[Report 1928] / Medical Officer of Health, Belfast County Borough.

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

REPORT

ON THE

Health of the County Borough of Belfast, for the Year 1928,

BY THE

Medical Superintendent Officer of Health,

INCLUDING—

The Report of the Medical Superintendent of Purdysburn Fever Hospital;

The Report of the Chief Tuberculosis Officer;

The Report of the Visiting Surgeon of the Municipal Hospital for Tuberculosis;

AND

The Report of the Medical Superintendent of the Municipal Sanatorium, Whiteabbey.

Belfast:

PRINTED BY JOHN AIKEN & SON, LTD., ACADEMY STREET.

REPORT

ON THE

Health of the County Borough of Belfast

FOR THE YEAR 1928.

BY

The Medical Superintendent Officer of Health for the City

BELFAST:
JOHN AIKEN & SON, LTD., PRINTERS, ACADEMY STREET, BELFAST.
1929.

County Borough of Belfast.

PUBLIC HEALTH COMMITTEE, 1928.

Chairman:

Alderman J. DUNLOP WILLIAMSON, M.D., J.P.

Vice-Chairman:

Councillor WALTER FRANCIS CLOKEY.

Aldermen:

JAMES ARCHIBALD DORAN, J.P.
JOHN GRAHAM.
JULIA M'MORDIE, C.B.E., J.P.
JAMES DUNLOP WILLIAMSON, M.D., J.P.

Councillors:

WALTER FRANCIS CLOKEY.
JAMES CRAIG, J.P.
FRANCIS JAMES HOLLAND.
THOMAS HENDERSON, M.P.
JAMES KILPATRICK.
JOSEPH MAGUIRE.
HENRY MIDGLEY.
JOHN DONALDSON M'CLURE.
CAPTAIN JOSEPH DALLAS NICHOLL, M.C.
CLARKE SCOTT.
WILLIAM JAMES WILLIAMSON.

STAFF

(1st January)

---

1 Chief Clerk.

1 Clerk, Notification of Deaths, etc.

2 Clerks, Infectious Disease.

5 Clerks of Divisions.

2 Clerks under Maternity and Child Welfare Scheme.

2 Shorthand Writers and Typists.

4 Divisional Inspectors.

4 Inspectors under the Sale of Food and Drugs Acts.

3 Inspectors under the Factory and Workshop Act (1 male and 2 females).

1 Inspector of Dairies and Cowsheds.

1 Inspector of Milkshops.

1 Inspector of Lodging Houses.

1 Port Sanitary Inspector.

1 Inspector in Charge of Infectious Disease Staff.

4 Assistant Disinfectors (including one qualified Inspector).

14 District Inspectors.

3 Drain Testers.

4 Drain Testers' Assistants.

4 Female Inspectors engaged as Health Visitors.

8 Do. do. under Maternity and Child Welfare Scheme.

1 Do. Inspector as Superintendent of Midwives.

1 Notice Server.

1 Messenger and Time Clerk.

4 Employed at Disinfecting Station (3 males and 1 female).

1 Disinfectant Storeman.

SUMMARY
OF
VITAL STATISTICS.

Area in Statute Acres (Census 1926)	Land	14,797

Population	415,151
Density	28.1 persons to an acre
Births	9,356
Birth Rate	22.5
Deaths	5,804
Death Rate	14.0
Infantile Mortality	960 deaths under 1 year old = 103 per 1,000 births.
Deaths from Zymotic Diseases	466
Death Rate do.	1.1
Deaths from Phthisis	499
Death Rate do.	1.2
Total Deaths from Chest Affections	1,562
Death Rate do. do.	3.76

To the Right Hon. the Lord Mayor of Belfast (Councillor Sir William F. Coates, Bart., D.L., J.P.), Aldermen and Councillors of the Belfast Corporation.

My Lord Mayor, Ladies, and Gentlemen,

I have the honour to present the report on the state of the Public Health of the city during 1928, together with statistics and records of all and sundry matters which come within the ambit of the expression "Public Health."

The annual reports of the Tuberculosis Department, the School Medical Services, Purdysburn Fever Hospital, Whiteabbey Sanatorium, and Graymount Hospital are also included. These reports were formerly issued as separate documents

During the year your late Medical Superintendent Officer of Health, Dr. H. W. Bailie, resigned after 21 years service. His devotion to duty and the valuable services he rendered to the citizens were acknowledged by the Chairman and Members of the Public Health Committee and endorsed by the City Council.

Following on the resignation of Dr. Bailie on 1st May, 1928, I was temporarily appointed Acting Medical Superintendent Officer of Health and Port Medical Officer.

Throughout the year the Public Health Department functioned efficiently and smoothly. No section of Municipal administration calls for greater care than that relating to the safeguarding of the health of the community.

The population of the city according to the census of 1926 was 415,151, and upon this population the birth and death rates are calculated.

The number of births registered during the year was 9,356, equivalent to a birth rate of 22.5 per 1,000 of the population. This is a decrease of 0.4 per 1,000 compared with the preceding year, when the number registered was 9,509, and the rate was 22.9.

5,804 deaths were registered from all causes, equivalent to a death rate of 14.0 per 1,000 of the population, an increase of 0.4 per 1,000 compared with the year 1927, when the number registered was 5,653 and the rate per 1,000 was 13.6 (the lowest that has ever been recorded for the city).

1,562 or 26.9 per cent. of the total deaths registered were due to chest affections, 499 of these being caused by Phthisis, 521 by Pneumonia, and 542 by other diseases of the respiratory organs. The deaths from chest affections represent a death rate of 3.76 per 1,000 of the population, being a similar rate to that of 1927.

Zymotic diseases accounted for 466 deaths or 8.03 per cent of the total number of deaths registered from all causes. The Zymotic death rate was 1.1 per 1,000 of the population, compared with 0.9 for 1927.

446 persons died from cancer and 63 from influenza, while 123 persons died from violence.

There were 960 deaths of children under one year, an infantile mortality rate of 103 deaths per 1,000 births registered. In the preceding year the number registered was 961, corresponding to a rate of 101 per 1,000 births. This compares with an average of 70 per 1,000 births for 107 English cities. This unsatisfactory condition of affairs calls for the adoption of measures which would prevent such unnecessary waste of infant life, and I hope that such measures will be adopted in the future.

The number of cases of Infectious Diseases reported during the year was 2,717, an increase of 813 compared with the preceding year. The increase was largely due to the large numbers of Scarlet Fever in the first quarter of the year and in October and November. There was also an increased number of Typhoid and Paratyphoid Fever cases. 57 of these occurred in outbreaks of the disease in 3 institutions.

There was also an unfortunate outbreak of Typhus Fever (4 cases). The source of infection was quickly traced and the energetic measures taken were successful in preventing the spread of the disease.

The incidence of Diphtheria was high; 628 cases were notified during the year. In order to facilitate the earlier administration of diphtheria antitoxin to patients and thereby reduce the mortality of the disease, six depots were established in different areas of the city, where supplies of Antitoxin can be obtained by Medical Practitioners at any hour of the day or night. In addition the Municipal Laboratory is at the disposal of the Medical Profession to enable an early diagnosis of the disease to be made by bacteriological methods.

As a further preventive measure the immunisation of children with toxoid-antitoxin mixture was introduced, and it is intended that this method of prophylaxis should be largely extended.

The activities of the Maternity and Child Welfare scheme were extended. The attendances at the six Child Welfare Centres have reached a point when it would seem to have become necessary that additional centres should be provided. The artificial sunlight treatment of babies was undertaken at two of the Centres, and the reports of this treatment indicate that it is of great value. The Ante-natal Clinics at the Maternity Hospital, Townsend Street, and the Ulster Hospital, Templemore Avenue, have been taken advantage of, to a greater extent than formerly, and I have no doubt that a more universal adoption of ante-natal supervision would be one of the most potent factors in reducing our maternal and infantile mortalities. There is much need of educational propaganda in Maternity and Child Welfare work, as it is only by such means that we can hope to reduce infantile and maternal mortalities; neither doctors nor health visitors can do more than give skilled advice, which will only be of value if it is put into practice.

At the Child Welfare Centres there are twenty or so regular voluntary workers. These ladies are a great asset and their valuable services in the interests of child welfare are very much appreciated.

During the year the Public Health (Preservatives, etc., in Food, Northern Ireland) Regulations, and the No. 2 Order, relating to honey and fresh apples under the Merchandise Marks Acts came into force.

The Belfast Port Sanitary Authority was constituted an authorised port for the issue of Deratisation Certificates in compliance with the recommendations of the International Sanitary Convention.

In the Sanitary Inspection section of the department there has been a very large amount of work done in connection with the inspection of dwelling-houses, factories, workshops, dairies, offensive trades, milkshops, etc..

The various Tables and Statistics in the report are given in full and merit study.

I wish to express my gratitude to the Chairman and Members of the Public Health Committee for their sympathetic encouragement and whole hearted support given to me during the term I acted as your Medical Superintendent Officer of Health and Port Medical Officer. I have also to acknowledge the enthusiastic support of the members of the staff of the Public Health Department which has always been accorded me. I am conscious that but for that support the work of the Department could not have been carried on either as efficiently or as smoothly as it has been during the past year.

I am,

My Lord Mayor, Ladies and Gentlemen,

Your obedient Servant,

SAMUEL BARRON,

Acting Medical Supt. Officer of Health
and Port Medical Officer.

BIRTHS.

9,356 births were registered during the year, equivalent to a birth rate of 22.5 per 1,000 of the population. This is a decrease of 0.5 per 1,000, compared with the preceding year, when the number registered was 9,509, and the rate 22.99.

The average number registered annually during the ten years, 1918-1927, was 10,504, and the average annual birth rate 25.0.

The following shews the number of births, the percentage of the total number registered during the year, and the annual birth rate per 1,000 of the population in each of the four quarters of the year:—

	No. of Births	Percentage of Total No.	Birth Rate
First Quarter	2,446	26.1	23.6
Second Quarter	2,505	26.8	24.1
Third Quarter	2,261	24.2	21.8
Fourth Quarter	2,144	22.9	20.7

Table No. 4 shews the number of births in each of the several Dispensary Districts.

DEATHS.

5,804 deaths were registered from all causes during the year, equivalent to a death rate of 14.0 per 1,000 of the population, an increase of 0.4 per 1,000 compared with the preceding year, when the number registered was 5,653, and the rate 13.6.

The average number registered annually during the ten years 1918-1927 was 6,621, and the average annual death rate 15.8.

The following shews the number of deaths, the percentage of the total number registered during the year, and the annual death rate per 1,000 of the population in each of the four quarters of the year:—

	No. of Deaths	Percentage of Total No.	Death Rate
First Quarter	1,598	27.5	15.4
Second Quarter	1,389	23.9	13.4
Third Quarter	1,222	21.1	11.8
Fourth Quarter	1,595	27.5	15.4

TABLE No. 1.

Showing the number of deaths, the percentage of the total number registered, and the death rate per 1,000 of the population at various age periods compared with the year 1927.

	1928			1927		
	No. of Deaths	Percentage of total Deaths Registered	Death Rate per 1,000 of the population	No. of Deaths	Percentage of total Deaths Registered	Death Rate per 1,000 of the population
Under 1 year	960	16.5	2.3	961	17.0	2.3
1 year and under 5 years	525	9.0	1.3	422	7.5	1.0
5 and under 25 years	469	8.1	1.1	448	7.9	1.1
25 and under 45 years	722	12.4	1.7	759	13.4	1.8
45 and under 65 years	1,506	25.9	3.6	1,529	27.0	3.7
65 years and upwards	1,622	27.9	3.9	1,534	27.1	3.7

TABLE No. 2.

Shewing the number of deaths from various causes, together with the percentage of the total number registered and the death rate per 1,000 of the population.

Cause of Death.	1928 No. of Deaths	1928 Percentage of total Deaths Registered	1928 Death Rate per 1,000 of the population	1927 No. of Deaths	1927 Percentage of total Deaths Registered	1927 Death Rate per 1,000 of the population
Typhoid Fever	13	0.22	0.03	8	0.14	0.02
Typhus Fever	1	0.02	0.002	—	—	—
Smallpox	—	—	—	—	—	—
Measles	169	2.91	0.4	1	0.02	0.002
Scarlet Fever	21	0.36	0.05	10	0.18	0.02
Whooping Cough	50	0.86	0.1	117	2.07	0.28
Diphtheria	16	*0.28	0.04	30	0.53	0.07
Dysentry	—	—	—	—	—	—
Influenza	63	1.09	0.15	127	2.25	0.3
Diarrhœa—						
Under 2 years of age	196	3.38	0.47	195	3.45	0.47
Tuberculous Diseases—						
Phthisis	499	8.6	1.2	515	9.11	1.2
Other Forms	114	2.0	0.3	125	2.21	0.3
Total Tuberculous Diseases	613	10.6	1.5	640	11.32	1.5
Diseases of the Respiratory System—						
Pneumonia	521	9.0	1.26	479	8.47	1.1
Other	542	9.3	1.3	526	9.30	1.3
Total Dis. Resp. System	1,063	18.3	2.56	1,005	17.78	2.4
Total Chest Affections	1,562	26.9	3.76	1,520	26.89	3.7
Cancer	446	7.7	1.1	422	7.46	1.0
Violence	123	2.1	0.3	122	2.15	0.3

TABLE No. 3.

Shewing the annual death rate per 1,000 of the population from all causes during the twenty years 1909-1928; also the average rate for quinquennial periods.

Year.	Rate.		Year.	Rate.	
1909	18.2		1919	17.9	
1910	18.6		1920	17.5	
1911	17.2	18.2	1921	14.4	15.7
1912	18.1		1922	14.8	
1913	18.8		1923	13.8	
1914	18.9		1924	14.3	
1915	17.9		1925	14.0	
1916	16.7	18.6	1926	15.4	14.3
1917	16.7		1927	13.6	
1918	22.7		1928	14.0	

TABLE No. 4.

Shewing the number of Births registered in each of the several Dispensary Districts, also the number of deaths of Infants under 1 year old.

DISTRICT	BIRTHS				DEATHS
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Under 1 Year
No. 1	111	127	113	94	65
„ 2	315	310	266	264	93
„ 3	293	318	280	265	96
„ 4	188	183	171	171	111
„ 5	119	131	106	118	90
„ 6	145	166	145	125	34
„ 7	29	15	23	17	4
„ 8	48	42	47	40	14
„ 9	179	202	190	154	71
„ 10	198	198	195	158	74
„ 11	195	197	159	165	42
„ 12	165	162	153	144	76
„ 13	124	130	128	120	26
„ 14	1	1	1	—	—
„ 15	187	184	163	177	91
„ 16	149	139	121	132	73
Total	2,446	2,505	2,261	2,144	960

TABLE No. 5.

Shewing the Population, the number of Births, the Birth Rate per 1,000, the number of Deaths, the Death Rate per 1,000, and the natural increase during the forty-eight years 1881-1928.

Year		Population	No. of Births	Birth Rate per 1,000	No. of Deaths	Death Rate per 1,000	Natural Increase
1881	.....	207,671	6,942	33.4	4,911	23.6	2,031
1882	.....	207,671	6,820	32.8	5,365	25.8	1,455
1883	.....	214,022	6,694	31.3	5,600	26.2	1,094
1884	.....	216,622	7,231	33.4	5,073	23.4	2,158
1885	.....	219,222	7,161	32.7	6,127	27.9	1,034
1886	.....	221,822	7,344	33.1	5,256	23.7	2,088
1887	.....	224,422	7,502	33.5	5,807	25.9	1,695
1888	.....	227,022	7,719	34.0	5,742	25.3	1,977
1889	.....	229,622	7,705	33.6	5,921	25.8	1,784
1890	.....	232,222	8,250	35.5	6,861	29.5	1,389
1891	.....	255,922	8,650	33.8	6,537	25.5	2,113
1892	.....	261,046	8,592	32.9	6,910	26.5	2,166
1893	.....	275,000	9,399	34.2	6,848	24.9	2,551
1894	.....	285,000	9,349	32.8	6,615	23.2	2,734
1895	.....	295,000	9,772	33.1	7,168	24.3	2,604
1896	.....	300,000	10.378	34.5	6,953	23.2	3,425
1897	.....	310,000	10,481	33.3	7,225	23.3	3,256
1898	.....	340,000	11,234	33.0	7,768	22.8	3,466
1899	.....	350,000	11,437	32.7	7,933	22.7	3,504
1900	.....	359,000	11,192	31.2	7,642	21.3	3,550
1901	.....	350,862	10,859	30.9	7,738	22.4	3,121
1902	.....	360,000	11,113	30.5	7,577	20.8	3,536
1903	.....	360,000	11,488	32.0	7,169	20.0	4,319
1904	.....	360,000	11,323	31.6	7,474	20.8	3,849
1905	.....	360,000	11,395	31.8	7,178	20.0	4,217
1906	.....	366,220	11,355	31.0	7,379	20.1	3,976
1907	.....	370,163	11,233	30.3	7,870	21.3	3,353
1908	.....	380,344	11,490	29.7	7,523	19.5	3,967
1909	.....	386,576	10,900	28.2	7,028	18.2	3,872
1910	.....	391,167	10,888	27.8	7,284	18.6	3,604
1911	.....	386,449	10,984	28.4	6,645	17.2	4,339
1912	.....	391,974	10,884	27.8	7,111	18.1	3,733
1913	.....	396,000	10,996	27.8	7,453	18.8	3,543
1914	.....	399,000	11,337	28.0	7,663	18.9	3,674
1915	.....	403,000	10,196	25.3	7,220	17.9	2,976
1916	.....	390,000	9,415	24.1	6,496	16.7	2,919
1917	.....	393,000	8,718	22.2	6,557	16.7	2,161
1918	.....	393,000	9,282	23.6	8,920	22.7	362
1919	.....	401,000	10,464	25.7	7,278	17.9	3,186
1920	.....	413,000	12,144	29.4	7,234	17.5	4,910
1921	.....	420,000	11,043	26.3	6,045	14.4	4,998
1922	.....	425,000	10,667	25.1	6,304	14.8	4,363
1923	.....	429,000	10,746	25.0	5,910	13.8	4,836
1924	.....	434,000	10,594	23.9	6,329	14.3	4,265
1925	.....	438,000	10,234	23.4	6,131	14.0	4,103
1926	.....	416,000	10,356	24.9	6,411	15.4	3,945
1927	.....	416,000	9,509	22.9	5,653	13.6	3,856
1928	.....	415,151	9,356	22.5	5,804	14.0	3,552

TABLE No. 6.

Shewing the Annual Birth and Death Rates per 1,000 of the population of the principal Urban Sanitary Districts of Ireland.

Urban District.	Births	Deaths from All Causes.	Deaths from Zymotic Diseases.
Belfast	22.5	14.0	1.1
Dublin (City)	27. 3	15.5	1.4
Dublin Registration Area	25.2	15.0	1.2
Cork	21.7	15.0	0.8
Londonderry	25.6	13.5	1.0
Limerick	27.1	16.1	1.4
Waterford	24.2	15.6	1.2
Galway	22.6	14.9	1.5
Dundalk	20.9	13.4	1.3
Lurgan	20.3	14.5	0.7
Drogheda	26.3	14.8	0 3
Lisburn	24.8	12.2	0.3
Newry	26.7	13.9	0.7
Portadown	25.8	12.5	0.2
Wexford	22.6	16.6	1.3
Ballymena	21.7	13.3	0.6
Newtownards	23.7	12.2	0.3
Sligo	20.5	13.3	0.5
Kilkenny	23.1	15.3	0.7
Tralee	20.1	14.2	1.7
Clonmel	17.8	11.2	0.4

TABLE No. 7.

Comparative Table of Results in each of 52 weeks. Deaths in Public Institutions of persons *admitted from without the City omitted.*

WEEK ENDING

BELFAST.	Jan. 7	Jan. 14	Jan. 21	Jan. 28	Feb. 4	Feb. 11	Feb. 18	Feb. 25	Mar. 3	Mar. 10	Mar. 17	Mar. 24	Mar. 31
Number of Weeks in Annual Series	1	2	3	4	5	6	7	8	9	10	11	12	13
Births registered	220	201	188	175	182	175	194	170	188	214	161	199	180
Number of Deaths	137	115	125	128	140	126	107	109	123	128	115	146	99
Annual Death-rate per 1,000	17.2	14.4	15.7	16.1	17.6	15.8	13.4	13.7	15.5	16.1	14.4	18.3	12.4
Ages: Under 1 year	33	19	21	25	25	25	18	13	20	24	20	21	22
Ages: 1—5 years	6	6	7	3	8	5	9	10	6	7	3	12	2
Ages: 5—25 "	11	3	9	9	10	8	12	7	13	10	6	7	7
Ages: 25—45 "	11	12	19	16	17	15	10	14	21	20	24	27	10
Ages: 45—65 "	38	30	34	36	36	29	28	22	29	29	32	38	27
Ages: 65 and upwards	38	45	35	39	44	44	30	43	34	38	30	41	31
Deaths from:— Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	1
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	2	...	...	1	1	...	...	...	...	...	...	...
Scarlet Fever	1	1	2	...	...	...	...	...	...	...	...	1	...
Whooping-cough	...	...	...	...	1	1	...	...	...	...	1	1	1
Diphtheria	1	...	1	...	...	1	1	...	...	2	...	...	1
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	5	2	4	2	2	4	...	1	3	2	2	2	1
Tuberculosis: Pulmonary	7	6	10	11	12	12	13	10	12	12	7	18	9
Tuberculosis: Other Forms	...	3	1	3	1	...	4	3	8	3	3	1	3
Cancer	9	9	4	7	9	4	10	11	9	8	5	6	8
Diseases of Respiratory System: Pneumonia	19	14	14	1	21	16	13	9	9	14	10	11	6
Diseases of Respiratory System: Others	14	18	25	20	19	19	10	11	17	11	15	22	11
Diarrhœa and Enteritis, under 2 years	4	1	5	2	...	3	5	...	3	3	1	4	4
Violent Deaths	3	3	1	2	1	4	3	2	...	4	1	...	2
Number of Uncertified Deaths	2	1	1	2	5	1	2	5	...	2	2	4	4

BELFAST.	Apl. 7	Apl. 14	Apl. 21	Apl. 28	May 5	May 12	May 19	May 26	June 2	June 9	June 16	June 23	June 30
Number of Weeks in Annual Series	14	15	16	17	18	19	20	21	22	23	24	25	26
Births registered	156	188	244	168	191	189	218	198	179	191	206	184	173
Number of Deaths	126	105	110	123	97	126	83	91	110	119	105	97	97
Annual Death-rate per 1,000	15.8	13.2	13.8	15.4	12.2	15.8	10.4	11.4	13.8	14.9	13.2	12.2	12.2
Ages: Under 1 year	20	16	12	12	11	21	8	12	12	14	17	13	9
Ages: 1—5 years	9	6	7	5	4	6	5	9	9	9	6	5	12
Ages: 5—25 "	11	9	10	10	11	12	5	8	4	11	7	11	7
Ages: 25—45 "	23	14	13	15	12	23	13	7	14	20	18	15	11
Ages: 45—65 "	29	25	32	43	30	31	30	23	32	33	23	31	22
Ages: 65 and upwards	34	35	36	36	29	33	22	32	39	30	34	22	36
Deaths from:— Enteric Fever	...	...	1	1	...	1	...	...	...	...	...	1	1
Typhus	...	...	...	...	...	...	...	...	...	1	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	2	2	1	4	4
Scarlet Fever	1	1	...	...	1	...	...	...	...	...	...	...	1
Whooping-cough	2	1	2	...	1	1	...	1	2	1	...	...	2
Diphtheria	...	...	1	...	2	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	2	2	1	1	1	...	1	...	1	...	1	1	...
Tuberculosis: Pulmonary	16	12	12	11	17	14	5	8	10	18	5	6	4
Tuberculosis: Other Forms	5	...	3	3	1	3	2	1	3	1	3	3	4
Cancer	9	8	10	7	6	9	13	7	9	9	8	6	8
Diseases of Respiratory System: Pneumonia	9	7	6	8	1	10	3	5	10	8	8	8	7
Diseases of Respiratory System: Others	8	12	6	9	15	14	7	9	2	2	10	5	6
Diarrhœa and Enteritis, under 2 years	4	2	1	1	...	6	1	4	...	3	2	2	...
Violent Deaths	4	2	3	5	3	1	2	2	4	2	7	5	1
Number of Uncertified Deaths	2	2	3	2	...	...	2	1	...	1	2	2	2

BELFAST.	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29
Number of Weeks in Annual Series	27	28	29	30	31	32	33	34	35	36	37	38	39
Births registered	186	137	223	179	210	198	162	169	154	151	180	158	157
Number of Deaths	111	88	103	78	85	103	78	94	87	86	82	106	121
Annual Death-rate per 1,000	13.9	11.1	12.9	9.8	10.7	12.9	9.8	11.8	10.9	10.8	10.3	13.3	15.2
Ages: Under 1 year	9	9	13	13	15	11	9	9	16	16	17	23	29
Ages: 1—5 years	9	11	17	8	8	16	10	10	9	4	16	12	14
Ages: 5—25 "	16	7	10	8	11	8	7	13	6	6	5	8	13
Ages: 25—45 "	12	13	13	6	7	14	11	8	10	19	6	16	9
Ages: 45—65 "	30	29	24	22	20	27	22	33	27	21	16	29	30
Ages: 65 and upwards	35	19	26	23	24	27	19	21	19	20	22	18	26
Deaths from:— Enteric Fever	1	...	...	...	...	...	...	1	...	1	...	1	...
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	3	3	6	2	5	5	1	5	2	4	10	4	6
Scarlet Fever	...	1	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough	1	...	4	1	1	2	1	2	2	...	2	...	2
Diphtheria	1	1	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	...	1	...	...	...	...	1	...	2	...	...	1	1
Tuberculosis: Pulmonary	18	5	13	4	3	6	11	4	7	10	6	10	12
Tuberculosis: Other Forms	3	2	2	1	2	4	2	3	2	...	1	...	...
Cancer	12	8	10	15	6	7	8	14	9	9	7	10	11
Diseases of Respiratory System: Pneumonia	8	11	5	11	8	7	11	3	5	4	7	9	6
Diseases of Respiratory System: Others	3	8	4	6	8	10	3	3	3	4	6	10	10
Diarrhœa and Enteritis, under 2 years	1	1	1	2	1	3	1	1	4	4	7	11	19
Violent Deaths	4	1	2	1	2	3	2	2	...	1	...	2	3
Number of Uncertified Deaths	2	1	...	2	1	4	...	3	2	3	1	2	2

BELFAST.	Oct. 6	Oct. 13	Oct. 20	Oct. 27	Nov. 3	Nov. 10	Nov. 17	Nov. 24	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29
Number of Weeks in Annual Series	40	41	42	43	44	45	46	47	48	49	50	51	52
Births registered	130	196	180	156	147	169	172	164	168	166	173	171	141
Number of Deaths	103	119	118	113	118	104	122	113	114	115	139	170	1145
Annual Death-rate per 1,000	13.2	14.9	14.8	14.2	14.8	13.1	15.3	14.2	14.3	14.4	17.5	21.4	8.2
Ages: Under 1 year	18	27	15	23	26	15	18	17	19	29	30	37	32
Ages: 1—5 years	13	16	26	13	18	16	18	13	13	9	12	22	14
Ages: 5—25 "	7	10	5	7	5	8	12	7	14	6	18	12	18
Ages: 25—45 "	13	15	14	3	18	16	17	8	13	11	14	15	12
Ages: 45—65 "	28	22	34	36	23	27	28	35	23	25	35	37	33
Ages: 65 and upwards	26	29	24	29	26	22	34	33	32	35	37	47	39
Deaths from:— Enteric Fever	...	...	...	...	...	...	...	1	...	1	1	...	...
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	4	7	10	10	5	6	13	10	4	9	8	7	17
Scarlet Fever	...	...	2	...	...	1	...	...	...	...	...	4	4
Whooping-cough	1	1	1	1	3	1	2	1	1	...	1	1	...
Diphtheria	...	1	...	...	...	1	...	...	1	...	1	...	...
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	...	...	3	...	4	...	1	1	...	2	2	3	...
Tuberculosis: Pulmonary	13	10	11	4	7	10	9	4	11	7	12	8	9
Tuberculosis: Other Forms	2	1	...	2	1	2	3	3	1	1	2	4	5
Cancer	10	10	7	17	6	3	7	14	8	6	9	8	9
Diseases of Respiratory System: Pneumonia	14	10	11	10	10	10	3	8	12	16	16	23	14
Diseases of Respiratory System: Others	7	10	13	7	8	10	11	11	12	10	11	20	19
Diarrhœa and Enteritis, under 2 years	10	12	5	8	6	6	4	2	3	8	9	1	5
Violent Deaths	2	5	1	1	2	3	3	3	2	1	4	4	3
Number of Uncertified Deaths	2	1	1	4	1	...	2	1	3	1	4	2	4

TABLE No. 8.

ANALYSIS OF DEATHS REGISTERED.

CAUSES OF DEATH.	AGE.																						SEX.		TOTAL.
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and over.	Age not known.	Males.	Females.	
1. GENERAL DISEASES.																										
Common Infectious Diseases. 1. Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...
2. Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	.....	1	...	1
3. Pyrexia (origin uncertain)	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	2	1	...	1	...	...	.....	3	1	4
4. Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	2	...	2
5. Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...
6. Diphtheria	1	2	1	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	3	2	5
7. Croup	...	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	2	...	2
8. Erysipelas	3	...	...	...	...	3	...	...	...	...	...	...	...	...	...	1	1	2	...	1	...	...	...	.....	3	5	8
9. Whooping Cough	21	18	5	3	...	47	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	23	25	48
10. Measles	42	70	23	12	5	152	11	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	.....	91	73	164
11. Influenza	4	1	...	1	...	6	...	...	1	1	1	3	...	1	5	2	8	7	11	10	5	6	1	.....	27	38	65
Total	71	92	29	17	7	216	12	...	1	2	1	3	...	1	5	3	7	12	12	11	6	6	1	.....	155	144	299
12. Other Epidemic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...
13. Purulent infection and septicemia	1	...	...	1	...	2	2	1	...	...	1	...	1	2	2	2	2	2	...	1	...	...	...	.....	12	6	18
14. Tuberculosis of the lung	2	4	2	...	...	8	3	9	52	67	55	52	34	35	33	25	25	11	7	4	1	...	...	.....	203	218	421
15. Acute Miliary tuberculosis	5	2	2	1	...	10	2	2	7	10	9	3	4	4	2	...	4	1	1	1	...	...	...	.....	27	33	60
16. Tuberculous meningitis	5	8	1	3	2	19	13	2	8	4	1	1	...	...	...	1	1	...	1	...	...	...	...	.....	24	27	51
17. Abdominal Tuberculosis	1	4	...	...	...	5	3	1	...	3	1	3	2	2	1	...	...	...	...	...	...	...	...	.....	9	12	21
18. Other forms of tuberculosis	1	2	...	1	1	5	3	1	...	2	4	2	3	3	...	2	2	1	...	...	...	1	...	.....	19	10	29
19. Rickets	...	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	3	...	3
20. Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	.....	1	2	3
21. Cancer and other malignant tumors	2	...	1	...	...	3	2	...	1	3	3	6	12	30	39	64	83	65	62	50	12	6	6	.....	183	264	447
22. Other tumors	...	...	...	1	...	1	...	...	...	1	...	2	4	2	4	3	3	1	1	1	...	...	...	.....	11	12	23
23. Acute articular rheumatism	...	1	...	...	...	1	2	3	3	...	2	...	...	1	2	2	3	3	5	2	...	...	...	.....	12	17	29
24. Chronic rheumatism and gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	...	...	.....	2	4	6
25. Diabetes	...	...	...	...	...	...	...	1	...	2	...	1	1	2	3	2	3	8	3	4	1	1	...	.....	8	24	32
26. Exophthalmic goitre	...	...	...	...	...	...	...	...	1	1	1	...	3	...	2	1	...	...	1	...	...	...	...	.....	2	8	10
27. Debility	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	1	2	2	1	1	1	.....	6	5	11
28 Leuchæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	1	...	...	...	.....	2	3	5
29. Anæmia, chlorosis	...	...	...	...	...	...	...	...	...	1	2	3	1	2	1	...	3	3	5	2	2	1	...	.....	5	21	26
30. Other general diseases	1	...	...	...	...	1	1	1	...	...	1	...	...	...	...	2	...	2	...	1	...	...	...	.....	4	5	9
31. Alcholism (acute or chronic)	...	...	...	...	...	..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	.....	...	1	1
32. Chronic lead poisoning	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...
Total	18	24	6	7	3	58	31	21	72	94	80	76	65	84	89	106	134	99	90	72	17	10	7	.....	533	672	1205

TABLE No. 8 (continued).

