[Report 1934] / Medical Officer of Health, Belfast County Borough.

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REPORT

ON THE

Health of the County Borough of Belfast, for the Year 1934

BY

The Medical Superintendent Officer of Health.

Belfast
Printed by S. C. ALLEN & COMPANY, LTD.
CORPORATION STREET WORKS.
1935

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BY

CHARLES S. THOMSON, M.D., (Glasgow) : M.R.C.P. (Ed.) :

D.P.H. : B.Hy. (University of Durham)

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County Borough of Belfast

PUBLIC HEALTH COMMITTEE, 1934

Chairman:

Alderman J. DUNLOP WILLIAMSON, M.D., J.P., D.L.
High Sheriff for the County of the City of Belfast.

Deputy Chairman:

Alderman ROBERT PIERCE.

Aldermen:

HARRY C. MIDGLEY, M.P.

ROBERT PIERCE.

JAMES DUNLOP WILLIAMSON, M.D., J.P., D.L.

Councillors:

HUGH ARMSTRONG.

THOMAS LOFTUS COLE.

WILLIAM DOWLING.

THOMAS HENDERSON, M.P.

JAMES KILPATRICK.

WILLIAM HENRY LAVERY

HERBERT PERRY LOWE, M.B.

JOSEPH MAGUIRE.

THE RIGHT HONOURABLE THE LORD MAYOR (SIR CRAWFORD McCULLAGH, D.L., J.P.)

WILLIAM WALKER MacCLEARY.

CLARKE SCOTT.

WILLIAM JAMES WILLIAMSON

COUNTY BOROUGH OF BELFAST—1934.

Summary of Vital Statistics.

Area (Census 1926) (Exclusive of 1,723 acres of tidal water)	14,797 acres.
Population (Census 1926)	415,151
Number of Houses in the City (approximately)	100,939
Number of Inhabited Houses do.	100,000
Number of Uninhabited Houses do.	939
Number of Families or Separate Occupiers (Census 1926)	89,724
Average Number of Persons per Family (Census 1926)	4.58
Density (Census 1926)	28.1 persons to an acre
Length of Public Streets	294 miles, 441 yards Back streets and passages repairable by the Corporation and used for vehicular traffic—74 miles, 890 yards.
Rateable Value at 1st April, 1934	£1,960,104 0s. 0d.
1d. Rate estimated to produce	£7,580 0s. 0d.
Cost of Public Health Services	Public Health Committee £53,697. Maternity and Child Welfare Committee, £9,513. Tuberculosis Committee, £36,331
Marriages	3,276
Marriage Rate	7.9 per 1,000 of the population.
Live Births Registered	9,086
Still Births (not registerable but notifiable)	456
Live Births notified	9,410
Birth Rate (Reg. General)	21.9
Birth Rate average for the ten years, 1925-1934	22.5
Deaths registered	5,676
Death Rate	13.7
Death Rate average for the ten years, 1925-1934	14.2
Death of Infants under one year of age	729
Infant Mortality Rate	80 deaths per 1,000 births.
Average for the ten years, 1925-1934	99 deaths per 1,000 births.
Number of Women dying in, or in consequence of childbirth—	
From Sepsis 14	(Notification of Deaths—Not
Other Causes 46	Registrar-General's figures).
Deaths from Epidemic Diseases	319
Death Rate from Epidemic Diseases	0.8
Deaths from Measles	18
Deaths from Scarlet Fever	11
Deaths from Whooping Cough	49
Deaths from Diphtheria	43
Deaths from Diarrhoea and Enteritis under 2 years of age	111
Deaths from Influenza	87
Deaths from Phthisis	398*
Death Rate from Phthisis	0.96
Total Deaths from Chest Affections	1,253*
Death Rate from Chest Affections	3.02

The *Deaths from Phthisis and Chest Affections are obtained by summarising the Registrar's weekly returns and are only partially corrected for residence.

PUBLIC HEALTH DEPARTMENT,
CITY HALL,
BELFAST.

April, 1935.

To the Right Honourable the Lord Mayor, Aldermen and Councillors of the Belfast County Borough.

My Lord Mayor, Aldermen and Councillors,

I have the honour to present to you my sixth Annual Report dealing with the health and sanitary circumstances of the city during 1934.

The duties of a Medical Superintendent Officer of Health are varied, one duty certainly is that he shall take steps to deal with anything which threatens to affect the health of the community ; this envisages the possibilities of errors of omission as well as errors of commission.

I would be failing in my duty to the little children of this city, and to the whole community, if I neglected to draw your attention to the splendid opportunity we have of building a strong and virile generation of men and women at a cost which would be infinitesimal having regard to the splendid harvest we would reap. This could, to a large extent be ensured if we were to open ten open-air Nursery Schools in Belfast. It may seem a startling statement to make, but it is none the less true that you will not find healthier and better nourished children—between two and six years of age—in this city, than you will find amongst the children attending the Arellian Nursery School. The children are the sons and daughters of the working classes in and around Utility Street. Why are these children so rosy-cheeked, plump and healthy ? It is all a matter of sane hygiene—cleanliness of the body, including the teeth ; good, wholesome, but simple food ; a sleep period on stretcher beds in the verandah ; play periods, games and exercises ; the whole conducted in a bath of fresh air. If only this could be general amongst the toddlers in the city! Think of the resistance to disease which such a regime builds up. What would it all cost ? Take the Arellian Nursery School as an example. This simple structure is situated on a piece of vacant ground, between Utility Street and the Railway. The building is of wood, with tiled roof. The floor of the verandah is concrete. It consists of one large room 50 ft. x 18 ft., and of a kitchen, bathroom, lavatories, cloakroom, staff room and isolation room. The south side of the large room has Crittal doors opening on to the verandah, so that the whole south side can be open.

The cost of the building, including equipment (but not toys) was roughly £750. Plumbing is the most costly item. The planners could not afford to set in hand-basins, so they installed little basins on low stands. There are two lavatories. The whole building was planned for 36 children.

Equipment :—

Large Room. Low tables and chairs. Cupboards convenient for children's use. Piano (essential). Suitable pictures. Some Montessori apparatus. Sensible toys, not fragile easily broken things, wooden blocks, picture books, dolls, etc.

Beds. Collapsible (about £1 each).

Bathroom. Hand basins, towels, tooth brushes, mugs. Simple medicine cupboard.

Staff Room. Simple furniture.

Kitchen. Adequate cooking utensils. Bowls, mugs, plates, spoons for children's use. China for use of Staff.

Outside. Jungle Gym. Slide. Sand Pit. Outside toys (tricycles, carts, dolls' prams, etc.).

General. Overalls, feeders, towels, blankets, sheets, handkerchiefs, spare clothing, weighing machine.

The School was opened in 1928 and owed its origin to past students of Richmond Lodge School. At the outset, the school was held in temporary premises which were not suitable. In 1930, the Association erected, free of debt, the present open-air nursery school-building to accommodate thirty-six children. Soon the waiting-list became so large that members had to be increased to 40, as otherwise many children on the list would never gain admission. Unfortunately, many knock in vain at the door for admission. The toddlers arrive at 9 a.m. and leave at 5-30 p.m. They are met by the staff, consisting of a qualified Superintendent, and also a qualified Assistant. There are voluntary workers, an honorary doctor, and an honorary dentist. The children are washed, then an overall is supplied to each. Milk is then given, while later in the day there is a two-course dinner, cooked on the premises. Tea consists of bread, butter, jam and milk. Here is the day programme and the menu :—

Programme for the Day.

9- 0 a.m.	Change shoes, overalls, etc., hair tidying, care of plants and room.
9-45 a.m.	Morning songs, breathing exercises, examination of hands, etc., news and talk.
10- 0 a.m.	Individual occupations, music, language and number training.
10-30 a.m.	Free Play. Milk.
11- 0 a.m.	Handwork, story, poetry, dramatic play, individual work.
11-30 a.m.	Tidying room, laying tables, washing hands before dinner.
12- 0 Noon	Dinner.
12-45 p.m.	Clean teeth, prepare for rest.
1- 0 p.m.	Rest.
2-30 p.m.	If awake, get up, wash, tidy, put away beds, varied occupations, free play.
3-45 p.m.	Tea.
4-30 p.m.	Music, stories, handwork.
5-30 p.m.	Help to tidy up and prepare to go home.

This is not a set programme—merely a guide to the various occupations that fill up the day.

Menu.

Monday.	Minced meat, barley, potatoes, fresh fruit, cornflour, toasted bread.
Tuesday.	Lentil soup, potatoes, stewed fruit, sago, toasted bread.
Wednesday.	Fish, potatoes, stewed fruit, rice, toasted bread.
Thursday.	Tripe or liver alternately, potatoes, fresh fruit, cornflour, toasted bread.
Friday.	Vegetable stew, potatoes, suet pudding, toasted bread.

N.B.—This menu is varied during the summer months, when eggs and vegetables are more plentiful. Each child drinks half-a-pint Grade A.T.T. milk per day.

Parents pay half-a-crown per week, and this covers the cost of children's food and milk.

Medical inspection and dental examinations take place at the beginning of each term, and as frequently as circumstances may dictate. One can see that the object is to care for these children mentally, morally and physically. There is a garden and a large open space, and the children are out of doors continuously, except, of course, when it is raining. There are thousands of toddlers in this city who need the same glorious health-giving chance in life. At present it is recognised throughout Britain that twenty-five per cent. of children entering upon ordinary elementary school life at six years of age are found to be suffering from some defect or defects. The medical and dental examinations conducted at these open-air nursery schools would be the means of ascertaining and correcting these defects. At present, we have no organisation for dealing with toddlers' defects (defects of toddlers attending Public Elementary Schools are, of course,

attended to); this is a serious drawback to the present and future well-being of these children and therefore to the community as a whole. The cost of running a school for fifty children each year is in the region of £550 or £600.

My experience of open-air nursery schools was gained at the fountain head when I was Medical Officer of Health of Deptford, for while there I kept in close touch with the Rachel Macmillen Memorial Nursery School, Deptford. Local Authorities of Northern Ireland have powers to deal with this subject under Section 11 of the Education (N.I.) Act, 1923.

Maternity and Child Welfare.

The Infant Mortality rate is the number of deaths of infants under one year of age per 1,000 registered births. For statistical purposes an infant is a child under the age of one year. We take a calendar year as the period for our calculation and we count up the number of births registered in that year; we take the deaths of infants under twelve months for that same year. Some of these infants who died were born the year previously, that is to say that the infants who die and those who are born are to a large extent not the same infants. In calculating the infant mortality rate, it is obvious that if the birth rate falls, this tends to put the infant mortality rate at a higher figure.

To understand whether our methods, our organisation is meeting with success, we must compare our infant mortality with that say of England and Wales. From 1881 until 1900, there was no substantial improvement in the infant mortality rate in England and Wales, but from 1900 to 1927 the infant death-rate fell from 154 to 70 per 1,000 births, a remarkable decline, which has occurred more or less throughout Europe. In 1900, the Belfast infant mortality rate was 152, and in 1927 it was 101. Without actually giving the figures for each successive year from 1900, it may be said that the Belfast rate lagged behind that of the England and Wales standard, as regards improvement.

From and including the calendar year, 1929, the Belfast rate has been 112, 78, 90, 111, 102, and in 1934, the rate was pegged back again to 80. The year 1934 had been promising well, and our hopes ran high that we would see our record year 1930 (when the rate was 78), eclipsed. Unhappily, the biennial outbreak of Measles began in December, 1934, and the balance of deaths was tipped to the wrong side, due to deaths from Measles and its sequelae. But while the rate for England and Wales as a whole—for the whole of these countries—is hovering around 65, we should give the rates for large cities, like Belfast, and draw comparisons and conclusions:—

City.	Infantile Mortality Rate.
Belfast	80
Dublin	79
Birmingham	68
Edinburgh	62
Glasgow	98
Liverpool	81
Leeds	71

From these figures, we see that the means adopted to reduce the infant death rate are telling in the right direction. It is still necessary to combat the pessimists who believe that the "weakest must go to the wall." These people forget that those causes which kill and carry off so many babies, create a large number who develop into sickly children, boys and girls, adolescents and adults, many of whom require hospital treatment. Those causes which reduce the infant mortality rate send a healthier, happier generation speeding on to take their place in the ranks of life. It has been handed down to us by the fathers of the Public Health Service that the infant mortality rate is probably the best index we possess as to the social circumstances of an area, inasmuch as a high rate tends to be associated with bad housing, overcrowding, defective sanitation, combined with maternal ignorance and neglect.

