifty-one deaths from **PHTHISIS** were registered. Considering the infectious nature of the disease offers are made to thoroughly disinfect the house after a death, and this offer is generally accepted. The total number of deaths registered from Phthisis during the past fifteen years, and the percentage of total deaths are seen on the following table. The increase of the population must be borne in mind.

Year.	Phthisis deaths.	Per cent. of total deaths.	Year.	Phthisis deaths.	Per cent. of total deaths.	Year.	Phthisis deaths.	Per cent. of total deaths.
1892	53	6·5	1897	69	8·9	1902	64	8·3
1893	73	8·8	1898	56	7	1903	65	8·1
1894	46	7	1899	55	6·9	1904	49	6
1895	71	8	1900	60	6·9	1905	49	5
1896	62	8·6	1901	58	7·4	1906	51	6

**DIARRHŒA AND ZYMOTIC ENTERITIS.**—Thirty-one deaths were registered, 27 of which were infants under 12 months. The majority of the deaths occurred during September. Infantile Diarrhœa is mainly due to unsuitable and injudicious feeding and some of the methods of dealing with it were pointed out in a report read to your Council on October 25th.



Chart showing the number of cases of Scarlet Fever notified weekly during 1906, and Deaths from same.



Scarlet Fever, Notifications. █  
 Scarlet Fever, Deaths. █



TABLE SHEWING NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED  
DURING EACH MONTH, AND TOTAL FOR 1906.

1906.	Small Pox.	Scarlet Fever.	Diphtheria & M. Group	Enteric Fever.	Puerperal Fever.	Erysipelas.	Total for the Month.
January ...	—	23	16	5	—	2	46
February ...	—	14	17	4	—	2	37
March ...	—	16	32	4	—	4	56
April ...	—	14	31	—	—	4	49
May ...	—	6	18	—	—	2	26
June ...	—	9	21	1	—	2	33
July ...	—	4	33	—	—	2	39
August ...	—	2	22	1	1	1	27
September ...	—	9	23	1	—	3	36
October ...	—	21	35	2	—	5	63
November ...	—	8	12	3	—	3	26
December ...	—	11	19	1	—	4	35
Total	—	137	279	22	1	34	473
1906 ...	—	189	192	1045	1	28	1456
1905 ...	1						



## DEATHS FROM ZYMOTIC DISEASES DURING THE PAST TEN YEARS.

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
Cholera ...	—	—	—	—	—	—	—	—	—	—
Diarrhoea ...	51	54	52	38	29	5	9	16	13	31
Diphtheria ...	1	—	1	8	8	1	8	29	37	47
Enteric Fever ...	6	7	7	6	5	3	4	3	131	3
Scarlet Fever ...	4	1	—	4	14	9	6	9	10	7
Small Pox ...	—	—	—	—	—	—	—	—	—	—
Whooping Cough ...	15	20	2	5	18	21	19	16	—	12
Measles ...	2	20	5	16	3	9	15	—	21	2

13  
RAINFALL.

1906.	Total depth in inches.	Greatest daily fall.		Number of rainy days.
		Depth.	Date.	
January ... ..	2'57	'44	7th	24
February ... ..	2'05	'50	27th	21
March ... ..	1'40	'28	1st	18
April ... ..	'80	'20	27th	10
May ... ..	1'14	'24	19th	18
June ... ..	1'92	'77	15th	9
July ... ..	1'46	'94	27th	7
August ... ..	2'04	'75	8th	14
September ... ..	'79	'25	14th	9
October ... ..	4'70	1'20	2nd	22
November ... ..	2'60	'49	8th	15
December ... ..	2'06	'40	15th	23
Total, 1906 ... ..	23'53			190
Total, 1905 ... ..	18'22			177

RAINFALL, 1887 to 1906.