CAUSES OF DEATH.	AGE.																						SEX.		
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and over.	Age not known.	Males.	Females.	TOTAL.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE																										
32a. Hydrocephalus	2	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
33. Encephalitis	...	...	...	...	...	...	1	...	...	3	1	2	...	2	1	...	1	...	...	1	...	...	...	...	7	5	12
34. Meningitis — 1. Simple meningitis	13	6	3	...	1	23	8	1	...	1	1	...	...	4	...	...	1	...	...	1	...	1	...	...	25	16	41
34. Meningitis — 2. Cerebro-spinal meningitis (undefined)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34. Meningitis — 3. Cerebro-spinal fever	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
35. Locomotor ataxia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	2
36. Other diseases of the spinal cord	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	2	2	...	1	1	...	...	...	...	4	4	8
37. Cerebral hemorrhage, apoplexy	...	...	...	...	...	...	...	...	...	1	1	2	4	11	14	22	43	45	49	50	30	24	5	...	126	175	301
38. Softening of the brain	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	1	2	1	1	...	...	4	4	8
39. Paralysis without specified cause	1	...	...	...	...	1	...	...	...	...	...	1	1	...	2	1	1	...	...	2	...	1	...	...	4	6	10
40. General paralysis of the insane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	2
41. Epilepsy	...	...	...	...	...	...	...	2	...	1	2	1	1	1	...	2	...	...	1	...	...	...	...	...	6	5	11
42. Convulsions (non-puerperal)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1
43. Convulsions of infants	48	16	3	...	...	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42	25	67
44. Chorea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45. Neuralgia and Neuritis	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	1	2
46. Other diseases of the nervous system	...	...	...	...	...	...	...	...	...	1	...	...	2	3	1	1	2	1	1	1	...	...	...	...	6	7	13
47. Diseases of the eyes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1
48. Diseases of the ears	3	3	1	...	...	7	1	...	1	1	1	1	1	1	...	1	1	...	...	...	...	...	...	...	11	5	16
Totals of nervous system, etc.	68	26	7	...	1	102	10	3	1	8	7	8	10	23	19	29	55	48	54	58	32	27	5	...	242	257	499
III. DISEASES OF THE CIRCULATORY SYSTEM																										
49. Pericarditis	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
50. Acute endocarditis	...	...	...	...	...	...	5	5	4	6	3	6	...	6	5	5	8	5	6	1	...	1	...	...	36	30	66
51. Organic diseases of the heart	3	1	...	...	2	6	1	6	9	6	10	17	17	21	32	63	80	106	122	106	60	29	16	...	326	381	707
52. Angina pectoris	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	2	2	1	2	1	2	...	...	...	7	7	14
53. Diseases of the Arteries, atheroma, aneurism, etc.	...	...	...	...	...	...	...	...	...	...	...	...	1	1	6	8	14	10	15	12	7	2	3	...	45	34	79
54. Embolism and thrombosis	...	...	...	...	...	...	...	...	...	...	1	3	1	4	4	3	5	9	7	13	4	3	2	...	32	27	59
55. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1	...	...	2	2	4
56. Diseases of the lymphatic system (lymphangitis, etc.)	...	...	...	...	1	1	...	...	...	1	2	...	2	...	1	...	...	1	...	1	...	...	...	...	7	2	9
57. Hæmorrhage; other diseases of the circulatory system	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	2	2	4
Totals of circulatory system	3	2	...	...	3	8	6	11	14	13	16	26	22	34	50	81	111	133	154	134	73	36	21	...	457	486	943

CAUSES OF DEATH.	AGE.																						SEX.		
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and over.	Age not known.	Males.	Females.	TOTAL.
IV. DISEASES OF THE RESPIRATORY SYSTEM.																									
57a. Asphyxia	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
58. Acute bronchitis	60	12	1	...	...	73	...	2	2	1	...	3	5	7	6	17	34	32	48	46	29	14	12	...	156	175	331
59. Chronic Bronchitis	1	1	...	...	...	2	...	...	...	...	...	1	2	7	4	9	15	14	19	19	6	4	1	...	43	60	103
60. Broncho-pneumonia	125	81	17	5	2	230	4	2	...	2	3	3	1	3	2	4	2	5	7	11	7	3	3	...	165	127	292
61. Pneumonia	61	37	8	5	4	115	4	4	2	5	5	9	10	4	12	14	13	20	17	12	10	2	5	...	145	118	263
62. Pleurisy	...	...	...	...	...	...	...	...	1	...	1	1	...	1	1	2	2	1	1	1	...	...	...	...	5	7	12
63. Gangrene of the lung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64. Asthma	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1	6	2	2	...	1	...	...	7	8	15
65. Pulmonary emphysema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	1	2
66. Other diseases of the respiratory system (tuberculosis excepted)	1	1	2	2	1	7	1	1	1	...	2	3	1	...	1	2	3	...	1	...	...	...	...	...	11	12	23
Total of respiratory system	248	132	28	13	7	428	10	9	6	8	11	20	19	23	26	49	70	78	97	91	52	24	21	...	533	509	1042
V. DISEASES OF THE DIGESTIVE SYSTEM																									
67. Ulcer of the stomach	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	3	...	1	...	2	...	...	...	...	6	3	9
68. Other diseases of the Stomach (cancer excepted)	10	3	1	...	1	15	...	...	1	...	...	...	2	2	1	1	6	3	2	3	3	2	1	...	22	20	42
69. Diarrhœa and enteritis	153	31	7	...	...	191	3	...	...	...	1	1	...	...	1	...	1	4	3	3	2	...	...	...	112	98	210
70. Appendicitis and typhlitis	...	...	2	...	1	3	2	5	5	...	2	2	2	2	...	...	1	...	1	1	...	...	...	...	12	14	26
71. Hernias, intestinal obstructions	5	...	1	...	...	6	...	...	...	2	...	1	...	1	2	4	4	8	3	1	3	2	1	...	18	20	38
72. Other diseases of the intestine	6	7	...	1	...	14	...	1	...	1	3	2	1	2	3	...	2	4	3	...	1	...	...	...	22	15	37
73. Acute yellow atrophy of the liver	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
74. Hydatid tumour of the liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
75. Cirrhosis of the liver	...	...	1	...	...	1	...	...	...	...	...	1	...	1	...	3	3	5	2	...	1	...	...	...	13	4	17
76. Biliary calculi	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	1	2	...	...	...	...	...	2	2	4
77. Other diseases of the liver	1	...	...	...	...	1	...	...	...	...	...	...	2	2	3	3	2	1	4	2	1	...	...	...	6	16	22
78. Simple peritonitis (non-puerperal)	1	...	...	...	...	1	2	...	1	3	...	3	...	2	...	1	1	1	...	...	...	...	...	...	6	9	15
79. Other diseases of the digestive system (cancer and tuberculosis excepted)	...	...	1	...	...	1	1	...	...	...	...	...	...	...	2	...	2	1	...	1	...	...	...	...	5	3	8
Totals of digestive system	176	41	13	2	2	234	9	7	7	7	6	10	8	12	14	15	22	29	20	13	11	4	2	...	224	206	430
VI. NON-VENEREAL DISORDERS OF THE GENITO-URINARY SYSTEM.																									
80. Acute Nephritis	3	3	1	1	...	8	...	1	2	...	1	4	6	1	1	6	13	7	4	7	1	1	...	...	36	27	63
81. Bright's Disease	...	...	...	...	...	...	1	3	...	1	1	3	4	10	8	8	13	10	4	7	6	...	...	...	39	40	79
82. Other diseases of the kidneys	3	...	...	...	...	3	...	...	2	...	2	1	5	2	4	4	...	4	3	...	...	2	1	...	15	18	33
83. Calculi of the urinary passages	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1
84. Diseases of the Bladder	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	1	1	7	2	3	1	...	2	...	16	4	20
85. Diseases of the prostate	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	4	2	3	3	1	...	16	...	16
86. Hæmorrhage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
87. Tumor (non-cancerous)	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	1	...	...	...	1	...	...	...	...	6	6
88. Other diseases of the uterus	...	...	...	...	...	...	...	...	1	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	5	5
Totals of genito-urinary-system	6	3	1	1	...	11	1	4	5	3	4	9	16	19	14	20	29	29	17	19	12	6	5	...	122	101	223

TABLE No. 8 (continued).

CAUSES OF DEATH.	AGE.																							SEX.		TOTAL.
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and over.	Age not known.	Males.	Females.	
VII. PUERPERAL STATE																										
89. Accidents of pregnancy	...	...	...	...	...	...	...	...	...	1	1	2	...	2	...	...	...	...	...	...	...	...	...	...	6	6
90. Puerperal hæmorrhage	...	...	...	...	...	...	...	...	1	...	2	...	1	1	...	...	...	...	...	...	...	...	...	...	6	6
91. Other accidents of labour	...	...	...	...	...	...	...	...	...	1	2	1	2	2	...	...	...	...	...	...	...	...	...	...	8	8
92. Puerperal septicemia	...	...	...	...	...	...	...	...	1	1	5	2	1	...	...	...	...	...	...	...	...	...	...	...	10	10
93. Puerperal albuminuria and convulsions	...	...	...	...	...	...	...	...	...	...	2	2	...	2	...	...	...	...	...	...	...	...	...	...	6	6
93a. Shock and Exhaustion after Confinement	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Totals of puerperal state	...	...	...	...	...	...	...	...	2	3	12	9	4	7	...	...	...	...	...	...	...	...	...	...	37	37
VIII. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.																										
94. Gangrene	...	1	...	...	...	1	...	...	...	...	...	...	1	2	...	...	1	3	...	...	5	...	...	...	5	8	13
95. Acute Abscess	1	1	...	...	...	2	...	...	1	...	1	1	...	1	1	...	1	1	1	...	...	...	...	...	5	5	10
96. Other diseases of the skin	3	...	1	...	...	4	...	...	...	1	...	...	...	...	...	2	3	1	1	...	...	...	...	...	6	6	12
Totals of skin tissue	4	2	1	...	...	7	...	...	1	1	1	1	1	3	1	2	5	5	2	...	5	...	...	...	16	19	35
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.																										
97. Diseases of the bones (tuberculosis excepted)	1	...	...	...	...	1	...	3	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	5	2	7
98. Diseases of the joints (tuberculosis and rheumatism excepted)	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	2
99. Amputations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100. Other diseases of the organs of locomotion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of bones and organs of locomotion	1	...	...	...	...	1	...	3	2	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	6	3	9
X. MALFORMATIONS.																										
101. Congenital malformations (stillbirths not included))	24	2	...	...	...	26	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	10	27
XI. DISEASES OF EARLY INFANCY.																										
102. Congenital debility icterus, and sclerema	302	9	...	...	...	311	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	167	145	312
103. Other accidents at birth	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
104. Inattention at birth	9	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	9
105. Other diseases peculiar to early infancy	7	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	3	7
Totals of early infancy	320	9	...	...	...	329	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	176	154	330
XII. OLD AGE																										
106. Senility	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	19	85	82	81	55	...	118	206	324

TABLE No. 8 (continued)

CAUSES OF DEATH.	AGE.																						SEX.		
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and over.	Age not known.	Males.	Females.	TOTAL.
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																										
107. Suicide by poison	...	...	...	...	...	...	...	...	...	...	...	3	1	2	...	1	1	...	1	...	...	...	...	...	6	3	9
108. Suicide by asphyxia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
109. Suicide by hanging or strangulation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	2	1	3
110. Suicide by drowning	...	...	...	...	...	...	...	...	...	1	1	...	2	1	1	...	4	...	3	1	...	...	...	...	9	5	14
111. Suicide by firearms	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
112. Suicide by cutting or piercing instruments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
113. Other suicides	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
114. Poisoning by food	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
115. Other acute poisonings	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	2	3
116. Burns	...	6	3	2	2	13	1	1	2	2	1	...	...	1	...	...	...	...	2	...	...	...	...	...	13	10	23
117. Absorption of deleterious gases	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
118. Accidental drowning	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
119. Traumatism by cutting or piercing instruments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
120. Traumatism by fall	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
121. Traumatism by machines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
122. Excessive cold	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
123. Effects of heat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
124. Homicide by firearms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
125. Homicide by cutting or piercing instruments	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
126. Homicide by other means	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
127. Fractures(causes not specified)	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	1	...	...	1	4	3	...	...	...	9	5	14
128. Other external violence	...	...	3	...	1	4	8	8	4	3	1	1	1	5	5	3	4	6	6	6	4	1	...	...	41	29	70
128a. Post Operative Shock	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	3
Total of affections by external causes	...	7	6	2	4	19	10	10	7	6	3	4	7	10	9	6	9	7	15	11	8	1	...	...	85	57	142
XIV. ILL-DEFINED DISEASES.																										
129. Ill-defined organic disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
130. Sudden death	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
131. Cause of death not specified or ill-defined	...	2	...	...	...	2	...	...	1	...	...	1	...	1	1	...	1	2	...	...	...	...	...	...	5	4	9
Totals of ill-defined diseases	...	2	...	...	...	2	...	...	1	...	...	1	...	1	1	...	1	2	...	...	...	...	...	...	5	4	9
Totals from all causes	939	342	91	42	27	1441	90	69	119	146	141	167	152	217	228	311	444	445	480	494	298	195	117	...	2689	2865	5554

TABLE No. 9.

Shewing the number of deaths registered as having been caused by the principal Zymotic Diseases, also the annual rate of mortality per 10,000 of the population during the thirty-six years 1893-1928:—

Year.	POPULATION.	Typhoid Fever		Typhus Fever		Smallpox		Scarlet Fever		Simple Contin'd Fever		Diphtheria		Whooping Cough		Measles		Diarrhœa	
		Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000	Number of Deaths.	Annual Rate per 10,000
1893	275,000	122	4.4	14	0.5	...	...	48	1.7	10	0.4	52	1.9	193	7.0	216	7.8	599	21.8
1894	285,000	145	5.1	4	0.1	...	...	38	1.3	21	0.7	66	2.3	190	6.7	452	15.8	197	6.9
1895	295,000	184	6.2	19	0.6	...	...	88	3.0	29	1.0	34	1.2	109	3.7	197	6.7	325	11.0
1896	300,000	136	4.5	4	0.1	...	...	173	5.8	19	0.6	47	1.6	215	7.2	205	6.8	206	6.9
1897	310,000	354	11.4	5	0.1	...	...	32	1.0	16	0.5	38	1.2	187	6.0	124	4.0	355	11.4
1898	340,000	640	18.8	1	0.03	...	...	21	0.6	22	0.6	87	2.6	109	3.2	54	1.6	356	10.5
1899	350,000	263	7.5	1	0.03	...	...	24	0.7	10	0.3	61	1.7	215	6.1	146	4.2	285	8.1
1900	359,000	261	7.3	2	0.05	...	...	14	0.4	8	0.2	54	1.5	115	3.2	42	1.2	241	6.7
1901	350,862	341	9.7	8	0.2	1	0.03	13	0.4	26	0.7	65	1.9	162	4.6	240	6.8	292	8.3
1902	360,000	169	4.7	3	0.08	1	0.03	15	0.4	12	0.3	66	1.8	208	5.8	349	9.7	204	5.7
1903	360,000	136	3.8	4	0.1	...	...	24	0.7	18	0.5	40	1.1	168	4.7	125	3.5	277	7.7
1904	360,000	111	3.1	6	0.2	8	0.2	21	0.6	8	0.2	28	0.8	260	7.2	196	5.4	251	7.0
1905	360,000	128	3.6	1	0.03	1	0.03	35	1.0	6	0.2	32	0.9	24	0.7	227	6.3	295	8.2
1906	366,220	90	2.5	3	0.08	...	..	26	0.7	9	0.2	41	1.1	331	9.0	29	0.8	376	10.3
1907	370,163	82	2.2	3	0.08	...	...	13	0.3	2	0.05	38	1.0	64	1.7	201	5.4	212	5.7
1908	380,344	57	1.5	10	0.26	.	...	4	0.1	2	0.05	33	0.9	137	3.6	186	4.9	260	6.8
1909	386,576	20	0.5	...	...	...	...	4	0.1	2	0.05	18	0.4	213	5.5	10	0.3	244	6.3
1910	391,167	18	0.5	1	0.03	...	...	18	0.5	5	0.1	27	0.7	259	6.6	504	12.9	241	6.2
1911	386,449	15	0.4	2	0.05	...	...	37	1.0	...	...	32	0.8	67	1.7	2	0.05	290	7.5
1912	391,974	17	0.4	2	0.05	...	...	48	1.2	...	...	37	0.9	217	5.5	171	4.4	159	4.1
1913	396,000	22	0.6	1	0.03	...	...	153	3.9	...	...	53	1.3	41	1.0	182	4.6	458	11.6
1914	399,000	26	0.7	11	0.3	...	...	168	4.2	...	...	31	0.8	205	5.1	205	5.1	457	11.5
1915	403,000	10	0.2	...	...	...	...	107	2.7	...	...	27	0.7	134	3.3	177	4.4	240	6.0
1916	390,000	19	0.5	4	0.1	...	...	52	1.3	...	...	28	0.7	120	3.1	191	4.9	236	6.1
1917	393,000	39	1.0	6	0.15	...	...	11	0.3	...	...	22	0.6	57	1.5	98	2.5	180	4.6
1918	393,000	25	0.6	3	0.08	...	...	12	0.3	...	...	30	0.8	317	8.1	111	2.8	205	5.2
1919	401,000	17	0.4	1	0.02	...	...	138	3.4	...	...	30	0.7	9	0.2	137	3.4	263	6.6
1920	413,000	34	0.8	9	0.2	...	...	94	2.3	...	...	45	1.1	84	2.0	132	3.2	223	5.4
1921	420,000	15	0.4	3	0.07	...	....	11	0.3	...	...	31	0.7	222	5.3	17	0.4	279	6.6
1922	425,000	7	0.2	...	...	...	..	12	0.3	...	...	43	1.0	16	0.4	33	0.8	152	3.6
1923	429,000	4	0.09	...	...	...	...	26	0.6	...	...	24	0.6	182	4.2	126	2.9	154	3.6
1924	434,000	3	0.07	...	...	...	...	57	1.3	...	...	23	0.5	89	2.0	83	1.9	166	3.8
1925	438,000	18	0.41	...	...	...	...	49	1.1	...	...	38	0.9	99	2.3	167	3.8	203	4.6
1926	416,000	6	0.1	...	...	...	...	12	0.3	...	...	44	1.1	46	1.1	132	3.2	287	6.9
1927	416,000	8	0.2	...	...	...	...	10	0.2	...	...	30	0.7	117	2.8	1	0.02	195	4.7
1928	415,151	13	0.3	1	0.02	...	...	21	0.5	...	...	16	0.4	50	1.2	169	4.1	196	4.7

INFECTIOUS DISEASES.

NOTIFICATIONS.

TABLE No. 10.

Shewing the number of cases of Infectious Diseases notified pursuant to the Infectious Disease (Notification) Act, 1889, as having occurred in each of the four quarters.

DISEASE.	Quarter Ended				TOTAL.
	31st March, 1928.	30th June, 1928.	29th Sept., 1928.	29th Dec., 1928.	
Typhus Fever	—	3	—	—	3
Typhoid Fever	48	70	42	26	186
Scarlet Fever	475	457	295	556	1,783
Simple Fever	—	1	—	—	1
Puerperal Fever	4	6	2	2	14
Relapsing Fever	—	—	—	—	—
Smallpox	—	—	—	—	—
Diphtheria	184	123	118	203	628
Membraneous Croup	—	1	—	—	1
Erysipelas	26	22	15	21	84
Cerebro-Spinal Meningitis	1	3	1	2	7
Poliomyelitis	1	—	—	—	1
Encephalitis Lethargica	—	1	—	—	1
Ophthalmia Neonotorum	2	4	—	2	8
Total	741	691	473	812	2,717

CORRECTED DIAGNOSIS.

1 case notified as Typhus Fever, 8 as Typhoid Fever, 41 as Scarlet Fever, 1 as Simple Continued Fever, 73 as Diphtheria, 1 as Membraneous Croup, and 2 as Cerebro-Spinal Meningitis, were found not suffering from the diseases notified. Of these 6 cases notified as Diphtheria and 1 as Simple Continued Fever were found to be suffering from Scarlet Fever, 1 case notified as Diphtheria was found to be suffering from Cerebro-Spinal Meningitis, 6 cases notified as Scarlet Fever were found to be suffering from Diphtheria, and 1 case notified as Typhoid Fever was found to be suffering from Typhus Fever. The remainder were not suffering from any notifiable infectious disease.

TABLE No. 11.

Shewing by Registrar's Districts the number of cases of Infectious Diseases notified pursuant to the Infectious Disease (Notification) Act, 1889.

DISTRICT.	Typhus Fever	Typhoid Fever.	Scarlet Fever.	Simple Continued Fever.	Puerperal Fever.	Relapsing Fever.	Smallpox.	Diphtheria	Membraneous Croup.	Erysipelas.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Encephalitis Lethargica.	Ophthalmia Neonatorum.	Total.
1 Dock	...	4	41	...	...	...	...	22	...	2	1	...	1	...	71
2 Duncairn	...	23	184	...	1	...	...	94	...	9	1	1	...	...	313
3 Shankill	...	22	304	1	1	...	...	70	...	13	...	...	...	...	411
4 Workhouse	...	32	212	...	1	...	...	81	...	11	1	...	...	1	339
5 Millfield	...	10	93	...	2	...	...	16	...	3	...	...	...	2	126
6 College	...	8	78	...	3	...	...	49	1	8	2	...	...	...	149
7 Greencastle	...	...	29	...	...	...	...	2	...	2	...	...	...	...	33
8 Ligoniel	...	2	58	...	...	...	...	10	...	1	...	...	...	...	71
9 Falls	1	28	104	...	1	...	...	38	...	3	...	...	...	2	177
10 Woodvale	...	13	142	...	...	...	...	32	...	2	...	...	...	1	190
11 Ravenhill	...	5	200	...	3	...	...	69	...	13	...	...	...	1	291
12 Ballymacarrett	...	8	122	...	1	...	...	46	...	8	2	...	...	...	187
13 Ballyhackamore	...	6	102	...	...	...	...	40	...	4	...	...	...	...	152
14 Ballymaghan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15 Central	2	20	49	...	...	...	...	31	...	2	...	...	...	...	104
16 Pottinger	...	5	65	...	1	...	...	28	...	3	...	...	...	1	103
Total	3	186	1,783	1	14	...	...	628	1	84	7	1	1	8	2,717

TABLE No. 12.

Showing the number of Cases of Infectious Diseases notified pursuant to the Infectious Disease (Notification) Act, 1889, the number treated at home and the number in hospital during the ten years, 1919-1928.

Year	Typhus Fever			Typhoid Fever				Scarlet Fever				Continued Fever				Diphtheria and Membranous Croup				Smallpox			Cerebro-Spinal Meningitis				Poliomyelitis				Puerperal Fever	Erysipelas	Relapsing Fever	Encephalitis Lethargica	Ophthalmia Neonatorum	Total
	Total	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital	Total	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital	Total	Home	Hospital	Per cent. treated in Hospital						
1919	1	1	100.0	110	8	102	92.7	2,793	251	2,542	91.0	9	3	6	66.7	238	21	217	91.2	...	...	...	12	1	11	91.7	...	...	...	...	23	149	...	...	...	3335
1920	26	26	100.0	210	17	193	91.9	1,939	189	1,750	90.2	6	...	6	100.0	300	20	280	93.3	...	...	...	8	1	7	87.5	1	1	...	...	48	151	...	...	...	2689
1921	10	10	100.0	123	11	112	91.1	786	79	707	89.9	7	...	7	100.0	414	31	383	92.5	4	4	100.0	7	1	6	85.7	...	...	...	...	14	64	...	2	13	1444
1922	...	...	...	80	10	70	87.5	750	67	683	91.1	...	...	...	...	522	48	474	90.8	...	...	...	11	2	9	81.8	4	1	3	75.0	17	71	...	2	13	1470
1923	...	...	...	46	1	45	97.8	984	36	948	96.3	1	...	1	100.0	296	4	292	98.6	...	...	...	3	...	3	100.0	1	...	1	100.0	13	89	...	20	11	1464
1924	...	...	...	44	1	43	97.7	1,818	66	1,752	96.4	...	...	...	...	286	17	269	94.1	...	...	...	...	...	...	...	1	1	...	...	9	42	...	221	6	2427
1925	...	...	...	143	4	139	97.1	1,657	67	1,590	96.0	3	...	3	100.0	423	15	408	96.0	...	...	...	5	...	5	100.0	...	...	...	...	5	54	...	10	6	2306
1926	...	...	...	84	1	83	98.8	997	60	937	93.9	...	...	...	...	603	22	581	96.3	...	...	...	9	...	9	100.0	3	1	2	66.6	37	120	...	17	5	1875
1927	...	...	...	168	13	155	92.3	1,113	36	1,077	96.8	1	...	1	100.0	486	25	461	94.9	...	...	...	10	1	9	90.0	4	3	1	25.0	20	85	...	8	9	1904
1928	3	3	100.0	186	7	179	96.2	1,783	48	1,735	97.3	1	...	1	100.0	629	10	619	98.4	...	...	...	7	...	7	100.0	1	...	1	100.0	14	84	...	1	8	2717

TABLE No. 13.

Shewing by age periods and sexes the number of cases of Infectious Diseases notified pursuant to the Infectious Disease (Notification) Act, 1889.

DISEASE.	Under 1 year		1 year and under 2 years.		2 years and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.		20 years and under 25 years.		25 years and under 45 years.		45 years and under 65 years.		65 years and upwards.		Age Unknown.		Total No. Males.	Total No. Females	Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Typhus Fever	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	2	1	3
Typhoid Fever	...	1	1	3	6	4	18	21	15	15	18	18	6	21	14	9	1	8	...	1	...	6	79	107	186
Scarlet Fever	14	5	24	35	230	257	364	420	89	120	25	50	13	38	30	53	4	7	...	...	2	3	795	988	1783
Simple Fever	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	1	...	4	...	9	...	...	...	...	...	...	...	14	14
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	8	1	20	14	72	75	106	140	31	44	11	22	6	22	12	32	1	4	...	1	1	5	268	360	628
Membraneous Croup	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Erysipelas	4	3	2	1	3	...	...	...	...	2	1	3	4	1	7	13	8	15	2	7	1	7	32	52	84
Cerebro-Spinal Meningitis	...	1	...	...	1	...	...	2	...	1	1	...	1	...	...	...	...	...	...	...	...	...	3	4	7
Poliomyelitis	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Encephalitis Lethargica	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Ophthalmia Neonatorum	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	8
	30	15	47	53	314	336	489	584	135	182	58	94	30	86	63	116	14	34	2	10	4	21	1185	1531	2717

TABLE No. 14.

Shewing the rate per 1,000 of the population of cases of Infectious Diseases notified, pursuant to the Infectious Disease (Notification) Act, 1889, during the twenty years 1909-1928; also the average for the quinquennial periods.

Year.	Rate.		Year.	Rate.	
1909	2.5		1919	8.4	
1910	3.4		1920	6.5	
1911	3.8	4.2	1921	3.4	5.0
1912	3.7		1922	3.5	
1913	7.6		1923	3.4	
1914	7.5		1924	5.6	
1915	6.2		1925	5.3	
1916	3.8	4.4	1926	4.5	5.3
1917	2.7		1927	4.6	
1918	2.0		1928	6.5	

ZYMOTIC DISEASES.

466 deaths were caused by Zymotic Diseases during the year, equivalent to 8.0 per cent. of the total number of deaths registered from all causes, or a Zymotic death rate of 1.1 per 1,000 of the population. During the preceding year the deaths from Zymotic Diseases numbered 361, 6.4 per cent. of the total deaths, or a death rate of 0.9.

13, or 2.8 per cent. of the total deaths from Zymotic Diseases were caused by Typhoid Fever; 169, or 36.3 per cent. by Measles; 21, or 4.5 per cent., by Scarlet Fever; 50, or 10.7 per cent., by Whooping Cough; 16, or 3.4 per cent., by Diphtheria; and 196, or 42 per cent., by Diarrhœa.

The diseases from which the greatest number of deaths were registered were Diarrhœa and Measles, the figures being respectively 196 and 169. The comparative figures for the preceding year were 195 and 1 respectively.

TABLE No. 15.

Shewing the annual Death Rate per 1,000 of the population from Zymotic Diseases during the twenty years 1909-1928; also the average rate for quinquennial periods.

Year.	Rate.		Year.	Rate.	
1909	1.3		1919	1.5	
1910	2.7		1920	1.5	
1911	1.8	2.0	1921	1.4	1.2
1912	1.7		1922	0.6	
1913	2.3		1923	1.2	
1914	2.7		1924	1.0	
1915	1.7		1925	1.3	
1916	1.7	1.8	1926	1.3	1.1
1917	1.1		1927	0.9	
1918	1.8		1928	1.1	

TYPHUS FEVER.

3 cases of Typhus Fever occurred during the year, one of which was found on investigation not suffering from the disease, but one case notified as Typhoid Fever was found to be suffering from Typhus Fever. One death was registered.

TYPHOID FEVER.

186 cases were notified. On investigation 8 cases were found not suffering from the disease, which made the total number of cases which occurred during the year 178, an attack rate of 0.4 per 1,000 of the population.

The number of cases which occurred during the preceding year was 160, and the average number notified annually during the ten years 1918-1927 was 118.

13 deaths were registered, equivalent to a case mortality of 7.3 per cent. or a death rate of 0.03 per 1,000 of the population.

The number of deaths registered during the preceding year was 8, and the average number registered annually during the ten years 1918-1927 was 14.

TABLE No. 16.

Shewing the annual death rate per 1,000 of the population from Typhoid Fever during the twenty years 1909-1928; also the average rate for quinquennial periods.

Year.	Rate.		Year.	Rate.	
1909	0.05		1919	0.04	
1910	0.04		1920	0.08	
1911	0.04	0.04	1921	0.04	0.04
1912	0.04		1922	0.02	
1913	0.05		1923	0.01	
1914	0.07		1924	0.007	
1915	0.02		1925	0.04	
1916	0.05	0.06	1926	0.01	0.02
1917	0.10		1927	0.02	
1918	0.06		1928	0.03	

Average annual death rate for twenty years, 1909-1928, 0.04.

SCARLET FEVER.

1,783 cases were notified, but on investigation 41 were found not suffering from the disease. In addition to those notified, 6 cases notified as Diphtheria and 1 as Simple Continued Fever were found to be suffering from Scarlet Fever, which made the total number that occurred during the year 1,749—an attack rate of 4.2 per 1,000 of the population.

The number of cases which occurred during the preceding year was 1,106, and the average number notified annually during the ten years 1918-1927 was 1,310.

21 deaths were registered during the year, equivalent to a case mortality of 1.2 per cent., or a death rate of 0.05 per 1,000 of the population.

The number of deaths registered during the preceding year was 10, and the average number registered annually during the ten years 1918-1927 was 42.

DIPHTHERIA.

628 cases were notified, but on investigation 73 were found not suffering from the disease. In addition to those notified 6 cases notified as Scarlet Fever were found to be suffering from Diphtheria, which made the total number of cases that occurred during the year 561, an attack rate of 1.3 per 1,000 of the population.

The number of cases that occurred during the preceding year was 439, and the average number notified annually during the ten years 1918-1927 was 377.

16 deaths were registered, equivalent to a case mortality of 2.9 per cent., or a death rate of 0.04 per 1,000 of the population.

The number of deaths registered during the preceding year was 30, and the average number registered annually during the ten years 1918-1927 was 34.

MEMBRANEOUS CROUP.

1 case of this disease was notified during the year, but was found on investigation not suffering from the disease; 2 cases were notified in the preceding year, and the average number notified annually during the ten years 1918-1927 was 4.

ERYSIPELAS.

84 cases were notified during the year, an attack rate of 0.2 per 1,000 of the population.

The number which occurred during the preceding year was 84, and the average number notified annually during the ten years 1918-1927 was 89.

CEREBRO-SPINAL MENINGITIS.

7 cases of this disease were notified during the year—2 of these were found not suffering from the disease, but one case notified as Diphtheria was found to be suffering from Cerebro-Spinal Meningitis, which made the total number of cases that occurred 6, an attack rate of 0.01 per 1,000 of the population.

The number which occurred during the preceding year was 10, and the average number notified annually during the ten years 1918-1927 was 8.

POLIOMYELITIS.

1 case of this disease was notified during the year. 4 cases occurred in the preceding year, and the average number notified annually during the ten years 1918-1927 was 1.

ENCEPHALITIS LETHARGICA.

1 case was notified.

8 cases occurred during the preceding year.

OPHTHALMIA NEONATORUM.

8 cases were notified during the year and 9 during the preceding year.

MEASLES.

169 deaths were registered as having been caused by this disease, equivalent to a death rate of 0.4 per 1,000 of the population.

The number registered during the preceding year was 1, and the average number registered annually during the ten years 1918-1927 was 94.

WHOOPING COUGH.

50 deaths were registered during the year, equivalent to a death rate of 0.1 per 1,000 of the population.

The number registered during the preceding year was 117, and the average number registered annually during the ten years 1918-1927 was 118.

DIARRHŒA.

196 deaths of children under 2 years of age were registered as having been caused by this disease during the year, equivalent to a death rate of 0.47 per 1,000 of the population.

The number registered during the preceding year was 195, and the average number registered annually during the ten years 1918-1927 was 213.

PUERPERAL FEVER.

14 cases of this disease were notified.

The number of cases notified during the preceding year was 20, and the average number notified annually during the ten years 1918-1927 was 19.