A baby's environment is its own mother—the stream is no purer than its source—hence if we concentrate our attention on the mother, before and after the baby is born, we shall certainly cause the miasma of ignorance to clear away before the sunshine of carefully imparted knowledge. As to the effect of environment, overcrowding, poverty, bad housing and ignorance, do any of these occur to the mind of the reader as regards some of the following divisions of the city ? The two districts in the city having the highest infant mortality rate are Ballymacarrett and the Dock districts. The rates there were 120 and 106 respectively. Note how these two districts compare with Woodvale, 97 ; Falls, 89 ; Millfield, 88. Contrast these again with the districts with the lowest rates :— Cutting out Ballymaghan which had three births and no deaths, we have Greencastle, 40 (but the low figures, viz., 100 births and 4 deaths make this district's figures of little value), Ravenhill, 49 ; Ballyhackamore, 56 ; Ligoniel, 61 ; Workhouse, 70 ; Duncairn, 75 ; College, 79. All these are good, but while Ravenhill has a right to preen itself, I am well pleased, all things considered, with Shankill, 81, and Falls, 89. A rate of 81 for Shankill is one which calls for sincere congratulations to this district. More babies were born there than in any other district in Belfast. Falls, with a rate of 89, deserves congratulations too.

If we examine the registered causes of infants' deaths, especially the ages at death during the first year of life, we can learn something which points the way from a preventive point of view. Of every hundred deaths occurring throughout the United Kingdom during the first twelve months of life, about forty per cent. take place in the first month of life. The first month is called the neo-natal period. While the death rate for the first year as a whole has been markedly reduced, that for the first month, the neo-natal period, has shown comparatively little change for the better. This is serious and calls for an explanation. This neo-natal mortality is comparatively, but little subject to environmental influence. What then is it due to ? Seventy per cent. of the neo-natal deaths are due to " developmenta and wasting disease " sometimes called atrophy, debility and marasmus (wasting), or perhaps to something wrong with the mother during her ante-natal period—before the child was born ! What are these causes of ante-natal disease and death ? I am satisfied I should mention them here, as it is just so much humbug for a medical officer to side track his readers by referring vaguely to " ante-natal causes." Dr. Amand Routh gives the following as causes of ante-natal disease and death :—

1. Paternal Causes : Syphilis and tuberculosis by direct infection of ovum ; Diabetes, Brights Disease ; plumbism, etc. inducing debility of the embryo.

2. Maternal Causes : (A) Pathological : Malnutrition, anaemia, acute specific and infectious diseases (including gonorrhoea), chronic diseases (includ ng syphilis, tuberculosis and plumbism), toxaemias, albuminuria, eclampsia. (B) Mechanical : Retroversion of uterus, pelvic contractions, obstructing tumours, stenosis, (narrowing of cervix uteri and vagina), etc. (C) Miscellaneous : Ante-partum haemorrhages, placenta praevia, ectopic gestation, criminal abortions, etc.

3. Foetal Causes : Developmental, Congenital defects. Certain pathological defects. Mechanical : Malposition and malpresentations.

So we see that the heavy number of deaths, which occur during the first month of life, are due to causes operating before birth, namely, anything from actual want of food, bloodlessness, immoral conduct, attempts to induce abortion by swallowing lead preparations or by criminal interference, kidney disease and fevers, to the baby coming the wrong way, maternal malformation and complications of labour. The Health Organisation of the League of Nations says that the common causes of neo-natal deaths are due to complications of a certain defined nature associated with labour.

If we examine the causes of the 729 infants' deaths in Belfast, we find that more than fifty per cent. occurred in the neo-natal period, i.e. the first month of life. This is too large a proportion. To quote Professor Currie :—" The hazards of the ante-natal and neo-natal periods are in great measure the same. The methods for the control of ante-natal mortality avail against neo-natal mortality also." The fact is, in a nutshell, much of our infant and maternal mortality, hangs upon, involves, arises out of, and is dependent upon, the care or absence of care and the quality of the care of the expectant mother from conception until a month after delivery.

Before I take the sixteen dispensary districts of the city and discuss the outstanding causes of death of infants during the first year of life, it would be as well to remember that certain descriptive names for causes of death are given on death certificates which embrace the detailed causes of death given above by Dr. Routh. Another way of putting it is to ask ourselves what we mean by such causes of death as " prematurity," " debility at birth," " atrophy," etc., etc., etc. The word " Prematurity " has been given as referring to abortion, miscarriage, and premature birth. Notice that we are trying to track down the causes of infants' deaths and the particular districts in the city in which any outstanding rates occur. Ascertainment must come first : once we know the facts relating to any district, we can then turn our batteries of thought and our municipal ameliorative forces upon them.

In comparing the different districts of the city, let us take the causes of neo-natal deaths, i.e., the deaths occurring during the first month of life. Such deaths are principally due to causes in one of three groups (1) Prematurity, Congenital Debility, Congenital Defects : (2) Bronchitis and Pneumonia : (3) Diarrhoea and Enteritis.

The overwhelming causative factor here is the first group ; the second group has some influence at this period (the first month of life), whilst the third group is hardly noticeable during the first month.

The following table gives the percentage of neo-natal deaths to the total number of deaths during the first year of life. The rate for Great Britain is in the region of 40.

Table giving the percentage of Neo-natal deaths to total deaths in the Dispensary districts :—

1.	Dock	40	6.	College	56	11.	Ravenhill	72
2.	Duncairn	47	7.	Greencastle	50	12.	Ballymacarrett	33
3.	Shankill	49	8.	Ligoniel	27	13.	Ballyhackamore	50
4.	Workhouse	43	9.	Falls	55	14.	Ballymaghan	—
5.	Millfield	47	10.	Woodvale	41	15.	Central	56
						16.	Pottinger	50

Whilst the infant mortality rate for Ravenhill was very small (49 per 1,000 births), the actual proportion of premature births was high. The causes of prematurity are not environmental : they involve inter alia the want of skilled care of the mother from conception onwards. The neo-natal rate for the city is too high. The next step is to follow the deaths from bronchitis and pneumonia and also diarrhoea and enteritis, during the whole of the first year. All these latter deaths one grudges as they need never have happened—they are eminently preventable.

The following Table gives the percentage of infant deaths to the total deaths occurring during the first year, in each dispensary district, from (a) bronchitis and pneumonia : (b) diarrhoea and enteritis :—

	Bronchitis and Pneumonia	Diarrhoea and Enteritis		Bronchitis and Pneumonia	Diarrhoea and Enteritis
Dock	14	19	Falls	13	14
Duncairn	18	12	Woodvale	10	13
Shankill	18	7	Ravenhill	19	11
Workhouse	19	17	Ballymacarrett	18	9
Millfield	11	14	Ballyhackamore	9	—
College	16	8	Ballymaghan	—	—
Greencastle	40	—	Central	21	11
Ligoniel	18	9	Pottinger	27	7

Of the total infant deaths during the year, one hundred and nineteen, that is seventeen per cent. of the total, were due to bronchitis and pneumonia. In the Pottinger Dispensary District, one quarter of the infant deaths were due to pneumonia alone. The Central District was bad also, with one infant death in every five from bronchitis and pneumonia. The generally accepted causes of pneumonia and bronchitis in infants are:—exposure, want of mothering, feckless-ness, bad ventilation, overcrowding, atmospheric pollution and fragility. Concern-ing deaths from diarrhoea and enteritis, the Workhouse and Falls Wards , then Dock and Millfield are the most prominent. The total of eighty-two deaths from these causes for the whole city yields a percentage of eleven to the total infant deaths in the city. Maternal lack of knowledge as regards infant feeding is largely responsible for such deaths. The bottle-fed baby is far more exposed to diarrhoea than the breast-fed infant. Dirty surroundings, dirty hands in preparing feeds, all take their toll. Infected milk, infected before or after entering the house, causes diarrhoea.

In common with the great majority of Medical Officers of Health, I advocate pasteurised milk as a means to preventing diarrhoea and infection amongst infants, and, indeed, all members of the community. It is held that the replacing of cobbles in streets with concrete, as is being done so generously in Belfast, removes a possible source of atmospheric pollution with dust. The coming of the motor and therefore the diminution in the number of horses has helped to reduce the amount of infection and therefore of diarrhoea. So, too, the use of dried milk has been helpful.

We must continue our campaign of educating the expectant and nursing mother ; we must idealise motherhood. We must surround her with expert services, remembering that an infant welfare clinic is valuable in proportion to the skill and devotion to duty of the presiding medical officer. Infancy and childhood, these are the age periods during which we should protect the race against Smallpox, Diphtheria and Scarlet Fever by vaccination and inoculation.

Maternity and Maternal Mortality.

Maternal Mortality. The maternal mortality rate is the number of maternal deaths per 1,000 live births. As the total maternal deaths, belonging to Belfast, numbered 57 (this includes deaths connected with still births, miscarriages and abortions) and as the total births numbered 9,086, therefore the maternal mor-tality rate for Belfast was 6.3. This rate is so high that consideration must be given to prevention as far as in our power lies. Having studied the full reports, which are made following upon each death, I am satisfied that the first thing which is wanted for Belfast is that the Public Health (Notification of Puerperal Pyrexia) (Northern Ireland) Regulations, 1929, should be revised so as to afford the same facilities for general medical practitioners in Belfast as are afforded their brethren in England and Wales. The English Regulations, dated 1926, enables a general practitioner, when notifying a case of Puerperal Pyrexia or Puerperal Fever, to sign a printed declaration to the effect that he wants (1) to have a second opinion on the case : (2) to have a bacteriological examination of blood, etc. : (3) to have the patient admitted to hospital : (4) to have trained nurses provided.

The corresponding regulations for Northern Ireland deal only with notification by the medical practitioner to the M. O. H. Nothing is said as to any facilities such as are available in England. The value of these facilities is great—a second opinion can be obtained right away, an inestimable boon in cases of the kind. Moreover, the amended regulations should empower a local authority to pay a consultant's fee and/or have a standing arrangement with one or more consultants, whereby their services will be available if called upon for any kind of obstetrical emergency.

In my report last year I dealt exhaustively with this subject, hence it is not necessary to go over the same ground again. The gradual spread of education is undoubtedly leading to a more widespread knowledge of the need of careful ante-natal supervision and examination. The work of medical practitioners is sometimes hampered by the surroundings under which confinements have to be attended. More and more expectant mothers, throughout the Kingdom, are tending to enter institutions and maternity homes, etc. In Belfast we have the Royal Maternity Hospital, the new Maternity Hospital of the Guardians, in addition to over fifty registered maternity homes. When I was M. O. H. of Deptford, London, I was largely responsible for the medical organisation of the Municipal Maternity Hospital. All cases seeking admission had to have ante-natal examination and supervision carried out by the Council's Maternity and Child Welfare Medical Officer, who, assisted by a well-trained staff of midwives in the maternity home is responsible for the confinements. In addition, a specialist from King's College Hospital was retained as honorary consultant. The number of confinements, since the Home was opened in July, 1921, has been 2,950, and there have been **no maternal deaths** in the Home. Two women who had arranged for their confinements to take place at the home died from other conditions. Similar results have been experienced elsewhere, as, for example, at the Louise Margaret Hospital for Women at Aldershot there were 2,000 confinements and one death (from a lung complication). The key to the whole position is that no matter whether the confinements are attended by doctors in the patients' homes, or by doctors in maternity homes, municipal or voluntary, there ought to be careful ante-natal supervision and an arrangement whereby the services of a specialist, a consultant, are available at call, before, during or after the confinement.