Year.	Inches.	Year.	Inches.	Year.	Inches.	Year.	Inches.
1887	17'85	1892	27'65	1897	26'29	1902	21'43
1888	24'41	1893	18'14	1898	20'59	1903	29'53
1889	26'88	1894	25'50	1899	22'57	1904	19'72
1890	20'22	1895	24'27	1900	27'01	1905	18'22
1891	27'50	1896	26'52	1901	23'01	1906	23'53

Average 23 54.

SALE OF FOOD AND DRUGS ACTS.—The following samples were taken during the year with the results of analyses:—

Sample.	Genuine.	Adulterated.
Margarine ... ..	1	—
Jam ... ..	4	—
Malt Vinegar ... ..	3	—
Cream of Tartar ... ..	2	—
Honey ... ..	1	—
Milk ... ..	33	11
Mustard ... ..	2	—
Ginger ... ..	1	—
Butter ... ..	7	1
Marmalade ... ..	2	—
Whisky ... ..	3	—
Cream ... ..	1	—
Beer ... ..	2	—
Rum .. ..	1	—
Brandy ... ..	1	—
Olive Oil ... ..	3	—
Baking Powder ... ..	2	—
Lard ... ..	2	—
Cocoa ... ..	1	—
Demerara Sugar ... ..	2	—
Sweet Spirit of Nitre ... ..	2	—
Camphorated Oil ... ..	2	—
Laudanum ... ..	2	—
Paregoric ... ..	1	—
Meats ... ..	14	—
Total ... ..	95	12

The particulars of the eleven samples of milk certified not genuine are as follows:—

1.—Solids not fat, 9·18 per cent. Fat 2·65 per cent. Deficiency in milk fat 11·67 per cent. This sample was taken from the bottom of a can. The owner was notified of the deficiency of fat, but he had no explanation to offer, but allowed Mr. Crawshaw to see the cows milked. On March 13th, nine days after the sample had been taken, Mr. Crawshaw visited the farm and found there were two cowsheds containing 8 and 10 cows respectively, the majority of which were newly calved. These were milked in his presence and the milk of the first eight cows (including the strippings) was mixed and a sample submitted for analysis. The same procedure was gone through with the ten cows in the second shed. The analyses were as follows (2) and (3):—

- 2.—Solids not fat 8·65. Fat 2·85. Deficiency of fat 5 per cent.
- 3.—Solids not fat 8·73. Fat 2·97. Deficiency of fat 1 per cent.
- 4.—Solids not fat 8·37. Fat 2·82. Deficiency of fat 4·67 per cent.



This was a non-official sample. It was a milk supplied from outside Lincoln to a vendor, but this source of supply has been discontinued.

- 5.—Solids not fat 8.18. Fat 3.1. Added water 3.77 per cent. The vendor was cautioned and no prosecution was taken.
- 6.—Solids not fat 8.89. Fat 2.15. Deficiency of fat 28.34 per cent. This sample was taken officially. The vendor was notified of the result of analysis and was asked for an explanation. He stated that the milk was genuine and was taken from the distended udders of cows waiting for sale in the cattle market. There was no prosecution.
- 7.—Solids not fat 8.9. Fat 2.8. Deficiency of fat 6.67 per cent. The same explanation as No. 6 applies to this sample.
- 8.—Solids not fat 7.31. Fat 2.75. Added water 14 per cent. The vendor was prosecuted and fined £2 and 14s. 6d. costs.
- 9.—Solids not fat 8.21. Fat 2.98. Added water 3.42 per cent. The vendor was notified of the result of the analysis, and cautioned.
- 10.—Solids not fat 7.89. Fat 3.4. Added water 6.12 per cent. Proceedings were instituted in this case. The vendor submitted his portion for private analysis, with the following result. "Solids not fat 8.46. Fat 2.9. A poor quality of milk, probably watered." At the request of the defendant the third sample was sent to the Government Analyst, who reported as follows. "Solids not fat 8.59. Fat 3.02. No evidence of added water." The case was withdrawn after receiving the Government Analysis; costs of £3 were paid by the Corporation.
- 11.—Solids not fat 7.9 per cent. Fat 3.1. Added water 7.06 per cent. Owing to the "Warranty" clauses of the Food and Drugs Acts it was not thought advisable to take proceedings in this case.