11 deaths occurred, equivalent to a case mortality of 78.6 per cent.

The number of deaths which occurred during the preceding year was 11, which gave a case mortality of 55 per cent.

The following is a summary showing particulars with respect to the cases treated:—

	Numbers.	Recovered.	Died.
Cases attended by medical practitioners and qualified nurses	10	3	7
Cases attended by medical practitioners and unqualified nurses	3	—	3
Cases attended by qualified nurses and no medical practitioners	1	—	1

TABLE No. 17.

PUERPERAL FEVER.

Return shewing particulars respecting Puerperal Fever Cases.

No.	ADDRESS	Dispensary District	Medical Practitioner present at birth?	Where Treated		Nurse		Patient	
				Home	Hospital	Qualified	Un-qualified	Recd.	Died
1	Barrow Street	3	Yes	1	1	1	—	—	1
2	Victor Street	11	No	1	1	1	—	—	1
3	Malcolm Street	11	Yes	1	1	1	—	1	—
4	Dunluce Avenue	4	Yes	1	1	—	1	—	1
5	Kimberley Street	11	Yes	1	1	1	—	—	1
6	Owen O'Cork House	12	Yes	1	1	—	1	—	1
7	Parkend Street	2	Yes	1	—	1	—	1	—
8	Union Hospital	4	Yes	—	1	1	—	1	—
9	Maternity Hospital	5	Yes	—	1	1	—	—	1
10	Upper Townsend St.	3	Yes	1	—	—	1	—	1
11	Palmer Street	10	Yes	1	—	1	—	—	1
12	West Street	5	Yes	1	1	1	—	—	1
13	Tower Street	16	Yes	1	—	1	—	—	1
14	Bilton Street	5	Yes	—	1	1	—	—	1

MIDWIVES.

During the year 225 midwives gave the required notice of their intention to practise, of these 186 were certified by examination and 39 otherwise certified.

In order to ensure compliance with the Rules and Regulations of the Joint Nursing and Midwives' Council, the midwives were visited at intervals throughout the year by the Superintendent of Midwives, both at their homes and also at the homes of cases being attended by them. Special attention was given to the personal cleanliness of the midwives and the condition of their homes and the necessary appliances. The registers containing the entries of births attended by them were examined, and were, with very few exceptions, found to be correctly kept.

A number of breaches of the Rules and Regulations were discovered and reported to the Maternity and Child Welfare Committee.

8 cases of Ophthalmia Neonatorum occurred during the year. All of these completely recovered.

14 cases of Puerperal Fever occurred during the year.

In cases where artificial feeding was resorted to instructions as to the absolute necessity of cleanliness of the bottles and teats were given. Mothers were also advised to take advantage of the Child Welfare Centres, the benefits both to themselves and their infants being explained to them.

SUMMARY.

Number of Midwives who notified their intention to practise:—

Certified by examinations	186
Otherwise certified	39
	225

SUMMARY OF VISITS AND GENERAL INFORMATION WITH RESPECT TO THE ENFORCEMENT OF THE PROVISIONS OF THE ACT AND RULES AND REGULATIONS MADE PURSUANT THERETO.

Visits by Superintending Midwife:—

To Midwives certified by examination	563	
To Midwives otherwise certified	199	
Total Visits to Midwives		762
To cases attended by Midwives	310	
To Maternity Nursing Homes	65	
To unregistered women found practising	31	

Births investigated :—

Attended by Medical Practitioners	2,636
„ by Midwives certified by examination	3,604
„ by Midwives otherwise certified	439
„ in Union Maternity Hospital	586
„ in other Maternity Hospitals	706
„ by Nurses from Maternity Hospitals	658
„ in Malone Place Home	73
„ in Salvation Army Home	73
	8,775

Notifications received by Medical Superintendent Officer of Health:—

Under Form A.—Sending for Medical help	36
„ „ B.—Notification of Death	2
„ „ C.—Notification of Stillbirth	33
„ „ E.—Artificial Feeding	4

Irregularities:—

Number of Midwives reported to Medical Superintendent Officer of Health or Maternity and Child Welfare Committee	27
Number of verbal notices to Midwives for uncleanliness of their homes or bags of appliances	5
Number of Midwives suspended	14
„ „ prosecuted	1
„ „ cautioned for failing to keep registers of cases up to date	10

Number of Midwives disinfected owing to—

Puerperal Fever	9
Diphtheria	2
Measles	1
Scarlet Fever	2
Number of Midwives who died	2
Number of Unregistered Women found practising	7

TABLE No. 18.

Shewing by Registrars' Districts the number of cases of Typhoid Fever notified pursuant to the Infectious Disease (Notification) Act, 1889, in each month of the year.

District.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1 Dock	....	....	1	....	....	....	....	....	1	1	....	1	4
2 Duncairn	2	....	4	5	3	3	1	2	....	1	....	2	23
3 Shankill	4	5	3	....	4	....	....	3	2	1	....	....	22
4 Workhouse	2	1	2	8	8	4	2	2	2	1	....	....	32
5 Millfield	2	....	2	....	1	2	....	....	....	....	....	3	10
6 College	....	....	2	2	....	2	....	1	....	....	1	....	8
7 Greencastle	....	....	....	....	....	....	....	....	....	....	....	....	....
8 Ligoniel	....	....	1	1	....	....	....	....	....	....	....	....	2
9 Falls	....	1	1	2	3	3	9	1	....	....	6	2	28
10 Woodvale	2	....	....	....	....	8	....	2	....	....	....	1	13
11 Ravenhill	2	....	1	1	....	....	1	....	....	....	....	....	5
12 Ballymacarrett	....	1	2	1	2	....	....	1	....	1	....	....	8
13 Ballyhackamore	....	1	1	....	....	....	2	....	....	....	....	2	6
14 Ballymaghan	....	....	....	....	....	....	....	....	....	....	....	....	....
15 Central	....	....	4	2	4	1	1	....	5	....	2	1	20
16 Pottinger	....	....	1	....	....	....	2	1	1	....	....	....	5
Total	14	9	25	22	25	23	18	13	11	5	9	12	186

TABLE No. 19.

Shewing by Registrars' District the number of cases of Scarlet Fever notified, pursuant to the Infectious Disease (Notification) Act, 1889, in each month of the year.

District.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1 Dock	1	2	9	2	6	3	3	1	4	1	4	5	41
2 Duncairn	19	14	14	12	22	24	3	6	10	31	16	13	184
3 Shankill	25	17	45	28	19	22	16	4	32	32	33	31	304
4 Workhouse	20	5	20	12	16	21	10	7	22	38	28	13	212
5 Millfield	10	4	10	3	11	10	2	2	11	5	13	12	93
6 College	5	5	4	5	8	8	4	2	13	2	14	8	78
7 Greencastle	1	—	3	7	3	4	1	1	2	2	5	—	29
8 Ligoniel	2	—	4	3	10	6	8	4	1	4	8	8	58
9 Falls	13	13	13	12	10	9	7	4	4	11	1	7	104
10 Woodvale	10	18	15	13	11	11	6	8	8	9	19	14	142
11 Ravenhill	17	26	15	18	12	8	7	10	20	24	21	22	200
12 Ballymacarrett	7	8	14	9	12	17	9	5	13	16	6	6	122
13 Ballyhackamore	7	17	7	6	10	12	3	4	4	4	13	15	102
14 Ballymaghan	—	—	—	—	—	—	—	—	—	—	—	—	—
15 Central	5	6	1	3	—	7	5	1	2	7	9	3	49
16 Pottinger	3	17	4	3	6	3	1	1	4	6	11	6	65
Total	145	152	178	136	156	165	85	60	150	192	201	163	1,783

TABLE No. 20.

Shewing by Registrars' Districts, the number of cases of Diphtheria notified, pursuant to the Infectious Disease (Notification) Act, 1889, in each month of the year.

District.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1 Dock	—	1	2	—	3	1	1	2	6	2	2	2	22
2 Duncairn	5	11	15	5	14	11	4	3	6	7	6	7	94
3 Shankill	7	8	6	4	6	5	3	8	7	6	5	5	70
4 Workhouse	4	6	19	4	2	9	7	2	5	8	4	11	81
5 Millfield	—	7	—	1	—	1	—	—	2	3	1	1	16
6 College	6	2	5	3	....	3	....	3	3	7	3	14	49
7 Greencastle	....	1	....	....	....	....	....	....	1	....	....	....	2
8 Ligoniel	2	....	1	....	—	4	....	....	—	....	2	1	10
9 Falls	....	3	7	3	3	1	....	1	3	5	4	8	38
10 Woodvale	5	4	4	3	2	3	2	3	3	2	1	....	32
11 Ravenhill	13	3	4	1	2	4	1	3	6	12	13	7	69
12 Ballymacarrett....	—	3	5	6	—	4	2	8	5	3	3	7	46
13 Ballyhackamore	1	3	1	1	2	4	4	1	2	5	2	14	40
14 Ballymaghan	—	....	....	....	—	....	....	....	....	....	....	—	....
15 Central	3	3	5	1	....	4	4	1	2	4	2	2	31
16 Pottinger	—	3	6	1	1	1	2	—	2	2	4	6	28
Total	46	58	80	33	35	55	30	35	53	66	52	85	628

TABLE No. 21.

Shewing by Registrars' Districts the number of cases of Erysipelas notified pursuant to the Infectious Disease (Notification) Act, 1889, in each month of the year.

District.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1 Dock	....	....	....	....	1	....	....	....	1	....	....	....	2
2 Duncairn	2	....	1	....	1	1	....	2	....	1	1	....	13
3 Shankill	....	1	2	2	2	1	....	....	2	2	....	1	9
4 Workhouse	1	....	1	2	1	1	....	....	1	....	3	1	11
5 Millfield	....	2	....	....	....	....	1	....	....	....	....	....	3
6 College	....	1	....	....	1	....	....	1	2	2	....	1	8
7 Greencastle	....	....	1	....	....	....	....	....	....	....	1	....	2
8 Ligoniel	1	....	....	....	....	....	....	....	....	....	....	....	1
9 Falls	....	1	1	....	....	....	....	....	....	....	....	1	3
10 Woodvale	....	1	....	....	....	....	....	....	....	....	....	1	2
11 Ravenhill	....	3	....	1	2	....	2	2	....	....	1	2	13
12 Ballymacarrett	....	1	1	....	1	3	....	....	....	....	2	....	8
13 Ballyhackamore	2	....	....	....	....	....	....	....	1	....	....	1	4
14 Ballymaghan	....	....	....	....	....	....	....	....	....	....	....	....	....
15 Central	....	....	....	2	....	....	....	....	....	....	....	....	2
16 Pottinger	....	....	3	....	....	....	....	....	....	....	....	....	3
Total	6	10	10	7	9	6	3	5	7	5	8	8	84

PUBLIC HEALTH (IRELAND) PNEUMONIA, MALARIA, DYSENTRY, &c., REGULATIONS, 1919.

The number of cases notified under above Regulations was 19.

The houses in which these diseases occurred were visited and precautions taken to prevent the spread of the disease.

PRECAUTIONS TAKEN TO PREVENT THE SPREAD OF INFECTION.

In order to prevent the spread of infection, every house in which infectious disease has occurred is thoroughly disinfected immediately after the receipt of notification of the disease. The bedding, clothing, etc., of the patient and all other articles likely to retain infection are removed to the Disinfecting Station, Laganbank Road, and subjected to steam under pressure.

If it is considered that the patient could not be properly isolated from other members of the family, or that the accommodation in the house is not adequate for successful treatment, removal of the patient to hospital is insisted upon. In cases where home treatment is permitted instructions are given as to the precautions to be taken to prevent the spread of infection and periodical visits are made to ensure that the instructions are being carried out.

Disinfectants are supplied free of cost to every applicant in whose home infectious disease has occurred and also to those whom it is considered are not in a position to purchase same.

Exhaustive enquiries are made with a view to the discovery of the origin of the disease. The sanitary arrangements are carefully examined, the drains if suspected are tested; investigations are made with respect to the milk supply; enquiries are made as to whether any food of a deleterious nature, such as contaminated shellfish, unsound or unwholesome fruit, etc., has been eaten, in fact anything which it is considered might form a possible clue to the source of infection is carefully investigated.

The number of Houses disinfected during the year was 3,067.

LIBRARY BOOKS.

During the year 323 volumes belonging to the Central and Branch Public Libraries were taken by the officers of the Department from houses in which infectious disease occurred, and withdrawn from circulation, amounting to a loss of £84 5s 0d to the Library Committee. This is an increase of 61 volumes and of £12 15s 0d compared with the preceding year. The books of other libraries were disinfected and returned if the owners did not consent to the destruction of same.

TABLE No. 22.

ARTICLES DISINFECTED AT DISINFECTING STATION, LAGANBANK ROAD.

	CLOTHING.																																		
	Slippers.	Boots.	Caps.	Coats.	Hats.	Vests.	Collars.	Pants.	Braces.	Ties.	Stockings.	Socks.	Shirts.	Flannels.	Blouses.	Gowns.	Cloaks.	Dresses.	Rugs.	Bodices.	Corsets.	Petticoats.	Shawls.	Chemises.	Mantles.	Jackets.	Aprons.	Handkerchiefs	Drawers.	Skirts.	Furs.	Belts.	Canes.	Other Articles	Total.
1927.																																			
Total for January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ February	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
„ March	...	...	2	6	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	13
„ April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ May	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
„ June	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
„ July	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
„ August	...	...	...	2	...	2	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	10
„ September	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	8
„ October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	4
„ November	...	...	...	3	...	1	...	1	...	...	...	2	1	...	...	...	...	...	10	...	...	1	2	...	...	1	...	...	...	...	...	...	...	1	23
„ December	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	...	4	7	...	...	...	1	...	...	6	...	...	1	1	...	...	...	2	26
Total	...	...	2	19	...	5	2	7	...	...	...	2	1	...	...	3	...	7	22	...	...	1	8	1	...	9	1	...	1	1	...	...	...	3	95

NOTE:—In addition to above, 634 articles of second-hand clothing were disinfected on the premises of the exporter prior to exportation to Irish Free State in compliance with their Regulations.

TABLE No. 22—Continued.

	BEDDING.														SUNDRIES.										
	Bed Ticks.	Hair Mattresses.	Flock Mattresses.	Straw Mattresses.	Blankets, Double.	Blankets, Single.	Sheets.	Quilts.	Bolsters.	Bolster Slips.	Pillows.	Pillow Slips.	Valances.	Other Articles.	Cushions.	Curtains.	Towels.	Table Covers.	Toilet Covers.	Carpets.	Felt.	Bundles.	Other Articles.	Total.	GRAND TOTAL
1927 Totals for January	44	82	54	3	1	124	48	82	97	39	237	59	...	...	5	...	...	...	...	...	2	...	7	884	884
„ February	31	61	61	3	...	76	32	51	52	16	120	36	...	...	4	...	...	...	...	...	1	6	2	552	556
„ March	30	35	81	8	5	98	41	52	55	29	132	53	...	...	1	...	1	...	...	2	...	6	...	629	642
„ April	30	47	39	4	...	51	25	28	41	15	99	4	...	...	1	18	...	...	...	1	1	22	1	427	427
„ May	25	49	65	9	1	79	41	48	59	23	137	22	...	...	3	...	...	...	...	...	1	35	1	598	601
„ June	28	52	36	14	1	80	18	44	45	17	121	23	...	...	3	...	...	...	...	1	2	16	2	503	504
„ July	13	41	27	20	1	78	45	50	50	9	128	20	...	4	...	...	1	...	...	...	...	9	50	546	549
„ August	8	44	49	19	7	71	39	43	54	9	121	14	...	1	1	...	...	...	...	...	...	7	...	487	497
„ September	31	50	39	42	7	90	55	67	98	10	160	32	7	11	1	...	...	...	...	1	...	...	1	702	710
„ October	43	92	71	76	...	138	72	103	132	16	294	29	9	19	4	...	...	...	...	...	...	12	2	1112	1116
„ November	74	104	37	51	...	162	89	115	138	12	276	46	2	18	15	...	...	...	...	1	...	4	3	1147	1170
„ December	34	86	35	38	3	98	40	71	93	14	184	19	2	14	...	...	1	...	...	...	...	10	...	742	768
Total	391	743	594	287	26	1145	545	754	914	209	2009	357	20	67	38	18	3	...	...	6	7	127	69	8329	8424

TABLE No. 23.

Shewing the Number of Deaths registered as having been caused by Phthisis and Diseases of the Respiratory Organs during the twenty years, 1909-1928:—

Year.	Population.	Phthisis	Rate per 1,000	Diseases of the Respiratory System			Total Chest Affections
				Pneumonia	Others	Total	
1909	386,576	811	2.1	705	1,130	1,835	2,646
1910	391,167	825	2.1	622	916	1,538	2,363
1911	386,449	802	2.1	468	788	1,256	2,058
1912	391,974	802	2.0	799	981	1,780	2,582
1913	396,000	844	2.1	665	868	1,533	2,377
1914	399,000	836	2.1	701	929	1,630	2,466
1915	403,000	813	2.0	738	929	1,667	2,480
1916	390,000	830	2.1	506	670	1,176	2,006
1917	393,000	932	2.4	614	825	1,439	2,371
1918	393,000	1,051	2.7	1,412	1,608	3,020	4,071
1919	401,000	853	2.1	712	1,104	1,816	2,669
1920	413,000	762	1.8	800	766	1,566	2,328
1921	420,000	677	1.6	511	520	1,031	1,708
1922	425,000	624	1.5	594	648	1,242	1,866
1923	429,000	571	1.3	564	573	1,137	1,708
1924	434,000	605	1.4	623	720	1,343	1,948
1925	438,000	575	1.3	517	646	1,163	1,738
1926	416,000	570	1.4	516	630	1,146	1,716
1927	416,000	515	1.2	479	526	1,005	1,520
1928	415,151	499	1.2	521	542	1,063	1,562

INFANTILE MORTALITY.

960 deaths of children under one year old were registered during the year, equivalent to 103 deaths per 1,000 births, an increase of 2 per 1,000, compared with the preceding year.

Of the total number registered 326 or 33.96 per cent., were due to congenital debility; 247, or 25.73 per cent. to bronchitis and pneumonia; 162, or 16.88 per cent., to diarrhœal diseases; 48, or 5 per cent., to convulsions; and 63, or 6.56 per cent., to whooping-cough and measles. These were the principal causes of death.

NOTIFICATION OF BIRTHS ACT.

9,386 births, including 293 stillbirths and 339 illegitimate births, were notified during the year, pursuant to the Notification of Births Act; 4,822 of these were males and 4,443 were females, and in 121 instances the sex was not stated.

Of the total number notified 8,626 were selected for visitation and supervision, and during the year 43,136 visits were made.

On visiting a house where a birth has taken place the Health Visitor makes enquiries regarding the family history and with respect to the conditions obtaining in the home. She also makes an examination of the sanitary arrangements, and if any defect is discovered immediate remedial measures are taken.

She gives advice and instructions as to the care of infants and young children, the preparation of food and the storage of milk, butter, &c., and the precautions to be taken to prevent infectious disease.

For a period of twelve months the child is kept under special supervision and its progress recorded, and the mother is advised to attend the Child Welfare Centre in the district in which she resides. After this period there is a general supervision exercised by the Officers in the district, and if children are delicate or not thriving they are kept under supervision as long as is considered necessary.

MATERNITY AND CHILD WELFARE.

There were six Centres in operation during the year, situated at Donegall Road, Dee Street, Danube Street, York Street, Shankill Road, and Falls Road. Each Centre was open one afternoon in the week, when a Medical Practitioner, a properly trained and qualified Nurse, and a Health Visitor, together with several voluntary workers, were in attendance.

The work of the Centres consists of a thorough medical examination of babies and medical advice as to their treatment where such is required. Each baby is weighed periodically and the weight recorded in order to ascertain the progress being made and to assist in the discovery of defects or ailments at the earliest possible moment and thus prevent or check any disease which may impede its progress or have a detrimental effect upon its after life. Consultations are held with mothers with respect to their health, and they are advised and instructed in the care of infants and young children and are supplied with instructive literature on the subject. Food, such as Virol and Glaxo, is supplied at cost price and free to cases where it is considered the circumstances warrant it. In addition to assisting in the regular work of the Centres, the ladies who assisted voluntarily throughout the year very kindly provided suitable clothing for babies at a nominal charge.

The following table shews the number of names on the roll of each Centre, and the total number of attendances during the year, also the number of babies medically examined and the total number of examinations:—

Centre.	On Roll.	Total No. of attendances.	Babies medically examined.	Total medical examinations of babies.
Donegall Road	477	4,158	208	416
Dee Street	856	9,605	534	1,353
Danube Street	766	7,916	548	1,012
York Street	587	5,051	420	1,481
Shankill Road	669	8,436	411	781
Falls Road	818	6,660	498	1,740
	4,173	41,826	2,619	6,783

In 1927 the total number on the rolls was 4,254 and the total number of attendances 39,664. 2,542 babies were medically examined, the total number of such examinations being 5,461.

During the year 8,724 lbs. of Glaxo, 6,244 lbs. of Virol, 408 lbs. of Trufood, and 206 lbs. of Aberdeen Emulsion were distributed. In the preceding year 11,088 lbs. of Glaxo and 6,496 lbs. of Virol were supplied either at cost price or free to necessitous cases.

Table shewing the Deaths of children under one year old per 1,000 births each year from 1881-1928.

Year.	Deaths per 1,000 Births.	Year.	Deaths per 1,000 Births.
1881	136	1905	136
1882	151	1906	144
1883	162	1907	136
1884	126	1908	147
1885	170	1909	139
1886	135	1910	143
1887	163	1911	128
1888	145	1912	129
1889	163	1913	144
1890	162	1914	143
1891	149	1915	137
1892	173	1916	113
1893	160	1917	130
1894	160	1918	144
1895	169	1919	113
1896	148	1920	132
1897	166	1921	115
1898	164	1922	94
1899	161	1923	101
1900	152	1924	107
1901	154	1925	104
1902	151	1926	112
1903	134	1927	101
1904	154	1928	103

NOTIFICATION OF BIRTHS ACT.

SUMMARY.

Cases investigated	8,626
„ visited a second time	6,901
„ „ third time	6,004
„ „ fourth time	5,392
„ „ fifth time	4,727
„ „ sixth time	3,697
„ „ seventh time	3,103
„ „ eighth time	2,080
„ „ ninth time	1,371
„ „ tenth time	626
„ „ eleventh time	313
„ „ twelfth time	151
„ „ thirteenth time	74
„ „ fourteenth time	32
„ „ fifteenth time	14
„ „ sixteenth time	5
„ „ seventeenth time	2
„ „ eighteenth time	1
„ „ nineteenth time	1
„ „ twentieth time	1
„ „ twenty-first time	1
„ „ twenty-second time	1
„ „ twenty-third time	1
„ „ twenty-fourth time	1
„ „ twenty-fifth time	1
„ „ over twenty-five times	10
	43,136

Number of visits re Infant Mortality	686
„ visits re Tuberculosis	14
„ visits to Child Welfare Centres	639
„ visits to sick babies	1,378
„ visits re Infectious Disease	152
„ visits to expectant mothers	216
„ visits to nurses	40
„ visits to handy women	6
„ miscellaneous visits	1,894
„ visits to mothers	274
„ visits to children over 1 year	5,931
„ visits to school children	28

TABLE No. 24.

Deaths of Infants under One Year old from stated Causes in Weeks and Months, notified to this Department, during the year ended 29th December, 1928.

CAUSE OF DEATH.		Under 1 Week.		1-2 Weeks		2-3 Weeks		3-4 Weeks		Total under 1 Month		1-2 Months		2-3 Months		3-4 Months		4-5 Months		5-6 Months		6-7 Months		7-8 Months		8-9 Months		9-10 Months		10-11 Months		11-12 Months		Total Deaths under One Year		GRAND TOTAL
ALL CAUSES.		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	
Common Infectious Diseases	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	1	...	6	1	3	2	5	3	2	5	8	3	27	15	42
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria: Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
	Whooping Cough	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	...	2	...	...	2	...	...	...	1	2	...	1	...	1	1	4	3	14	7	21
Diarrhœal Diseases	Diarrhœa, all forms	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	2	1	...	...	1	...	1	...	2	...	1	1	2	4	10	14
	Enteritis *(not Tuberculous)*	...	...	...	...	...	...	...	1	...	1	11	7	10	6	18	17	7	4	7	6	6	4	6	3	7	3	2	5	3	2	3	1	80	59	139
	Gastritis, Gastro-Intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	2	...	1	1	...	1	...	1	...	...	1	...	...	1	...	...	...	...	...	...	1	...	5	4	9
Wasting Diseases	Premature Birth	50	42	2	7	5	5	2	2	59	56	1	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	62	58	120
	Spina Bifida	1	...	...	...	...	1	...	1	1	2	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	6
	Other Congenital Defects	5	2	2	1	2	...	1	...	10	3	1	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	5	18
	Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-Milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus	37	28	7	5	6	7	5	3	55	43	22	12	5	11	6	4	4	3	4	6	2	2	...	...	2	...	...	1	...	...	...	...	100	82	182
Tuber-culous Diseases	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	...	...	1	...	...	...	...	...	3	2	5
	Tuberculous Peritonitis																																			
	Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
	Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	1	1	...	...	2	1	3	5	8
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	3	...	3
	Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis *(not Tuberculous)*	...	...	1	...	...	...	1	...	2	...	...	...	2	...	...	...	2	...	...	...	...	...	...	1	1	1	...	...	...	...	4	...	11	2	13
	Do. Cerebro-Spinal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1
	Convulsions	5	1	2	1	1	...	1	...	9	2	2	1	2	1	4	1	1	...	1	1	2	3	1	...	2	3	3	3	3	2	1	...	31	17	48
	Bronchitis	...	...	2	1	3	4	2	...	7	5	6	4	1	1	3	2	3	3	2	1	4	2	2	1	2	...	1	5	2	1	1	2	34	27	61
	Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia	2	...	1	1	4	2	1	2	8	5	6	1	8	6	11	5	10	3	5	4	10	5	11	8	12	7	18	7	6	7	17	6	122	64	186
	Suffocation, overlaying	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
	Other Causes	9	7	1	3	1	...	...	2	11	12	3	1	1	...	2	4	2	2	1	3	4	2	1	...	3	2	2	...	1	1	...	2	31	29	60
	Total	109	81	18	19	22	19	13	11	162	130	57	30	34	28	50	35	32	17	21	25	35	20	27	20	34	20	34	27	18	20	43	20	547	392	939

TABLE No. 25.

NOTIFICATION OF BIRTHS ACT.

ANALYSIS OF PARTICULARS RESPECTING BIRTHS INVESTIGATED DURING THE YEAR 1928.

Centre No.	Legitimate		Illegitimate		Born at Full Time		Premature		Stillborn		Mother							Father							
											Whether employed during Pregnancy							Average Weekly Wages							
											Period Employed															
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1 month	2 months	3 months	4 months	5 months	6 months	Over 6 months	Under 20s.	20s. & under 25s.	25s. & under 30s.	30s. & under 35s.	35s. & under 40s.	40s. & under 45s.	45s. & under 50s.	50s. & over
1	695	653	14	16	682	644	27	25	23	21	...	...	8	27	17	11	32	106	38	5	11	42	81	16	116
2	775	722	55	48	802	746	28	24	41	35	...	10	19	20	20	57	216	2	...	2	9	181	189	233	369
3	953	777	29	26	948	773	34	30	27	15	4	7	25	10	20	43	147	29	27	53	62	160	67	5	5
4	743	735	49	37	766	757	26	15	29	15	3	14	30	65	95	65	119	13	3	4	5	11	10	7	437
5	527	499	13	13	527	499	13	13	17	16	...	...	4	1	...	1	170	2	3	4	24	42	42	14	10
6	623	585	19	20	619	589	23	16	33	21	...	2	3	3	1	...	94	3	1	...	2	31	121	38	6
	4316	3971	179	160	4344	4008	151	123	170	123	7	33	89	126	153	177	778	155	72	68	113	467	510	313	923

MILK SUPPLY

MILKSHOPS—

On Register 1st January	1,519
New Registrations effected during the year	187
Removed from Register during the year	189
Number of Visits made during the year	5,219
Special inspections with a view to the discovery of unregistered persons selling milk	240
Special inspections of Purveyors' Carts	29
Number of requests for registration refused	3
*Number of unregistered persons discovered selling milk	103
Number of new vessels provided by vendors for the storage, etc., of milk	223
Verbal notices given	45

*In the majority of instances where unregistered persons were found selling milk ignorance of the law was pleaded. If the premises were suitable the offenders had their names placed on the register and if unsuitable they immediately ceased selling milk.

Return shewing the number of Milkshops and the Inspections made in each of the several Dispensary Districts.

DISPENSARY DISTRICTS.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Purveyors	62	177	197	120	66	132	6	14	93	115	151	115	73	...	117	79	1517
Inspections	230	560	627	371	227	423	17	29	410	401	529	464	226	...	371	334	5219

COWSHEDS.

On Register	87
Number of Cows	1,339
Number of inspections made	472
New Cowsheds erected during the year	1
Cowsheds to which alterations were carried out	3

All Cowsheds were limewashed periodically throughout the year.

SALE OF FOOD AND DRUGS ACTS.

TABLE No. 26.

Return showing particulars of Samples of Food, etc., taken for analysis during the year 1928.

Nature of Sample	Samples Taken.	Adulterations.	Prosecutions.	Convictions.	Dismissals.	Withdrawals.	Discharged on payment of costs.	Fines. £	s.	d.
Aerated Water	1	—	—	—	—	—	—			
Apples (informal)	2	—	—	—	—	—	—			
Baking Powder	3	—	—	—	—	—	—			
Baking soda	4	—	—	—	—	—	—			
Barley	1	—	—	—	—	—	—			
Beans and Sauce	1	—	—	—	—	—	—			
Bitter Beer	1	—	—	—	—	—	—			
Butter	191	8	6	6	—	—	—	37	0	0
Butter (informal)	20	10	—	—	—	—	—			
Buttermilk	283	25	20	19	—	—	1	28	0	0
Buttermilk (informal)	12	5	—	—	—	—	—			
Champagne Cider	1	—	—	—	—	—	—			
Cheese	9	—	—	—	—	—	—			
Cheese Candy	1	—	—	—	—	—	—			
Chicken and Ham Roll	1	—	—	—	—	—	—			
Chocolate	1	—	—	—	—	—	—			
Citrate of Magnesia	4	—	—	—	—	—	—			
Cocoa	12	—	—	—	—	—	—			
Cocoa Essence	1	—	—	—	—	—	—			
Cod Liver Oil	3	—	—	—	—	—	—			
Cod Liver Oil Emulsion	1	—	—	—	—	—	—			
Coffee and Chicory	8	—	—	—	—	—	—			
Condensed Milk	5	—	—	—	—	—	—			
Condensed Milk(informal	1	—	—	—	—	—	—			
Cordials	6	—	—	—	—	—	—			
Corned Beef	3	—	—	—	—	—	—			
Cornflour	3	—	—	—	—	—	—			
Cream	4	—	—	—	—	—	—			
Cream of Tartar	9	—	—	—	—	—	—			
Custard Powder	4	—	—	—	—	—	—			
Dripping	68	—	—	—	—	—	—			
Dripping (informal)	2	—	—	—	—	—	—			
Farola	1	—	—	—	—	—	—			
Fat Friar	1	—	—	—	—	—	—			
Fruit Wine	1	—	—	—	—	—	—			
Gin	1	—	—	—	—	—	—			
Ginger	8	—	—	—	—	—	—			
Ginger Ale	2	—	—	—	—	—	—			
Ginger Stout	1	—	—	—	—	—	—			
Ginger Wine Essence	3	—	—	—	—	—	—			
Glauber Salts	1	—	—	—	—	—	—			
Glycerine	1	—	—	—	—	—	—			
Ground Cinnamon	1	—	—	—	—	—	—			
Ice Cream	6	—	—	—	—	—	—			
Ice Cream Soda	2	—	—	—	—	—	—			
Ice Foam Crystals	1	—	—	—	—	—	—			
Kali Water	1	—	—	—	—	—	—			
Lard	45	—	—	—	—	—	—			
Lard (informal)	1	—	—	—	—	—	—			
Lemonade Crystals	2	—	—	—	—	—	—			
Lentils	1	—	—	—	—	—	—			
Lime Crush	1	—	—	—	—	—	—			
Liquid Paraffin	1	—	—	—	—	—	—			
Malt with Cod Liver Oil	1	—	—	—	—	—	—			
Mustard	9	—	—	—	—	—	—			
Mustard (informal)	1	—	—	—	—	—	—			
Neaves' Food	1	—	—	—	—	—	—			
Orange Ale	1	—	—	—	—	—	—			
Parrish's Chemical Food	2	—	—	—	—	—	—			
Peas	7	—	—	—	—	—	—			
Pepper	8	—	—	—	—	—	—			
Pickles	3	—	—	—	—	—	—			
Relish	1	—	—	—	—	—	—			

TABLE No. 26 (Continued).