The total number of live births registered in Belfast during 1934 was 9,086.

In some of these cases ante-natal supervision and examination would doubtless be carried out privately by medical men, but it is not possible to give the number of such examinations. The following table serves to show the extent of this work for the year 1934 in the Hospitals and Municipal Clinics :—

	No. of First examinations.	No. of subsequent visits.
Royal Maternity Hospital	1,734	5,956
The Ulster Hospital	217	611
Malone Place Home	220	369
Municipal Clinics	2,865	8,332
Total	5,036	15,268

The following Table shows the steady expansion of the work in the Municipal Centres :—

		New Cases.	*No. of Re-visits.*
First Year	1931	*147	161
	1932	962	2,099
	1933	1,917	5,350
	1934	2,865	8,332

*—3 months commencing 1st October, 1931.

We encourage the midwives to attend the ante-natal centre and to be present when their expectant patient is examined by the Medical Officer. Many of the midwives cannot spare the time to attend the ante-natal centre with their patients, consequently in these cases a report is sent out by our doctor to the midwife.

In a few cases where the doctor has ascertained that the woman is suffering from a condition which requires immediate attention, either as an indoor or outdoor patient of a hospital, she is given a line for the hospital. The number of these in 1934 was 111. It is a matter of moment that a midwife should not suffer the loss of any case because a patient sent by her to our ante-natal centre, has had to be sent into hospital for her confinement, owing to the discovery of some defect; in such a case the Departmental Committee recommend "compensation of midwives for loss of cases sent to a maternity hospital from an ante-natal clinic." This should not be lost sight of as the loss of a fee is bound to leave a midwife with a sense of grievance. During the present financial stringency I have not pressed the question of the provision of suitable centres, specially devised for ante-natal and infant welfare work. Such centres would make provision for dental treatment for expectant women and for children under school age.

We require our own dental centre once we build a suitable place for ante-natal work, and in conjunction therewith we need immunisation against diphtheria and scarlet fever, and ophthalmic work for toddlers. In pregnancy especially, the importance of sound teeth cannot be stressed too much. Ordinarily bad teeth lead to pain, loss of sleep, abscesses, pyorrhoea, indigestion, anaemia, and debility. In pregnancy none of these conditions can afford to be tolerated.

Provision of dental treatment, of conservative dentistry for expectant women is a sine qua non. It is a part of that broad detail, attention to which must certainly bring down the maternal death rate. Look at this table showing the defects diagnosed at the Municipal Ante Natal Centres in 1934.

Out of 2,865 expectant women examined no fewer than 2,096 defects were found; if we deduct 428 of these defects as belonging to the relatively minor condition of constipation, we are left with some sixteen hundred defects of greater or lesser importance:—

Table of Defects in 2,865 *Expectant Women.*

Abnormal Sized Head	1	Furunculosis	1
Abscess	1	Femoral Hernia	5
Adenitis	2	Galactocele	1
Albuminuria	961	Gonorrhoea	1
Anaemia	86	Gastric Ulcer	1
Ante Partum Haemorrhage	29	Goitre	7
Asthma	2	Haemorrhoids	9
Appendicitis	1	Haematemesis	3
Blindness	1	Helminthes	2
Bronchitis	35	Hyperpiesis	7
Breech	3	Hydramnios	18
Cardiac Disease	26	Hyperemesis	6
Cleft Palate	1	Impetigo	1
Contracted Pelvis	15	Incomplete Abortion	1
Conjunctivitis	2	Influenza	3
Constipation	428	Jaundice	1
Cystocele	1	Leucorrhoea	9
Dental Caries	56	Laryngitis	1
Debility	2	Malpresentation	189
Dermatitis	1	Mastitis	1
Diarrhoea	1	Measles	1
Epilepsy	2	Multiple Pregnancy	9
Erythema	2	Nephritis	2
Eczema	2	Obesity	9
Enteritis	4	Oedema	10

Phthisis	31	Tachycardia	2
Pruritis	4	Threatened Miscarriage	2
Pyorrhoea	10	Threatened Abortion	2
Psoriasis	1	Tuberculosis	4
Rheumatism	2	Tonsillitis	1
Septic Finger	1	Transverse	2
Syphilis	4	Umbilical Hernia	2
Stomatitis	1	Varicose Veins	57
Scabies	2	Vaginal Discharge	4
Sleepy Sickness	1	Vulvitis	1
Sleeplessness	2	Not Pregnant	23.

It is not enough to diagnose these cases at our ante-natal clinics, the question is, what happened to them ? One cannot possibly deal here with all of them. Take the 111 cases which were sent to hospital : then after hospital, take the results of the " following-up " at the homes of these women by our Health Visitors.

Here is a skeleton synopsis or summary :—

Results regarding 111 Cases sent to Hospital from the Municipal Ante-Natal Centres.

1934.

Number of cases sent to hospital	111
Number of cases advised to go to hospital, but refused	5

Analysis of results of 111 cases, which received hospital treatment :—

(*a*) *Albuminuria*—33 cases.

26 had living children and made good recovery
3 had stillbirths " " " "
1 had live birth, mother died.
1 could not be traced after leaving hospital
1 still receiving treatment
1 not pregnant

(*b*) *Ante-partum Haemorrhage*—5 cases.

All had living children and made good recovery

(*c*) *Syphilis*—2 cases (Out-patient treatment)

1 had live child and made good recovery
1 had stillbirth, mother died

(*d*) *Malpresentation*—8 cases.

7 had living children and made good recovery
1 had stillbirth

(*e*) *Leucorrhoea*—1 case (Out-patient treatment)

Had live child and made good recovery

(*f*) *Breech*—11 cases.

8 had living children and made good recovery
3 had stillbirths

(*g*) *Threatened Abortion*—1 case.
Had living child and made good recovery

(*h*) *Hydramnios*—5 cases.
2 had living children and made good recovery
2 had stillbirths
1 had twins (1 alive, 1 stillborn)

(*i*) *Twin Pregnancy*—4 cases.
Had living children and made good recovery

(*j*) *Bad Obstetrical History*—8 cases.
Had living children and made good recovery

(*k*) *Phthisis*—2 cases.
Still receiving treatment, children alive

(*l*) *Vaginal Discharge*—6 cases (Out-patient treatment).
5 normal confinements, children alive
1 stillbirth

(*m*) *Contracted Pelvis*—6 cases.
5 had living children and made good recovery (1 caesarean section)
1 stillbirth

(*n*) *Goitre*—2 cases (Out-patient treatment).
Normal confinements, children alive

(*o*) *Debility and Anaemia*—2 cases.
Had living children and made good recovery

(*p*) *Nephritis*—4 cases.
Had living children and made good recovery

(*q*) *Eczema*—1 case.
Had living child and made good recovery

(*r*) *Conjunctivitis*—1 case.
Stillbirth

(*s*) *Acute Abdomen*—2 cases.
1 had living child and made good recovery
1 stillbirth

(*t*) *Hyperpiesia*—2 cases.
1 had living child and made good recovery
1 no trace

(*u*) *Septic Teeth*—3 cases.
Had living children and made good recovery

(*v*) *Placenta Praevia*—1 case.
Stillbirth

(*w*) *Dead Foetus*—1 case.
Stillbirth

Analysis of results of 5 cases which refused to accept hospital treatment :—

(*a*) *Albuminuria*—2 cases.
Had living children and made good recovery

(*b*) *Breech*—3 cases.
2 had living children and made good recovery
1 stillbirth

It may be suggested that there is no need for the Medical Officer, in the introductory letter to an Annual Report, to give such details respecting ante-natal work. I think it is of the first moment that particulars of the kind should be given, in order that there may be a clear understanding concerning this most important subject. Some of these ailments named will convey to readers an idea of the nature of the ailments which pregnant women suffer from, and this will lead to greater public interest and so make it the recognised rule that every pregnant woman will have full ante-natal examination and treatment.

Another important matter is that of co-ordination with the Maternity Hospitals. We are glad to be of any assistance. From time to time we receive word from the Maternity Hospital that a woman has failed to return or has left the hospital against medical advice. We are glad to follow up such cases and by the exercise of patience and persuasion, endeavour to get the expectant mother to do what the hospital doctor advises.

What are the diseases which carried off the 57 mothers in (or arising out of) childbirth ? Before giving the causes, take the figures giving the percentage causes of death from the second series of figures published in the Final Report of the Departmental Committee on Maternal Mortality and Morbidity. The figures deal with 1,111 maternal deaths : the percentages were :—

Deaths directly due to Childbearing.

		Per Cent.
(1)	Sepsis	36.3
(2)	Eclampsia	10.6
(3)	Operative Shock, etc.	10.4
(4)	Ante Partum Haemorrhage	8.1
(5)	Post Partum Haemorrhage	6.7
(6)	Other toxaemias, including Chorea and Mania	5.8
(7)	Embolism	6.8
(8)	Abortion	13.4
(9)	Extra-uterine Gestation	1.8

Our maternal deaths numbered 57—(too small to yield percentage figures of any value.) The causes were Puerperal Sepsis, 12 ; Puerperal Haemorrhage, 23 ; Abortion, 4 ; Eclamsia, 3 ; Embolism, 1 ; Other accidents of childbirth, 5 ; Shock, 3 ; Toxaemia, 5 ; Thrombosis, 1.

Of the 57 mothers who died, 48 had received ante-natal attention.

I feel sure that the Committee and the Council will give every support to the development of Maternity and Child Welfare work. There is nothing so sad as a home deprived of its young mother and nothing so distressing as a woman condemned to go through life constantly suffering from the effects of some obstetrical mischance. To quote Professor Currie :—" Mothers who die in the act of child bearing are taken away in the prime of their usefulness and activity. Their passing leaves the home desolate and deprives the family of care and nurture. Of those who survive the complications and sequelae of an untoward labour many are never restored to full health."

Housing.

Some very fine work has been carried out in the erection of modern semi-detached dwelling houses. While these with their gardens and unenclosed yards, are a great improvement on the kitchen and parlour type of house built closely together, nevertheless in view of the small number to the acre and the increased cost of construction, the rents, as compared with the older type of house, with similar accommodation, but without gardens, are higher. They are, however, greatly appreciated by those whose position in life permits them to change from the old to the new ; furthermore, the improved conditions are bound to have

a beneficial effect on their health. Unfortunately, the population of a City like Belfast is not made up solely of this class ; if it were the case, Belfast would be in a very enviable position. We are bound, therefore, to look to the needs of those whose earning capacity does not envisage the occupancy of a semi-detached type of dwelling house. The population of a city is composed of citizens whose wage earnings vary and whose responsibilities also vary ; for example, two families may have an equal income, one family may consist of man and wife, the other of man and wife with three or four children. Hence there is a need for houses at varying rents, and houses at economic rents for those in very poor circumstances.

The accommodation for the last mentioned class of the population is of the utmost importance to the entire community, as their well-being, from a public health point of view, reacts on the whole population. If they are permitted to live in overcrowded apartments, or worn-out houses, not only is their health actually or potentially injuriously affected, but the injury ultimately extends to the whole community. Sickness and disease keep the hospitals filled, and the cost of upkeep falls on the public.

While Belfast housing will compare favourably with most cities, there is no reason why it should not become an example for others to emulate.

Houses are like most manufactured articles in that they do not last for ever. During the first period of their existence, no repairs are required, but like other articles, there comes a time when " darning " is necessary ; during this period a little repair is required here and a little there, thus the house is kept in good order. A day comes, however, when darning is useless, when a general reconditioning is necessary, in order to give the house a new lease of life.

Houses, like everything else, eventually become worn out, even their design speaks of the old days before us ; repairs from now on are unsatisfactory and uneconomic, and they have now reached that stage in life when demolition, replanning and rebuilding are necessary.

There is a large number of houses in the city, which have reached this stage ; reconditioning is uneconomical, and this would only be perpetuating the obsolete type of dwelling house and retaining congestion on space.

These worn out houses, without back passages, of an obsolete design, and situated in cobble-paved streets, should be dealt with under the Housing Acts, and the streets replanned, while suitable houses of a modern type should be provided.