The sample of butter certified adulterated, contained 24.8 per cent of water, 16 per cent being the legal limit. This sample was taken unofficially at the butter market. On receipt of the analyst's certificate an official sample was taken and submitted for analysis, but was certified to be genuine butter.

The above notes on the eleven adulterated milks illustrate some of the difficulties of carrying out these Acts. On December 18th, 1906, Mr. Munroe, Inspector of the Board of Agriculture, visited us and recommended that the number of samples taken annually should be increased from 100 to 150, of which, one half should be milk, one quarter butter, and one quarter miscellaneous. The extra expense and the difficulties of prosecution were pointed out to him, and he suggested taking informal samples in the first instance, some of which, *e.g.* milks, could be tested by ourselves and when found defective followed by official samples. We have now got a Gerber testing apparatus and several milk samples have been analysed in the office.

CANAL BOATS ACTS.—Mr. Crawshaw, Inspector of Canal Boats, presented his annual report to you on January 16th, 1907, and a copy of his report was sent to the Local Government Board.

Sixty boats were inspected during the year, and some minor contraventions of the Acts were at once remedied. No infectious disease was notified on any of the boats.

In January, 1906, there were 119 boats on the Register. It was found that 52 of these were disused. One boat was registered during the year.

In January, 1907, there were 68 on the register.

H.M. Inspector of Canal Boats visited us on August 22nd, 1906, and he appeared satisfied with our inspection.

#### QUANTITY OF WATER AND SEWAGE PUMPED DURING 1906.

1906.	Water.	Sewage.
January ... ..	48,136,954	57,011,970
February ... ..	44,480,540	50,751,410
March ... ..	49,021,600	55,736,715
April ... ..	46,700,174	48,730,720
May ... ..	48,258,329	50,780,365
June ... ..	49,491,960	51,151,750
July ... ..	51,398,842	45,643,015
August ... ..	50,767,119	49,722,045
September ... ..	48,424,000	44,823,730
October ... ..	49,369,500	58,377,465
November ... ..	52,098,800	55,412,330
December ... ..	55,071,750	51,848,085
Total ... ..	<u>593,219,568</u>	<u>619,989,600</u>

MIDWIVES ACT.—The names of five midwives are entered on the roll of the Central Midwives Board for practising in Lincoln. Of these, four are certified in virtue of the fact that they were in bonâ fide practice as Midwives for at least one year prior to July 31st, 1902. Only one of the five has passed an examination in midwifery and she does not engage in regular active practice. It is disappointing to find that the restrictions of the Act do not attract young, clean, educated women to replace the old type of midwife.

There are several other women practising midwifery in Lincoln, but who are not certified. These women can until April 1st, 1910, continue practising without supervision or control, provided they do not call themselves "Midwives."



**INSPECTION OF MEAT.**—Practically the whole of the meat which is slaughtered and dressed in Lincoln and which passes into consumption can be relied upon as being sound and wholesome. Mr. Crawshaw, as Meat Inspector, has a working arrangement with the butchers, whereby they report to him any meat found to be of a suspicious nature. Under this arrangement much meat has been destroyed, the quantities and nature of the disease being reported to the Health Committee, month by month. On one occasion only, has it been necessary to institute legal proceedings, when a butcher was fined 40s. and costs for concealing parts of a tuberculous pig.

**SLAUGHTER HOUSES.**—These remain as last year—*viz.*: One Public Abattoir, four licensed and fourteen registered slaughter-houses. These are on the whole in a good and satisfactory condition. A new code of slaughter-house bye-laws came into force on April 9th, 1906.