Nature of Sample.	Samples Taken.	Adulterations.	Prosecutions.	Convictions.	Dismissals.	Withdrawals.	Discharged on payment of costs.	Fines. £ s. d.
Raspberry Jam	10	—	—	—	—	—	—	
Rice	5	—	—	—	—	—	—	
Rum	2	—	—	—	—	—	—	
Sauce	24	4	1	1	—	—	—	5 0 0
Sauce (informal)	2	2	—	—	—	—	—	
Sausages	20	1	1	1	—	—	—	2 0 0
Sausage Roll	3	—	—	—	—	—	—	
Shredded Suet	1	—	—	—	—	—	—	
Skimmed Milk	6	5	5	5	—	—	—	5 10 0
Stout	2	—	—	—	—	—	—	
Sulphur	1	—	—	—	—	—	—	
Sweetmilk	1,150	92	38	28	9	—	1	58 15 0
Sweetmilk (informal)	17	3	—	—	—	—	—	
Syrup of Figs	1	—	—	—	—	—	—	
Tapioca	2	—	—	—	—	—	—	
Tea	7	—	—	—	—	—	—	
Tea (informal)	1	—	—	—	—	—	—	
Tomato Ketchup	1	—	—	—	—	—	—	
Tonic Wine	1	—	—	—	—	—	—	
Veal and Ham	1	—	—	—	—	—	—	
Veal Jelly	1	—	—	—	—	—	—	
Vinegar	17	—	—	—	—	—	—	
Whiskey	6	—	—	—	—	—	—	
Whiskey (informal)	1	—	—	—	—	—	—	
Wine	10	—	—	—	—	—	—	
Totals	2,074	155	71	60	9	—	2	136 5 0

In 1 case of butter the vendor absconded and summons could not be served.

In 1 case of butter, 5 of buttermilk, 1 of sauce, and 54 of sweetmilk the percentages below standard were so small that no proceedings were taken, but the vendors were cautioned.

In 10 cases of butter, 5 of buttermilk, 2 of sauce and 3 of sweetmilk the samples were informal.

TABLE No. 27.

Return shewing particulars of samples of Sweetmilk taken for Analysis during the year.

Month.	No. of samples taken.	Average percentage.		Highest percentage of Fats with the percentage of Solids (not Fats).		Highest percentage of Solids (not Fats) with the percentage of Fats.		Lowest percentage of Fats with the percentage of Solids (not Fats).		Lowest percentage of Solids (not Fats) with the percentage of Fats.	
		Fats.	Solids (not Fats).	Fats.	Solids (not Fats).	Solids (not Fats).	Fats.	Fats.	Solids (not Fats).	Solids (not Fats).	Fats.
January	125	3.65	8.79	5.90	9.36	9.36	5.90	2.38	8.52	7.88	3.10
February	96	3.59	8.86	5.35	9.11	9.51	3.60	2.05	9.03	8.34	3.00
March	111	3.59	8.80	5.75	8.92	9.43	4.20	2.10	8.74	7.46	3.18
April	75	3.62	8.76	6.20	8.33	9.25	4.05	2.46	8.62	8.33	6.20
May	98	3.33	8.68	4.50	8.84	9.27	3.70	2.29	7.25	7.25	2.29
June	116	3.23	8.85	5.40	9.06	9.23	4.19	2.36	8.78	8.07	4.59
July	81	3.28	8.76	4.60	8.32	9.16	3.20	2.21	8.18	8.18	2.21
August	61	3.36	8.68	4.95	8.25	9.00	3.50	2.64	8.46	8.28	3.50
September	54	3.47	8.80	4.80	8.93	9.28	3.40	2.62	8.80	8.45	3.40
October	89	3.79	8.84	5.95	9.13	9.26	4.80	3.00	8.82	8.41	4.70
November	161	3.75	8.80	7.80	8.90	9.37	3.95	2.45	8.12	7.73	3.52
December	100	3.62	8.87	7.80	9.05	9.48	4.90	2.75	9.11	8.03	4.41
	1,167										

Return shewing the visits to shops or other premises where food is prepared, stored or sold:—

Description of Premises.	No. of Visits.
Butchers' Shops	2,067
Dairies	172
Fish Shops	238
Fish and Chip Shops	185
Fruit Shops	510
Grocery Shops	3,221
Hawkers' Carts and Baskets	151
Ice Cream Shops	164
Markets	137
Provision Shops and Stores	1,224
Railway Stations	458
Sausage Factories	142
	8,669

FOOD SEIZED, CONDEMNED, AND DESTROYED AS UNFIT FOR THE FOOD OF MAN.

6 stones of Fish.

2 Turkeys.

24 carcases of Pork.

1 cwt. Pork Fillets.

PATHOLOGICAL LABORATORY.

8th May, 1929.

Dear Sir,

I beg to present a number of detailed tables setting forth the results of examinations made as Consultant Bacteriologist and Pathologist for the year 1928.

TOTAL NUMBER OF EXAMINATIONS.

Swabs for Diphtheria	28
Sputa for Tubercle	42
Urines	78
Tumors	51
Miscellaneous	32
Total	231

In addition there were several special examinations made in conjunction with Dr. Tinsdale, of the water of certain Baths, and also a number of cockles were examined particularly for Typhoid Bacilli. These examinations for Typhoid were made with the aid of a new method of particular delicacy, and in this matter I have to thank Professor W. T. Wilson, of the Hygiene Department.

I have the honour to be, Sir,

Your obedient Servant,

WM. ST. C. SYMMERS.

Dr. Charles S. Thomson,
Medical Superintendent Officer
of Health.

SWABS FOR DIPHTHERIA.

	Positive.	Negative.	Hospitals.	Doctors.	Total.
January	1	1	—	2	2
February	—	3	—	3	3
March	—	5	—	5	5
April	—	6	3	3	6
May	—	2	—	2	2
June	—	2	—	2	2
July	—	1	—	1	1
August	—	1	—	1	1
September	—	1	—	1	1
October	—	3	—	3	3
November	—	1	—	1	1
December	—	1	—	1	1
	1	27	3	25	28

Total—28.

SPUTA FOR TUBERCULOSIS.

	Positive.	Negative.	Hospitals.	Doctors.	Total.
January	—	6	—	6	6
February	2	2	1	3	4
March	4	3	1	6	7
April	5	3	—	8	8
May	1	3	—	4	4
June	—	1	—	1	1
July	—	3	—	3	3
August	—	—	—	—	—
September	—	3	—	3	3
October	2	1	—	3	3
November	1	1	—	2	2
December	—	1	—	1	1
	15	27	2	40	42

Total—42.

URINES.

	Tubercle Bacilli		Staphylococci	Streptococci	Bac. Coli	Sterile	Chemical and other Examinations	Hospitals	Doctors	Total
	Pos.	Neg.								
January ...	1	1	1	...	5	2	...	1	9	10
February ...	...	...	1	...	3	5	3	1	11	12
March	...	1	1	...	1	4	...	...	7	7
April	...	...	1	...	5	3	...	2	7	9
May	...	...	...	...	4	...	...	...	4	4
June	...	...	1	1	1	1	3	...	7	7
July	...	...	1	...	3	1	...	2	3	5
August ...	...	...	...	...	1	...	1	...	1	1
September ...	...	...	...	...	1	3	1	...	5	5
October ...	...	...	...	...	2	4	2	...	8	8
November ...	2	...	1	...	...	3	...	2	4	6
December ...	...	...	...	...	...	4	...	...	4	4
	3	2	7	1	26	30	10	8	70	78

Total—78.

TUMORS.

Date.	Nature of Specimen.	Report.
January 4th	Tumor from breast	Glandular cancer
January 10th	Polypoid growth from cervix	Glandular papilloma
January 10th	Uterine scrapings	Not malignant
January 16th	Uterine scrapings	Not malignant
January 19th	Uterus	Not
January 31st	Growth from gum	Ciant celled (spindle) sarcoma.
February 2nd	Uterine scrapings	Not definitely malignant
February 2nd	Appendix	No tubercle
February 8th	Polypus from external os	Papilloma; not malignant
February 27th	Uterine scrapings	Malignant
February 29th	Tumor of pelvic colon	Myxoma
March 2nd	Uterus	
March 12th	Mass of clot from vagina	Mostly clot; no malignancy
March 14th	Tumor from uterus of sheep	Round celled sarcoma
May 4th	Uterine scrapings	Adeno-carcinoma
May 7th	Breast tumor	Chronic mastitis
May 7th	Uterine scrapings	Early adeno-carcinoma
May 11th	Tumor from cervix	Malignant
May 14th	Uterine scrapings	Not malignant
May 17th	Tissue from peritoneum	Tuberculous
May 24th	Uterine scrapings	Adeno carcinoma
June 6th	Cervical polypus	Not malignant
June 26th	Uterine scrapings	Not malignant
June 28th	Cervical polypus	Not malignant
July 5th	Recurrent cyst from external canthus	Squamous celled cancer
July 19th	Uterine scrapings	Not definitely malignant
August 1st	Uterine scrapings	Not malignant
August 1st	Piece from cervix	Suspicious
August 9th	Tumor from upper eyelid	Fibroma
August 17th	Cyst	Fibroma
August 17th	Gland	Cancer
August 21st	Cervix	Malignant
August 21st	Uterine scrapings	Malignant
August 30th	Uterine scrapings	Nothing distinctive
September 7th	Fallopian tubes	Tuberculous
October 17th	Contents of bony cavity	Enchondroma
October 17th	Growth from between toes	Fibroma
October 25th	Cyst	Fibrous wall
October 29th	Tumor of vulva	Molluscum fibrosum

TUMORS (Continued).

Date.	Nature of Specimen.	Report.
November 7th	Uterine scrapings	Not malignant
November 15th	Tumor of pelvic colon	Cancer
November 20th	Tumor of breast	Cancer
November 21st	Vaginal polypus	Papilloma; not malignant
November 22nd	Uterine scrapings	Not malignant
November 29th	Uterine scrapings	Malignant
November 30th	Cervix	Not malignant
December 7th	Tumor of breast	Chronic mastitis
December 20th	Tumor presenting at cervix	Sarcoma
December 21st	Uterine scrapings	Suspicious
December 21st	Appendix	Not inflamed
December 21st	Piece of sequestrum	Dense bone

Total—51.

OTHER MISCELLANEOUS EXAMINATIONS.

Fluid from knee joint		1
Hairs for ringworm		1
Pus		4
Material for gonococci	Positive 3, Negative 5	8
Plueral fluid		1
Renal calculus		1
Vaccines		6
Uterine and other swabs		7
Wassermanns	Negative 3	3
		32

City Bacteriological Laboratory,
Queen's University,
Belfast.
14th January, 1929.

The following is the report of the work carried out in the Municipal Laboratory during the year 1928.

The number of specimens submitted for examination was 12,799, as compared with 10,741 in the previous year, thus showing an increase of over 2,000.

Specimens were received from Municipal Hospitals and Sanatorium, the School Clinics, and other City Hospitals. In November a new Bacteriological Laboratory was opened in the Belfast Union Infirmary. Up to that date a large number of specimens was received from that source, and the pressure of the work was considerable.

A summary of the work done is as follows:—

Infectious Diseases.

Diphtheria—		
Throat Swabs	4298	
Nasal Swabs	597	
Direct Examinations	234	
Virulence Tests	71	
	—	5200
Vincent's Angina		36
Enteric Group—		
Agglutination Tests	1200	
Faeces, Blood, Urine, etc.	127	
	——	1327
Typhus—		
Weil-Felix Reaction		6
Meningitis—		
Cerebro-Spinal Fluids		143
Tuberculosis—		
Sputum	674	
Pus	11	
Urine	99	
Pleural Fluids	42	
C.S. Fluids	112	
Faeces	2	
	——	940

Scarlatina—		
Swabs		26
Venereal Diseases.		
Wassermann Reactions	2128	
Microscopical Examinations	256	
		2384
Pathological Specimens.		
Tumours, etc.		107
Ringworm.		
Hairs for Spores, etc.		101
Plague.		
Rats (Mus Norvegicus)		41
Milk Examinations.		
Fresh Milk	506	
Pasteurised Milk	13	
Examinations for B. Tuberculosis	684	
		1203
Water and Foodstuffs.		
Water	4	
Ice Cream	4	
Shell Fish	3	
Tongue (tinned)	2	
Veal Paste (tinned)	2	
		15
Vaccines.		
Autogenous	103	
Tuberculins	9	
Stock	4	
		116
Unclassified Examinations.		
Urines, etc.		1154
Grand Total		12,799

In the following portion of the report a more detailed consideration is given to each of the above groups.

TABLE 1.

Swabs Examined for Diphtheria.

Month.	Throat Swabs.	Positive.	Negative.	Nasal Swabs.	Positive.	Negative.	From Doctors.	From Hospitals.	Total.
January	330	93	237	38	12	26	114	254	368
February	338	110	228	75	34	41	90	323	413
March	357	105	252	53	18	35	70	340	410
April	373	74	299	100	15	85	71	402	473
May	301	112	189	32	19	13	79	254	333
June	314	91	223	35	17	18	79	270	349
July	280	94	186	47	23	24	56	271	327
August	351	113	238	48	15	33	72	327	399
September	314	100	214	33	15	18	66	281	347
October	451	118	333	35	15	20	112	374	486
November	438	138	300	61	22	39	148	351	499
December	451	146	305	40	20	20	105	386	491
Total	4298	1294	3004	597	237	372	1012	3833	4895

234 Swabs were examined by the direct method for Diphtheria. Of these 45 were returned positive.

71 Virulence tests were performed, of which 39 were positive.

36 Swabs were examined for Vincen t's Angina; in 13 of these the casual organisms were present.

TABLE II.

Blood from suspected Enteric Group Infection.

Month.	Positive. T.	Positive. A.	Positive. B.	Negative. T.	Negative. A.	Negative. B.	From Doctors.	From. Hospital.	Total.
January	5	0	14	31	36	22	17	19	36
February	2	0	5	15	17	12	5	12	17
March	4	0	17	36	40	23	14	26	40
April	21	0	6	18	39	33	13	26	39
May	10	0	15	58	68	53	8	60	68
June	11	0	22	51	62	40	20	42	62
July	2	0	5	27	29	24	5	24	29
August	7	0	5	20	27	22	3	24	27
September	7	0	1	18	25	24	8	17	25
October	4	0	1	12	16	15	2	14	16
November	4	0	3	19	23	20	10	13	23
December	4	0	2	14	18	16	8	10	18
Total	81	0	96	319	400	304	113	287	400

Of the 177 positive reactions, 81 were positive to Typhoid and 96 to Paratyphoid B.

The large number of tests performed in May and June was due to an outbreak of Enteric Fever caused by isolated carriers. Two institutions were involved, one of them a hospital, and the other a baby home.

Weil-Felix tests were performed on 6 samples of blood. Of these 2 were positive. This threatened epidemic of Typhus was successfully combated.

TABLE III.

Examinations of Cerebro-Spinal Fluids.

Month.	Tubercle Bacilli. Positive.	Tubercle Bacilli. Negative.	Meningococci. Positive.	Meningococci. Negative.	Other Organisms. Positive.	Other Organisms. Negative.	Cell Counts.	Total.
January	0	8	3	6	0	1	1	19
February	0	4	0	1	0	0	0	5
March	0	10	0	0	0	0	0	11
April	4	8	1	5	0	0	2	20
May	1	10	0	2	0	0	1	14
June	1	6	0	0	0	0	0	7
July	4	7	0	0	4	0	1	16
August	0	11	0	0	0	2	0	13
September	1	8	1	0	0	0	1	11
October	1	11	0	0	1	0	0	13
November	0	5	0	0	2	0	0	7
December	1	6	0	0	0	0	0	7
Total	13	94	5	14	7	3	7	143

Of the 7 Cerebro-Spinal Fluids in which other organisms were present, 5 contained a pure culture of the Pneumococcus, 1 a Hemolytic Streptococcus, and 1 the Influenza Bacillus.

TABLE IV.

Examination of Sputa for B. Tuberculosis, etc.

Source—	Positive.	Negative.	Total.
Hospitals	41	181	222
General Practitioners	90	362	452
Total	131	453	674

104 Specimens of Sputum were examined for organisms other than B. Tuberculosis.

RINGWORM.

101 specimens of hairs were submitted for examination, 96 from School Clinics and 5 from Practitioners; 54 were infected with the small spored fungus.

TABLE V.

EXAMINATIONS CARRIED OUT UNDER THE VENEREAL DISEASES SCHEME.

The number of specimens submitted for examination during the year was 2,384.

Source of Specimens.

	Blood.	Smears.
County Borough of Belfast	2098	255
County Antrim	7	0
,, Armagh	1	0
,, Down	1	0
,, Tyrone	1	0
,, Fermanagh	0	1

647 of these specimens were submitted by General Practitioners in the City. The remainder were submitted from V.D. Clinics, Hospitals, etc.

The specimens may be grouped as follows:—

Detection of Treponemata	7
Detection of Gonococci	249
Wassermann Reactions (blood)	2108
Wassermann Reactions (C.S.F.)	20

WASSERMANN TEST.

(Method M.R.C. No. 1).

Stage of Syphilis indicated by Clinical Report.	No. of Tests.	No. Positive.	No. Negative.
Primary	72	31	41
Secondary, Untreated	161	36	125
Secondary, Treated	33	13	20
Tertiary	569	101	468
Latent, Untreated	707	73	634
Latent, Treated	92	30	62
Congenital	266	40	226
Particulars not stated	228	62	166
	2128	386	1742

37 specimens were taken from patients referred to the Laboratory by General Practitioners.

BACTERIOLOGICAL EXAMINATIONS OF MILK.

During the year 1203 bacteriological examinations were made.

506 were specimens of fresh milk.

13 were specimens of pasteurised milk.

178 specimens were examined specially for B. Tuberculosis.

TABLE VI.

This Table shows the number and classification of examinations per month.

	Fresh Milk.	Pasteurised Milk.	Specially Examined for B. Tuberculosis.	Total.
January	48	0	12	60
February	49	0	27	76
March	44	3	27	74
April	39	2	24	65
May	49	0	16	65
June	41	2	8	51
July	31	0	6	37
August	38	2	16	56
September	45	2	14	61
October	58	0	16	74
November	28	2	10	40
December	36	0	0	36
	506	13	176	695

TABLE VII.

This Table shows the source of the specimens of fresh milk.

	Street.	Milkshop.	Railway.	Other sources	Total
January	25	14	9	0	48
February	37	4	7	1	49
March	39	5	0	0	44
April	21	5	3	10	39
May	35	10	3	1	49
June	27	14	0	0	41
July	26	5	0	0	31
August	26	10	2	0	38
September	25	16	4	0	45
October	34	18	4	2	58
November	17	11	0	0	28
December	21	15	0	0	36
	335	127	32	14	506

Of 506 specimens of fresh milk 187 contained lactose fermenting organisms in one-hundredth of a cubic centimetre; 36.9 per cent.

57 specimens (11.3 per cent.) showed more than 200,000 per cubic centimetre.

The technique recommended by the Ministry of Health for Graded Milk was used in the tests.

SPECIAL EXAMINATION OF MILK FOR B. TUBERCULOSIS.

684 examinations for B Tuberculosis were made; 569 of these were done by the direct method, and 176 by the biological method. Of these latter 9 were infected with live B. Tuberculosis. This gives a percentage of 5.1, an increase of 1.6 per cent. on the figures of last year.

Of the 9 specimens which contained the Tubercle Bacillus, 3 came from herds within the City Boundary.

TABLE VIII.

MISCELLANEOUS EXAMINATIONS.

Urine Examinations, Microscopical	196
Urine Examinations, Chemical	125
Urine Examinations, Bacteriological	381
Pus	162
Pathological Fluids	45
Faeces	5
Blood Cultures	20
Blood Counts	10
Blood Films	43
Milk for Typhoid	13
Sputum (other than T.B.)	104
	1,154

MEAT INSPECTION.

The following is a summary of the work carried out under the supervision of the City Veterinarian (Captain John M'Clure Barry, M.R.C.V.S.)

Table—Showing the number and kind of animals slaughtered and inspected in the Municipal Abattoir during the year (1st April, 1928—31st March, 1929), also the number of carcases condemned (from all causes) as being unfit for human consumption.

(The figures for the preceding year are given for comparison).

TABLE I.

Species.	Number Slaughtered.		Number Condemned.	
	1928-1929.	1927-1928.	1928-1929.	1927-1928.
Cows	28,268	22,942	761	529
Heifers	1,382	744	20	5
Bullocks	14,906	16,520	28	31
Bulls	786	784	2	2
Calves	4,008	729	60	21
Sheep and Lambs	86,744	89,277	257	155
Goats	1,291	919	16	3
Pigs	19,443	20,609	136	144

The following table shows the Carcases of Animals seized in the Municipal Abattoir during the year and totally destroyed as being unfit for human food.

TABLE 2.

	Cows	Heifers	Bulls	Bullocks	Calves	Sheep Lambs	Goats	Pigs	Total
Actinomycosis	1	...	...	...	...	...	...	...	1
Decomposed	1	1	...	...	2	21	...	5	30
Dropsical	52	1	...	...	5	144	13	5	220
Emanciated	69	1	...	1	3	15	2	5	96
Fevered	54	3	...	3	9	32	1	73	175
Enteritis	...	...	...	...	4	...	...	...	4
Inflammation	...	...	...	...	13	10	...	3	26
Injured	9	...	...	...	...	13	...	...	22
Jaundice	...	...	...	...	2	1	...	1	4
Joint Ill	...	...	...	...	2	...	...	...	2
Melanosis	2	...	...	...	...	...	...	...	2
Neoplasms	66	1	...	...	2	4	...	1	74
Peritonitis	...	...	...	...	2	4	...	2	8
Pneumonia	...	...	...	...	...	2	...	1	3
Red Water	1	...	...	...	...	...	...	...	1
Septicaemia	30	...	...	2	6	11	...	5	54
Septic Pericarditis	1	...	...	...	...	...	...	...	1
Tuberculosis	475	13	2	21	1	...	...	35	547
Other Conditions	...	...	...	1	9	...	...	...	10
Total	761	20	2	28	60	257	16	136	1280

Under Neoplasms are included Carcinoma, Sarcoma, etc.

TABLE 3.

Showing comparison between Tuberculosis and Other Diseases as causes of the condemnation of carcases of animals slaughtered in the Municipal Abattoir during the year.

		CATTLE			Sheep and Lambs	Goats	Pigs	Total
		Cows	Other Cattle	Calves				
Tuberculosis	Total ...	475	36	1	Nil	Nil	35	547
	Partial .	9	...	Nil	Nil	Nil	Nil	9
	Total ...	484	36	1	Nil	Nil	35	556
Other Diseased Conditions ...	Total ..	286	14	59	257	16	101	733
	Partial ...	30	5	1	7	Nil	6	49
	Total ...	316	19	60	264	16	107	782

TABLE 4.

The following table shows the percentage by age of the animals slaughtered and condemned for Tuberculosis:—

SPECIES	BY AGE.							
	One Month to One Year	Per Cent.	From One to Three Years	Per Cent.	Three Years to Six Years	Per Cent.	Over Six Years	Per Cent.
Cows	...	...	...	...	1	.21	474	99.78
Heifers	...	...	11	84.61	2	15.38	...	...
Bulls	...	...	...	...	2	100	...	...
Bullocks	...	...	14	66.66	7	33.33	...	...
Calves	1	100	...	...	...	...	...	...
Pigs	35	100	...	...	...	...	...	...

The following table shows the percentage by condition of the animals slaughtered and condemned for Tuberculosis:—

SPECIES	BY CONDITION							
	Good		Fair		Indifferent		Poor	
	Number	Per-centage	Number	Per-centage	Number	Per-centage	Number	Per-centage
Cows	12	2.52	179	37.68	217	45.68	67	14.10
Heifers	2	15.38	7	53.84	3	23.07	1	7.69
Bulls	1	50.00	...	...	1	50.00	...	...
Bullocks	4	19.04	14	66.66	3	14.28	...	...
Calves	...	...	...	...	...	...	1.1	100
Pigs	...	...	35	100	...	...	...	...

INSPECTION OF MEAT PREPARED OUTSIDE THE CITY BOUNDARY

Table showing the amount inspected and the amount condemned.

	Beef			Mutton		Veal	Pork	Goats
	Sides	Quarters	Cuts	Carcases	Cuts	Carcases	Carcases	Carcases
Examined ...	1,637	123	3,195	2,147	562	8	82	11
Condemned ...	20	20	11	9	Nil	3	20	Nil

	Heads		Beef Tongues	Hearts		Lungs		Livers	
	Beef	Mutton		Beef	Mutton	Beef	Mutton	Beef	Mutton
Examined ...	834	14	842	759	1,938	464	1,943	728	1,939
Condemned ...	16	Nil	9	15	Nil	37	Nil	156	158

INSPECTION OF CATTLE IN DAIRIES.

The number of Registered Cowkeepers inside the City Boundary was 87. Their premises at the time of inspection accommodating 1,134 milch cows. Systematic Inspection was carried out, the cows being carefully examined as to their health, condition, cleanliness, etc., and generally speaking were found to be satisfactory.

APPENDIX.

TABLE (1).

Return of Animals Slaughtered in the Municipal Abattoir.
(The figures for the preceding year are given for comparison.)

	1928—1929. Number Slaughtered.	1927—1928. Number Slaughtered.
Cattle ..... —	45,292	40,990
Calves ..... —	4,008	729
Sheep and Lambs	86,744	89,277
Pigs ..... —	19,443	20,609
Goats ..... —	1,291	919
Total ..... —	156,778	152,524

TABLE (2).

The following return shows the number of Diseased Organs seized and destroyed as being unsound and unfit for human food during the year 1928-1929, also the figures for the preceding year are given for comparison:—

	31/3/'28. Year ending	31/3/'29. Year ending	Increase.	Decrease.
Beef—				
Heads	49	80	31	—
Tongues	49	76	27	—
Hearts	36	53	17	—
Lungs	4,916	4,958	42	—
Livers	10,432	13,641	3,209	—
Stomachs	32	50	18	—
Udders	2,699	2,254	—	445
Kidneys	140	210	70	—
Mutton—				
Hearts	1	1	—	—
Lungs	5	4	—	1
Livers	8,272	9,737	1,465	—
Pork—				
Heads	1	6	5	—
Tongues	1	6	5	—
Hearts	29	35	6	—
Lungs	126	98	—	28
Livers	441	446	5	—
Kidneys	10	2	—	8
Goat's Livers	25	62	37	—

Note. — The above table does not include the viscera of animals totally destroyed. In addition to the above summary there was 2 tons 5 cwt. of beef, 1 cwt. 2 qrs. 23 lbs. of pork seized as being unsound and unfit for human food.

In concluding the aforegoing summary of the year's work, I again desire to express my thanks to the Staff of the Department for the manner in which they have carried out their duties.

JOHN M'CLURE BARRY,
City Veterinarian.

City Veterinarian's Office,
Municipal Abattoir,
Stewart Street,
Belfast.

FACTORY AND WORKSHOP ACTS.

Summary of inspections and of sanitary improvements carried out under the supervision of the Department, in pursuance of the provisions of above Acts.

FACTORIES.

804 visits were made to factories.

199 nuisances were discovered.

41 complaints were received from H.M. Inspector of Factories.

25 complaints were received from other sources.

SANITARY IMPROVEMENTS.

No. of Factories in which improvements were carried out.	Nature of improvements.
5	Water closet accommodation provided.
7	Additional water closet accommodation provided.
3	New water closet apartments provided.
5	Water closets repaired.
25	Water closet accommodation cleansed.
6	Water closet apartments provided with means of ventilation.
19	Intervening ventilated spaces provided between workrooms and water closets.
3	Floors repaired.
2	Intervening ventilated spaces repaired.
3	Cisterns repaired.
4	Waste pipes repaired.
6	New drains provided.
3	Drains cleansed.
15	Roofs and spouting repaired.
2	Yard Surfaces concreted.
2	Walls repaired.
1	New stairs provided.
1	Accumulation of stagnant water removed.
1	Nuisance from the discharge of liquid matter abated.
1	Smoke nuisance abated.
1	Urinal cleansed and repaired.
1	Windows repaired.
4	Trade refuse removed.

WORKSHOPS.

2,267 workshops on register on 1st January.

212 registered during the year.

86 removed from register during the year.

3,002 visits made.

597 nuisances discovered.

13 complaints were received from H.M. Inspector of Factories.

24 complaints were received from other sources.

20 cases of failure to exhibit abstract of Factory and Workshop Act were reported to H.M. Inspector of Factories.

SANITARY IMPROVEMENTS.

No. of Workshops in which improvements were carried out.	Nature of improvements.
17	Water closed accommodation provided.
7	Additional water closet accommodation provided.

SANITARY IMPROVEMENTS, ETC.

No. of Workshops in which improvements were carried out.	Nature of improvements.
2	Water closet apartments provided with light and ventilation.
2	New water closet apartments erected.
6	Intervening ventilated spaces provided between workrooms and water closets.
2	Intervening ventilated spaces repaired.
111	Water closets cleansed.
9	Water closets repaired.
1	Water closet provided with door.
1	Privy abolished.
2	Workshops provided with light.
1	Waste pipe repaired.
16	New drains provided.
4	Drains cleansed.
4	Cisterns repaired.
1	Drain repaired.
2	Walls and ceilings of workshops repaired.
173	Workshops cleansed and limewashed.
8	Workshops provided with means of ventilation.
4	New stairs provided.
3	Water supply provided.
1	Gas pipes repaired.
3	Hoods and flues provided to gas iron heaters.
1	Tiles relaid.
6	Smoke nuisances abated.
14	Trade refuse removed.
2	Manure removed.
13	Roofs and spouting repaired.
4	New chimneys provided.

WORKPLACES.

627 visits were made to workplaces.

108 nuisances were discovered.

SANITARY IMPROVEMENTS.

No. of Workplaces in which improvements were carried out.	Nature of improvements.
1	Spouting repaired.
1	New roof provided.
1	Roof repaired.
2	Passages cleansed and concreted.

BAKEHOUSES.

660 visits were made to bakehouses.

150 nuisances were discovered.

SANITARY IMPROVEMENTS.

No. of Bakehouses in which improvements were carried out.	Nature of improvements.
3	Water closets cleansed and repaired.
1	Intervening ventilated space provided between bakehouse and water closets.
1	Intervening ventilated space provided with door.
1	Drain removed from inside bakehouse to position outside.
2	Hoods and flues provided to carry off fumes from hot plates.
2	Cisterns repaired.
1	Yard cleansed and limewashed.
2	Roofs and spouting repaired.
1	Floors repaired.
1	Windows repaired.
1	Drain cleansed.
6	Bakehouses cleansed.
1	Offensive ashpit removed and bin provided.
1	Passage cleansed and concreted.
1	Accumulation of manure removed.

All bakehouses were limewashed or otherwise cleansed at least twice during the year.

TABLE No. 28.

HOME WORK.

	OUTWORKERS Lists received from Employers						Notices Served on Occupiers as to Keeping or Sending Lists	Prosecutions	Inspections of Outworkers' Premises	Outwork in Unwholesome Premises		Outwork in Infected Premises		Visits to Employers Premises
	Sending Twice in the Year			Sending Once in the Year										
	Lists	Outworkers		Lists	Outworkers			Failing to send Lists		Instances	Notices Served	Instances	Orders Made	
		Contractors	Workmen		Contractors	Workmen								
Wearing Apparel—Making, Cleansing and Washing	163	5	489	9	4	19	All Occupiers were Notified	...	...	144	63	19	18	139
Household Linen	156	425	3758	6	...	5		...	5072	...	...	...	...	...
Furniture and Upholstery	4	...	4	...	...	...		...	...	...	...	...	...	...
Paper Bags and Boxes ...	4	...	11	...	...	...		...	...	...	...	...	...	...
Total ...	327	430	4262	15	4	24		...	5072	144	63	19	18	139

The approximate number of outworkers over which the department required to exercise supervision during the year was 1,500.

The names and addresses of all outworkers and contractors who resided outside the city were forwarded to the District Council of the District in which they resided.

222 sanitary defects, etc., were discovered and remedied.

All work found on infected premises was disinfected.

SHOPS.

2,801 visits were made under the Shop Hours Acts, the Seats for Shop Assistants Act, the Belfast Corporation Act, and the Public Health (Ireland) Acts.

32 breaches of the various Acts were discovered.

COMMON LODGING HOUSES.

Number on Register at 1st January	53
Number of lodgers for whom there was accommodation	1,779
Number of visits during the year by lodging-house Inspector	2,446
Nuisances discovered	101
Breaches of Bye-Laws	221

There is accommodation for 1,779 lodgers, varying from 5 to 319 persons to a house.

On visiting the lodging houses your officer paid special attention to the general condition of the premises, including cleanliness, lighting and ventilation, and also to the condition of the bedding. The prevention of overcrowding was strictly enforced.

All the houses were limewashed regularly and the bedding cleansed or renewed at intervals.

No case of infectious disease occurred in any of the houses during the year.

A number of sanitary defects were discovered for which notices were served on the owners or persons responsible.

7 cubicles were removed from the Register owing to insufficient light.

SANITARY IMPROVEMENTS, ETC.