The removal of such areas under these Acts can only be carried out by first providing suitable accommodation for those to be displaced.

None of the houses recently built can be let at rents comparable to the rents paid by the occupants of these particular houses, which vary from 2/6 to 6/- weekly ; it is necessary, therefore, to provide a house, the rent of which is within the means of the tenants about to be displaced. Failing this, the tenants would be forced to overcrowd the new houses, thus producing conditions perhaps worse than at present.

The type of house necessary to replace the present worn out house would be :—Ground floor—a large kitchen—scullery, with sink—enclosed yard, with a water closet and dustbin. First floor—two or three bedrooms. If this can be provided to let at about 6/- per week, it would prove a great benefit to those at present occupying worn out houses, and it would permit of the demolition of several areas throughout the city. Until this is done, I fear that much of my housing work is in vain.

During the year 1934, plans were approved for the erection of 2,323 kitchen type of subsidy houses, and 142 of the parlour type. Plans were also approved

for the erection of 98 kitchen type and 256 parlour type of non-subsidy houses. The rents of the subsidy houses are from 7/- to 9/- per week, exclusive of rates, which would be an addition of about 2/- weekly.

These figures show that an effort is being made by private enterprise to provide better houses for the working classes, although the rents are still out of proportion to the earning capacity of many.

During the year, representations were made under the Housing Acts, in 45 isolated cases, of houses which were unfit for human habitation. Demolition orders were made on 29 houses and closing orders on 6 houses.

In the course of routine inspection during the year, 16,358 houses were examined: 715 of these were found to be occupied by two or more families; these figures show 4.4 per cent. overcrowding of families in houses, and, of course, the necessity for more houses of the cheap kitchen type.

One may sum up the housing question by saying that many fine houses have been built by private enterprise, but there is a serious problem to be faced, viz., the provision of houses at a rental of about six shillings for the many tenants of houses already condemned, or requiring immediate condemnation. Until these houses are provided, we shall continue to have an open sore in the body politic: the condemnation of houses at meetings of the Public Health Committee will end in the people remaining in the same sordid surroundings; this is what is happening now.

I quote here, in conclusion, an excerpt from Professor Currie's book of interest to all:—"A recent official enquiry in Scotland showed that most tenants in the re-housing schemes were keeping their houses clean and in good order, and had obviously tried to raise themselves to the level of their improved surroundings. Twelve per cent. were described as really bad tenants. The sub-letting of rooms in the provided houses, although forbidden by most local authorities, occurs and calls for repression."

The Public Milk Supply.

The Milk and Milk Products Act (Northern Ireland), 1934, came into force in December, 1934. Briefly, the Act allows the sale of designated milks only:— Grade A. from cows which have passed the double intradermal tuberculin test, the milk not to contain more than 100,000 bacteria per cubic centimetre and no bacillus coli in one-hundredth part of a cubic centimetre. Grade B. from cows showing no clinical symptoms of tuberculosis and being clean and healthy: the milk not to contain more than 300,000 bacteria per cubic centimetre, and no bacillus coli in one-hundredth part of a cubic centimetre. Grade C. from cows as in Grade B.: the milk when submitted to the Methylene Blue Reductase Test in a manner approved by the Ministry, shall not be reduced in less than four hours. Grade D. milk, which is not included in any of the aforesaid grades.

Further, the description "Pasteurised" may be applied to milk of Grade B. or Grade C., which has been pasteurised in accordance with conditions laid down by the Ministry of Agriculture. The Act deals with Producers' and Distributors' Licenses, the Joint Milk Council and Fixing of Milk Prices, the sale of milk in bottles, etc.

If this Act will be the means of eliminating tubercle bacilli from milk, then it will be a good thing. Medical opinion on milk may be grasped if we accept, as I certainly do, the following taken from a leading article in the British Medical Journal, April 27th, 1935:—

"Educated medical opinion in this country and the United States of America is convinced of the desirability of pasteurising all liquid milk intended for human consumption. The aim of pasteurisation is to render milk safe by destroying all pathogenic organisms that may be present. Both laboratory and plant

studies have rendered it evident that exposure of the milk to a temperature of 145°F., or even slightly less, for half an hour, can be relied upon to bring about this destruction."

There can be no doubt that the new Milk Act will focus attention upon greater cleanliness of the milk supply. The Belfast Public Health Department has been fighting a battle to procure cleaner milk for the citizens. Public opinion must be awakened to the great need there is for consuming pasteurised milk. No milk is safe unless it has been pasteurised. No clinical inspection of cattle and no tuberculin tests, though both are valuable, can eliminate the possibility of the presence of tubercle bacilli in the milk. Pasteurisation is the great safeguard, and this fact must be impressed on the public mind.

Of great importance is the question as to whether the coming of this Act has caused poor people to buy less milk.

Measures taken to produce a purer milk cost money. The following Table gives the prices in operation before and after the Milk and Milk Products Act.

Prices in Operation prior to Milk and Milk Products Act.
Retail—House to House.

	Summer.	Winter.
Grade A. (T.T.)	2½d.	3d.
Pasteurised	2d.	2½d.
Ordinary Milk	2d.	2½d.

Prices in Operation subsequent to Milk and Milk Products Act.
Retail—House to House.

	Summer.	Winter.
Grade A.	2¾d.	3¾d.
Grade B.	2½d.	3d.
Grade C.	2¼d.	2¾d.

To solve the question as to what effect, if any, the coming of the Act would have on the purchasing capacity of the poorer classes, I arranged for an enquiry to be made in six hundred and sixty four families both before and after the Act came into force. The Health Visitors were instructed to enquire and did so enquire in families generally of the poorer labouring classes, earning from, say, 25 shillings a week to £2 or £2 8 0 per week. Of the 664 families, 445 or 67 per cent. bought the same amount of milk at the increased price. In the case of 219 families or 33 per cent. there was some change, e.g. 124 or 18 per cent. of the total bought less, say one pint instead of two: 24 families went off "wet" milk on to condensed milk, but thirteen families gave up condensed milk for "wet" milk. Fifty-two families, i.e. 7 per cent. bought more milk than before the Act. An interesting fact brought out was that twenty-six families consumed condensed milk both before and after the Act, while fifty-two families took both condensed milk and ordinary milk both before and after the Act.

General Remarks.

In concluding these few remarks on subjects I have thought it necessary to make special comment upon, I would ask the reader to peruse carefully the pages which follow. These give the present position of Public Health, and the

intentions towards the same in so far as the City of Belfast is concerned. There are grounds for optimism as regards the general outlook. There are things which are required, and of these perhaps, the most noteworthy is the extension of Purdysburn Fever Hospital. The number of beds in this fine institution is not enough for the present day size of the City. The reports of my colleagues will be found within.

The notification of Pulmonary Tuberculosis before the sputum is positive still lags behind; early Tuberculosis is notifiable in other parts of the United Kingdom, and it ought to be so with us. Provision should be made in suitable day schools for children suffering from early Tuberculosis.

I cannot close without expressing my gratitude to the staff for their loyalty and hard work during the past year. I have to thank the Town Clerk and his lieutenants for their kind help and co-operation. The Town Solicitor and his staff have given us wise advice which we gratefully acknowledge. The City Surveyor's Department as hitherto, has worked in cordial co-operation with ours. It but remains to thank the Public Health Committee, and through them, the Council, for their kind support and their confidence in us. Two gentlemen are nearest to me in my work, and for both of them I have great personal affection and professional respect: these are the High Sheriff, Alderman Dr. Williamson, M.D., D.L., J.P., Chairman of the Public Health Committee, and Dr. Barron, Assistant Medical Superintendent Officer of Health. That the former may be spared to us for many years to come is the devout wish of the Department. Of Dr. Barron, it can truly be said that he is kindly, unpretentious, of great ability, and constant in doing good.

I have the honour to remain,

My Lord Mayor, Aldermen and Councillors,

Your obedient servant,

CHARLES S. THOMSON,
Medical Superintendent Officer of Health.

BIRTHS.

9,086 births were registered during the year, equivalent to a birth rate of 21.9 per 1,000 of the population. This is an increase of 1.2 per 1,000, compared with the preceding year, when the number registered was 8,599 and the rate 20.7.

The average number registered annually during the ten years, 1925-1934, was 9,395, and the average annual birth rate 22.5

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	2,387	26.3	23.0
Second Quarter	2,466	27.1	23.8
Third Quarter	2,175	23.9	21.0
Fourth Quarter	2,058	22.7	19.8

DEATHS.

5,676 deaths were registered from all causes during the year, equivalent to a death rate of 13.7 per 1,000 of the population, a decrease of 1.5 per 1,000 compared with the preceding year, when the number registered was 6,318 and the rate 15.2.

The average number registered annually during the ten years 1925-1934 was 5,954 and the average annual death rate 14.2.

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	1,605	28.3	15.5
Second Quarter	1,511	26.6	14.6
Third Quarter	1,145	20.2	11.0
Fourth Quarter	1,415	24.9	13.6

TABLE I.

Shewing the number of deaths, the percentage of the total number registered, and the death rates per 1,000 of the population at various age periods compared with the year 1933.

	1934			1933		
	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	722	12.9	1.7	880	13.9	2.1
1 year and under 5 years	241	4.3	0.6	453	7.2	1.1
5 years and under 25 years	464	8.3	1.1	496	7.8	1.2
25 years and under 45 years	750	13.4	1.8	784	12.4	1.9
45 years and under 65 years	1,479	26.5	3.6	1,634	25.9	3.9
65 years and upwards	1,932	34.6	4.7	2,071	32.8	5.0

TABLE II.

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.	1934			1933		
	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
Typhoid Fever	—	—	—	2	0.03	0.005
Typhus Fever	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—
Measles	11	0.20	0.03	78	1.23	0.19
Scarlet Fever	11	0.20	0.03	11	0.17	0.03
Whooping Cough	36	0.64	0.09	33	0.52	0.08
Diphtheria	43	0.77	0.10	47	0.74	0.11
Dysentry	—	—	—	—	—	—
Influenza	75	1.34	0.18	222	3.51	0.53
Diarrhoea—						
Under 2 years of age	102	1.83	0.25	165	2.61	0.40
Tuberculous Diseases—						
Phthisis	398	7.12	0.96	429	6.79	1.03
Other forms	143	2.56	0.34	171	2.71	0.41
Total Tuberculous Diseases	541	9.68	1.30	600	9.50	1.44
Diseases of the Respiratory System—						
Pneumonia	434	7.77	1.05	583	9.23	1.40
Other	421	7.53	1.01	605	9.58	1.46
Total Dis. Resp. System	855	15.30	2.06	1,188	18.81	2.86
Total Chest Affections	1,253	22.42	3.02	1,617	25.60	3.90
Cancer	513	9.18	1.24	493	7.80	1.19
Violence	159	2.85	0.38	155	2.45	0.37

The number of deaths as shown in tables I. II. and IV. is obtained by summarising the Registrars' Weekly Returns which are only partially corrected for residence.

TABLE III.

Shewing the annual death rate per 1,000 of the population from all causes during the twenty years 1915/1934 ; also the average rate for quinquennial periods.

Year.	Rate.		Year.	Rate.	
1915	17.9		1925	14.0	
1916	16.7	18.4	1926	15.4	
1917	16.7		1927	13.6	14.5
1918	22.7		1928	14.0	
1919	17.9		1929	15.6	
1920	17.5		1930	12.9	
1921	14.4	15.0	1931	14.1	
1922	14.8		1932	13.9	14.0
1923	13.8		1933	15.2	
1924	14.3		1934	13.7	

TABLE IV.

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. 1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	DEATHS Under 1 Year
No 1	116	109	113	86	45
,, 2	275	277	247	203	75
,, 3	275	286	237	238	84
,, 4	212	205	196	184	56
,, 5	101	128	107	75	36
,, 6	150	112	117	113	39
,, 7	28	34	20	18	4
,, 8	39	51	45	44	11
,, 9	217	207	215	180	73
,, 10	173	190	169	147	66
,, 11	199	214	212	178	39
,, 12	160	207	151	132	78
,, 13	129	118	97	124	26
,, 14	1	1	1	—	—
,, 15	178	152	147	143	50
,, 16	144	135	100	129	40
Total	2,397	2,426	2,174	1,994	722

TABLE V.