**THE MILK SUPPLY.**—The register of Dairies, Cowsheds and Milkshops has been revised. There are 54 cowsheds on the register, accommodating 353 cows. This would appear to be a large number in an Urban District like Lincoln, but it is to some extent accounted for by the inducements of the large commons with their free pasturage. Apart from the cowsheds there are 37 dairies on the register.

The question of the milk supply was discussed very fully at the Infantile Mortality Conference in June 1906, and the various views expressed were stated in a report read to your Council on October 25th. It is admitted on all hands that impurity of milk is an important factor in maintaining the high rate of Infantile Mortality, and the institution of sterilized milk depots has been suggested as a means of dealing with this impurity. This system is in vogue in some of the large towns and is spoken of well by the Medical Officers in charge of them. They necessitate an increased staff of Inspectors and are a burden on the rates. It is stated that the loss on the Battersea Milk Depot is over £1000 per annum.

It would appear however that the milk should be dealt with at its source, and not just before the children are about to drink it. It may be roughly stated that over two-thirds of the milk consumed in Lincoln comes from outside our sanitary district. The only control we have over this milk is (1) that if we have reason to suspect it is causing any specific disease, or (2) if it is from a cow suffering from cattle plague, pleuro-pneumonia, foot and mouth disease or tuberculosis of the udder, it may be withheld, or (3) we can take samples under the Food and Drugs Acts. Where there is reason to suppose that the cowsheds in a rural district, from which milk is sent into a town for consumption, are not kept in a sanitary condition, the urban officers might be empowered to visit and inspect, and if these places were found defective, call the attention of the rural authority to the same.

In the Welton and Branston Rural districts, from which a large quantity of milk is sent daily into Lincoln, the Dairies and Cowsheds orders are in force, the sanitary officers inspect and report to their councils, and lately special instructions have been given them to examine as to the sanitary state of the cowsheds and their surroundings and also the cleanliness of those employed in the process of milking.



FACTORY AND WORKSHOPS ACTS.—The inspections under these acts have been mainly carried out by Inspector Bennett, A.R.S.I. The work done is seen on reference to the adjoining tables. These tables are recommended by the Home Secretary in preparing this part of the report. With factories we have little to do, except as regards sanitary accommodation and means of escape from fire, but the workshops come entirely under the supervision of the Sanitary Authority. In the early part of the year a circular letter was received from the Home Office urging a stricter enforcing of Sec. 107 of the F. & W. Act, 1901, relating to outworkers. As a result of this letter the required lists are now being sent to us more regularly, and this enables us to inspect thoroughly the outworkers' premises.

All the defects found in the workshops have been of a minor character and have been remedied on verbal notice. It has not been necessary to report any non-compliance to the Health Committee.

Three notices have been received from H.M. Inspector of Factories calling attention to two dirty workrooms and one bakehouse not painted as required. We were able to report to the Inspector within the stipulated time of one month that these defects had received attention.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH  
FOR THE YEAR 1906, FOR THE COUNTY BOROUGH OF LINCOLN

— 0 —

I.—INSPECTION.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories, including Factory Laundries ... ..	85	1	—
Workshops, including Work- shop Laundries ... ..	305	1	—
Total ... ..	<u>390</u>	<u>2</u>	<u>—</u>

2.—DEFECTS FOUND.

Particulars.	Number of Defects.	
	Found.	Remedied
Want of cleanliness ... ..	24	24
Want of ventilation ... ..	12	12
Overcrowding ... ..	4	4
Want of drainage of floors ... ..	—	—
Other nuisances ... ..	16	16
Sanitary accommodation, insufficient	5	5
Ditto. unsuitable or defective	2	2
Ditto. not separate for sexes	2	—
Total ... ..	<u>65</u>	<u>63</u>

### 3.—HOME WORK.

#### OUTWORKERS' LISTS, SECTION, 107.

NATURE OF WORK.	Lists received from Employers.		Numbers of Addresses of Outworkers forwarded to other Councils.	Number of Inspections of Out-workers' premises.	Outwork in unwholesome premises, section 108. Instances.	Outwork in Infected premises, section 109 and 110. Instances. Orders made (S. 110).
	Twice in the year.	Once in the year.				
Wearing Apparel—	22	112	12	62	2	25