No. of Houses in which improvements were carried out.	Nature of improvements.
2	Cisterns repaired.
1	New basin provided to water closet.
6	Water closets repaired.
4	Water closets cleansed.
6	Walls repaired.
9	Tiles relaid.
1	Flooring repaired.
20	Roofs repaired.
17	Spoutings repaired.
1	New earthenware sinks provided.
2	Door frames repaired.
1	Waste pipes repaired.
3	New dustbins provided.
2	Chimneys repaired.
1	Gable wall rebuilt.
1	New covers provided to stock cisterns.
4	Walls cemented.
9	Plaster on walls and ceilings repaired.
1	Drains cleansed.
1	Rubbish removed.

LODGING HOUSES (OTHER THAN COMMON).

Number on Register, 1st January 736

Distribution of Houses according to Sanitary Divisions.

North	258	East	76
South	281	West	120

All the houses were regularly visited during the year.

SCHOOLS.

During the year 2,319 visits were paid by the Sanitary Sub-Officers to the various schools in the City. On 997 of these visits the number of pupils in attendance was found to exceed the school accommodation.

Immediate remedial measures were taken for the abatement of any nuisances discovered, and the following is a summary of the sanitary improvements carried out.

No. of Schools in which improvements were carried out.	Nature of improvements.
1	Spouting repaired.
8	Water closets cleansed and repaired.
6	Drains cleansed.
1	Ashpit removed and bin provided.
2	Urinals repaired.
2	Miscellaneous nuisances abated.

SMOKE NUISANCE.

During the year 13 observations were made for the detection of black smoke being emitted in such quantities as to be a nuisance.

OFFENSIVE TRADES.

During the year 482 visits were made to the premises in which offensive trades were carried on throughout the City in order to ensure that the Bye-Laws with respect to same were being complied with.

LEGAL PROCEEDINGS.

	Summonses.	Orders.	Fines. £ s. d.
Under Public Health Acts—			
For abatement of nuisances	619	100	12 13 0
Disobedience of Justices' Orders	11	—	0 17 0
Having unsound carcase of a pig for the purpose of sale for the food of man	2	—	2 0 0 And in one case one month's imprisonment.
Failing to remove manure within prescribed period	4	—	—
Keeping a Common Lodging-House without such house being registered	1	—	—
Under Dairies, Cowsheds and Milkshops Order	1	—	0 10 0
Under Bye-Laws for the Regulation of Piggeries	6	—	3 0 0
Under Bye-Laws for the Regulation of Offensive Trades	1	—	—
Under Marketing of Eggs Act	1	—	5 0 0
Under Belfast Corporation Acts	5	—	1 15 0
Under Bye-Laws for the decent and seemly Conveyance of Meat through the Public Thoroughfares	12	—	2 10 0
Under Housing of the Working Classes Acts	5	—	—
Under Diseases of Animals Acts:—			
Sheep Scab	6	—	33 0 0
Bovine Tuberculosis	7	—	25 0 0
Under Sale of Food and Drugs Acts	—	—	135 10 0

RAINFALL.

The following Table, kindly supplied by Mr. W. I. Quinn, Secretary to the Belfast City and District Water Commissioners, shows the rainfall in inches during the several months of the year 1928, as recorded at the Water Works at Old Park, compared with the preceding ten years.

TABLE No. 29.

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
January	2.87	4.48	4.78	5.42	4.62	4.84	5.06	3.16	5.09	3.57	7.63
February	5.05	1.65	1.83	0.57	3.84	6.39	0.85	4.15	4.80	1.75	4.61
March	1.21	3.76	2.72	2.24	1.28	2.53	1.36	1.24	1.52	2.65	3.79
April	1.83	1.07	2.50	0.89	3.62	3.28	3.15	3.89	1.93	1.26	1.40
May	3.30	1.24	3.40	1.52	1.67	1.43	5.12	6.23	2.30	1.43	1.65
June	1.56	2.04	2.96	0.21	2.18	0.49	4.32	0.41	1.97	3.91	4.83
July	3.58	0.17	2.37	3.22	3.52	1.60	4.42	3.96	3.74	2.93	2.35
August	3.29	3.29	2.17	3.18	3.63	7.40	5.71	1.70	3.67	3.10	3.82
September	5.89	3.26	2.36	1.71	1.98	4.34	6.93	3.96	2.23	5.42	2.13
October	5.04	1.70	6.57	4.21	1.82	5.80	3.00	3.47	3.85	3.66	7.38
November	5.04	3.07	3.26	2.97	1.39	4.20	4.17	1.86	4.18	4.84	5.61
December	5.41	7.41	5.67	3.73	2.86	5.78	4.83	4.68	1.05	2.91	4.55
Total	44.07	33.14	40.59	29.87	32.41	48.08	48.92	38.71	36.33	37.43	49.75

TABLE No. 34.

SANITARY REPORT FOR THE YEAR 1928.

DISPENSARY DISTRICTS.

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XV.	XVI.	TOTAL
Houses Inspected:—																
Systematically	910	1542	537	1458	426	1503	181	458	3050	3050	...	...	966	1150	295	15526
Re-inspections	4195	7741	8111	5137	2397	5078	536	474	5412	4804	6636	4240	3303	5977	3112	67153
For Specific Purposes	1353	3085	3036	1574	1197	1878	177	150	2725	2180	2321	1543	1840	2807	1293	27159
Where Infectious Diseases occurred—																
Inspections	65	318	436	298	113	164	36	61	147	198	302	210	143	135	74	2700
Re-inspections	45	310	336	325	77	198	37	39	137	170	359	250	180	232	90	2785
Under the Tuberculosis (Prevention) Act																
Inspections	21	54	75	47	25	29	4	11	46	45	51	34	27	42	19	530
Re-inspections	...	1	1	8	...	6	...	2	2	1	2	...	1	...	2	26
Under Belfast Corporation Act (Midwives)																
Inspections	2	1	...	2	...	...	...	...	...	...	...	...	1	1	...	7
Re-inspections	17	139	83	86	25	57	1	8	102	37	75	38	32	37	21	758
Factory and Workshop Acts:—																
Factories—																
Inspections	156	83	7	48	60	96	...	...	20	...	19	37	35	170	73	804
Nuisances	33	18	2	17	15	28	...	...	6	...	3	13	4	47	13	199
Workshops—																
Inspections	647	459	224	172	152	252	1	4	47	36	173	146	162	376	151	3002
Nuisances	141	80	46	24	39	60	...	...	5	7	35	29	20	74	37	597
Workplaces—																
Inspections	179	41	43	26	40	42	1	4	1	18	31	29	28	99	45	627
Nuisances	23	10	8	4	3	12	...	...	...	4	5	9	5	16	9	108
Outworkers' Premises—																
Inspections	8	149	117	1224	25	552	...	...	108	74	835	808	237	233	702	5072
Nuisances	1	3	6	74	...	23	...	...	8	...	39	24	7	14	23	222
Bakehouses—																
Inspections	38	150	57	42	37	58	...	...	32	9	48	60	43	39	47	660
Nuisances	9	40	15	12	7	11	...	...	10	2	10	13	7	7	7	150
Shop Hours Act, Seats for Shop Assistants' Act, and Belfast Corporation Act.																
Confectionery—																
Inspections	170	328	313	231	23	168	16	51	43	173	166	210	98	94	206	2290
Breaches of Acts	2	4	3	...	...	2	1	...	...	1	1	3	2	1	5	25
Ice Cream—																
Inspections	64	38	37	34	7	28	9	6	6	3	79	47	41	26	32	457
Breaches of Acts	...	2	...	1	...	...	...	...	...	...	4	...	...	...	...	7
Vegetable and Fruit—																
Inspections	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Breaches of Acts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grocery—																
Inspections	...	2	...	...	...	...	...	...	...	1	...	1	...	1	...	5
Breaches of Acts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Others—																
Inspections	17	7	2	7	...	1	...	3	...	2	5	1	...	2	2	49
Breaches of Acts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

	DISPENSARY DISTRICTS.															
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XV.	XVI.	TOTAL
Schools:—																
Inspections	129	253	292	169	181	148	48	33	136	159	236	122	160	126	127	2319
Common Lodging Houses:—																
Inspections—Day	635	633	3	107	543	...	...	...	2	...	...	...	9	369	138	2439
„ Night	...	4	...	...	3	...	...	...	...	...	...	...	...	...	...	7
Breaches of Bye-Laws	84	30	...	3	57	...	...	...	...	...	...	...	...	15	32	221
Nuisances	26	22	...	...	39	...	...	...	...	...	...	...	...	6	8	101
Under the Dairies, Cowsheds and Milkshops Order:—																
Cowsheds—																
Inspections	3	4	6	62	1	24	24	71	106	29	45	8	51	36	2	472
Breaches of Order	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Milkshops—																
Inspections	230	560	627	371	227	423	17	29	410	401	529	464	226	371	334	5219
Breaches of Order	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Under the Bye-Laws for the Regulation of Offensive Trades:—																
Inspections	65	...	45	46	...	147	...	...	...	1	22	1	...	55	100	482
Breaches of Bye-Laws	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...
Tipping Grounds:—																
Inspections	49	80	87	109	3	61	61	43	138	141	369	7	237	...	3	1388
Nuisances	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Black Smoke:—																
Observations made	...	...	...	1	3	...	...	1	3	2	...	...	...	3	...	13
Graveyards:—																
Inspections	...	45	1	52	...	49	14	...	22	4	...	13	12	...	...	212
Breaches of Burying Ground Regulations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marine Stores:—																
Inspections	100	89	46	...	91	1	...	...	...	...	...	...	...	82	...	409
Nuisances	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Public Urinals:—																
Inspections	749	141	179	228	135	243	51	153	240	228	50	20	60	82	103	2662
Nuisances	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Amusement Halls:—																
Inspections	440	188	48	148	135	8	...	...	...	...	50	32	...	52	60	1161
Nuisances	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rivers:—																
Inspections	...	25	...	10	4	...	24	9	34	30	12	...	24	16	...	188
Nuisances	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drain Tests:—																
Requests	2	13	13	...	...	15	...	...	...	1	...	1	3	4	...	52
Defective	...	8	4	...	...	11	...	...	...	...	...	1	3	3	...	30
New Work	4	3	2	...	...	2	1	...	1	...	1	...	3	1	...	18
Defective	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	3
Typhoid Fever	3	21	16	15	6	13	...	...	6	4	7	6	6	19	3	125
Defective	...	5	3	5	2	5	...	...	1	...	2	1	...	4	1	29
Diphtheria	21	82	62	55	14	39	1	9	30	31	53	25	27	26	23	498
Defective	3	10	13	9	2	14	...	...	11	5	13	11	8	3	14	116
Continued Fever	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	3
Defective	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	2
Others	3	41	7	6	4	11	1	...	8	12	22	16	27	9	16	183
Defective	1	16	...	4	2	6	1	...	7	3	12	6	19	4	9	90
Total No. of Tests	33	160	101	76	25	80	3	9	45	48	84	48	66	59	42	879
„ Defects	5	39	20	18	7	37	2	...	19	8	28	19	30	14	24	270

SANITARY REPORT (continued).

DISPENSARY DISTRICTS.

a—Discovered. b—Complained of.	I.		II.		III.		IV.		V.		VI.		VII.		VIII.		IX.		X.		XI.		XII		XIII.		XV.		XVI.		TOTAL	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Nuisances Discovered and Complained of:—																																
Drains, Traps, &c., Foul or Defective	140	86	258	124	207	118	371	95	107	63	328	83	31	8	6	5	134	90	77	48	117	91	149	81	145	60	189	83	191	106	2450	1141
Tiling, Paving, or Flooring Defective	203	38	429	111	183	157	204	101	68	45	333	95	20	1	47	12	358	75	275	96	379	169	217	112	180	38	317	63	202	88	3415	1201
No Water Closet Accommodation	7	2	2	...	4	2	12	...	...	...	...	...	1	...	...	...	...	...	...	1	2	...	3	...	4	...	1	...	1	1	37	6
Water Closets Foul or Defective	221	61	329	155	163	137	172	115	69	51	170	80	13	1	25	13	313	66	183	106	168	110	153	109	119	24	266	54	134	97	2498	1179
No Ashpit Accommodation	7	8	21	16	39	24	32	5	4	2	22	10	1	...	2	1	5	...	11	22	10	6	5	6	23	11	14	18	1	6	197	135
Ashpit Defective, Dilapidated, or Unsuitable	52	14	147	52	129	161	108	37	13	14	118	31	9	1	25	1	47	8	102	36	70	38	42	58	77	13	106	18	44	38	1089	520
Sink Waste Pipes Defective, or want of	22	5	26	10	19	8	8	12	6	1	23	10	1	...	2	2	27	8	13	2	40	12	45	13	31	3	18	2	20	7	301	95
Soil and Ventilation Pipes Defective	2	...	4	...	3	1	1	...	1	1	4	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	2	2	1	2	20	7
Roof or Spouting Defective, or want of	334	143	859	298	593	386	273	172	311	123	546	188	63	7	38	15	815	156	416	163	515	250	328	192	218	86	488	113	297	181	6094	2473
Premises dirty	108	12	140	14	54	26	41	5	10	5	28	2	66	20	2	...	7	5	23	7	265	7	29	6	8	4	44	9	32	8	857	130
Houses or Premises Damp	35	35	65	98	82	177	149	96	23	46	216	67	3	3	4	21	52	56	32	75	169	99	115	84	68	39	241	74	61	68	1315	1038
General Dilapidation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	5	...	1	...	6	1
Insufficient Light or Ventilation	3	...	5	...	...	...	...	...	17	1	1	...	...	...	1	...	9	...	14	...	2	...	5	...	2	...	1	...	3	1	63	2
Offensive Smells	...	22	9	22	13	20	5	12	13	6	6	20	...	2	1	1	...	13	9	11	13	16	5	11	9	5	6	17	4	11	93	189
Fowl or Animals Kept	1	5	6	6	10	6	9	2	1	2	13	7	...	...	...	...	...	12	3	2	1	7	...	1	...	7	16	5	3	5	63	67
Accumulation of Manure or other Offensive Matter	16	2	16	20	26	12	10	11	22	6	37	23	2	1	1	1	30	6	29	4	16	15	32	5	40	21	16	8	21	6	314	141
No Domestic Water Supply or Improper	7	2	1	3	3	2	2	7	1	1	2	...	...	...	...	...	6	10	3	8	6	12	5	2	11	3	9	5	...	1	56	56
Black Smoke	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Passages Dirty	1	4	2	8	9	7	5	2	1	4	2	3	1	...	1	2	1	3	...	4	...	8	4	4	18	7	2	4	3	4	50	64
Schools Dirty	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Overcrowded	33	...	83	...	120	...	76	...	89	...	11	...	17	...	11	...	91	...	47	...	101	...	85	...	73	...	99	...	61	...	997	...
Houses „	3	4	3	11	1	8	...	3	...	3	1	4	...	...	...	1	1	1	...	2	3	2	1	3	2	...	6	10	...	13	21	65
Offensive Privies	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	2	2
Miscellaneous	121	83	221	182	197	203	131	99	136	81	270	122	30	1	12	8	336	93	184	106	426	172	310	123	172	40	402	124	275	116	3223	1553

DISPENSARY DISTRICTS.

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XV.	XVI.	TOTAL
House Drains Cleansed	189	309	266	422	136	314	21	6	172	112	151	209	140	233	254	2934
„ Repaired	20	37	31	18	8	40	3	...	17	32	46	43	34	27	37	393
Pipe Drain Laid in Providing Houses with new Drains	74	865	48	72	30	799	90	...	190	24	308	78	702	78	33	3391
Gully and Disconnecting Traps put on House Drains	18	20	13	16	1	43	...	...	7	...	6	...	2	2	3	131
Houses had the Tiling, Paving, or Flooring Repaired	202	535	313	273	110	351	15	53	421	380	570	322	206	325	296	4372
Water Closets Erected	...	1	4	...	...	3	2	...	...	...	1	3	2	...	...	16
„ Repaired	255	477	282	262	98	211	16	33	361	270	263	229	134	287	235	3413
Ashbins Provided	54	181	253	146	16	149	13	25	33	135	123	75	97	90	72	1462
Houses Provided with New Sinks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Houses Provided with New Soil and Ventilation Pipes	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	4
Houses have had the Roofs Repaired	265	653	635	316	266	458	37	18	570	364	557	434	187	359	384	5503
Houses have had Spouting Repaired	149	449	321	173	133	256	25	27	321	209	463	232	125	201	180	3264
Houses have been Cleaned or Whitewashed	82	70	65	34	14	23	72	2	8	15	27	22	7	37	35	513
Houses have had the Yard Walls Limewashed	26	56	19	...	...	4	16	...	1	1	259	...	...	18	1	401
Houses (that were overcrowded) had the Number of Inmates Reduced	5	6	3	...	1	1	...	...	1	...	2	2	1	3	3	28
Houses Closed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Houses have had Minor Repairs Effected	213	449	450	212	196	315	45	23	425	338	571	450	198	483	372	4740
Miscellaneous Nuisances Abated	79	108	191	125	33	131	6	25	76	101	121	62	116	80	76	1330

PORT SANITARY AUTHORITY.

During the year special attention was given to sanitary inspection work at the Belfast Port, particularly in respect to rat destruction and anti-plague measures.

The Belfast Port Sanitary Authority has been recognised by the Ministry of Health, London, as a port authorised to issue Deratisation Certificates in compliance with the recommendations of the International Sanitary Convention of Paris, 1926.

Arrangements have been made for the bathing and delousing of emigrants at our Disinfecting Station, Laganbank Road.

A report on the sanitary condition of the foreshores of Belfast Lough was called for early in the year. A copy of the report submitted to the Port of Belfast Sanitary Authority is as under:—

BELFAST PORT.

3rd July, 1928.

To the Chairman and Members of the Port of Belfast Sanitary Authority.

I beg to submit a report on an inspection of the Port of Belfast recently carried out under the directions of Dr. Bailie.

The report deals with the sanitary condition of the foreshores from the City Boundary to Blackhead on the Co. Antrim coast and from the City Boundary to Orlock Point on the Co. Down coast. The portion of the port within the City Boundary has not been dealt with in this report.

The report deals in detail with the sewage discharges into the lough, and a map has been prepared and numbered to correspond with detailed descriptions given in a schedule.

The chief points to be noted in the report are:—

1. The very **large number** of drains, sewers, culverts and streams which discharge into the lough. Most of the drains and sewers discharge crude sewage either **intermittently** or **continually.** In a few instances the sewage is treated before being discharged, but in most cases it is **untreated.** A large number of sewers and drains **discharge at high water mark** or in some cases merely on the beach. A few are carried out and discharge at low water mark and in such a position that the sewage can be carried out to sea by the ebb tide.

It will be understood that in this survey, owing to the limited means of investigating facilities at the disposal of your officers, it was not possible to trace the source of all the sewage discharges. Some of these were from districts far inland, and whilst some sewers took the discharges from one house, others took the sewage from several houses or villages.

2. The large areas of sloblands on both sides of the lough are mostly within the City Boundary. These sloblands are exposed at low water, and on the Co. Down side large quantities of seaweed (ulva latissima) are liable to collect. The mudbands at low water show accumulations of shell-fish (mussel-beds) which are liable to be contaminated with sewage.

3. Large volumes of untreated sewage are discharged into the port from urban districts such as at Carrickfergus, Whitehead, Holywood, and Bangor. The Belfast Rural District Council discharge a large volume of treated sewage from the filter beds and sedimentation tanks at Greencastle.

RECOMMENDATIONS.

I beg to make the following recommendations subject to such legal limitations as may be found necessary in the carrying out of same:—

1. The various Local Sanitary Authorities abutting on the port should be called upon to take measures to cause all sewage, before being discharged into the lough, first, to be properly treated, as by sedimentation, septic tanks or filtration beds, or by such means as to render the sewage effluent to conform to the chemical standards laid down by the Sewage Disposal Commission; second, to be discharged at or near low water mark and in such a position as to be readily carried out to sea during the ebb tide; and, third, where possible, to be discharged 1½ hours after the commencement of the ebb tide.

2. **Rivers and streams.** The Local Sanitary Authorities should take steps to ascertain that the rivers and streams flowing into the lough are free from organic pollution (under the Rivers and Streams Pollution Act).

3. **Foreshore.** The Local Sanitary Authorities should be called upon to keep the foreshore in a proper sanitary condition. Seaweed, etc., should be removed as is being done on the Co. Down coast by the Joint Castlereagh and Belfast Board.

4. **Sloblands.** Where possible areas of sloblands should be reclaimed on both the Co. Antrim and Co. Down shores.

I am,

Your obedient Servant,

S. BARRON,

Acting Port Medical Officer.

During the year 2,234 visits were made for the inspection and re-inspection of vessels entering the Port; of these 1,740 were primary and 494 were subsequent inspections. 1,238 vessels arrived from ports situated in the United Kingdom, and 502 from British Commonwealth or foreign ports.

The British Commonwealth or foreign ports from which vessels arrived were:—

Alexandria	2	Galway	1	Picton	1
Amsterdam	13	Gaspe	1	Pomeran	1
Antwerp	57	Geelong	1	Portland, O.	10
Archangel	1	Genoa	1	Port Lincoln	1
Baltimore	8	Ghent	47	Port Natal	1
Baytown	1	Gothenberg	25	Rangoon	3
Bergen	1	Gulf Port	1	Rathmullen	1
Bona	3	Haagshamm	1	Riga	14
Boulogne	2	Hamburg	47	Rosario	22
Borga	1	Havre	11	Rotterdam	37
Buenos Ayres	6	Helsingfors	1	Rouen	11
Brandsfors	1	Huelva	2	San Francisco	2
Bremen	5	Hurnasand	1	San Nicolas	7
Brest	3	Karachi	1	San Petro	1
Cairns	1	Katka	1	Sfax	1
Castellon	1	La Plata	2	Shoreham	1
Capetown	1	Las Palmas	1	Skogall	1
Chatham, N.B.	1	Leghorn	1	Stetten	1
Chimainus	1	Lisbon	1	Storsfors	1
Constantinople	1	Malaga	1	Stumgsund	1
Cork	2	Miramichi	2	St. John's	5
Danzig	1	Montreal	14	Sundsvall	7
Defzyh	1	New Brunswick	1	Thrisborg	1
Dobronik	2	Newcastle, N.B.	1	Tolkis	1
Dublin	8	New Orleans	9	Tronahjem	5
Dundalk	1	Nova Scotia	1	Uleaborg	1
Dungarvin	1	New York	21	Vancouver	2
Dunkirk	15	Nyhjobling	1	Valencia	9
Durban	4	Pamarang	1	Valparaiso	1
Freemantle	1	Pernau		Wallaroo	2
Frederikstad	3	Philadelphia	1		

Nationality of Vessels:—

American	39
Belgian	5
British	1,561
Danish	5
Dutch	50
Finnish	4
French	1
German	31
Greek	12
Italian	3
Japanese	1
Jugo Slav	2
Norwegian	16
Spanish	2
Swedish	8

Insanitary conditions were found to exist on board 483 vessels, and the Masters or other responsible Officers were notified in connection therewith.

To comply with the terms of the notices, the following work was carried out:—

273 vessels had the crew's quarters cleansed.

292 vesesls had the water closets cleansed.

7 vessels had the fresh water tanks cleansed and cement washed.

2 vessels had the port lights repaired.

1 vessel had new heating stove provided.

2 vessels were fumigated for the destruction of rats or other vermin, and 2 on account of sickness.

4 Notices under the Rats and Mice Destruction Act were served on the Masters of vessels and 8 on the occupiers of premises at the port.

The cross-Channel vessels were visited daily and the sheds were inspected regularly for the detection of unsound food, and the following foodstuffs were seized as being unfit for the food of man:—

	Tons.	cwts.	qrs.	lbs.
141 boxes of Fillets	—	15	—	7
3 barrels of Sausage Casings	—	8	—	—

INQUEST CASES.

Cause of Death.	Under 1 year.		1 and under 5 years.		5 and under 15 years.		15 and under 25 years.		25 and under 45 years.		45 and under 65 years.		65 and upwards.		Total.		Grand Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Accidents—Run over	—	—	1	4	7	10	11	2	4	1	6	3	10	6	39	26	65
„ Various	—	—	—	—	—	—	3	—	6	—	12	2	2	1	23	3	26
Convulsions	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3
Drowning	—	—	1	—	—	—	1	—	—	—	4	1	1	1	7	2	9
Execution	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1
Gunshot Wounds	—	—	—	—	—	—	—	—	1	—	—	—	11	—	1	—	1
Gas Poisoning	—	1	—	—	—	—	—	—	—	—	—	—	1	1	1	2	3
Heart Failure	—	—	—	—	—	—	—	—	5	—	11	4	2	1	18	5	23
Inattention at Birth	4	5	—	—	—	—	—	—	—	—	—	—	—	—	4	5	9
Natural Causes	3	1	1	1	1	1	—	2	—	—	6	—	1	—	12	5	17
Murder	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
Overlying	1	1	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Shock, etc., due to Burns and Scalds	1	—	9	—	—	2	1	5	1	1	—	—	1	1	14	9	23
Stillborn	2	1	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3
Suicide	—	—	—	—	—	—	1	1	6	3	1	2	4	—	12	6	18
															137	67	204

PURDYSBURN FEVER HOSPITAL.

To the Chairman and Members of the Public Health Committee.

LADIES AND GENTLEMEN,

I have the honour to present to you the following report on the working of Purdysburn Fever Hospital for the year 1928 (52 weeks ended 31st December, 1928.)

2,818 cases were admitted during this period, there remained from the previous year 261 cases, making a total of 3,079 cases under treatment.

2,802 of these were treated to a conclusion, leaving 277 cases in hospital at the end of the year.

The number of admissions in the previous year had been 1,928, and the average number of admissions in the previous five years 2,016.

TABLE I.

Showing the classification of the cases, and the mortality in cases treated to a conclusion.

Disease	Remaining on 1/1/28	Admitted during year	Total	Remaining on 29/12/28	Nett	Died	Mortality % calculated on cases treated to a conclusion
Typhoid	15	180	195	17	178	14	7.86
Typhus	—	3	3	—	3	1	33.33
Scarlatina	195	1791	1986	189	1797	18	1.00
Diphtheria	44	592	636	65	571	12	2.10
Cerebro-Spinal Fever	1	5	6	—	6	4	66.66
Pneumonia	—	1	1	—	1	—	0.00
Tubercular Meningitis	—	11	11	1	10	10	100.00
Other Diseases	6	214	220	5	215	21	9.76
Quarantine	—	20	20	—	20	—	0.00
Epidemic Encephalitis	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—
Acute Poliomyelitis	—	1	1	—	1	—	0.00
Total	261	2818	3097	277	2802	80	2.85
Comparative numbers in 1927	194	1928	2122	261	1861	86	4.64

TYPHOID FEVER.

180 cases of Typhoid were admitted during the year, 15 cases remained from the previous year, making a total of 195 cases under treatment.

17 cases were still in hospital at the end of the year. 178 cases were treated to a conclusion; of these 14 died, giving a mortality rate of 7.86 per cent.

Of the 180 admissions 175 came from the city and 5 from outside the city boundary.

In the previous year the admissions numbered 155.

The average number of admissions in the previous five years was 104.

TABLE II.

Showing the case mortality in age periods.

Ages	Cases	Died	Mortality per cent.
Under 5 years	16	2	12.5
5—10 „	35	1	2.85
10—20 „	67	4	5.97
20—30 „	36	2	5,55
Over 30 „	24	5	20.83
Totals	178	14	7.86

TABLE III.

Showing the number of Typhoid Cases admitted in each month.

January	12	July	17
February	9	August	11
March	23	September	8
April	30	October	4
May	22	November	13
June	19	December	12
		Totals	180

DIPHTHERIA.

592 cases were admitted during the year, making with the 44 cases remaining from the previous year, 636 cases under treatment.

65 cases still remained in hospital at the end of the year.

571 cases were treated to a conclusion with 12 deaths, giving a case mortality of 2.10 per cent.

1 case died within 12 hours, 2 between 12 and 24 hours, and 1 between 24 and 48 hours of admission.

Of the 592 admissions 553 came from the city and 39 from outside the city boundary.

In the previous year the admissions numbered 453.

The average number of admissions in the previous five years was 369.

TABLE IV.

Showing case mortality in age periods.

Ages	Cases	Died	Mortality per cent.
Under 1 year	8	—	0.00
1— 2 years	32	1	3.12
2— 5 „	142	3	2.11
5—10 „	219	6	2.74
10—20 „	92	—	0.00
20—30 „	55	1	1.82
Over 30 „	23	1	4.35
Totals	571	12	2.10

LARYNGEAL DIPHTHERIA.

39 cases required operative interference for Laryngeal Obstruction.

TABLE V.

Showing results in age periods in cases in which intubation of the Larynx was performed

Ages	Cases	Died	Mortality per cent.
Under 1 year	0	—	0.00
1—2 years	6	1	16.66
2—3 „	7	—	0.00
3—4 „	10	1	10.00
4—5 „	8	—	0.00
Over 5 years	8	—	0.00
Totals	39	2	5.13

Tracheotomy was performed on one case owing to non-retention of the intubation tube. This case was discharged still requiring the tracheotomy tube.

CEREBRO-SPINAL FEVER.

5 cases of Cerebro-Spinal Fever were admitted during the year.

1 case remained from the previous year, so that 6 cases were treated to a conclusion. Of these 4 died, giving a mortality rate of 66.66 per cent. These four fatal cases of Cerebro-Spinal Fever were all late in coming under treatment —one was admitted on the 4th day of illness, one on the 5th day, one on the 6th day, and one on the 7th day of illness. Three of these cases died within 48 hours of admission. In the previous year the admissions numbered 9.

TUBERCULAR MENINGITIS.

11 cases of Tubercular Meningitis were admitted during the year. 1 case still remained in hospital at the end of the year, leaving 10 cases treated to a conclusion.

All these cases ended fatally.

ACUTE POLIOMYELITIS.

1 case of Acute Poliomyelitis was admitted during the year, which survived, but with some permanent paralysis.

PNEUMONIA.

1 case of Pneumonia was admitted during the year, which recovered.

EPIDEMIC ENCEPHALITIS.

There were no admissions of Edipemic Encephalitis during the year. As compared with 4 cases in 1927 and 98 cases in 1926.

TYPHUS FEVER.

3 cases of Typhus Fever were admitted during the year. Of these 1 died, giving a case mortality of 33.33 per cent.

SCARLATINA.

1,791 cases were admitted during the year, making, with 195 cases remaining over from the previous year, a total of 1,986 under treatment.

189 cases still remained in hospital at the end of the year, so that 1,797 cases were treated to a conclusion during the year.

18 of these ended fatally, giving a case mortality of 1.00 per cent.

Of the 1,791 admissions 63 came from outside the city boundary and 1,728 from the city.

In the previous year 1,134 cases were admitted.

The average number of admissions in the previous five years was 1,304.

TABLE VI.

Showing the case mortality in age periods.

Ages	Cases	Died	Mortality per cent.
Under 1 year	10	2	20.00
1— 2 years	69	5	7.25
2— 5 „	469	5	1.07
5—10 „	826	5	0.60
10—20 „	279	0	0.00
20—30 „	98	0	0.00
Over 30 „	46	1	2.17
Totals	1797	18	1.00

1 case died within 24 hours of admission.

Fatal cases of Scarlatina:—

1 child, age 2½ years, admitted on 4th day of illness, died of Sepsis on the 6th day.

1 child age 1 year, admitted on 5th day of illness, died of Sepsis on the 14th day.

1 child age 9 years, admitted on 4th day of illness, died of Toxaemia on the 8th day.

1 child age 1 year, admitted on 7th day of illness, died of Sepsis in 20 hours.

1 child age 4½ years, admitted on 3rd day of illness, died of Broncho-Pneumonia on 20th day.

1 child age 2 years, admitted on 4th day of illness, died of Toxaemia on the 9th day.

1 child age 4 years, admitted on 10thday of illness, died of Uraemia on the 26th day.

1 child age 1 1/12 years, admitted on 2nd day of illness, died of Broncho-Pneumonia on the 15th day.

1 woman age 36 years, admitted on 2nd day of illness, died of Septicaemia and Premature Labour on 12th day.

1 child age 9 years, admitted on 1st day of illness, died of Orbital Cellulitis on the 17th day.

1 child age 5 years, admitted on 4th day of illness died of Acute Endocarditis and Chorea on the 51st day. This patient had been under treatment for Chorea in another hospital for 3 months before contracting Scarlatina.

1 child age 10/12 years, admitted on 1st day of illness, died of Broncho-Pneumonia on the 45th day.

1 child age 9/12 years, admitted on 5th day of illness, died of Sepsis on the 46th day.

1 child age 6½ years, admitted on 3rd day of illness, contracted Measles and Broncho-Pneumonia, and died on 45th day of illness.

1 child age 5½ years, admitted on 4th day of illness with both Scarlet and Measles, died of Empyema on 35th day of illness.

1 child age 3 8/12 years, admitted on 4th day of illness, died of Cancrum Oris on the 23rd day.

1 child age 1 5/12 years, admitted on 2nd day of illness, died of Broncho-Pneumonia on the 16th day.