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 fifty-four years 1881-1934.

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
1929	....	415,151	8,899	21.4	6,462	15.6	2,437
1930	....	415,151	9,558	22.7	5,451	12.9	4,107
1931	....	415,151	9,470	22.8	5,857	14.1	3,613
1932	....	415,151	8,882	21.4	5,783	13.9	3,099
1933	....	415,151	8,599	20.7	6,318	15.2	2,281
1934	....	415,151	9,086	21.9	5,676	13.7	3,410

TABLE VI.

Comparative Table of Births and Deaths in each of the 52 weeks.

Week Ending

BELFAST	Jan. 6	Jan. 13	Jan. 20	Jan. 27	Feb. 3	Feb. 10	Feb. 17	Feb. 24	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	201	188	185	182	197	189	171	222	177	194	187	193	159
Number of Deaths	111	97	139	120	123	132	121	116	133	131	125	135	105
Annual Death-rate per 1,000	13.9	12.2	17.5	15.1	15.4	16.6	15.2	14.3	16.7	16.5	15.7	17.0	13.4
Ages: Under 1 year	15	9	22	20	22	24	19	13	18	23	19	14	13
Ages: 1—5 years	3	5	4	6	2	3	2	7	9	7	6	6	3
Ages: 5—25 „	13	5	6	11	10	10	7	10	9	9	8	12	11
Ages: 25—45 „	15	10	24	12	17	20	25	13	18	20	18	18	19
Ages: 45—65 „	31	31	42	31	27	44	30	29	34	21	36	47	39
Ages: 65 and upwards	34	37	41	34	45	41	43	40	45	51	40	40	22
Deaths from:— Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	1
Scarlet Fever	—	1	—	—	—	1	1	—	—	1	—	—	—
Whooping-cough	—	1	2	—	1	—	—	3	2	2	3	1	—
Diphtheria	2	—	—	—	2	—	—	6	3	2	2	2	1
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza	3	—	3	1	1	1	—	2	1	2	3	4	2
Tuberculosis: Pulmonary	5	5	11	8	9	8	6	21	11	10	11	12	5
Tuberculosis: Other Forms	—	3	9	5	2	5	2	4	2	3	3	3	5
Cancer	10	7	6	6	8	8	10	6	13	13	9	6	8
Diseases of Respiratory System: Pneumonia	11	8	19	20	11	3	7	10	15	16	16	15	10
Diseases of Respiratory System: Others	7	16	17	9	16	14	9	13	12	10	11	9	11
Diarrhoea and Enteritis under 2 years	2	1	3	2	3	—	1	1	2	1	—	—	—
Violent Deaths	4	3	4	3	4	7	4	3	2	1	3	2	1
Number of Uncertified Deaths	3	5	5	4	3	3	4	3	4	5	3	5	3

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	191	207	159	170	180	172	201	215	201	182	178	166	135
Number of Deaths	101	141	115	112	120	122	100	128	133	113	117	103	93
Annual Death-rate per 1,000	12.7	17.7	14.6	14.1	14.9	15.3	12.6	16.1	16.7	14.2	14.7	13.2	11.7
Ages: Under 1 year	9	16	12	10	12	11	9	16	21	9	19	11	15
Ages: 1—5 years	2	11	1	7	3	7	5	5	8	6	7	4	3
Ages: 5—25 „	6	17	9	6	8	12	7	14	15	11	16	12	7
Ages: 25—45 „	16	15	18	10	21	10	12	19	15	14	10	17	9
Ages: 45—65 „	27	28	32	30	23	37	32	33	32	32	29	25	25
Ages: 65 and upwards	41	56	43	49	45	50	35	40	47	41	36	36	30
Deaths from:— Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	1	—	—	—	1	—	1	—				
Whooping-cough	1	2	—	2	2	—	1	1	1	1	2	1	1
Diphtheria	1	2	—	—	—	1	—	1	1	—	2	1	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza	—	—	2	4	2	1	4	5	5	5	4	2	—
Tuberculosis: Pulmonary	14	15	8	5	10	10	4	12	6	6	8	9	5
Tuberculosis: Other Forms	1	9	4	3	4	6	2	3	—	—	2	3	2
Cancer	8	7	6	10	7	15	11	10	12	10	9	14	8
Diseases of Respiratory System: Pneumonia	10	17	8	6	8	13	7	13	15	11	8	6	3
Diseases of Respiratory System: Others	12	7	10	8	5	16	9	9	27	8	10	6	7
Diarrhoea and Enteritis under 2 years	—	6	1	—	2	—	—	4	—	1	2	3	3
Violent Deaths	2	6	4	4	6	3	1	—	3	3	5	4	3
Number of Uncertified Deaths	—	—	1	2	2	6	1	1	3	2	1	6	1

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	184	177	210	188	146	183	175	174	150	156	180	166	155
Number of Deaths	83	92	94	93	92	72	87	93	85	95	81	78	92
Annual Death-rate per 1,000	10.4	11.6	11.8	11.7	11.6	9.0	10.9	11.4	10.7	11.9	10.2	9.8	11.6
Ages: Under 1 year	16	13	7	14	12	10	15	8	12	12	10	16	19
Ages: 1—5 years		3	8	2	3		4	7	3	3	4	1	8
Ages: 5—25 „	9	9	6	6	11	10	5	15	11	6	6	8	7
Ages: 25—45 „	10	12	14	14	13	11	9	11	12	12	10	19	11
Ages: 45—65 „	21	19	26	26	23	12	28	20	21	27	15	30	29
Ages: 65 and upwards	29	34	31	31	30	29	26	35	26	33	36	23	27
Deaths from:— Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-cough	1	—	—	2	—	—	—	—	1	—	1	—	—
Diphtheria	—	2	—	—	1	—	2	—	—	3	—	—	2
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza	2	2	2	2	1	—	—	—	—	—	—	—	—
Tuberculosis: Pulmonary	6	9	8	9	7	6	11	6	3	3	1	11	5
Tuberculosis: Other Forms	4	1	2	2	2	6	—	2	3	1	2	1	1
Cancer	6	12	14	13	11	11	14	10	8	12	7	10	3
Diseases of Respiratory System: Pneumonia	2	6	3	6	4	5	3	6	7	6	2	3	6
Diseases of Respiratory System: Others	2	1	6	3	5	2	5	7	6	6	4	1	8
Diarrhoea and Enteritis under 2 years	—	1	2	1	2	4	2	2	2	—	6	5	6
Violent Deaths	2	3	2	3	6	3	2	6	6	2	4	2	1
Number of Uncertified Deaths	2	1	1	3	1	4	2	6	1	4	—	2	5

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	144	143	160	163	158	160	158	154	152	146	172	154	160
Number of Deaths	90	86	105	108	77	109	113	106	111	111	115	126	115
Annual Death-rate per 1,000	11.3	10.8	13.2	13.6	9.7	13.7	14.2	13.3	13.9	13.9	14.4	15.8	14.4
Ages: Under 1 year	14	16	17	16	11	18	9	8	15	8	16	18	19
Ages: 1—5 years	3	4	2	7	2	6	6	4	4	9	6	4	8
Ages: 5—25 „	4	6	6	9	3	7	8	7	3	6	3	9	11
Ages: 25—45 „	11	15	11	16	11	14	18	12	19	14	19	15	14
Ages: 45—65 „	24	21	24	20	27	30	29	34	27	33	19	23	29
Ages: 65 and upwards	34	37	31	37	23	33	49	37	37	41	44	55	34
Deaths from:— Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	1	—	1	1	2	1	3
Scarlet Fever	—	—	—	1	—	—	—	—	—	1	1	—	5
Whooping-cough	—	1	—	—	—	—	—	—	—	—	—	2	1
Diphtheria	1	1	—	—	2	2	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza	1	1	—	2	—	—	1	1	—	1	—	—	—
Tuberculosis: Pulmonary	3	5	5	4	4	4	4	6	11	2	8	8	10
Tuberculosis: Other Forms	—	2	1	2	1	5	4	4	3	7	1	—	3
Cancer	10	6	11	15	10	12	20	13	6	10	4	13	14
Diseases of Respiratory System: Pneumonia	6	8	6	7	3	2	11	11	7	10	7	7	17
Diseases of Respiratory System: Others	3	3	3	7	6	6	2	9	12	14	8	10	6
Diarrhoea and Enteritis under 2 years	6	2	4	7	2	3	1	2	2	1	1	6	1
Violent Deaths	2	2	4	3	1	1	3	3	2	3	1	2	1
Number of Uncertified Deaths	3	3	5	3	3	2	3	3	1	1	3	3	1

TABLE VII.

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. INFECTIOUS AND PARASITIC DISEASES.																									
1. Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Paratyhoid Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Measles	4	4	2	1	1	12	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	6	13
8. Scarlet Fever	—	1	—	—	1	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3
9. Whooping-cough	24	15	3	1	—	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	15	43
10. Diphtheria	—	1	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	4
11. Influenza	2	—	—	—	—	2	—	—	3	4	2	2	5	3	4	3	8	8	11	9	2	4	—	29	41	70
12. Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Dysentry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Erysipelas	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	1	3	4	7
16. Acute Poliomyelitis	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
17. Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	1	1	2	1	—	—	—	—	4	4	8
18. Cerebro-spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. Glanders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Tetanus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
23. Tuberculosis of the respiratory system	1	2	—	—	1	4	2	7	36	70	60	60	36	40	29	23	20	11	9	3	2	—	—	201	211	412
24. Tuberculosis of the central nervous system	8	7	4	11	2	32	6	3	8	3	2	1	1	—	—	1	—	—	—	—	—	—	—	29	28	57
25. Tuberculosis of intestines and peritoneum	1	—	1	2	—	4	2	2	—	4	2	2	2	1	—	1	1	—	1	—	—	—	—	8	14	22
26. Tuberculosis of vertebral column	—	—	—	—	—	—	—	1	1	—	1	1	1	—	1	—	—	—	—	—	—	—	—	4	2	6
27. Tuberculosis of other bones and joints	—	1	—	—	—	1	—	—	1	1	—	—	1	—	—	1	—	—	—	1	—	—	—	3	3	6
28. Tuberculosis of skin and sub-cutaneous tissues	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	—	3	3
29. Tuberculosis of lymphatic system (abdominal and bronchial glands excepted)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE VII. (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.
30. Tuberculosis of genito-urinary system	...	...	...	...	...	...	...	...	...	2	1	...	...	1	...	1	1	...	...	...	...	...	...	...	3	3	6
31. Tuberculosis of other organs	...	...	...	1	...	1	...	...	2	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2	4	6
32. Disseminated tuberculosis	2	...	...	...	...	2	2	...	2	1	2	1	...	1	...	1	...	...	...	...	...	...	...	...	8	4	12
33. Leprosy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34. Syphilis	6	...	...	...	...	6	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4	4	8
35. Other venereal diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36. Purulent infection, Septicaemia	1	...	...	...	2	3	1	2	...	...	2	...	...	1	2	...	...	1	1	1	...	1	...	...	12	3	15
37. Yellow fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38. Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39. Other diseases due to protozoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40. Ankylostomiasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41. Hydatid cysts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42. Other diseases due to helminths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43. Mycoses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
44. Other infectious or parasitic diseases	1	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Totals of Infectious and Parasitic Diseases	53	32	10	16	7	118	17	17	53	86	73	68	48	48	36	33	32	22	24	14	6	8	1	...	349	355	704
11. CANCER AND OTHER TUMOURS.																											
45. Cancer of the buccal cavity and pharynx	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	2	5	8	6	5	3	1	1	...	26	8	34
46. Cancer of the digestive organs and peritoneum	...	...	...	...	...	...	...	...	...	...	2	3	3	14	19	26	40	55	39	44	26	9	1	...	141	131	272
47. Cancer of the respiratory organs	...	...	...	...	...	...	...	...	...	1	...	...	1	3	2	3	...	2	4	3	...	...	...	...	14	5	19
48. Cancer of the uterus	...	...	...	...	...	...	...	...	...	...	...	1	4	7	4	6	7	15	4	2	3	...	...	...	...	53	53
49. Cancer of other female genital organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	1	2	1	2	1	...	...	...	...	13	13
50. Cancer of the breast	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4	8	8	4	4	2	2	...	1	...	...	37	37
51. Cancer of the male genito-urinary organs	...	...	2	...	...	2	...	...	...	...	...	1	...	1	2	1	3	5	5	1	...	...	1	...	22	...	22
52. Cancer of the skin	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	3	4	2	4	1	1	1	...	9	10	19
53. Cancer of other or unspecified organs	1	1	...	...	1	3	...	3	2	1	1	3	3	7	2	2	7	6	6	5	2	...	2	...	24	31	55
54. Non-malignant tumours	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	1	2	3
55. Tumours of undetermined nature	...	1	...	...	...	1	1	...	...	...	...	2	1	1	1	5	3	2	...	1	1	...	...	...	12	7	19
Totals of Cancer and other Tumours	1	2	2	...	1	6	1	3	3	2	5	10	14	36	28	58	79	103	71	70	39	11	7	...	249	297	546