#### 4.—REGISTERED WORKSHOPS.

Total number of Workshops on Register ... 130

#### 5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ...	9
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) ...	3
Notified by H.M. Inspector ...	3
Reports (of action taken) sent to H.M. Insp. ...	3
Total ...	15



**COMMON LODGING HOUSES.**—In our 1905 Report, we recommended that the minimum air space per adult in the lodging houses should be increased from 250 to 300 cubic feet. This was passed by the Health Committee on May 16th, 1906, and approved by the Council on June 5th, 1906. There are now five common lodging houses on the register with accommodation for 168 adults.

**GENERAL SANITARY WORK** apart from that mentioned under special headings has been carried out in a routine manner by the Sanitary Inspectors. As in 1905, special attention has been paid to the testing of vent pipes. This work has been done by Inspector Streets, A.R.S.I. A spot map has been presented to the Health Committee at each monthly meeting, showing the progress of the testing. 543 vent pipes have been tested during the year, of which 317 were found to be choked.

The open brick ashpits are frequently a source of nuisance. 198 of them have been abolished during the year, and 531 metal ashbins with tight fitting covers have been substituted. 144 privies have been abolished during the year, and replaced by 164 water closets. There still remain, however, about 450 privies (vaults and boxes). Several of these will receive attention during 1907.

The above three items are very important steps in the sanitary improvement of the City, and will, undoubtedly, be beneficial from a health point of view.

Several houses have been closed as being unfit for human habitation. These are in Witham Street and Williamson Square. The former were closed at once by the owner when he was verbally notified of their condition. With regard to the latter, the agents of the owner were given ample opportunity both by informal and formal notices to render the houses habitable, but this they neglected to do, and it has been necessary to institute legal proceedings to close them.

We are pleased to be able to report a general improvement in the method of pig keeping in the City, though there are still instances of breach of our Nuisance byelaw No. 13, which is as follows:—"The occupier of any premises shall not keep any swine, or deposit any swine's dung within a distance of 100 feet from any dwelling house, unless the sty or place in which such swine are kept be maintained in a cleanly and wholesome condition."

**THE CITY HOSPITAL.**—163 cases were under treatment at the City Hospital during 1906. Ten of these cases (6 of Enteric Fever and 4 of Diphtheria) remained in from 1905, and were discharged convalescent during the early part of 1906. 153 fresh cases were admitted during 1906 (12 of Enteric Fever and 141 of Diphtheria). 21 cases remained in at the end of 1906 (3 of Enteric Fever and 18 of Diphtheria), in a convalescent condition and will probably be discharged in 1907.

**ENTERIC FEVER.**—Twelve cases were admitted during the year—6 males and 6 females. One of the females—a nurse from the Workhouse Infirmary—died after a residence of four days in Hospital. Two males and one female remained in at the end of the year and the remaining four males and four females were discharged convalescent. The males had an average stay in Hospital of 67 days and the females 72 days. The Enteric Fever cases were nursed in the New Pavilion originally intended for Scarlet Fever.

**SCARLET FEVER.**—No cases of this disease were admitted during 1906.



**DIPHTHERIA.**—The Iron Hospital has been almost filled throughout the year with Diphtheria. Four cases (1 male and 3 females) remained in at the end of 1905 and were discharged convalescent during the early part of 1906. 141 fresh cases (62 males and 79 females) were admitted during the year, making a total of 145 under treatment. 18 cases (7 males and 11 females) remained in at the end of 1906. 19 deaths occurred among the Diphtheria patients (6 males and 13 females). The case mortality of the Diphtheria patients treated in Hospital was 13 per cent. but as we explained in last year's report, reliable comparison between home and hospital cases cannot be made, owing to the serious condition of several patients on admission to Hospital. The average stay in Hospital of the male convalescent cases was 37 days (the longest being 84 days) and of the females, 39 days (longest 77 days). The average stay of the male fatal cases was 13 days and of female fatal cases, 5 days. One male died after 45 days residence and 1 female after 20 days. The immediate causes of the deaths were—Heart Failure 17, Inflammation of the Kidneys 1, and obstruction of the Larynx 1. Antidiphtheritic serum was administered to almost all the patients and tracheotomy was performed on one, though unsuccessfully.