1 child age 1 2/12 years, admitted on 5th day of illness, died of Broncho-Pneumonia on the 9th day.

"RETURN CASES."

In 56 instances the return home of a patient from hospital was followed by other cases in the house, giving a return case rate of 3.39 per cent. On the average these 56 cases had reached the 39th day from the onset of the disease when they were discharged.

OTHER DISEASES.

214 cases of "Other Diseases" were admitted during the year. These included cases admitted for observation and which did not develop any of the ordinary infectious diseases, and also members of the staff who became ill from causes other than infectious diseases and who were warded in the Isolation Pavilion for convenience of nursing.

6 cases remained from the previous year, and 5 remained at the end of this year, so that the number of cases treated to a conclusion was 215.

Of these 21 died, giving a case mortality of 9.76 per cent.

The causes of these deaths were as follows:—Measles 3, Broncho-Pneumonia 3, Acute Gastro-Enteritis 2, Erysipelas 1, Pneumococcal Meningitis 1, Tonsillitis 2, Pulmonary Tuberculosis 1, Intestinal Tuberculosis 1, Appendicular Abscess 1, Jaundice 1, Maramus 1, Cancrum Oris 1, Acute Nephritis 1, Tetany 1, Pleurisy 1.

INFECTIOUS DISEASES AMONGST THE STAFF.

1 House Physician contracted Scarlatina.

1 Temporary House Physician, 5 Nurses, and 1 Ward Maid contracted Diphtheria.

All made good recoveries.

The Staff at the end of the year consisted of:—

1 Medical Superintendent.	1 Foreman Gardener.
1 Resident Medical Officer.	3 Groundsmen.
1 House Physician.	1 Matron.
1 Temporary House Physician.	1 Assistant Matron.
1 Steward.	1 Night Superintendent.
1 Clerk.	1 „ „ Joint.
1 Storekeeper.	1 Housekeeper.
1 Engineer.	11 Ward Sisters.
2 General Mechanics.	37 Nurses.
3 Motor Drivers.	1 Seamstress.
1 Van Man.	1 Temporary Seamstress.
4 Firemen.	1 Head Laundress.
1 Pumping Station Engine Man.	7 Laundry Maids.
5 Day Porters.	1 Cook.
1 Gate Porter.	3 Kitchen Maids.
1 Night Porter.	5 General Maids.
1 Disinfector.	13 Ward Maids.

Throughout the year the staff have discharged their responsible duties very satisfactorily.

I am,

Ladies and Gentlemen,

Your Obedient Servant,

A. GARDNER ROBB,

Visiting Physician in Charge.

TUBERCULOSIS DEPARTMENT.

THE YEAR'S WORK,

BEING

THE REPORT

OF THE

CHIEF TUBERCULOSIS OFFICER

FOR THE

Year Ended 31st December, 1928.

CITY AND COUNTY BOROUGH OF BELFAST.

The Right Honourable the Lord Mayor,
SIR WILLIAM GEORGE TURNER, P.C., D.L., J.P.

MEMBERS OF THE TUBERCULOSIS COMMITTEE, 1928.

Councillor CAPTAIN D. C. LINDSAY (Chairman).

Alderman Mrs. McMORDIE, C.B.E., J.P.
Lady of Grace of St. John of Jerusalem (Deputy Chairman).

Alderman SIR CRAWFORD M'CULLAGH.
Alderman CAPTAIN W. REID, J.P.
Alderman J. D. WILLIAMSON, M.D., J.P.
Councillor W. A. COCHRANE, J.P.
Councillor W. F. CLOKEY.
Councillor S. GRAY.
Councillor J. GRIMLEY.
Councillor LIEUT.-COM. R. M. HARCOURT.
Councillor H. M'ALEVEY.
Councillor H. M'KIBBIN.
Councillor H. M'LAURIN, J.P.
Councillor CLARKE SCOTT.
Councillor W. SWEENEY.
MR. WILLIAM MOOREHEAD (Chairman Belfast Insurance Committee).
MR. KYLE M. ALEXANDER, F.L.A.A. (Member Belfast Insurance Committee).
MR. JAMES PARKHILL, J.P. (Member Belfast Insurance Committee).

MEDICAL OFFICERS OF THE DEPARTMENT.

Tuberculosis Institutes.

Chief Tuberculosis Officer	DR. ANDREW TRIMBLE.
Assistant Medical Officer	DR. JAMES SHAW.
Assistant Medical Officer	DR. RICHARD M'CULLOCH (resigned 18-5-28).
Assistant Medical Officer	DR. T. R. V. IRWIN.
Assistant Medical Officer	DR. HERBERT M'MASTER.
Assistant Medical Officer	DR. E. P. DEWAR.

Municipal Sanatorium, Whiteabbey.

Resident Medical Superintendent	DR. PERCY S. WALKER.
Assistant Medical Officers	DR. D. K. WATTERSON.
	DR. MARY FRANCES RAMSEY (resigned 31-8-28).
	DR. JOHN CAMPBELL (died 3-9-28).
	DR. MARGARET H. ELLIOTT.
Visiting Medical Officer	DR. JOHN RANKIN.

Municipal Hospital for Tuberculous Children, Graymount.

Visiting Surgeon	MR. H. P. MALCOLM.

CHART 1.

SHOWING THE COURSE OF THE DEATH RATE FROM PULMONARY TUBERCULOSIS IN BELFAST FROM 1893 ONWARD, AND FROM THE NON-PULMONARY FORMS OF TUBERCULOSIS, FROM 1906 ONWARD.

Report of the Chief Tuberculosis Officer

ON THE WORK OF

THE TUBERCULOSIS DEPARTMENT

For the Year ending 31st December, 1928.

I beg to submit herewith my report of the work done in connection with the Tuberculosis Institutes during the year ended 31st December, 1928.

I wish to thank the Tuberculosis Committee for their continued help and encouragement; and the Medical, Nursing, and Clerical Staffs for their assistance throughout the year.

Unemployment and consequent poverty continue to embarrass the work and to render it difficult for patients to obtain adequate nourishment or to procure and pay for suitable housing accommodation. Both these circumstances are calculated to foster the spread of tuberculosis by lowering resistance, and by multiplying opportunities for the spread of infection.

THE CENSUS.

The detailed figures of the Census for the County Borough of Belfast were published by the Registrar General during the year. These enable us to calculate rates on the latest figures, and contribute much valuable information on conditions of living amongst the people—information which has not been available since the Census of 1911.

According to the official report of the Census, the population of the City is 415,151—composed of 195,539 males and 219,612 females.

EXAMINATION OF NEW PATIENTS.

Table 1.—Shows the number of examinations of new patients in each of the years indicated, without regard to sex or diagnosis.

Year ended	Number of Examinations
31st December, 1926	1904
31st December, 1927	2086
31st December, 1928	**1816**

It will be seen by this Table that the number of new patients examined was 270 less than in 1927.

Table 2.—Shows the result of examination of the new patients examined during the years indicated.

Year ended	Tuberculous	Suspect.	Non-Tuberculous	Total
31st December, 1926	1054	115	856	2025
31st December, 1927	1152	119	957	2228
31st December, 1928	**1100**	**117**	**745**	***1962**
Percentages for year ended **31st December, 1928**	56%	6%	38%	100%

*Includes 146 transfers from patients formerly only suspect, to tuberculous or non-tuberculous.

The figures set out above show a decrease of 52 in the numbers found to be suffering from tuberculosis, as compared with the year 1927.

CONTACTS.

Table 3.—Shows the number and result of examination of Contacts set out as Tuberculous, "Suspect," and Non-Tuberculous.

	Tuberculous	Suspect	Non-Tuberculous	Total
No.	220	38	327	585
Per Cent.	37.6	6.5	55.9	100%

With reference to the percentage of contacts found to be tuberculous, it is necessary to state that almost all the contacts examined had been previously noticed to be ailing, either by the parent or by the visiting nurse.

SPECIFIC FORMS OF TUBERCULOSIS.

Table 4.—Shows the form of tuberculosis from which each tuberculous patient was found to be suffering, and the sex of the patient so suffering, including old patients formerly "suspect," whose diagnosis was made definite during the year.

Year ended	Pulmonary		Glandular		Osseous		Abdominal		Other Forms		Total		Grand Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
31st Dec., 1926 ...	362	383	83	98	28	34	15	19	9	23	497	557	1054
31st Dec., 1927 ...	355	423	118	110	33	30	28	26	15	14	549	603	1152
31st Dec., 1928 ...	**351**	**401**	**119**	**103**	**34**	**21**	**25**	**20**	**13**	**13**	**542**	**558**	**1100**

The ratio of pulmonary tuberculosis to other forms remains very much the same as in previous years—68 per cent. pulmonary tuberculosis and 32 per cent. non-pulmonary. A study of the relative numbers of women and men found to be tuberculous at their first examination shows a steady diminution during the fourteen years of our work. For every 100 men found to be tuberculous in the year 1915, we had 149 tuberculous women; for every 100 men found to be tuberculous in 1928 only 103 women were similarly affected.

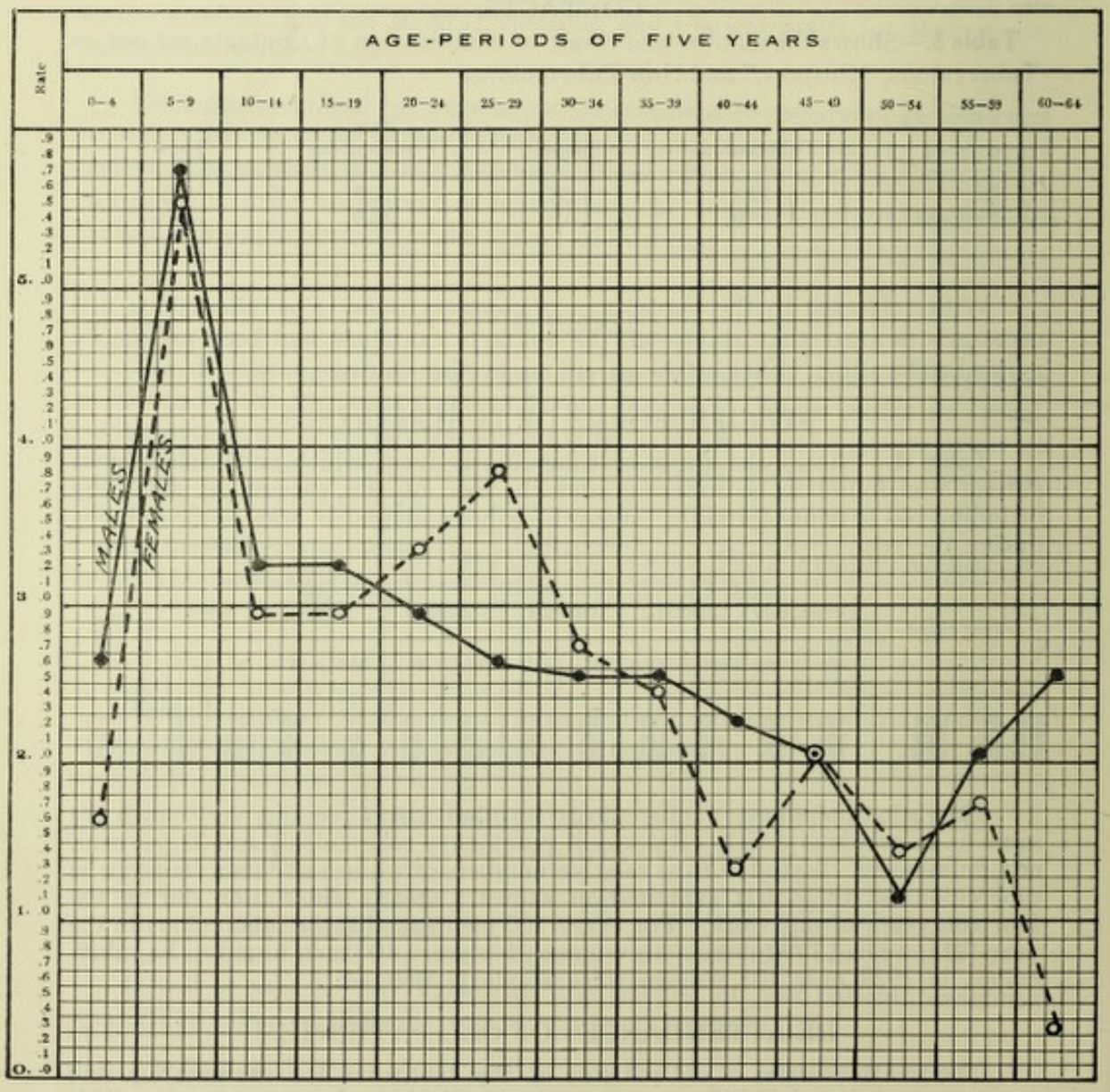
RE-ATTENDANCES OF OLD PATIENTS.

The re-attendances of old patients at the Institutes for examination and treatment numbered 32,869, as compared with 31,523 in the year previous. This number added to the 1816 new patients examined makes a total of 34,685 as compared with 33,609 in 1927. 198 patients unable to attend the Institutes were

re-examined in their own homes, and 48 were re-examined at the Union Infirmary by the Staff of the Institutes. When it is recalled that we were short-staffed by one medical man since the middle of May, 1928, the extent of the work represented by the above figures will be better appreciated.

CHART 2.

SETTING OUT GRAPHICALLY AN ANALYSIS OF NEW PATIENTS EXAMINED DURING THE YEAR, AND FOUND TO BE SUFFERING FROM TUBERCULOSIS, PER 1,000 OF THE POPULATION, ACCORDING TO SEX, GROUPED IN AGE PERIODS OF FIVE YEARS.



RE-EXAMINATION OF PATIENTS ON DOMICILIARY TREATMENT.

During the year we re-examined at the Tuberculosis Institutes 963 patients on Domiciliary Treatment, and found their condition as set out hereunder:—

Table 5.—Shows the Condition of Domiciliary patients re-examined during the year.

Year	Disease Apparently Cured.	Disease Quiescent.	Greatly Improved.	Improved	In Statu Quo.	Worse.	Total.
1926	112	142	59	131	319	59	822
1927	150	167	88	169	320	78	972
1928	**79**	**110**	**69**	**168**	**455**	**82**	**963**

It should be remembered that these figures apply only to patients on Domiciliary Treatment—which has been looked upon occasionally with scorn and contempt!

If these results can be accomplished in face of all the disabilities connected with overcrowding, inadequate housing and unemployment, how much more might be accomplished if social conditions were what they should be; if the importance of attention to early symptoms were realised; and if the patient faithfully and courageously carried out the instructions of the doctor in regard to the necessity for rest in the early stages of the disease.

PATIENTS ON TREATMENT.

Table 6.—Shows the number of patients on the different forms of treatment at the 31st of December, 1928.

Institute (Dispensary)	Domiciliary	Institutional		Open-Air School (Day Section)	Total
		Sanatorium.	Graymount Hospital		
1860	2513	240	53	102	4768

The importance of these figures does not consist merely in the fact that so many patients are under treatment, but that every patient treated is an object lesson to the remainder of the family and the community—serving as a starting point for a spread of the knowledge of the laws of health and of the means for the prevention of disease.

Table 7.

Occupations of Tuberculous Patients at their First Examination (arranged according to the Classification—Slightly Modified—of the Registrar-General).

I.—GENERAL OR LOCAL GOVERNMENT OF THE COUNTRY.

Male.	**Female.**
Nil.	Nil.

II.—PERSONS ENGAGED IN THE DEFENCE OF THE COUNTRY.

Policeman	2	Nil.
Sailor (Discharged)	3	
Soldier (Discharged)	45	

III.—PERSONS ENGAGED IN PROFESSIONAL OCCUPATIONS (AND THEIR SUBORDINATES).

Male.		Female.	
Nil.		Nurse	2

IV.—PERSONS ENGAGED IN DOMESTIC OFFICES OR SERVICES.

Page Boy	1	Charwoman	5
		General Servant	17
		Nursery Governess	1

V.—PERSONS ENGAGED IN COMMERCIAL OCCUPATIONS.

Agent	1	Clerk	9
Clerk	11	Shop Girl	8
Manager	1	Telephonist	1
Photographer	1		
Shop Assistant	3		

VI.—CONVEYANCE OF MEN, GOODS, MESSAGES.

Carter	5	Nil.
Chauffeur	5	
Coal Man	1	
Messenger	8	
Porter	6	
Tram Conductor	1	
Van Man	2	

VII.—PERSONS ENGAGED IN AGRICULTURE.

Farmer	1	Nil.
Gardener	1	

VIII.—PERSONS ENGAGED ABOUT ANIMALS.

Groom	1	Nil.

IX.—PERSONS WORKING OR DEALING IN PRINTING, BOOKS, ETC.

Printer	1	Nil.

X.—PERSONS ENGAGED WITH MACHINES AND IMPLEMENTS.

Blacksmith	1	Cager	1
Boilermaker	1		
Brass Moulder	2		
Caulker	2		
Cooper	1		
Driller	2		
Engineer	14		
Heater Boy	2		
Heckle Setter	1		
Holder Up	5		
Iron Moulder	2		
Iron Turner	1		
Plater	1		
Red Leader	1		
Riveter	2		
Sawyer	3		
Sheet Metal Worker	1		
Shunter	1		
Steel Pipe Coverer	1		
Welder	1		
Woodturner	1		

XI.—PERSONS WORKING AT HOUSES, FURNITURE AND DECORATIONS.

Architect	1
Bricklayer	1
Cabinet Maker	1
Carpenter	6

Male.			Female.		
Draughtsman	....	1	Upholstress	....	2
French Polisher	....	1			
Painter and Glazier	....	2			
Plasterer	....	2			
Stone Mason	....	2			
XII.—CARRIAGES AND HARNESS.					
Coach Builder	....	1	Nil.		
Saddler	....	1			
XIII.—SHIPS AND BOATS. (See also under X.—"Machines and Implements.")					
XIV.—CHEMICALS AND COMPOUNDS.					
Nil.			Nil.		
XV.—TOBACCO AND PIPES.					
Nil.			Tobacco Worker	....	5
XVI.—FOOD AND LODGINGS.					
Baker	....	1	Cook	....	1
Barman	....	4	Waitress	....	1
Bottler	....	2			
Bottle Washer	....	2			
Butcher	....	1			
Chef	....	1			
Cork Cutter	....	1			
Grocer	....	1			
Mineral Water Worker	....	1			
Waiter	....	1			
XVII.—TEXTILE FABRICS.					
Cloth Finisher	....	1	Carder	....	2
Flax Dresser	....	3	Doffer	....	10
Hempcutter	....	1	Drawer	....	11
Linen Lapper	....	3	Embroiderer	....	2
Machine Boy	....	1	Flax Sorter	....	1
Millworker	....	13	Folder	....	3
Packer	....	1	Hooker		1
Preparing Master	....	1	Laundress	....	13
Presser	....	1	Layer	....	6
Rougher	....	1	Netter	....	1
Warehouse Worker	....	1	Ornamentor	....	3
Weaver	....	1	Packer	....	2
Yarn Bundler	....	1	Reeler	....	6
Yarn Drawer	....	1	Rover	....	7
Yarn Dresser	....	1	Spinner	....	24
			Spreader	....	3
			Stitcher	....	31
			Thread Drawer	....	1
			Twister	....	3
			Wareroom Worker	....	5
			Warper	....	1
			Weaver	....	33
			Winder	....	18
			Yarn Bundler	....	1
			Factory Worker or Mill-worker (not otherwise defined)	....	16
XVIII.—DRESS, ETC.					
Boot and Shoe Maker	....	2	Cutter	....	6
Hairdresser	....	2	Dressmaker	....	4
Tailor	....	3	Machine Knitter	....	4
XIX., XX., and XXI.—ANIMAL, VEGETABLE, AND MINERAL SUBSTANCES.					
Nil.			Nil.		
XXII.—GENERAL OR UNSPECIFIED COMMODITIES.					
Billiard Marker	....	1	Flower Seller	....	1
			Housewife	....	85

Male.			Female.
Caretaker	.....	1	
Chimney Sweep	.....	1	
Dealer	.....	4	
Labourer	.....	9	
Storeman	.....	1	

XXIII.—REFUSE MATTERS.

Nil. Nil.

XXIV.—PERSONS NOT PRODUCING.

School Boy	.....	154	School Girl	.....	137
Male Child under School Age	.....	70	Female Child under School Age	.....	49
No occupation	.....	16	No occupation	.....	15
Total Males	.....	585	Total Females	.....	558

N.B.—43 Discharged Sailors and Soldiers are recorded also under their ordinary calling.

THE QUESTION OF INFECTION.

Table 8.—Shows the possibility of infection by living, or having lived, with other tuberculous persons.

Year ended	Number of Patients who are living, or have lived, with one or more definitely tuberculous persons.							
	With 1	With 2	With 3	With 4	With 5	With 6	With over 6	Total
31st Dec., 1926	235	98	29	15	7	4	—	388
31st Dec., 1927	208	65	30	6	1	2	—	312
31st Dec., 1928	**250**	**71**	**17**	**4**	**4**	**0**	**1**	**347**

The possibility of infection is strongly suggested by a study of the foregoing Table. Thus, of 1,100 patients examined during the year and found to be suffering from tuberculosis, 32 per cent. had a definite opportunity of infection by living in contact with other tuberculous patients. Moreover, the crowded conditions in which so many people live greatly increase the opportunities for infection. When to this is added the lack of opportunities for domestic and personal cleanliness in many homes, and the carelessness of patients themselves, it will be realised how difficult it is completely to stamp out tuberculosis in the community. Here I would again emphasise the fact that the primary source of infection in tuberculosis is the tubercle bacillus in the sputum or other discharge of the tuberculous patient. If this sputum or discharge is not carefully disposed of, or if proper care is not taken to cleanse thoroughly the knives, forks, plates, spoons, etc., used by the tuberculous patient, the results are certain to be disastrous—especially to the children of the family.

VISITING THE PATIENTS IN THEIR HOMES.

During the year our Staff of Visiting Nurses paid 46,809 visits to patients in their own homes. This number included 9,325 visits to babies born in the homes of tuberculous patients. These babies are taken under the care of our Visiting Nurses in co-operation with the work of Medical Superintendent Officer of Health under his Maternity and Child Welfare Scheme, and to prevent overlapping by the visitation of two Nurses to the one home.

As demonstrating the crowded conditions in which some of our patients live, the following Tables will be of interest:—

HOME CONDITIONS.

Table 9.—Shows the number of rooms in domiciles occupied by tuberculous patients at their first examination.

Year Ended	Rooms in Domicile ☛ / Patients	One	Two	Three	Four	Five	Six	Seven	Over Seven	Total
31st Dec., 1926		44	80	145	487	69	50	9	1	885
31st Dec., 1927		40	60	134	467	66	43	8	3	821
31st Dec., 1928		**40**	**75**	**183**	**518**	**78**	**36**	**6**	.	**936**

HOME CONDITIONS AT THE FIRST VISIT OF THE NURSE.

Table 10.—Shows the conditions of the homes of the new patients examined during the year, on the first visit of the Nurse.

Year ended	Excep. Good	Very Good	Good	Aver-age	Bad	Very Bad	Excep. Bad	Total
31st Dec., 1926	0	14	132	584	108	34	13	885
31st Dec., 1927	3	16	106	552	103	30	11	821
31st Dec., 1928	**0**	**21**	**111**	**614**	**112**	**62**	**16**	**936**

The decision as to which of the above headings the condition of the home shall be placed under, has been arrived at after careful consideration of the number of inmates in the house, its cleanliness, ventilation, etc. That so large a percentage as 65 should have to be tabulated as "average" is somewhat disappointing, as conditions that are partly good and partly bad still expose the inmates of the home to the risk of infection.

PERSONS IN THE SAME BEDROOM AS THE PATIENT.

Table 11.—Shows the number of tuberculous patients sleeping in the **same bedroom** with the undermentioned numbers of other persons, as ascertained at the first visit of the nurse.

Year ended	Alone	With 1 other	With 2 others	With 3 others	With 4 others	With 5 others	With 6 others	With 7 others or over	Total
31st Dec., 1926	153	324	228	95	50	27	6	2	885
31st Dec., 1927	149	284	217	97	46	21	5	2	821
31st Dec., 1928	**160**	**299**	**220**	**157**	**59**	**24**	**12**	**5**	**936**

PERSONS IN THE SAME BED WITH THE PATIENT.

Table 12.—Shows the number of tuberculous patients sleeping in the **same bed** with the undermentioned numbers of other persons, as ascertained at the first visit of the nurse.

Year ended	Alone	With 1 other	With 2 others	With 3 others	With 4 others	With 5 others or over	Total
31st Dec., 1926	233	397	189	56	8	2	885
31st Dec., 1927	200	362	203	43	9	4	821
31st Dec., 1928	**243**	**405**	**202**	**67**	**16**	**3**	**936**

Allowance must be made, of course, for inadequate housing accommodation, for short time and unemployment, but it is regrettable that so many as 693 out of the 936 patients definitely diagnosedas tuberculous should have to share their bedrooms and beds with other members of their families.

SPITTING.

The spread of infection within the house is bad enough, and sometimes inevitable, but there is no excuse for the offensive habit of spitting in streets and public conveyances, where it is liable to be dried and carried into the air or conveyed by the feet of the passers-by into the homes of the people. I cannot but express satisfaction at noticing during the year that at least one case of spitting in a tramcar in breach of the Corporation Regulations was brought to the court, and the offender fined 5/- and ordered to pay 20/- costs. While this offence is becoming less frequent, and generally only appears amongst the less instructed, it should be recognised that it is a habit which offends against the most elementary standard of cleanliness, decency and good manners.

WHERE THE PATIENTS LIVE.

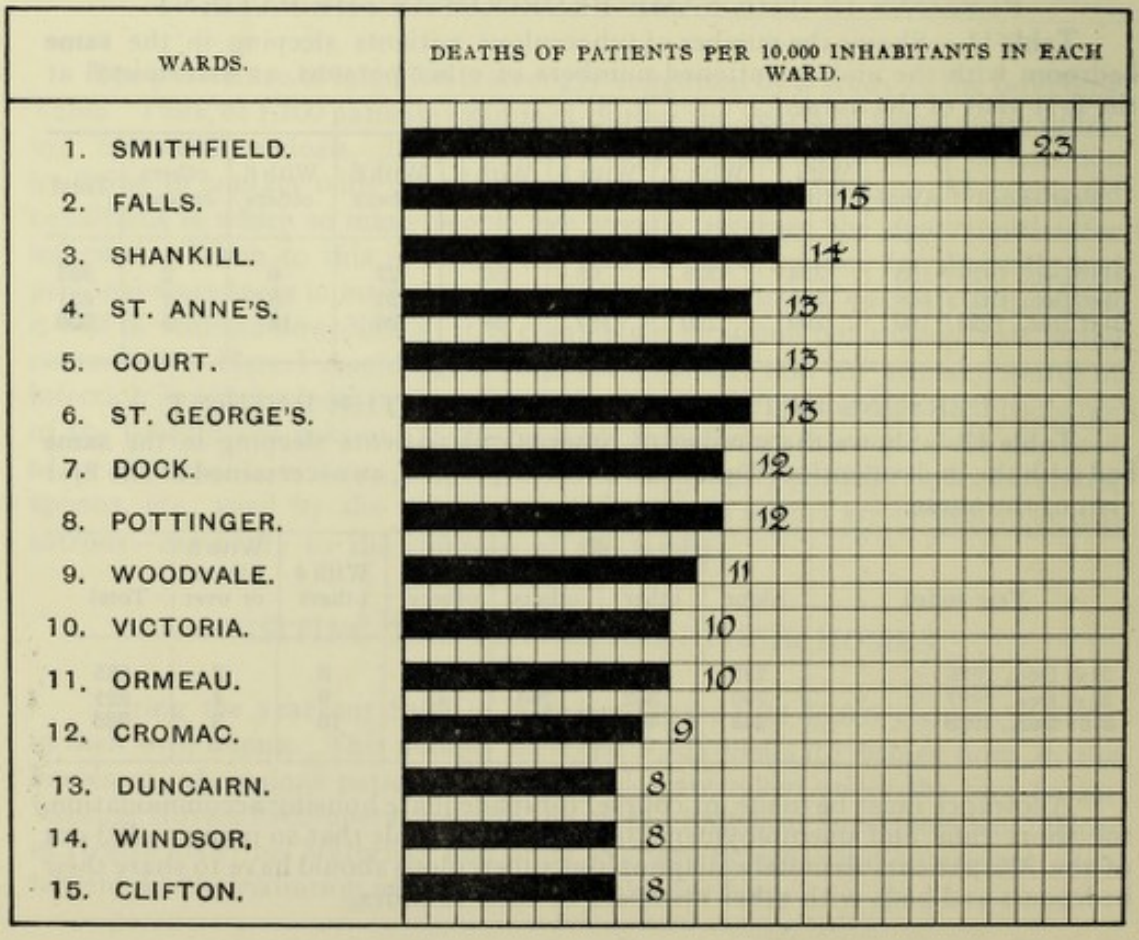
Table 13.—Indicates by wards, arranged in alphabetical order, the localities in which new tuberculous patients lived, at the time of their first examination.

Clifton	51	St. George's	58
Court	73	Shankill	92
Cromac	45	Smithfield	48
Dock	48	Victoria	104
Duncairn	64	Windsor	45
Falls	92	Woodvale	81
Ormeau	100		
Pottinger	148	Total	1100
St. Annes	51		

With this Table showing the localities in which the **patients live,** or were living at their first examination, it is interesting to compare the accompanying Chart, which sets out graphically the wards in which **deaths** from pulmonary tuberculosis took place during the year 1928.

CHART 3.

SHOWS THE DEATHS FROM PULMONARY TUBERCULOSIS AS A RATE PER 10,000 INHABITANTS. LIVING IN THE WARDS IN WHICH THE DEATH OCCURRED (1928).



X-RAY DEPARTMENT.

During the year we exposed 157 X-ray films, of which 122 were exposed as a help towards diagnosis of disease in the lungs, and 35 mainly in connection with the work at the Municipal Hospital for Tuberculous Children, Graymount.

ARTIFICIAL LIGHT DEPARTMENT.

At the Central Tuberculosis Institute an Artificial Light Installation provided by the generosity of the Belfast Insurance Committee, and consisting of—

1 Carbon Arc Lamp (Radial Type).
1 Mercury Vapour Quartz Lamp.
1 Kromayer Lamp.
1 Sollux Lamp.

was brought into operation during the year. The carbon arc lamp seems to be of the greatest service in the treatment of "delicate" children; the mercury vapour for those with definite non-pulmonary tuberculosis; and the Kromayer for lupus and lupoid conditions.

At the Albertbridge Road Institute a Mercury Vapour Quartz Lamp, kindly provided by Mrs. Bryson, of Malone Park, was installed during the year, and promises to be of great benefit in the treatment of the non-pulmonary forms of tuberculosis.

DENTAL DEPARTMENT.

This Department under the supervision of Mr. Osborne Black, continues to be increasingly patronised, and patients derive much benefit from the dental treatment provided.

Table 14.—Shows the nature and amount of the dental work carried out for patients during the year ended 31st December, 1928.

Institute	Fillings	Scalings	Dressings	Extractions	Total Treatments
Central	108	15	115	320	558
A. B. Road	186	8	256	266	716
Graymount	295	3	300	45	643
Total	589	26	671	631	1917

BACTERIOLOGICAL WORK.

Table 15.—Shows the nature and amount of the bacteriological work done during the years indicated.

Year ended	Sputa Examined	Other Bacteriological Examinations	Vaccines made	Tuberculins prepared
31st December, 1926 —	902	938	8	59
31st December, 1927 —	962	1015	—	48
31st December, 1928 —	875	909	—	62

NEW METHODS OF TREATMENT.

During the year we continued to avail ourselves of any new suggestions for the treatment of tuberculosis, but I am more and more convinced that what is needed is a more scientific method of controlling treatment. Failure to cure tuberculosis may not lie so much in the lack of a medicament, as in the need of a proper technique, and of scientific supervision of the treatment employed, and the knowledge of how to measure and space the dosage of the medicament used.

PREGNANCY AND TUBERCULOSIS.

I have continued to build up statistics on this subject, and—speaking generally — I see no reason to depart from the opinion that pregnancy does not seem to affect appreciably the course of tuberculosis, unless the patient is in an advanced stage of the disease. The same conclusion has been reached by an observer working for the statistical service of the National Tuberculosis Association of America. He finds that "pregnancy apparently had no appreciable bearing upon the progress of tuberculosis. However, the time with respect to the pregnancy at which the patient was diagnosed as having tuberculosis seemed to have a most important bearing upon the results — the earlier the diagnosis the less the danger to the mother."

HOUSING.

A relation between inadequate housing and tuberculosis has long been recognised, but a good deal more might be done even with old houses to make them more sanitary and comfortable. Thus, at present in London a scheme has been inaugurated by a private citizen to recondition a number of houses where the buildings are strong and the number large enough to admit of the overhead charges for repairs being kept low. Unfortunately, too often the tuberculous breadwinner is unable to pay the rent of one of the newly-built houses — even when he can secure one, which is not always easy. Because of these difficulties it has been recommended that the Government should subsidise houses for the tuberculous. Indeed in Newcastle-on-Tyne preference is given by the Housing Department to families afflicted with tuberculosis, while in Sheffield a scheme exists for payment of the difference (for tuberculous patients) by the Corporation between the rent of the old tenancy and that of the new.