TABLE VII (Continued)

CAUSES OF DEATH	AGE. 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.	SEX. Males.	Females.	TOTAL.
III. RHEUMATISM, DISEASES OF NUTRITION AND OF ENDOCRINE GLANDS AND OTHER GENERAL DISEASES.																											
56. Rheumatic fever	—	1	—	—	—	1	5	10	2	5	3	1	4	4	1	1	2	3	—	—	—	1	—	—	20	23	43
57. Chronic rheumatism, Osteoarthritis	—	—	—	—	—	—	—	—	—	1	—	—	1	—	2	1	1	1	4	3	4	—	1	—	2	17	19
58. Gout	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
59. Diabetes	—	—	—	—	—	—	1	—	—	3	—	1	2	3	1	3	2	5	7	7	2	2	—	—	19	20	39
60. Scurvy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
61. Beri-beri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
62. Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
63. Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
64. Osteomalacia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
65. Diseases of the pituitary gland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
66. Diseases of the thyroid and parathyroid glands	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	1	—	2	—	—	—	—	2	4	6
67. Diseases of the thymus	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
68. Diseases of the adrenals	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	1	—	—	—	—	—	—	2	2
69. Other general diseases	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Totals of Rheumatism, etc.	2	1	—	—	—	3	6	10	2	9	3	2	9	7	4	6	7	10	12	12	6	3	1	—	46	66	112
IV. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.																											
70. Haemorrhagic conditions	1	—	—	—	—	1	—	—	—	2	—	2	—	—	—	1	—	—	—	—	—	—	—	—	2	4	6
71. Anaemia, Chlorosis	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	2	6	5	6	1	—	—	—	6	17	23
72. Leukaemia, Aleukaemia	—	—	—	1	1	2	—	2	1	1	1	1	2	2	—	—	—	—	1	—	—	—	—	—	10	3	13
73. Diseases of the spleen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	1
74. Other diseases of the blood and blood-forming organs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals of Diseases of the Blood, etc.	1	—	—	1	1	3	—	2	1	3	1	3	3	3	—	2	2	7	6	6	1	—	—	—	19	24	43
V. CHRONIC POISONING.																											
75. Alcoholism (acute or chronic)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	1
76. Chronic poisoning by other organic substances	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
77. Chronic poisoning by mineral substances	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals of Chronic Poisoning	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	1
VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.																											
78. Encephalitis	1	—	—	—	—	1	—	1	1	1	1	1	—	—	1	2	1	1	—	—	—	—	—	1	8	4	12
79. Meningitis	4	8	—	1	1	14	6	1	1	1	—	1	—	1	—	—	1	1	—	—	—	—	—	—	14	13	27
80. Tabes dorsalis (Locomotor ataxy)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	1	—	—	—	—	—	—	—	5	1	6
81. Other diseases of the spinal cord	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1	—	—	—	1	1	—	—	4	1	5
82. Cerebral haemorrhage, apoplexy, etc.	17	—	—	—	—	17	—	—	2	1	1	5	3	9	12	24	41	51	75	79	51	24	11	—	177	229	406

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.
83. General paralysis of the insane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
84. Other forms of insanity ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2
85. Epilepsy	...	...	...	...	...	...	...	1	1	1	1	2	2	...	1	...	1	...	1	...	...	...	...	...	5	6	11
86. Infantile convulsions (under 5 years of age) ...	33	8	3	2	...	46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	16	46
87. Other diseases of the nervous system	...	...	...	...	...	...	...	...	1	...	...	3	1	1	...	2	3	2	5	2	3	1	1	...	14	11	25
88. Diseases of the eye and annexa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89. Diseases of the ear and of the mastoid sinus	1	1	...	1	...	3	2	...	1	1	2	...	...	1	...	2	...	...	...	...	...	...	...	...	7	5	12
Totals of Nervous System, etc. ...	56	17	3	4	1	81	8	3	8	5	5	13	6	12	18	34	49	55	81	81	55	26	12	1	265	288	553
VII. DISEASES OF THE CIRCULATORY SYSTEM.																											
90. Pericarditis	1	...	...	...	...	1	...	1	...	...	1	...	...	...	1	1	...	...	...	1	...	...	...	...	2	4	6
91. Acute endocarditis	...	...	...	...	...	...	2	1	4	1	...	1	2	...	1	...	...	...	...	1	1	...	...	...	3	11	14
92. Chronic endocarditis, Valvular disease	...	...	...	1	...	1	6	10	11	6	6	7	8	13	11	17	13	21	23	17	10	4	1	...	86	99	185
93. Diseases of the myocardium ...	...	...	...	...	...	...	...	2	1	...	...	4	4	8	12	23	59	60	91	85	47	28	11	...	213	222	435
94. Diseases of the coronary arteries, Angina pectoris	...	...	...	...	...	...	...	...	...	...	...	...	2	5	8	11	7	9	16	6	7	5	2	...	53	25	78
95. Other diseases of the heart ...	...	...	...	...	...	...	1	...	...	4	3	3	4	4	5	13	18	22	24	16	11	6	3	...	68	69	137
96. Aneurysm	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	2	1	2	2	1	1	...	...	...	12	2	14
97. Arterio-sclerosis	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	5	8	12	17	16	16	5	...	...	47	35	82
98. Gangrene	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	3	...	2	...	...	5	4	9
99. Other diseases of the arteries ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	1	2
100. Diseases of the veins (varix, haemorrhoids, phlebitis, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	2	...	...	...	...	1	5	6
101. Diseases of the lymphatic system (lymphangitis, etc.)	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
102. Abnormalities of blood pressure ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	6	...	12	9	9	9	3	2	...	...	29	23	52
103. Other diseases of the circulatory system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	3	...	3
Totals of Circulatory System	1	...	...	1	...	2	9	14	16	12	10	15	22	34	48	74	124	139	183	157	96	52	17	...	523	501	1,024
VIII. DISEASES OF THE RESPIRATORY SYSTEM.																											
104. Diseases of the nasal fossae and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
105. Diseases of the larynx ...	...	...	...	1	...	1	...	...	...	...	1	...	2	—	...	...	...	...	...	...	...	...	...	...	2	2	4
106. Bronchitis	16	2	1	...	...	19	1	...	...	1	2	2	8	5	12	20	23	39	59	50	48	21	14	...	160	164	324
107. Broncho-pneumonia	82	22	10	4	1	119	3	...	2	1	1	2	2	9	4	3	7	10	7	8	10	2	1	...	108	83	191
108. Lobar pneumonia	9	4	1	1	...	15	2	1	1	7	6	5	5	4	8	10	4	10	11	4	...	...	2	...	71	24	95
109. Pneumonia (not otherwise defined)	8	3	1	1	...	13	1	...	4	1	3	5	4	5	8	6	9	9	11	7	2	2	3	...	49	44	93
110. Pleurisy	2	...	...	...	...	2	1	...	...	2	1	3	2	...	2	1	3	1	3	1	...	...	...	...	17	7	24

TABLE VII. (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.
111. Congestion and haemorrhagic infarct of lung, etc.	6	3	1	...	1	11	...	1	1	...	2	1	...	...	...	2	4	4	4	9	4	2	...	...	19	26	45
112. Asthma	...	...	1	...	...	1	1	...	...	...	2	1	3	4	...	3	7	...	1	4	1	...	...	...	16	12	28
113. Pulmonary emphysema	...	1	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	4	...	4
114. Other diseases of the respiratory system	...	...	...	...	...	...	1	...	...	1	...	...	2	...	...	...	...	1	...	1	1	...	...	...	3	4	7
Totals of Respiratory System	123	35	15	7	2	182	10	2	8	13	18	19	28	29	35	45	57	74	96	84	66	27	20	...	449	364	813
IX. DISEASES OF THE DIGESTIVE SYSTEM.																											
115. Diseases of the buccal cavity, pharynx, etc.	1	...	...	...	...	1	...	...	1	...	1	...	...	2	2	1	...	...	...	...	...	...	...	...	4	4	8
116. Diseases of the oesophagus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
117. Ulcer of the stomach or duodenum	...	...	...	...	...	...	...	...	...	2	...	2	4	5	5	6	5	5	7	1	1	1	...	...	31	13	44
118. Other diseases of the stomach	8	...	...	...	...	8	1	...	...	...	...	...	2	2	...	1	1	1	4	1	1	1	1	...	13	11	24
119 and 120. Diarrhoea and enteritis	83	10	2	...	1	96	1	...	...	1	1	2	1	3	1	1	...	1	1	1	2	...	1	...	61	52	113
121. Appendicitis	1	...	1	1	1	4	1	1	4	2	3	2	6	1	1	3	3	4	2	...	...	...	...	...	25	12	37
122. Hernia, Intestinal obstruction	6	1	...	...	1	8	1	1	...	1	2	...	...	3	2	2	4	3	7	7	8	2	1	...	32	20	48
123. Other diseases of the intestines	2	...	...	...	...	2	...	...	...	...	...	...	...	...	1	1	...	...	1	1	...	...	...	...	1	5	6
124. Cirrhosis of the liver	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	3	5	2	1	1	...	...	...	...	12	3	15
125. Other diseases of the liver	4	...	...	...	...	4	...	1	...	...	...	1	1	...	1	1	...	...	1	1	1	...	...	...	8	4	12
126. Biliary calculi	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	3	2	...	...	1	...	...	2	6	8
127. Other diseases of the gall bladder and ducts	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	3	1	4	4	3	2	2	...	...	6	16	22
128. Diseases of the pancreas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	2	1	3
129. Peritonitis without stated cause	...	...	...	...	...	...	4	...	...	2	1	1	1	...	1	1	1	1	...	1	...	...	...	...	4	10	14
Totals of Digestive System	105	11	3	1	3	123	8	3	6	8	10	9	17	16	15	23	22	24	32	17	15	7	3	...	201	157	358
X. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.																											
130. Acute nephritis	1	...	...	1	1	3	...	...	...	1	1	1	3	...	1	1	1	2	1	2	...	...	...	...	6	11	17
131. Chronic nephritis	...	...	...	...	...	...	2	...	2	1	1	5	1	3	3	9	6	8	7	8	5	2	1	...	32	32	64
132. Nephritis not stated to be acute or chronic	...	...	...	...	...	...	...	...	...	2	1	2	1	5	4	8	3	9	4	5	1	1	1	...	26	21	47
133. Other diseases of the kidney and annexa	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	1	1	...	2	...	2	...	...	2	8	10
134. Calculi of the urinary passages	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
135. Diseases of the bladder	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	1	1	1	...	...	6	2	8