Two cases were admitted from Bracebridge U.D., 5 from Branston R.D., and 1 from Welton R.D.

Three cases of Diphtheria developed Scarlet Fever in Hospital, and the building was then emptied of patients and thoroughly disinfected and cleansed.

Two cases of Septic Sore Throat were wrongly diagnosed as Diphtheria and sent into Hospital, but were discharged without contracting the disease.

Disease.	Sex.	Remaining in at end of 1905.	Admitted during 1906.	Deaths.	Average stay of convalescent cases.	Average stay of fatal cases.	Remaining in at end of 1906.
Enteric Fever	M	2	6	0	67	—	2
	F	4	6	1	72	4	1
Diphtheria	M	1	62	6	37	13	7
	F	3	79	13	39	5	11
Total ...	—	10	153	20	—	—	21

From the report of the City Accountant we find that for the financial year ending March 31st, 1907, the total cost of the City Hospital, including interest and sinking fund charges has been £1942 14s. 2d. This works out at an average cost per patient per week of £2 14s. 2d. Taking those items which are spent entirely on patients—*viz.*: Food, drugs, nursing and medical fees, the total cost is £885 11s. 0d. or £1 4s. 8d. per patient per week.



Year.	Estimated Population.	Births.			Deaths.			Deaths in Public Institutions.	Birth-rate per 1000 of Population.	Death-rate per 1000 of Population.	Death-rate exclusive of Deaths in Public Institutions.	Deaths from Zymotic Diseases.	Deaths from diseases of Respiratory Organs except Phtisis.	Deaths from Phtisis.	Deaths under 5 years and per centage of total deaths.	Deaths under 1 year and per centage of total deaths.	Deaths of Infants per 1000 Births.	Natural increase of Population.	Zymotic Death-rate.	Year.
		Male.	Female.	Total.	Male.	Female.	Total.													
1897	44,097	611	636	1247	421	354	775	98	28.2	17.5	15.3	79	118	69	268.34	210.27	168	472	1.79	1897
1898	44,514	595	575	1170	398	388	786	108	28.0	17.6	15.2	102	96	56	293.37	212.26	181	384	2.30	1898
1899	44,931	657	630	1287	408	382	790	88	28.6	17.5	15.6	67	109	55	244.31	201.25	156	497	1.49	1899
1900	45,348	600	654	1254	453	419	872	119	27.6	19.2	16.6	77	142	60	282.32	194.22	154	382	1.69	1900
*1901	48,784	649	619	1268	421	363	784	115	25.8	16.0	13.6	77	112	58	248.31	181.28	142	484	1.57	1901
1902	49,694	626	622	1248	405	364	769	110	25.0	15.4	13.2	48	121	64	228.29	145.19	116	479	.96	1902
1903	50,423	655	605	1261	413	387	800	124	25.0	15.8	13.4	61	88	65	269.33	177.22	140	461	1.20	1903
1904	51,152	653	623	1276	425	391	816	130	25.0	16.0	13.4	73	107	49	274.33	208.25	163	460	1.48	1904
1905	51,882	667	602	1269	524	438	962	208	24.5	18.5	14.5	206	96	49	259.27	185.19	145	307	4.20	1905
1906	52,611	723	687	1410	449	428	877	169	26.8	16.7	13.5	102	107	51	292.33	208.23	147	533	1.93	1906

\* Enumerated Population.