MILK AND TUBERCULOSIS.

For several years past I have drawn attention to the relationship between milk and tuberculosis in such detail that it would seem unnecessary to refer to it again in this year's report, except to remark with gratification that Grade A. (T.T.) milk is becoming increasingly popular, and can now be obtained from several Belfast Dairies. The amount of milk consumed in the City, and in the country generally still falls far below the consumption in, say, the United States Yet, having regard to its nourishing qualities, it is one of the cheapest foods. Thus, the protein in one quart of milk is equal to that in 7 ozs. of steak or 3½ ozs. of fowl. Apart from its food value, it is of great assistance in making up wastes. The benefits of Grade A. (T.T.) milk are well summed up in a Leaflet issued by the Ministry of Agriculture — Government of Northern Ireland — as follows:—

1. The cows are healthy; they are tested every six months for tuberculosis.
2. The cows are clean; they are groomed daily.
3. The methods of milking are clean; the milkers wear clean overalls and wash their hands before milking each cow.
4. The utensils are clean; they are thoroughly washed and then sterilized by steam after each milking.

There is no need to heat Grade A. (Tuberculin Tested) milk, or to subject it to any other artificial process, either to make it safe, or to prevent it from going sour: being produced from healthy clean cows in clean surroundings it is safe, and will keep fresh and sweet for at least several days.

That milk from tubercle free cows is a necessity is shown by the fact that the Medical Superintendent Officer of Health, in his Annual Report for the year 1927, stated that of 202 samples examined 7 proved to be infected with

living tubercle bacilli. There is little satisfaction to be gained from the reflection that this figure represents only 3.5 per cent. containing tubercle bacilli. Safety lies in purchasing only milk **known to be free** from tubercle bacilli.

MUNICIPAL SANATORIUM.

For a detailed account of the work at the Municipal Sanatorium, Whiteabbey, reference should be made to the Report of the Resident Medical Superintendent, Dr. P. S. Walker.

GRAYMOUNT HOSPITAL.

For details of the work carried on at this Institution reference should be made to the Report of the Visiting Surgeon, Mr. H. P. Malcolm.

GRAYMOUNT OPEN-AIR SCHOOL.

The Open-Air School divided into Day and Hospital Sections, under the supervision of Miss Thompson and her three assistants, continues to fulfil a most important function.

I think it well to make it plain that the children attending the open-air school (day section) are not themselves actually suffering from clinical tuberculosis, though they are living in daily association with parents or relatives suffering from the disease, and it is hoped that the good food, fresh air, mid-day rest, and general training in habits of cleanliness will go far to cut down the bridges to infection in the home, and to increase bodily resistance to the disease.

The average daily attendance at the School during the year was as under:—

Day Section	90
Hospital Section	26
Total daily average at both Sections	116

The School is so popular that the demands for admission are far in excess of the accommodation. In addition to our own requirement, those of the School Medical Officer (Dr. T. S. Fulton) would easily provide pupils for at least three more schools with 200 places each. Meantime, the fact must be borne in mind that these delicate, and possibly tuberculous, children are either not receiving any education, or are in irregular attendance at the ordinary public elementary schools—a burden to themselves and a drag on the educational progress of their healthier fellow pupils.

It is gratifying to notice the commodious and well built schools which are now being erected by the Education Authority, and, in my opinion, if these were constructed on a plan which would make them easily convertible into schools of the open-air type, they would go far to foster and protect the health of school children. The school years are the most important in the whole life of an individual, and during these years the foundations of health may be either strengthened or sapped, and habits of mind and body formed which may conduce either to the happiness or the misery of the individual throughout his whole after-lifetime.

BELFAST INSURANCE COMMITTEE.

Sanatorium Benefit for Insured Persons.

The section which follows includes my report as Medical Adviser to the Belfast Insurance Committee, and the form which it takes is largely determined by the requirements of the Memorandum which the Ministry of Labour has issued for the guidance of Medical Advisers to Insurance Committees in drawing up their Annual Reports. This section covers the work done for insured persons under the contract between the Belfast Insurance Committee and the Belfast Corporation, and also for discharged soldiers whose tuberculosis was attributable to, or aggravated by war service.

Table 16.—Shows the numbers of insured and non-insured persons examined for the first time, or whose diagnosis was made definite, during the year 1928.

Year	Insured & Exempt		Total	Per cent of Grand Total	Non-Insured		Total	Per cent of Grand Total	Grand Total
	Male	Female			Male	Female			
1928	389	394	783	40.0	565	614	1179	60.0	1962

Table 17.—Shows the number of patients found on examination to be tuberculous or "suspect" requiring treatment, and the number found to be non-tuberculous.

Year	Tuberculous or Suspect				Total	Per cent of Grand Total	Non. Tuberculous				Total	Per cent Grand Total	Grand Total
	Insured		Non-Insured				Insured		Non-Insured				
	M.	F.	M.	F.			M.	F.	M.	F.			
1928	290	288	310	329	1217	62.0	96	100	258	291	745	38.0	1962

The grand total includes 146 "suspects" transferred in the year under review to the tuberculous or non-tuberculous class.

Table 18.—Shows the forms of tuberculosis from which new insured patients examined during the year were found to be suffering.

Year	Pulmonary		Glandular		Osseous		Abdominal		Other or General		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1928	230	230	8	10	8	4	2	6	6	7	511

Insured Patients on Treatment.

The number of Insured persons on Sanatorium Benefit treated throughout the year was 2,408. The number on Sanatorium Benefit at the end of the year, compared with previous years, is shown in the following table.

Table 19.—Shows the number of insured persons on Sanatorium Benefit at the end of the years indicated.

Year	1921	1922	1923	1924	1925	1926	1927	1928
Persons	2238	1994	1777	7132	1740	1664	1784	1817

TREATMENT OF EX-SERVICE MEMBERS.

The number of men who had served in the war, examined for the first time during the year, was 48, as compared with 42 in the year 1927.

Table 20. — Shows the number of Discharged Service members on the various forms of treatment, at the dates mentioned.

Date.	Institute.	Domiciliary.	Sanatorium.	Total.
31st December, 1926	133	141	37	311
31st December, 1927	133	139	34	306
31st December, 1928	**108**	**161**	**17**	**286**

CLIMATIC CONDITIONS.

The lack of an official meteorological station in the capital of the Northern area is a serious defect, if only for the reason that no record is available of the hours of bright sunshine. In an industrial city like Belfast the amount of sunshine which reaches the ground level must be seriously lessened by domestic and industrial smoke, thus retarding the normal growth of children, and impairing the health of the community.

I am indebted to Miss Firth, of Cavehill Road, for the following figures:—

Rainfall.

Year.	Rainfall in inches.	Days on which rain fell.
1927	39.81	256
1928	49.06	258

ECONOMIC CONDITIONS.

I regret to report that work still continues to be scarce, although there is a very welcome prospect of renewed employment in the shipyards. It should be remembered, however, that the relief of the economic depression through which the community has passed may not immediately result in better health, or in the lowering of the incidence of tuberculosis in the community; it will probably take years of bettered conditions to undo the mischief of the last eight years.

During the year reference to this Department appeared in several reports. Amongst these were:—

1. The Report of the Departmental Commission on Local Government Administration in Northern Ireland

which contains the following reference to Graymount Hospital:—

> "339. It may be said further that there is a great want of uniformity in the manner in which local authorities are dealing with the treatment of tuberculosis, provision being made in Belfast for the treatment of all forms of tuberculosis, while in other districts pulmonary tuberculosis alone is dealt with. Thus, the institutional treatment of children suffering from non-pulmonary forms of tuberculosis is not provided in special institutions,

save in Belfast, where there is the Graymount Hospital for children, in which much valuable work is being done. The necessity for the provision of similar treatment outside Belfast was pointed out to us by several witnesses. The most efficient manner of providing for all cases likely to benefit from this class of treatment engaged our attention. After hearing evidence from representatives of the Belfast Corporation it became clear to use that such treatment could best be afforded centrally, otherwise the cost would be excessive, as each hospital to be efficiently managed, would require a specialist staff and special equipment. Dr. Trimble, Tuberculosis Officer to the Belfast Corporation, stated that although the Graymount Hospital was full at present, there was plenty of room for extension, and that arrangements could be made so that the Institution would serve Northern Ireland as a whole. We are of opinion that such an arrangement would be most suitable, as this hospital is well equipped and local authorities would be in a position to afford treatment to patients from their districts at a minimum cost."

No action, however, can be taken on this recommendation until the Ministry has had sufficient time to consider the report, and to give statutory effect to their decisions.

2. **The Report of Mr. Arthur Collins, F.S.A.A.,** in which the following reference appears:—

"In passing I would commend to the notice of the General Purposes Committee the issue of little booklets dealing with the activities of the Corporation Departments one by one, which I would place on the counters of the public offices for free distribution, and through Ward Associations and every available public body. The little publication—'The Commonhealth'—issued to the public by the Chief Tuberculosis Officer, is a case in point . . . . For instance, I wonder how many would believe unless they saw it for themselves, or had it before them in an illustrated story, what the Corporation does at its colony for the care and treatment of those suffering from mental diseases; or, to take another case, in the treatment of consumptives, or, still again, in the rearing of children at the Graymount Hospital and Open-Air School, or in finding and treating disease, present or potential, in children at school."

3. **The Second Part of a Report by Dr. Percy Stocks and Miss M. N. Karn on the Inheritance Factor in Tuberculosis,**

which was published in the Annals of Eugenics (Vol. III., Parts I. and II., April, 1928). This elaborate investigation was based on the family records of approximately 4,000 patients who attended the Belfast Tuberculosis Institutes from the years 1914 to 1917, and led the investigators to the conclusions hereunder:—

"In the first place, it is of course not contended that the disease itself is handed on by the germ plasm, but that what is inherited is ability or lack of ability to resist the attacks of the tubercle bacillus. There are then two alternatives: (i) that susceptibility is inherited as a unit factor which must be either present or absent, or perhaps 'recessive," or (ii) that it is inherited as a quantitive factor according to the same kind of laws as, for example, stature is inherited. As in the case of some other inherited diseases in man, the first of these theories seems difficult, if not impossible, to reconcile with the observed facts. There is, on the other hand, no real difficulty in supposing susceptibility to tuberculosis to be inherited quantitatively, especially if resistance to the bacillus is due to some chemical factor in the serum and tissues, and susceptibility to a deficiency of it, which would be in accordance with modern views.

" Examination of the family records of some 4,000 tuberculous persons in Belfast indicates that the fathers and mothers of tuberculous patients were subject to a higher rate of tuberculosis than the general population of parents, and conversely that the children of tuberculous parents were subject to higher rates than the general population of children. The excessive rate in children was much more pronounced when both parents were tuberculous than when only one was affected, and more pronounced when the mother was affected than when the father was affected.

" These facts could be explained by infection whether inheritance is involved or not, but it can be demonstrated that whereas in the latter case the contingency coefficients between pairs of children would be independent of the condition of their parents or antecedents, this would not be the case if susceptibility to infection be inherited as a quantitative factor. Dividing the families into groups according to the presence or absence of tuberculosis in parents or antecedents, it is found that the contingency and correlation coefficients for pairs of children increase with increasing tuberculosis in the antecedents—a result to be expected on the theory of inheritance, but inexplicable if susceptibility is independent of the antecedents. The contingencies between non-pulmonary forms of tuberculosis in pairs of siblings also suggest that inheritance must be involved."

The whole report is well worth investigation by those interested in the subject from the scientific point of view.

CHART 4.

SHOWING THE INCIDENCE OF MORTALITY FROM PULMONARY TUBERCULOSIS ON MALES AND FEMALES IN AGE-PERIODS OF FIVE YEARS, CALCULATED PER 1,000 MALES AND FEMALES LIVING IN EACH AGE-PERIOD, FOR THE YEAR ENDED 31st DECEMBER, 1928.

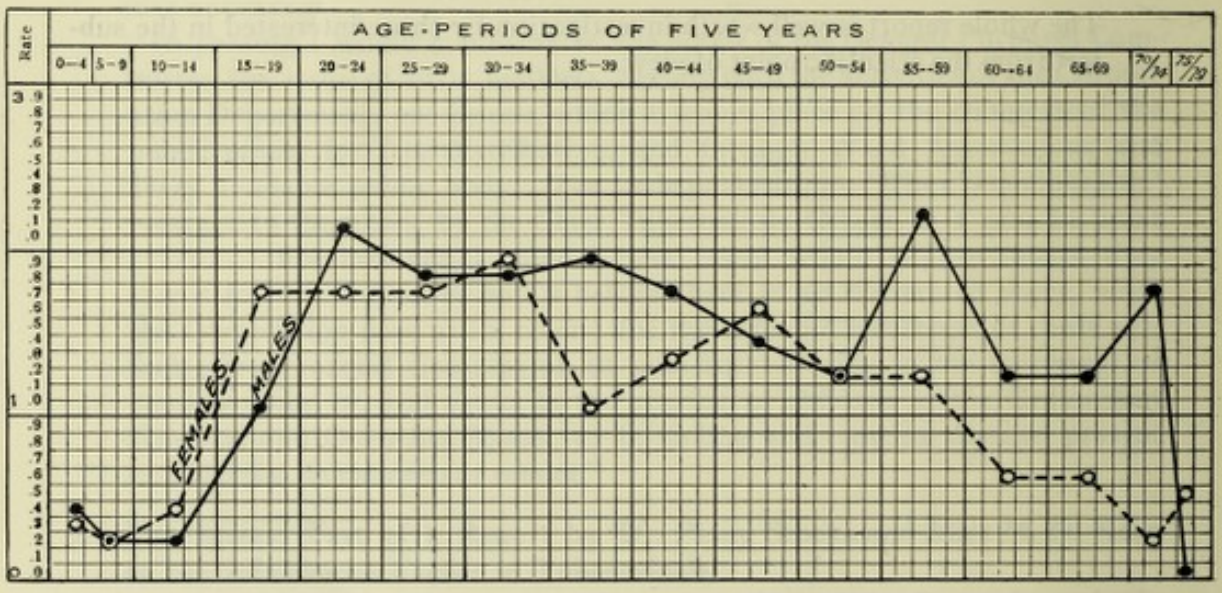
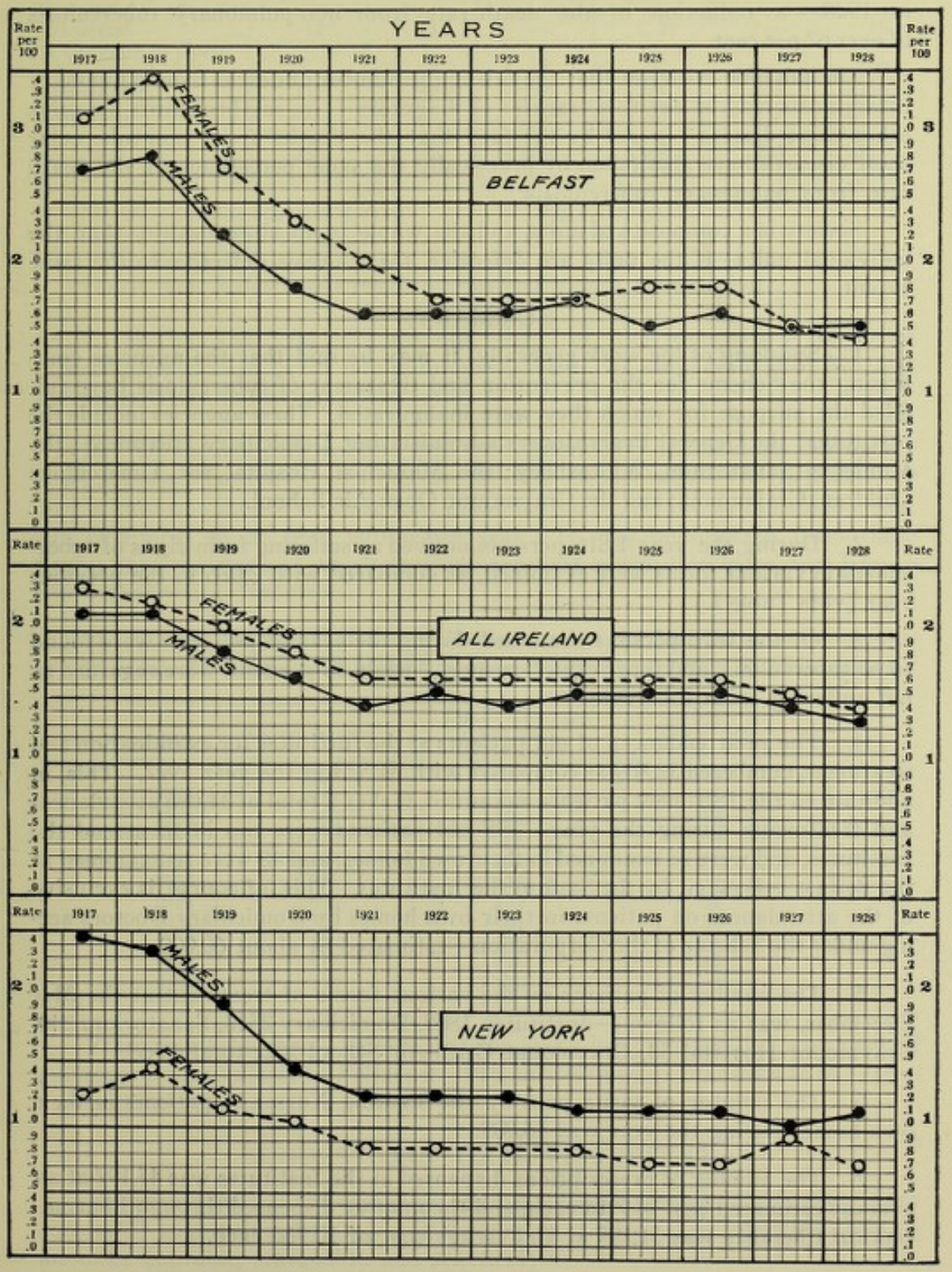


Chart 5 is interesting as showing the comparative incidence of the mortality from all forms of tuberculosis amongst males and females in Belfast, Ireland, and New York. From this Chart it will be seen that in New York, as in Great Britain, the incidence of tuberculosis falls more heavily on men than on women—whereas the incidence falls more heavily on women than on men in Belfast, and in Ireland generally.

CHART 5

SHOWS THE COMPARATIVE INCIDENCE OF THE MORTALITY FROM ALL FORMS OF TUBERCULOSIS AMONGST MALES AND FEMALES IN BELFAST, IRELAND, AND NEW YORK.



DEATHS AND DEATH RATES.

As the number of deaths is the best index of the progress of the work, I would again point to the fact that in the year 1928, 499 persons died from pulmonary tuberculosis, as compared with 515 in 1927, which corresponds to a death rate of 1.2 per thousand. Going back to 1914, we find that the number of deaths from pulmonary tuberculosis in that year was 836 as compared with 499 last year—a decrease in actual figures of 337. In other words, the death rate in 1928 from pulmonary tuberculosis showed a decrease of over 40 per cent. as compared with 1914.

The deaths from non-pulmonary tuberculosis in 1914 were 290, as compared with 114 in 1928, corresponding to a death rate of 0.72 in 1914 against 0.27 in 1928 — a reduction in the death-rate from non-pulmonary tuberculosis of over 62 per cent.

The possible criticism that the fall in the number of deaths from pulmonary tuberculosis may be due to a transfer of diagnosis — to, say bronchitis, or some other chest disease—is met by the fact that the deaths from non-tubercular chest diseases have also fallen by practically the same percentage as the death rate from pulmonary tuberculosis.

Society is a composite of units, and the whole is no more healthy than the individual units—if the units are defective, the whole is defective to the same extent.

SUMMARY.

1. Speaking of the work generally, it may be said that the agencies comprising the Scheme for the prevention and treatment of tuberculosis have fulfilled the purpose for which they were inaugurated. These agencies include the Institutes; the General Practitioners administering Domiciliary treatment; the Municipal Sanatorium, Whiteabbey; the Municipal Hospital for Tuberculous Children, Graymount; and the Graymount Open-Air School.

2. During the year 1,816 persons notified as suffering from signs of tuberculosis in various forms were examined, as compared with 2,086 in the previous year (vide Table I.)

3. Of the 1816 persons examined during the year 56 per cent. were found to be tuberculous, and 6 per cent. " suspect," while 38 per cent. were regarded as not suffering from tuberculosis.

4. The re-attendances of old patients at the Institutes for examination and treatment, numbered 32,869 as compared with 31,523 in the year 1927. This, in addition to the 1816 new patients examined, makes a total of 34,685 attendances and treatments during the year. 198 old patients were too ill to attend the Institutes, and were re-examined in their own homes, and 48 were re-examined at the Belfast Infirmary, by the Staff of the Institutes. This, of course, is exclusive of the attendances on patients in their own homes by Domiciliary Doctors acting under the Scheme of the Corporation—estimated at about 60,000.

5. The number of patients on the various forms of treatment at the 31st December, was as follows:—Institutes 1860, Domiciliary 2513, Sanatorium 240, Graymount Hospital 53, Graymount Open-Air School 102; total 4,768.

6. The number of visits paid by the Visiting Nurses to patients in their own homes during the year was 46,809.

7. The number of prescriptions dispensed at the Institutes was 45,197 at an average estimated cost of 7.1d each, and the number dispensed through Pharmaceutical Chemists was 51,197 at an average cost of 10.96d each.

8. The **results of treatment** at the end of the year according to the reports received from Institute, Institutional, and Domiciliary Doctors during the year were estimated as under:—

Form of Treatment.	CONDITION.					
	D.A.C.* or D.Q.	G.I.	Imp.	I.S.Q.	Worse.	Total.
In Municipal San.	19	—	87	92	5	203
Discharged Municipal Sanatorium	18	40	218	159	18	453
In Graymount Hospital	7	29	13	8	—	57
Discharged Graymount Hospital	12	1	—	3†	—	16
At Graymount Open Air School	—	6	67	25	—	98
Domiciliary	151	147	982	1,724	235	3,239
Institutes	51	—	436	557	7	1,051
Total	258	223	1,803	2,568	265	5,117

*D.A.C.—Disease apparently cured. Imp.—Improved.
D.Q.—Disease Quiescent. I.S.Q.—In statu quo.
G.I.—Greatly Improved.
†These three patients were removed by parents against medical advice.

9. During the year 499 persons died of the pulmonary form of tuberculosis, and 114 of the non-pulmonary forms, as compared with 515 and 125 respectively in the preceding year.

10. Of the 499 persons who died from pulmonary tuberculosis during the year, 381 were patients under the care of this Department. Of these 381, 49 died within one month of their first examination by us; 144 within six months; 201, or almost 40 per cent. within one year. It may be inferred from these figures that the stage at which patients are first notified is often too late to admit of effective treatment.

11. As an indication of the declining trend of the death rate from pulmonary tuberculosis, the following Table for the last ten years may be of interest:—

Year.	No of Deaths.	Death rate per 100,000	Comparison with 1918 as 100.
1918	1051	267	100
1919	853	212	81
1920	762	184	72
1921	677	161	64
1922	624	147	59
1923	571	133	54
1924	605	139	57
1925	575	131	54
1926	570	136	54
1927	515	124	49
1928	499	120	47

From this Table it will be seen that for every hundred persons who died of pulmonary tuberculosis in Belfast in 1918 only 47 died of that disease in 1928—a reduction in the rate of 53 per cent.

SUGGESTIONS FOR DEVELOPMENT.

However intensive the campaign against tuberculosis, new developments are constantly suggesting themselves in the course of time. The following seem to me to be desirable, reasonable, and practical:—

1. A more intensive education of the people in matters of public and personal health, and in the prevention and cure of tuberculosis and avoidance of infection.

2. More open-air schools for delicate children, and for children in danger of developing tuberculosis through living in unhealthy home surroundings.

3. The addition to the Medical Curriculum of a course in the history, prevention, diagnosis, and methods of treatment of tuberculosis, and the means of dealing with it in the community. (Although this is a matter which lies outside of the jurisdiction of the Committee, it is one of such importance to the community that I feel compelled to give expression to so clamant a necessity).

4. The extension of accommodation for the treatment of children suffering from the non-pulmonary forms of tuberculosis. (This matter is at present under the consideration of the Committee.)

5. I am still of the opinion expressed in my last Annual Report that the extension of Medical Benefit to Insured Persons in Northern Ireland on the same terms and conditions as at present prevail in Great Britain would be of enormous value to the community.

6. In view of the increasing attention being paid to newer and more delicate laboratory methods for the diagnosis of, and control of treatment in, tuberculosis, much useful work might be done along these lines—or in the discovery and development of others—if the Staff were adequately reinforced. It is not enough to diagnose tuberculosis, and to treat patients along general lines and by old-time methods. If our system is to be modern, we must move forward with the times.

Andrew Trimble

Chief Tuberculosis Officer to the Corporation, and Medical Adviser to the Belfast Insurance Committee.

Municipal Hospital for Tuberculous Children, Belfast.

THE REPORT

OF THE

VISITING SURGEON,

FOR THE

Year ended 31st December 1928.

Report of the Visiting Surgeon.

To the Chairman and Members of the Tuberculosis Committee, Belfast, on the work of the Municipal Hospital for Tuberculous Children, Graymount, for the year ended 31st December, 1928.

Mr. Chairman, Alderman Mrs. M'Mordie, and Gentlemen,

I have the honour to submit my report for the year 1928. The Hospital has now functioned for almost eight years, and during that time has been constantly worked to its fullest capacity. From the results which have been obtained, and from the fact that the beds are always filled, and that there are usually patients awaiting admission, I think the necessity for this Hospital cannot now be questioned; but I do not know if it is generally realised that the Hospital is by no means up-to-date in its accommodation nor in its appliances. With the present number—fifty-eight patients—the Hospital is overcrowded, and the sanitary appliances are overworked. Ultra-Violet Radiation, which has now a definite place in the treatment of surgical tuberculosis, has hitherto been impossible owing to the absence of electricity, and the present custom of sending patients to the Central Institute for X-Ray examination is not in consonance with the principles of treatment of this disease. There has always been great difficulty in obtaining trained staff nurses, and frequently temporary nurses have to be engaged by the week. This is an unsatisfactory arrangement; the nurses so engaged often do not take much interest in the work. This is probably accounted for by the fact that the duties are hard and monotonous, and the hospital rather isolated and lonely for women who have been accustomed to the variety of the large training hospitals.

I have to thank the Members of the Committee for their consideration in the past, and would request them to consider the question of bringing the Hospital more up to date in its accommodation and appliances for treatment and diagnosis.

ADMISSIONS.

Fifteen new cases were admitted during the year, but two were removed by the parents contrary to advice, after a brief period. Fifty-six patients remained in hospital on the 1st January, 1928. Sixty-nine patients, therefore, received treatment during the year.

The conditions for which patients were admitted were as follows:—

TUBERCULOUS DISEASE.

Spine	7
Hip Joint	4
Knee Joint	2
Multiple Lesions—	
Spine and Finger	1
Spine and Hip Joint	1
Total	15

DISCHARGES.

Eighteen patients were discharged during the year, including three who were removed by the parents before treatment could be effective.

Fifty-three patients remained in hospital on the 1st January, 1929.

TUBERCULOUS DISEASE.

Spine—	
Disease arrested	1
Hip Joint—	
Disease arrested	3
Greatly improved	1
Removed C.T.A.	3
Knee Joint—	
Disease arresetd	4
Died	1
Multiple Lesions—	
Disease arrested	4
Died	1
Total	18

The details of patients discharged are shown in the following tables :—

SPINAL CARIES.

Discharged, disease arrested ... ... 1.

Reg. No.	Age on Admission	Sex	No. of Days Treated	Cause of Discharge	Condition on Admission	Deformity on Discharge
79 & 178	4 years	M	1356 & 690	First for Diphtheria then "disease arrested"	Poor. Severe Deformity	None

HIP JOINT.

Discharged, disease arrested ... ... 3.

Discharged greatly improved ... ... 1.

Removed contrary to Medical advice ... ... 3.

Reg. No.	Sex	Age on Admission	Cause of Discharge	No. of Days Treated	Condition on Admission	Deformity on Discharge	Joint movement on Discharge
58	M	5 yrs	Greatly improved	2366	45° Adduction 30° Flexion 2" Shortening Dislocation	None Sinus still present	None, bony ankylosis in optimum position
116	F	$7\frac{6}{12}$ yrs	Disease arrested	1430	10° Adduction 20° Flexion	Slight external rotation	Joint stiff in slight extension and abduction, with 1" shortening
119	F	9 yrs	Disease arrested	1334	35° Flexion Abscess	None	None, ankylosed in optimum position with ½ inch shortening
182 & 168	F	$3\frac{9}{12}$ yrs	First for diphtheria then as disease arrested	70 & 503	Rigidity only	None	Full movement
196	M	8 yrs	Removed by parents before treatment could be effective	87	—	—	—
204	F	6 yrs	do	20	—	—	—
208	F	12 yrs	do	6	—	—	—

KNEE JOINT.

Discharged, disease arrested ... ... 4.

Died, ... 1.

Reg. No.	Sex	Age on Admission	Duration of Treatment	Cause of Discharge	Condition on Admission	Deformity on Discharge	Joint Movement on Discharge
			Days				
42 135 154	M	5 yrs	730 194 123	Removed by parents. Re-admitted. Transferred to Fever Hospital and finally discharged as "disease arrested"	Much pain and swelling no deformity	½" lengthening due to overgrowth	None
171	M	5 9/12 yrs	820	Disease arrested	Synovial effusion no deformity	None	Full movement
45 & 177	M	5 6/12 yrs	1576 & 1102	"Disease arrested" recurred, "Disease arrested"	Dry caries 45° flexion	½" lengthening	None
82	F	7 yrs	1978	Disease arrested	90° flexion. Fifteen healed scars in various parts	Knee straight with some subluxation ¾" shortening	Slight
203	F	6 yrs	327	Died Meningitis	—	—	—

MULTIPLE LESIONS.

Disease arrested ... ... 4.

Died, ... 1.

Reg. No.	Sex	Age on Admission	No. of Days Treated	Cause of Discharge	Condition on Admission	Condition on Discharge
33	M	6 yrs	2345	Disease arrested	1. Left Hip Joint disease 2. Caries R. 7th Rib	No deformity ¼" shortening 15° flexion movement present
183	M	8 yrs	379	Disease arrested	1. Tuberculous disease L. Knee, 45° flexion, suppurating 2. Congenital Syphilis	No deformity, knee stiff in straight position
189	F	5 6/12 yrs	358	Died. Tuberculous. Peritonitis	Hip Joint Disease	—
195	M	4 yrs	454	Disease arrested	Caries both great toes	No deformity
185	F	11 yrs	358	Disease arrested	1. Caries L. Forefinger 2. Abscess R. Thigh	Healed

The following dental work was carried out by the Visiting Dental Surgeon:

Treatments	184
Fillings	129
Dressings	138
Extractions	12

MINOR OPERATIONS.

Tonsillectomy	1
Circumcision	3
Drainage	1

I have the honour to be,

Your obedient Servant,

H. P. MALCOLM.

3rd March, 1929.

Municipal Sanatorium Whiteabbey.

REPORT

For the Year 1928.

By

P. S. WALKER, M.D., D.P.H.,

Medical Superintendent.

MEMBERS OF THE TUBERCULOSIS COMMITTEE, 1928.

Alderman The Rt. Hon. SIR WILLIAM GEORGE TURNER,, P.C., D.L., J.P.
(Lord Mayor).

Alderman JULIA M'MORDIE, C.B.E., J.P.
(High Sheriff and Deputy Chairman).

Councillor CAPTAIN D. C. LINDSAY
(Chairman).

Alderman SIR CRAWFORD M'CULLAGH, J.P.
Alderman DR. J. D. WILLIAMSON, J.P.
Alderman CAPTAIN REID, J.P.

Councillor W. F. CLOKEY.
Councillor W. A. COCHRANE, J.P.
Councillor SAMUEL GRAY.
Councillor J. GRIMLEY.
Councillor LT. COM. HARCOURT.
Councillor H. McALEVEY.
Councillor H. McLAURIN, J.P.
Councillor C. SCOTT.
Councillor WM. SWEENEY.
Councillor H. McKIBBEN.

MR. K. M. ALEXANDER, F.I.A.A. (Member Belfast Insurance Committee).

MR. WM. MOOREHEAD (Chairman Belfast Insurance Committee).

MR. JAS. PARKHILL, J.P. (Member Belfast Insurance Committee).

STAFF OF THE MUNICIPAL SANATORIUM.

Resident Medical Superintendent	.....	P. S. Walker, M.D., B.Ch., D.P.H.
Resident Medical Officer	.....	D. K. Watterson, M.D., B.Ch., D.P.H.
House Physician	.....	M. H. Elliott, M.B., B.Ch., D.P.H.
Visiting Medical Officer	.....	J. C. Rankin, M.D., B.Ch.
Visiting Dental Surgeon	.....	O. Black, L.D.S.
Matron	.....	Miss E. Woods, S.R.N.
Steward	.....	Mr. Stewart Finlay.
Engineer	.....	Mr. Samuel McClure.