CAUSES OF DEATH.	AGE. 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.	SEX. Males.	Females.	TOTAL.
136. Diseases of the urethra, urinary abscess, etc.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	2	1	....	1	....	....	....	....	5	....	5
137. Diseases of the prostate	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4	4	9	6	4	2	....	30	....	30
138. Diseases of the male genital organs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
139. Diseases of the female genital organs	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	1	1	....	....	....	....	....	....	....	4	4
Totals of Genito-Urinary System	1	....	....	1	1	3	2	....	2	5	3	9	8	8	10	20	17	26	18	28	13	10	4	....	108	78	186
XI. DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE.																											
140. Post-abortive sepsis	....	....	....	....	....	....	....	....	....	1	1	2	2	....	....	....	....	....	....	....	....	....	....	....	....	6	6
141. Abortion not returned as septic	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
142. Ectopic gestation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
143. Other accidents of pregnancy	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1
144. Puerperal haemorrhage	....	....	....	....	....	....	....	....	1	3	1	6	5	2	2	....	1	....	....	....	....	....	....	....	....	21	21
145. Puerperal sepsis	....	....	....	....	....	....	....	....	1	1	3	2	3	3	1	....	....	....	....	....	....	....	....	....	....	14	14
146. Puerperal albuminuria and convulsions	....	....	....	....	....	....	....	....	....	....	2	1	....	1	....	....	....	....	....	....	....	....	....	....	....	4	4
147. Other toxaemias of pregnancy	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	3	3
148. Puerperal phlegmasia alba dolens, embolism, and sudden death	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2	2
149. Other accidents of childbirth	....	....	....	....	....	....	....	....	....	....	1	....	2	2	....	....	....	....	....	....	....	....	....	....	....	5	5
150. Other or unspecified conditions of the puerperal state	....	....	....	....	....	....	....	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4
Totals of Pregnancy, etc.	....	....	....	....	....	....	....	....	3	9	10	11	14	9	3	....	1	....	....	....	....	....	....	....	....	60	60
XII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																											
151. Carbuncle, Boil	2	....	....	....	....	2	....	....	....	....	....	1	....	....	1	1	....	....	....	1	....	....	....	....	3	3	6
152. Cellulitis, acute abscess	3	....	....	....	....	3	....	....	....	....	....	....	1	1	....	1	....	1	1	2	....	....	....	....	4	6	10
153. Other diseases of the skin and its annexa	7	1	....	....	....	8	....	....	1	....	....	....	....	....	....	....	....	1	....	2	....	....	....	....	9	3	12
Totals of Skin and Cellular Tissue	12	1	....	....	....	13	....	....	1	....	....	1	1	1	1	2	....	2	1	5	....	....	....	....	16	12	28
XIII. DISEASES OF THE BONES AND ORGANS OF LOCOMOTION.																											
154. Acute infective osteomyelitis and periostitis	....	....	....	1	....	1	1	1	1	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	3	3	6

TABLE VII. (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.
155. Other diseases of the bones	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	2	....	2
156. Diseases of the joints and other organs of locomotion	1	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	3	3
Totals of Bones and Organs of Locomotion	1	....	....	1	....	2	1	2	1	....	....	....	....	....	2	....	....	1	1	1	....	....	....	....	5	6	11
XIV. CONGENITAL MALFORMATIONS																										
157. Congenital Malformations	49	6	....	1	....	56	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	28	31	59
XV. DISEASES OF EARLY INFANCY.																										
158. Congenital debility	88	1	1	1	....	91	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	59	32	91
159. Premature birth	179	....	....	....	....	179	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	99	80	179
160. Injury at birth	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
161. Other diseases peculiar to early infancy	17	....	....	....	....	17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	4	17
Totals of Early Infancy	285	1	1	1	....	288	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	172	116	288
XVI. OLD AGE.																										
162 Old age	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	2	14	54	74	69	64	....	91	187	278
XVII. DEATHS FROM VIOLENCE.																										
163 Suicide by solid or liquid poisons and corrosive substances	....	....	....	....	....	....	....	....	....	....	....	....	....	3	1	....	....	....	....	....	....	....	....	....	1	3	4
164. Suicide by poisonous gas	....	....	....	....	....	....	....	....	....	2	....	1	1	3	....	2	1	....	1	....	....	....	....	....	8	3	11
165. Suicide by hanging or strangulation	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2	1	....	....	....	....	....	....	....	....	4	1	5
166. Suicide by drowning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
167. Suicide by firearms	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	1
168. Suicide by cutting or piercing instruments	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	2	....	2
169. Suicide by jumping from high place	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
170. Suicide by crushing	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
171. Suicide by other means	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
172. Infanticide (under one year)	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
173. Homicide by firearms	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
174. Homicide by cutting or piercing instruments	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	2	....	2
175. Homicide by other means	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
176. Attack by venomous animals	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
177. Food poisoning	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
178. Accidental absorption of irrespirable or poisonous gas	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	1	4	1	....	....	....	5	3	8

TABLE VII. (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.
179. Other acute accidental poisoning (not by gas)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	1	2
180. Conflagration	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
181. Accidental burns (conflagration excepted)	4	4	2	1	1	12	4	2	2	2	2	...	...	...	1	2	1	...	1	...	1	...	...	...	9	21	30
182. Accidental mechanical suffocation	7	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	7	1	8
183. Accidental drowning	...	...	...	...	...	...	2	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	5
184. Accidental injury by firearms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
185. Accidental injury by cutting or piercing instruments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
186. Accidental injury by fall, crushing, etc.	...	...	2	1	3	6	4	1	3	...	2	2	2	3	7	6	4	1	4	5	3	...	2	...	39	16	55
187. Cataclysm	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
188. Injury by animals (poisoning by venomous animals excepted)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
189. Hunger or thirst	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
190. Excessive cold	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
191. Excessive heat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
192. Lightning	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
193. Electricity (lightning excepted)	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
194. Other and unstated forms of accidental violence	3	...	...	1	...	4	1	2	1	1	2	3	1	1	1	...	...	...	1	1	...	2	...	...	18	3	21
195. Violent deaths of unstated nature (i.e., accidental, suicidal, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	2	1	3	1	...	...	...	...	6	4	10
196. Wounds of war	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
197. Execution of civilians by belligerent armies	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
198. Execution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals from Violence	15	4	4	3	4	30	11	7	7	6	8	8	7	12	12	17	8	4	11	12	5	2	2	...	111	58	169
XVIII. ILL-DEFINED DISEASES.																											
199. Sudden death	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	3	4
200. Cause of death unstated or ill-defined	4	...	...	...	...	4	1	...	1	1	...	2	...	4	4	8	4	15	14	7	4	4	2	...	37	38	75
Totals from Ill-defined diseases	4	...	...	...	...	4	1	...	1	2	...	2	...	4	4	8	4	15	14	7	6	5	2	...	38	41	79
TOTALS FROM ALL CAUSES	709	110	38	37	20	914	75	64	113	160	146	170	177	219	216	324	402	484	564	548	382	220	133	1	2,670	2,642	5,312

TABLE VIII.

Shewing the Number of Deaths registered as having been caused by Phthisis and Diseases of the Respiratory Organs during the twenty years, 1915/1934 :—

Year	Population	Phthisis	Rate per 1,000	Diseases of the Respiratory System			Total Chest Affections
				Pneumonia	Others	Total	
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
1929	415,151	485	1.2	680	761	1,441	1,926
1930	415,151	436	1.0	357	482	839	1,275
1931	415,151	452	1.1	518	479	997	1,449
1932	415,151	448	1.1	539	461	1,000	1,448
1933	415,151	429	1.0	583	605	1,188	1,617
1934	415,151	398	0.96	434	421	855	1,253

GENERAL PROVISIONS OF HEALTH SERVICES FOR THE AREA.

Hospitals Provided or Subsidised by the Sanitary Authority or by The County Council.

Purdysburn Fever Hospital.

Purdysburn Fever Hospital was opened for the reception of persons suffering from infectious diseases, in August, 1906, with accommodation for 168 patients.

The Hospital is built on the pavilion system, separate blocks being provided for each of the notifiable infectious diseases, with separate administration block, nurses' home, etc., and a suitable isolation block.

The accommodation soon proved insufficient, and in the year 1911 the Public Health Committee decided to increase the accommodation by two additional two-storey buildings and by enlarging the diphtheria block. This extension provided accommodation for 100 beds, bringing the total up to 268 beds. Even with the additional accommodation thus provided, the hospital on several occasions especially during the recurring epidemics of scarlet fever, proved to be far short of the city's requirements, and in the years 1922 and 1923 the Corporation authorised the enlargement of Nos. 3 and 4 pavilions respectively, together with the provision of additional accommodation for the staff and a new laboratory. These extensions brought the accommodation up to 325 beds.

There is a Smallpox Hospital situated in the same grounds but completely isolated in its own compound. It is self-contained having accommodation for 50 patients in four pavilions with separate administration block and nurses' home and an isolation pavilion. Further extension to Purdysburn Fever Hospital is now under consideration.

Union Fever Hospital.

The accommodation for patients in the Union Fever Hospital is 450 beds.

The Hospital is under the control of the Belfast Board of Guardians.

The principal hospitals available for the area which do not come within the scope of " grant " are as follows. All these are honoured and esteemed by all men who realise the admirable work carried out from year to year therein :

The Royal Victoria Hospital.

The Mater Infirmorum Hospital.

Children's Hospital, Falls Road.

The Benn Hospital.

Samaritan Hospital.

Hospital for Nervous Diseases, Claremont Street.

Ophthalmic Hospital, Great Victoria Street.

The Throne Hospital.

It should be understood that this list is not necessarily a complete one.

Tuberculosis.

While the Reports on Graymount and Whiteabbey Sanitoria, by my colleagues Drs. Trimble and Walker, will be found in the body of this Report, the following particulars will be of interest :—

	Municipal Sanatorium, Whiteabbey.	Municipal Hospital for Tuberculous Children, Graymount, and Open-air Day School.
Extent	33 acres.	15 acres and 2 roods.
No. of Beds	285 (all forms).	58 (non-pulmonary). 150 Places for delicate contacts at Day School.
No. of Teachers	Two	Four.
Hours of School	9-15 a.m.—3-15 p.m.	9-30 a.m.—2-30 p.m. Winter. 9-30 a.m.—3-30 p.m. Summer. (including rest hour and dinner).
Accommodation for Nurses	16 bedrooms & 3 sitting rooms	1 bed-sitting room. 2 sitting rooms. 7 bedrooms.
Visiting Days	Wednesdays and Sundays 2 till 4 p.m.	Wednesdays and Sundays, 2 till 4 p.m.

MATERNITY.

Royal Maternity Hospital, Grosvenor Road.

The Royal Maternity Hospital, erected in the grounds of the Royal Victoria Hospital, was officially opened on the 21st October, 1933. It takes the place of the Incorporated Maternity Hospital, Townsend Street, which had become too small to meet the increasing demands upon its accommodation.

The accommodation of the Royal Maternity Hospital consists of 100 beds, Nurseries, ante-natal out-patient clinics, ante-natal ward, isolation ward, mothers' instruction room, work room, rest room, class room, study room and a laboratory are also provided.

The Corporation have decided, with the approval of the Ministry of Home Affairs, to transfer the grant of £1,000 per annum, which was formerly given to the ante-natal section of the Townsend Street Hospital, to the Royal Maternity Hospital, subject to the services being given to the satisfaction of the Medical Superintendent Officer of Health and to the Maternity and Child Welfare Committee having representation on the Governing Committee.

ANTE NATAL REPORT OF THE ROYAL MATERNITY HOSPITAL, FOR THE YEAR ENDED 31st DECEMBER, 1934.

Total number of new patients	1,734
do. re-attendances	5,956
Total examinations	7,690

The Ante-Natal Patients admitted to the Hospital were as follows :—

For confinement	652	
treatment and confinement	125	
treatment	289	
operations	51	
		1,117
Non Ante-natal patients admitted to Hospital		374
Total admissions during year		1,491

Ante-Natal patients confined in District	322
Non Ante-Natal patients do.	35
	357

Thorndale Home (The Salvation Army).