Report of the Medical Superintendent

ON THE WORK OF

THE BELFAST MUNICIPAL SANATORIUM,

For the Year ended 31st December, 1928.

To the Medical Superintendent Officer of Health.

Sir,

I have the honour to present herewith my annual report on the working of the Belfast Municipal Sanatorium during the year ended 31st December, 1928. Primarily, attention may be directed to the following features of interest

Statistics.

The statistics of the work carried out indicate, in general, that the ravages of the disease are being brought increasingly under control, and that without doubt the outlook of the individual victim has improved immensely during the past decade, although with earlier notification and earlier institution of active therapeutic measures the improvement would be greatly enhanced. During the year 519 patients were admitted, comprising all grades and types of Tuberculosis at ages extending from 3 years to over 60 years. The main features ascertainable from the various tables, appended herewith, are:—

(a) That there has been no improvement in the quality of cases coming under treatment. This remark applies to both "pulmonary" and "surgical" patients. It is not proposed at this feature to deal with the casual factors of this regrettable delay in the institution of active remedial measures; sufficient to state that the institution is structurally equipped as a Sanatorium for the treatment of cases of Tuberculosis in remediable grades of the infection, and not as an acute hospital for the reception of bedridden cases in the last stages of the disease.

With regard to the surgical cases the old order of things still holds good. I refer to the number of chronic cases with abscess formation and discharging sinuses for which little or nothing can be done, and which occupy beds for indefinite periods. It is my experience that in the majority of instances of this type of case, which, if received for treatment at an early date yields every prospect of cure, but is only being transferred to the Sanatorium when all else surgical and otherwise has failed.

(b) That the average duration of residence in the Sanatorium of all patients was 175 days, or if deaths be included 176 days. This period is somewhat shorter than that obtained for last year, and the decrease is accounted for in part by the discharge of certain cases of surgical disease which had necessitated long periods of rest and immobilization. On the other hand, it is my duty to call attention to a considerable number of patients who have not, for one reason and another completed three months' residence: young adults and children, on account of the insistence of parents, form the majority of the short term residents. "Fretting," "danger of pneumonia," and "a sick baby at home" are the reasons commonly vouchsafed for early termination of treatment; economic factors in the cases of male adults frequently necessitate a return to casual work of some sort just when a short term of residence has placed them on their feet, but before any definite improvement has occurred in the pulmonary lesion.

(c) That the number of deaths occurring during the year was 29. This reduction in the death roll is a gratifying feature, in that, quite apart from the medical and administrative aspects of the problem, nothing is more discouraging or derogatory to those early cases admitted that the weekly or bi-weekly occurrence of deaths, and nothing more calculated to prevent other early cases from seeking admission. It is to be feared that the number of deaths will be increased very considerably during the year 1929.

ACCOMMODATION.

Patients.—As predicted in my report of last year, the accommodation on the adult male convalescent section, ill male section, and ill female section is becoming more and more severely taxed, whilst that on the children's and convalescent female sides has been found to be, if anything, in excess of requirements. The children and female quarters consist of outdoor pavilions, meals being taken in the Nurses' Home (Administrative Block). These pavilions by reason of their structure and lack of administrative arrangements are totally unsuited for the reception of any but "up and about" convalescent patients, so that it is impossible without the erection of the necessary annexes to make use of them as an overflow from the hospital. However, to relieve overcrowding in the male department of the hospital it is proposed to convert the present "therapy building" into an outdoor pavilion for male convalescent cases, thus creating an additional 20 beds. This work will shortly be under weigh and will afford a measure of relief.

Staff.—In regard to staff accommodation, it has been recognised for some time that the "Nurses Home" (Administrative Block) is lacking in many respects and falls short of the modern conception of such a hostel. Further, the accommodation therein being already fully occupied, any further hospital extension must of necessity be accompanied by adequate extensions in the staff quarters.

STAFF OF THE SANATORIUM.

Medical Staff.—The personnel of the medical staff has undergone one change since my last report. Dr. F. M. Ramsay, House Physician, left the service in August last, the vacancy being filled by Dr. John Campbell. It is with deep regret that I have to record that Dr. Campbell died shortly after taking up duty, a most promising career being cut short. In the Corporation service, in which he had been previously engaged for a considerable time in the Public Health and Fever Hospital Departments, Dr. Campbell leaves behind him a record of excellent work and genial companionship. In October the vacancy was filled again by the appointment of Dr. Margaret Elliott.

Nursing Staff.—A proposition under consideration at present is that of the affiliation of the Municipal Sanatorium and the Graymount Hospital for Tuberculous Children with general hospitals with a view to making the Probationer Nursing Service more attractive. Such affiliation would enable our Probationer Nurses—upon passing the necessary examination at the end of the second year—to proceed to a general hospital for the full curriculum required towards registration, and at the same time to obtain the remission of one year's training in the general hospital. Each year a number of probationers proceed from our hospital to general hospitals to continue their training, and in such cases under present conditions the time already spent at the Sanatorium, whilst of considerable value after, is of no account prior to, registration. The proposition in accordance with the provisions as laid down in the Nursing Midwives' Act of 1922 will necessitate the appointment of a Sister Tutor, whose duties it is intended to combine with those of a general nursing assistant to the Matron.

Lectures on elementary anatomy and physiology are given to the Probationer Staff by the Medical Officers. An examination is held annually, upon the result of which medals and certificates are issued to the successful candidates.

Teaching.—Miss M. English, the principal teacher since the inception of the open-air school attached to the Sanatorium, resigned her position in June, prior to entering the bonds of matrimony. Her resignation was received with regret as under her guidance the school had made gratifying progress. The vacancy was filled by the appointment of Miss E. M. Dunlop, who subsequently proceeded to England for a short post-graduate course in open-air school therapy.

GENERAL.

Otherwise the Sanatorium Staff remains as previously reported, being comprised as follows.

Medical Superintendent	1
Assistant Medical Officers	2
Visiting Physician	1
Visiting Chaplains	3
Visiting Dentist	1
Nursing Staff—	
Matron	1
Sisters	5
Staff Nurses	5
Probationers	19
Clerical Staff—	
Steward	1
Clerks	2
Open-Air School—	
Teachers	2
Domestic Staff—	
Maids, etc.	22
Engineering Staff—	
Engineer	1
Assistant to Engineer	1
Boilermen	4
Outdoor Staff—	
Gardener	1
Labourers	2
Vanman	1
Gate Porter	1
Carpenter	1
Assistant to Carpenter	1
Total	78
Proportion of full time officers to each ten beds	2.66
Proportion of total per 10 beds	2.9

CLASSIFICATION OF PULMONARY DISEASE AND RESULTS OF TREATMENT.

In this report the patients suffering from Pulmonary Phthisis are scheduled according to the following classification:—

Class T.B. Minus—Cases in which Tubercle Bacilli have never been demonstrated in the sputum.

Class T.B. Plus—Cases in which Tubercle Bacilli have at any time been found in the sputum.

This Class is divided into three groups:—

Group 1—Cases with slight constitutional disturbance, if any, and in whom the obvious physical signs are of a very limited extent.

Group 2—Cases which cannot be placed in Groups 1 and 3.

Group 3—Cases with profound systematic disturbance or constitutional deterioration with marked impairment of function, and with little or no prospect of recovery.

To indicate the result of treatment the following terms are laid down:—

"Quiescent"—Cases which have no symptoms of tuberculosis, and no signs of tuberculous disease, except such as are compatible with a completely healed lesion, and in whom the sputum, if any, is free from Tubercle Bacilli.

" Improved "—Cases short of " quiescent " in which the general health is fair and the symptoms of Tuberculosis have materially diminished.

" No Material Improvement "—All other patients who are alive.

STATISTICS.

The following tables cover the period extending from 1/1/28—31/12/28.

Table No. 1—Average Number of Beds available for Patients during year.

	Pulmonary Tuberculosis		Non-pulmonary Tuberculosis	Total
	Sanatorium Beds	Hospital Beds		
Adult Males	77	26	12	115
Adult Females	50	26	8	84
Children (all types).....	66	—	—	66
Total	193	52	20	265

Table No. 2—Annual Return showing the extent of treatment during year.

	In Institution 1/1/28	Admitted during year	Discharged during year	Died	In Institution 31/12/28
Number of Patients	218	519 (including re-admissions)	472 (including re-discharges)	29	236

Table No. 3—Annual Return showing the Numbers of Persons admitted during year. Classified according to the Type of the Disease (excluding 15 re-admitted).

	Men	Women	Children	Total
Pulmonary Tuberculosis	191	139	107	437
Surgical Tuberculosis	6	15	36	57
Re-classified	7	1	2	10
Total	204	155	145	504

Table No. 4—Annual Return showing the Numbers of Persons discharged during the year. Classified according to type of disease (excluding 11 persons re-discharged.)

	Men	Women	Children	Total
Pulmonary Tuberculosis	172	124	110	406
Surgical Tuberculosis	12	13	18	43
Re-classified:—				
Observations, etc.	7	3	2	12
Total	191	140	130	461

Average residence per patient—175 days.

PULMONARY SECTION.

During the year 437 patients (excluding those re-admitted and those in whom the diagnosis was not maintained) were admitted to the Sanatorium. The class and grade of the disease as manifested in these patients are indicated in the following table:—

Table No. 5.—Annual Return showing the Numbers of Patients admitted during year and classified according to class and grade of disease found upon admission.

		Men	Women	Children	Total
Pulmonary Tuberculosis	Class T.B. Minus	109	90	103	302
	Class T.B. Plus—Group 1	9	1	—	11
	Class T.B. Plus—Group 2	—	7	4	20
	Class T.B. Plus—Group 3	73	41	—	114
Total		191	139	107	437

Complications.—The following is a list of the more severe complications, in addition to the primary complex of Tuberculosis, which were noted.

Other forms of Tuberculosis:—

Bones and Joints	18	Gastro-Intestinal Lesions	4
Abdominal	8	Malaria	3
Cutaneous	2	Nephritis	4
Genito-urinary	1	Ear Lesions	6
Glandular	7	Empyema	2
Laryngeal	6	Pleurisy with Effusion	3
Syphilis	12	Grave's Disease	1
Superadded Pulmonary Lesions	10	Hysteria	1
Cardiac Disease	4	Epilepsy	2
Disease of Central Nervous System	1	Pregnancy	2
Diabetes	2	Appendicitis	1
Anaemia (severe)	4	Skin Disease	4
Rheumatic Conditions	3		

DISCHARGES.

During the same period 406 pulmonary patients (excluding cases re-discharged and re-classified) were discharged from the Sanatorium and 29 died.

The results of treatment are indicated in Table No. 6.

Table No. 6.

Duration of Residence in Sanatorium.

Condition upon admission	Condition at time of discharge	Under 3 months M.	F.	Ch.	3—6 months M.	F.	Ch.	6—12 months M.	F.	Ch.	Over 12 months M.	F.	Ch.	Total
Class T.B. Minus	Quiescent	—	—	—	2	1	4	3	—	3	—	—	4	17
	Improved	16	26	19	20	18	26	21	10	13	7	4	8	188
	No M. Imp.	23	20	29	6	9	6	7	1	2	6	3	1	113
	Died	—	1	—	—	—	—	—	1	—	2	—	—	4
Class T.B. Plus Group 1	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—
	N. M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus Group 2	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
	Improved	—	4	—	4	1	—	1	—	—	3	—	—	13
	N. M. Imp.	1	1	—	1	1	—	—	—	—	—	1	1	6
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus Group 3	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
	Imp.	3	1	1	6	3	—	6	2	1	3	—	—	26
	N. M. Imp.	3	7	2	7	8	—	8	2	—	5	1	—	43
	Died	9	4	1	6	1	—	1	1	—	1	1	—	25
	Total	55	64	52	52	42	36	47	17	19	27	10	14	435

The results of treatment of pulmonary cases may briefly be summarised as follows:—

17 were discharged with no active signs of tuberculosis, 227 as improved, and 162 indicated no material improvement of the total 406 discharged; the sputum examination was negative in 322 cases (including cases without sputum), and positive in 88 cases.

When reviewed in conjunction with the type of patient admitted these figures may be taken as quite satisfactory. It is worthy of note that the 162 patients discharged without material improvement, 84 of these left the Sanatorium for various reasons within a period of three months after admission.

SURGICAL SECTION.

During the year 57 patients suffering from the various forms of the so-called "Surgical Tuberculosis" were received for treatment, of whom more than three-fifths were children. These cases present a brighter picture and outlook than those reviewed in the previous section, but, nevertheless, it is my duty to call attention to the unduly high proportion of "surgical" cases, which are only brought under conservative treatment when all else surgical has failed, thereby reducing the patients' chances of recovery with disability, and certainly, prolonging the period of invalidism. The prescribing of a suitable treatment for a patient who has been in or attending a surgical hospital, etc., for several years, undergone a number of operations, and then enters the Sanatorium, is somewhat puzzling.

In the following table these 57 patients are shown, scheduled according to the nature of the lesion.

Table No. 7.—Indicating Types of Surgical Cases admitted to Sanatorium.

	Bones & Joints	Abdominal	Glandular	Other Organs	Total
Men	3	1	1	1	6
Women	6	5	4	—	15
Children	11	16	9	—	36
Total	20	22	14	1	57

During the same period 43 patients suffering from the surgical forms of the disease were discharged. The immediate results of treatment are indicated in the following table:—

Table No. 8.—Annual Return showing the immediate results of treatment of 43 patients suffering from the surgical forms of Tuberculosis, discharged during year.

		Duration of Residence in the Sanatorium.												
		Under 3 months			3—6 months			6—12 months			Over 12 months			
Type of disease upon admission	Condition upon Discharge	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	Total
Bones and Joints	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
	Improved	2	2	1	—	1	1	1	2	2	3	—	2	17
	N. M. Imp.	—	—	—	—	1	—	—	—	—	—	—	1	2
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Abdominal	Quiescent	—	1	—	1	—	2	—	—	—	1	—	—	4
	Improved	1	2	1	—	—	2	1	1	—	—	—	—	5
	N. M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	4
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	1	—	—	—	2	1	—	—	—	1	5
	N. M. Imp.	—	2	2	—	—	—	—	—	—	—	—	—	4
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Organs	Quiescent	—	—	—	—	—	—	—	—	—	—	—	1	1
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—
	N. M. Imp.	—	—	—	—	—	—	—	—	—	—	—	1	1
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	3	7	5	1	2	5	4	4	2	4	—	6	43

NON-TUBERCULAR PATIENTS DISCHARGED.

During the year 12 cases were discharged as not suffering from Tuberculosis and the diagnosis in these cases were as follows:—

1. Iliac Abscess.
2. Dislocation of Hip.
3. Specific Disease.
4. Cardiac Disease.
5. Albuminuria.
6. Cardiac Asthma.
7. Asthmatic Myocarditis.
8. Specific Disease.
9. Spina Bifida.
10. Specific Disease.

11 & 12. Mother who was confined whilst visiting in Sanatorium and Son.

TREATMENT.

Treatment has proceeded along the lines that experience has indicated as being the most suitable for each individual case. The routine basic essentials for controlling the symptoms of active disease in all cases comprise rest, sufficient and varied diet, hygienic surroundings, and exercise graduated to the individual tolerance in apyrexial cases. Lines of treatment of an especial nature practised in cases found clinically suitable include (1) Lung Immobilization (Artificial Pneumothorax and Lung Splinting), (2) Chemotherapy (Sanocrysin) (3) Active Immunization (Tuberculin), (4) Passive Immunization (Ruppel's Serotherapy), (5) Various Drugs (Methyl Alcohol, Copper Sulphate, Jacobson's Solution), (6) Heliotherapy and Artificial Heliotherapy (Radiant Heat and Ultra Violet Light). In Surgical Cases various immobolization and operative measures are performed where indicated. All suggestions with any apparent substance in them are taken up and tested. A short synopsis of the more important lines of treatment as practised follows:—

(1) Lung Immobolization.—This form of therapy is theoretically indicated in cases of one-sided disease. However, this definition would exclude practically all cases coming into the Sanatorium, and, further, it has been found that the cases of bilateral disease collapse of the more extensively diseased lung yields surprisingly favourable results, especially when confronted with a catastrophic complication, e.g., Profuse Haemoptysis.

Six cases of collapse treatment were performed involving six inductions and 69 refill operations. One case of bilateral artificial pneumothorax was induced in a patient found clinically unsuitable for gold treatment. It is hoped that this coming year will produce a much greater proportion of the cases coming under residential treatment suitable for this mode of treatment. Up to the time of writing (1929) a further five cases have satisfactorily induced.

All operations (inductions and refills) are radiographically controlled, and as will be seen later various other methods of control are utilised. Arrangements are being made that patients undergoing this form of treatment will be retained as long as possible in residence, or that they may attend the Sanatorium for refill after discharge. This arrangement is obviously purely temporary, as the re-attendance at the Sanatorium of an increasing number of patients for the purpose of refill would entail an amount of work beyond the scope of the Resident Staff.

Chemotherapy.—Sanocrysin has now practically attained the position of a "routine" in the treatment of cases adjudged by clinical and biochemical examination to be suitable. The year 1928 witnesses the extension of the use of

this drug in the Sanatorium to a few pyrexial cases in which the fever had not yielded to absolute rest measures. The general conclusions stated in my report of last year require no modification: Sanocrysin is no general panacea; it is an extremely dangerous drug; when used in carefully selected cases and in experienced hands it yields promising results. During 1928 some 16 cases completed one course of this treatment. At the close of a year a further 13 patients were undergoing a course which was not at that time fully completed.

Immunization: Active.—Tuberculin, in my opinion, still holds its place of greatest value when dealing with tuberculosis in children. Experience of this vaccine not yielding especial results in adult cases it was felt that the dangers attendant upon its use outweighed the rather insignificant results attained. Consequently in the Sanatorium Tuberculin is principally exhibited in the Children's Department. Infinitismal doses are given at first, and are very gradually increased according to the individual tolerance, suitability being determined clinically and controlled by the Von Pirquet Quantitative Cutaneous Reaction.

Passive.—The value of Ruppel's Serum has been further investigated in 25 cases. Benefit has followed its administration in certain cases of surgical disease, and in certain cases of pulmonary disease in children or where progress was coming to a standstill. Its curative effect in cases of advanced disease was like that of all other remedies negligible, but had an important result in that it tended to produce a feeling of well being and to relieve troublesome symptoms inducing sleep.

I still hold the opinion that this type of serotherapy is of value in selected cases, especially in such as are of a cutaneous or sub-cutaneous nature.

Actinotherapy, etc.—Radiant Heat and Ultra Violet Radiation are employed generally in cases of surgical disease. Cases of lung disease with the exception of an occasional marasmic child manifesting hilus involvement have not been so treated.

Radiant Heat is somewhat more extensively employed than Ultra-Violet Radiation as it has been noted that the use of the latter was in a number of glandular cases attended by pus-formation; on the other hand, Ultra-Violet Light has proved of great service when dealing with abdominal disease, cutaneous disease, sinus ulceration, and malnutrition, whereas Radiant Heat appears to be the more suitable for cases of uncomplicated bone and joint lesions, and of uncomplicated glandular trouble, and in the former cases preventing any possible and indeed probable permanent fixation due to splint immobilization.

The total number of cases receiving this form of treatment during the year was 116.

Radiography.—The X-Ray Plant has been utilised very largely during the year, and indeed its scope has already been considerably extended beyond that conceived when it was installed. Cases of collapse therapy are radiographically controlled before and after each refill; similarly, all cases undergoing especial modes of treatment and those suffering from bone and joint lesions are radiographically examined at regular intervals. Cases of suspected disease are X-Rayed at frequent intervals according to the clinical findings until a definite diagnosis has been obtained.

It is regretted that the present plant does not permit of "screening," which would be of much assistance in connection with collapse operations, not to

mention the saving which would be effected in the expenditure upon films, etc. Further, in dealing with cases of deep-seated disease, e.g., spinal, hip-joint, sacroiliac, etc., a more powerful apparatus is required, and it is hoped that economic stringency will shortly relax sufficiently to permit of this rather feeble plant being replaced by one more suited to requirements. An opportunity will be afforded in the building of the proposed extensions of bringing this department up to date.

The number of exposures during the year totalled 432 films.

Dental Surgery.—Dental inspections and the necessary treatment have been carried out, as previously, by the Visiting Dental Surgeon.

In the case of the children, conservative treatment is adopted as far as possible. In the case of adults it is found impossible and impracticable to follow any conservative policy, and work was principally concentrated upon clearing mouths of septic and decayed teeth, and improving generally the masticatory apparatus.

The following is a synopsis of the various operations performed in this department during the year:—

Fillings.	Extractions.	Dressings.	Scalings.
225	190	260	8

Total Attendances—405.

LABORATORY.

Sputum Examinations. — The routine examination of sputa has been continued as heretofore, the Zeihl-Neelsen Technique of staining being used. Biological examinations are performed by the City Bacteriologist. Altogether 589 specimens have come under examination, the results being indicated in the admission and discharge tables. Briefly, 135 cases upon admission exhibited the presence of Tubercle Bacilli in the sputum, and 88 upon discharge.

Control Tests. — These include Renal Efficiency Estimations, Nuclear Blood Counts (Schilling's Modification of the Arneth Count), and latterly Estimations of the Erythrocytic Sedimentation rates. As stated in my previous report, these tests have been found of value in deciding whether cases are suitable for treatment by Sanocrysin, etc., and as controls in such treatment. The latter two tests are also of value in estimating the patient's progress in treatment by other especial measures, e.g., Collapse Therapy, Serotherapy, Actinotherapy, etc.

Other Examinations.—345 Wasserman Examinations and 169 other examinations were performed for the Sanatorium by the City Bacteriologist. Of the former, 14 cases were returned as positive; the latter included throat swabs of which 5 were reported as positive to the Bacillus Diphtheria, and various clinical specimens.

RECREATION.

The social side of the Sanatorium is considered an important factor in the attainment of satisfactory results. In addition to the usual variety of entertainments afforded by the "wireless" with which all adult and surgical wards are equipped, fortnightly whist drives, billiards and bagatelle tournaments, concerts at the festival seasons, and in the summer croquet matches are

carried through with the co-operation of the Patients' Recreation Committee.

The library, as in previous years, has been widely used by the patients. I would take this opportunity of thanking the many kind friends and organisations who have contributed periodicals and books for the patients' relaxation from the monotony which is inevitably associated with institutional life.

Lectures dealing with the various aspects of the Tuberculosis problem and with Public Health Work in general are given at intervals by the Resident Medical Staff, and are much appreciated by the patients, whose interest is very apparent at "question time."

DIETARY.

The dietary of the phthisical patient is one of the most important questions arising in sanatorium administration, and during the past year a complete revision of the dietary scales in operation was made. Some years ago it was the fashion to "overfeed," but this fallacy has now been exploded. Consequently the present dietary of the sanatorium is on generous, well-balanced lines, with a little extra weight on the protein or beef side. A large gain in body weight is not particularly aimed at, although it is remarkable what increase in weight some patients exhibit after admission, e.g., a gain of 28 lbs. in the first month is a frequent occurrence, but in such instances it is obviously a case of making up for lost time. On the other hand difficulties occasionally arise, and in this connection it requires to be borne in mind that a worrying patient may disagree with his food and not the food with him.

Milk.—It is a pleasure to record that the year 1928 saw the establishment of Grade A Milk on the Contract Schedules for the Municipal Sanatorium and its associated hospital.

The Sanatorium had the honour of being the pioneer hospital in Ireland to specify "T.T. Milk" in the milk specification in 1925, and last year we welcomed the passing into law in Northern Ireland of the Sale of Milk Act, which enabled us to go one further, and stipulate Grade A (T.T.) Quality.

I have to thank the Chairman and Members of the Tuberculosis Committee for the very cordial and encouraging manner in which they received my recommendation in regard to this matter. Their magnanimous action is an investment with the certainty of great capital appreciation.

OPEN-AIR SCHOOL.

A feature of particular value and interest in the Sanatorium is the open-air school. Here the youthful patients, during the period of their residence, receive such education as their condition permits. The importance of an open-air school affording educational facilities, combined with sanatorium therapeutic measures, can hardly be exaggerated. Since habits are formed early in life, health habits, if they are to be of value, should be taught as early as possible. The recipe for a healthy man is: "Begin with his grandfather," and that is just what we aim at in our endeavours in the open-air school. It may be recalled that many of our children come from homes where the parents are almost entirely ignorant of the laws of hygiene and sanitation, and it is hoped that the child on return home from the Sanatorium may act in the capacity of a missionary, and later in life apply the same ideals in turn.

I append the report of the Principal Teacher:—

"During the year ended December, 1928, the Public Elementary School attached to the Municipal Sanatorium was in full operation for 211 days. The average attendance for the annual period was 57.

"Since my appointment in June as Principal Teacher and Successor to Miss English I have had an opportunity of seeing and studying the work of a number of Open-Air Schools in England. As a result of this visit I have considerably modified the curriculum, have tried to instruct the child with the pressure of the ordinary elementary school curriculum relieved, and have given additional time to open-air play, handiwork and singing. Whatever work could be done in the open air without detriment to the child has been done.

"The existing school building is unfortunately most unsuitable for an open-air school. It is quite inadequate for the number of children attending, and it is impossible at times to have sufficient fresh air without draught. The verandahs during many days could not be used owing to exposure of pupils to wind and rain. During inclement weather, when verandahs were not available, we were obliged to dispense with our physical exercises, breathing exercises, and singing.

"The school was visited by Mr. Kirkpatrick, Inspector of Public Elementary Schools, in the month of November, when the plans and designs of Open Air Schools in England were discussed.

"The annual concert was held in December, at which the prizes and toys were distributed by Alderman Captain Reid."

CONCLUSION.

Tuberculosis is a disease which is always with us; the problem of early detection, control, segregation, and treatment is among the most difficult in public health or industrial medicine. This is because of its great frequency and its long duration, which often carries the patient beyond the financial resources available, and which in consequence necessitates a return to the ordinary vocations of life before the quiescence of the disease has progressed into arrest. Theoretically, at any rate, the aim of the Sanatorium is "to secure recovery and return to work." Unfortunately, by reason of the personal economic factor, and as the majority of patients are only received at a stage of the disease when recovery is more than doubtful, only a small proportion admitted come into the category where the real aims of the Sanatorium may be realised. For the majority the problem is one of rehabilitation as far as possible, and most regrettable of all, for a considerable number the measures are such as may be designed to the care of advanced cases.

YEAR'S WORK.

The year's work resulted in 17 pulmonary and 5 non-pulmonary cases being discharged with the disease quiescent or apparently arrested. A very considerable number of those showing improvement will be able to undertake work for a varying number of years.

Children.—It will be observed that as heretofore the best results are obtained in the cases of children. Tuberculosis in children brought under proper or Sanatorium treatment before the disease is rampant is an eminently curable condition. It is everywhere agreed that **"childhood affords an excellent opportunity for detecting and dealing with Tuberculosis. The more the resistant power of the child is increased the lighter will be the burden of tuberculosis disease in the adults of the next generation. Those factors which tend to weaken the defensive powers of children can be brought under control easily and at an**

early date." (Departmental Committee on Tuberculosis, 1912). How retrogressive then would the step be to consider that beds normally allocated to children in a large city sanatorium should be used as an overflow for advanced adult cases?

The Problem of the Advanced Case.—At the outset it should be realised that the Sanatorium is primarily for the cure of tuberculosis, not for the care of the incurable. To repeat a previous report, as Webb states, " The term sanatorium presupposes the curability of the patient it is intended to receive." I quite fully realise that the solution of the problem of the advanced case is most difficult, but, on the other hand, the treatment of such cases on Sanatorium lines is simply the carrying out of a formality with the certain knowledge of failure behind it. I would suggest that from the public health standpoint, such cases could be treated under the domiciliary or extern schemes much more economically than under the institutional scheme. The question of infection during the terminal stages is much less urgent and more limited in extent than during the earlier progressive stages when the patient is up and about. He has probably done all the harm he can. Where financial means are nil it should be possible to evolve some arrangement whereby food would be available, or to transfer them to the proper institution for the destitute. In Great Britain certain authorities have arrangements whereby advanced tuberculous patients may be segregated in special institutions. Undoubtedly a sentimentally hostile attitude to such an institution may arise, but is the same not likely to arise even under present circumstances?

Accommodation—General.—The question of hospital and staff accommodation has already been dealt with in this report. Suffice it here to add that a Sanatorium is not structurally intended or equipped for the purpose of nursing acutely ill cases, nor is the Belfast Sanatorium adaptable, without very considerable expenditure, for such a purpose. It is quite satisfactory as a Sanatorium: as a hospital for advanced cases it is quite unsuitable. During my last annual leave I took the opportunity of making enquiry into cross-Channel provisions in this respect, and found that the " separate principle " is the one adopted generally. Further, as I pointed out in previous reports, the situation of the Sanatorium places visitors to dangerously ill patients rather at a handicap. I should also here indicate that those beds reserved for surgical tuberculosis have been continuously occupied throughout the year, and that at times it has been necessary to nurse a surgically affected patient in the general wards or pavilions.

School.—The problem of the open-air school attached to the Sanatorium, has been solved by the adoption of the plans for a building entirely suitable in all respects for this important branch of our work. It will be situate looking south, about midway between the Boys' and Girls' Pavilions, and equipped with modern heating, cloakrooms, etc. The front is practically removeable, leaving in suitable weather an open-air school in the most practical sense of the word. The cost will be in the neighbourhood of £1,800. As the Tuberculosis Committee were the pioneer of the " open-air school " therapy in Ireland, it is eminently fitting that the idea should be pushed to full fruition in the City Sanatorium.

CANCER AND TUBERCULOSIS.

As mentioned in my report for the year 1926, the extreme rarity of a case of new growth supervening in a phthisical patient is a feature of peculiar interest. In the two succeeding years, despite the admission of a large number of

patients of the "cancer age," I have not encountered one case of new growth in a tuberculous patient. On enquiry I find that the combined death rate from the two diseases is more or less a constant, in other words, that the decrease in the Tuberculosis mortality rate is balanced by a proportionate increase in the Carcinoma mortality rate.

This is a peculiar feature regarding these two scourges, and will, I feel, upon research open up a field for perhaps even more than speculation. Does Carcinoma especially select those who have a special resistance to Tuberculosis, or, in other words, does an active infection with Tuberculosis confer an immunity against the onslaught of Carcinoma?

As time permits I hope to obtain further statistics on this interesting problem during the forthcoming year.

LUES AND TUBERCULOSIS.

A definite increase during the past 2—3 years in the number of patients admitted and found on examination to be suffering from these combined complexes is noted. The appropriate treatment has to be, in my opinion, determined in each case. It has been agreed that a positive sputum case does not tolerate anti-specific measures well, and indeed in such a case harm may be done: on the other hand, certain negative sputum cases receive undoubted benefit from a full course of anti-specific treatment. I am quite aware, and indeed at times I am inclined to suggest that in these negative sputum luetic cases the question of diagnosis might be reviewed with advantage.

Latterly my routine has been to retain the positive sputum cases with positive blood reports for general treatment, and to give the negative sputum cases with positive blood reports one or two courses of anti-specific treatment. If at the end of this period no further definite tuberculous signs are evident, I recommend their discharge, to continue the treatment at a suitable clinic.

Here again these two diseases would seem to exhibit a mutually antagonistic complex. Does the subsequent contraction of lues modify the disintegration ravages of the Bacillus Tuberculosis?

On the whole, the year has been one of quiet, steady progress, and the routine work of the department has proceeded smoothly. The patients in the great majority have appeared entirely happy and contented. In many instances I have received letters of appreciation from patients and their friends. I hear from some of the various outposts of the Empire, and frequently I encounter others in the various services of our city. As already indicated, treatment has progressed along the lines usual in every properly organised modern Institution for Tuberculosis. To get an idea of the value of the work done in the Sanatorium too much emphasis need not be placed upon statistical returns. The knowledge imparted to patients day after day in the routine of a Sanatorium of how to deal with the many incidents liable to occur in the work-a-day of a sufferer, and the education in the rules of healthy living strengthen very considerably the whole organisation in its campaign against the "White Scourge," and must exert—even perhaps unconsciously—an influence reaching far beyond the narrow confines of the Sanatorium boundary wall. Most especially should this educational factor bring its own rewards in the cases of children and young adults. In the cases suffering from chronic tuberculosis, which is a disability rather than a disease, the old age that just "as the blind have to learn to walk" holds good in so far that the "consumptive has to learn to live."

I have pleasure in thanking the Chairman and Members of the Tuberculosis Committee for the cordial encouragement and whole-hearted co-operation and support which they have vouchsafed me at all times.

In conclusion, it is my pleasant duty once more to acknowledge fully and generously the assistance of an efficient and conscientious staff. I would especially mention my medical colleagues, the matron, the steward, and the engineer. To the sisters, staff nurses, and probationer nurses who have carried out cheerfully and painstaking their very onerous duties I tender my best thanks.

I am, Sir,

Your obedient Servant,

P. S. WALKER,

INDEX.