This home which receives a grant of £300 per annum from the Corporation is situated in its own grounds, Duncairn Avenue. The site is somewhat unique the institution being relatively isolated on rising ground, thus receiving the maximum of sunshine and air perflation. The assistance of the lady in charge, Major Walton, was sought in the preparation of these notes.

Reports on the various Sections of work carried on at above home during 1934.

There are the following Departments :—

(1) A Maternity Home for the unmarried mother.
(2) Wards for Private patients.
(3) An Industrial Home for young girls.
(4) An After-care Home for those who have gone through our hands.

Maternity Home. There is accommodation for 23 expectant unmarried mothers, and the following is a brief review of the work done during 1934 in this department.

46 Unmarried Mothers admitted.
25 Confinements took place.
10 Girls sent to situations.
21 Girls sent home to friends.
1 Girl died.
11 Babies sent to " Nurse Mothers."
5 Babies admitted.
1 Baby died.
16 Girls in Home end of year.
17 Babies in Home end of year.

The majority of the patients were kept in the home from four to six months after the birth of child so that the little one might be breast fed and by that means give it a fair chance at the beginning of its life.

Private Patients' Department.—59 confinements took place in connection with this department. Some of the patients were unable to come into the Home for domestic reasons and were attended on the District. Attached also to this department are the Ante-Natal and Baby Clinics for the weighing of the little ones and the giving of advice generally to mothers.

Aftercare Home.—The secret of success is keeping in touch with the girls after they have left the Home. At this department the girls can return when they have their free time for a holiday, they may bring their little ones from the " Nurse Mothers " and remain until it is time for them to return to their situations. An Officer is set apart for this work and arranges to have Tea Table talks with them. The visits per month average over 300.

Shelter for Poor and Stranded Women.—Here there is accommodation for 30 Women. Temporary help is given and situations found, and also many free beds and meals are provided.

The Belfast Midnight Mission and Rescue and Maternity Home.

This Home was founded in 1860 and is situated at No. 31 Malone Place. This institution is carrying out work of a high order, and receives a grant of £300 per annum from the Corporation. 224 women and 8 children were admitted to the Rescue Ward during the year and received one or more night's lodging and food—some indeed, remained in residence for several weeks.

During the year there were 121 confinements, 40 of which were private patients (married); 1 mother died; 8 patients admitted for operations; 7 babies were still-born; 9 infants died. 67 women were attended on the district by the nurses. 220 expectant mothers were seen at the ante-natal clinic by Dr. Robb, with 369 attendances.

Infants born in the home are kept in the institution until such time as arrangements can be made for a foster mother, where such is desired. The accommodation is made up of 27 beds for unmarried mothers placed in five wards; in one of the wards there are 14 beds, in another 7 beds. 3 beds for private patients are provided in two rooms.

The ante-natal department consists of one examination room and two waiting rooms.

A fee of two-guineas per week is charged for private patients.

The staff consists of the matron and three nurses holding the C.M.B. Certificate. There are also five probationers.

The Ulster Hospital, Templemore Avenue.

This excellent Hospital receives an annual grant of £250 from the Corporation. During 1934 there were 786 admissions to the Children's department, while 6894 new cases were treated as out-patients. 299 women were admitted and 1,464 were treated at the out-patient department. The new cases in the Maternity department numbered 123. 1,749 operations were performed. For Maternity cases there are two beds in one ward and there are ten beds for women in another ward. For children the accommodation consists of 54 cots in two wards. There are also two balconies, one isolation ward and a sun parlour.

The Ante-Natal cases treated in this hospital during the year were as follows:

New cases in Out-patient Department	.....	217
Return cases in Out-patient Department	.....	611
Cases admitted to Hospital	.....	39

Out of the 786 intern admissions to the Children's Department, 43 died giving a death rate of only 5.47 per cent.

The resident staff consists of :—

2 House Surgeons.
1 Matron.
5 Sisters.
2 Staff Nurses.
16 Probationers.
1 Masseuse (part-time).

MIDWIVES AND NURSING HOMES ACT (NORTHERN IRELAND), 1929.

Registration and Inspection of Nursing Home.

Under the above Act it is necessary for any person who carries on a Nursing Home to be registered with the local Authority of the district in which the Nursing Home is situated.

The Act requires that application for registration shall be made to the local authority in writing in the form prescribed by the Ministry of Home Affairs, and shall be accompanied by a fee of five shillings.

During the year there were 49 Nursing Homes on the Register for the City, of these 8 were registered during 1934, and 2 registrations were cancelled, leaving 47 on the register at the close of the year.

The Nursing Homes were inspected periodically, 153 visits being made during the year, and on each inspection the equipment, staffing, keeping of registers, etc., were found to be in conformity with the Act and Regulations.

168 deaths occurred in Nursing Homes, of these 42 were deaths of Children born in the Homes.

AMBULANCE FACILITIES.

(a) **For Infectious Cases.**
(b) **For Non-Infectious and Accident Cases.**

(a) **Infectious Cases.**

Three ambulances the property of the Belfast Corporation and garaged at Purdysburn Fever Hospital are available for the conveyance of Infectious Disease cases to this Hospital.

Three ambulances the property of the Belfast Board of Guardians and garaged at Union Workhouse are available for the conveyance of all stretcher cases to the Union Hospitals. These cases include the minor Infectious Diseases, such as Measles, Whooping Cough, etc.

All the above ambulances are disinfected on return after each journey.

(b) **Non-Infectious Cases.**

Four ambulances the property of the Belfast Corporation and stationed at the Central and Branch Fire Brigade Stations are available for the removal of non-infectious cases to Hospitals and Nursing Homes. Each case (except accident cases) must be so certified by a medical practitioner. There is a fee of 1/- per mile return journey, charged to the person requisitioning the Ambulance. These ambulances are free of charge and at the immediate call of any person in the case of accidents.

CLINICS AND TREATMENT CENTRES.

Child Welfare Centres

DAY	CENTRE.	TIME.	MEDICAL OFFICER.
Monday	Danube Street	2—5 p.m.	Dr. Darling.
	Donegall Road	2—5 p.m.	Dr. Price.
	Mervue Street	2—5 p.m.	Dr. Watson.
Tuesday	Dee Street	2—5 p.m.	Dr. Price.
	Falls Road	2—5 p.m.	Dr. Watson.
	Charlotte Street	2—5 p.m.	Dr. McNeill.
Wednesday	York Street	2—5 p.m.	Dr. Watson.
	Ligoniel	2—5 p.m.	Dr. Price.
	Woodstock Road	2—5 p.m.	Dr. Elliott.
Thursday	Shankill Road	2—5 p.m.	Dr. Darling.
	Dee Street	2—5 p.m.	Dr. Price.
	Hillview Street	2—5 p.m.	Dr. Watson.
Friday	Gilford Street	2—5 p.m.	Dr. Elliott.
	Shankill Road	2—5 p.m.	Dr. Watson.

Ante-Natal Clinics.

DAY.	CENTRE.	TIME.	MEDICAL OFFICER.
Monday	Danube Street	10 a.m. till 12 noon	Dr. Pollock
	Y.M.C.A. Mt. Pottinger	2 p.m. till 5 p.m.	do.
Tuesday	Dee Street	10 a.m. till 12 noon	do.
	Mervue Street	2 p.m. till 5 p.m.	do.
Wednesday	York Street	10 a.m. till 12 noon	do.
	*Danube Street	2 p.m. till 5 p.m.	do.
Thursday	Shankill Road	10 a.m. till 12 noon	do.
	Falls Road	2 p.m. till 5 p.m.	do.
Friday	Gilford Street	10 a.m. till 12 noon	do.
	Donegall Road	2 p.m. till 5 p.m.	do.

*Additional Clinic commenced 1st May.

Wednesdays and Saturdays	Belfast Maternity Hospital Townsend Street	9-30 a.m till 12 noon
Do.	Ulster Hospital Templemore Avenue.	do.

Tuberculosis Clinics.

Central Tuberculosis Institute, Durham Street	Daily 9-30 a.m. till 5 p.m.
Tuberculosis Institute, 225 Albertbridge Road	Daily 9-30 a.m. till 5 p.m.

SCHOOL CLINICS.

Central Clinic, Old Town Hall, Victoria Street.

ACCOMMODATION.	SESSIONS.
Minor Ailments Clinic.	Tuesdays and Thursdays at 3 p.m. Saturdays at 9-30 a.m.
Eye, Ear, Nose and Throat Clinics.	Mondays, Tuesdays, Wednesdays, and Thursdays at 10 a.m. Alternate Tuesdays and Thursdays—Operations.
Tonsils and Adenoids Operation Clinic.	Every alternate Tuesday and Thursday.
Dental Clinics.	Daily (except Saturdays), 9-30 a.m.
Artificial Light Clinic.	Tuesdays and Fridays, 9-30 a.m.
Head Cleansing Clinic.	Daily (except Saturdays), 9-30 a.m.
Special Case Clinic.	Daily 3-30—5 p.m. (except Saturdays, 9-30 a.m.)

North-West Clinic, 4 Crumlin Road.

Minor Ailments Clinic.	Tuesdays and Thursdays, 3 p.m. Saturdays, 10 a.m.
Eye Clinic.	Tuesdays, 2 p.m.
Nose and Throat Clinic.	Saturdays, 10-30 a.m.
Dental Clinic.	Daily (except Thursdays and Saturdays), 9-30 a.m.
Artificial Light Clinic.	Mondays, 3-30 p.m., Thursdays, 3-30 p.m.
Head Cleansing.	Daily (except Saturdays), 9-30 a.m.
Special Case Clinic.	Daily 3-30—5 p.m. (except Saturdays, 9-30 a.m.)

Ballymacarrett Clinic, 28 The Mount.

Minor Ailments Clinic.	Tuesdays and Thursdays, 3 p.m., Saturdays, 10 a.m.
Eye Clinic.	Tuesdays, 10 a.m.
Nose and Throat Clinic.	Fridays, 2-30 p.m.
Dental Clinic.	Mondays, Wednesdays, Thursdays and Fridays, 9-30 a.m.
Head Cleansing Clinic.	Daily, at 9-30 a.m. (except Saturdays).
Special Case Clinic.	Daily 3-30—5 p.m. (except Saturdays, 9-30 a.m.)

Venereal Diseases Clinics.

Royal Victoria Hospital, Grosvenor Road.	Daily, 9 a.m.—11 a.m. (Sundays excepted). Mondays till Saturdays, 6-15—6-45 p.m.
Mater Infirmorum Hospital, Crumlin Road.	Tuesdays & Saturdays, 9-30 a.m.—11-30 a.m. Thursdays, 8 p.m.—10 p.m.
Union Infirmary, Lisburn Road.	Daily, from 11 a.m., for admissions.

STAFF.

Medical Superintendent Officer of Health and Port Medical Officer :
CHARLES SAMSON THOMSON, M.D., M.R.C.P., D.P.H., B.Hy., F.R.S.I., Etc. (Lecturer in Practical Public Health Administration and Intern Examiner, Queen's University, Belfast).

Assistant Medical Superintendent Officer of Health and Executive Sanitary Officer, and Assistant Port Medical Officer.
SAMUEL BARRON, M.R.C.P., D.P.H.

Chief Tuberculosis Officer :
ANDREW TRIMBLE, M.B., B.Ch, D.P.H., J.P.

Chief School Medical Officer :
THOMAS F. S. FULTON, M.B., B.Ch., D.P.H.

Medical Superintendent, Purdysburn Fever Hospital :
A. GARDNER ROBB, M.B., B.Ch., D.P.H.

Resident Medical Superintendent, Municipal Sanatorium, Whiteabbey :
PERCY S. WALKER, M.D., B.Ch., D.P.H.

Visiting Surgeon, Municipal Hospital for Tuberculous Children, Graymount :
HENRY P. MALCOLM, M.C., M.B., M.Ch.

City Bacteriologist :
GEORGE F. TINSDALE, M.B., B.Ch., B.Sc.

Maternity and Child Welfare Medical Officers :
GRACE K. POLLOCK, M.B., B.Ch., B.A.O., D.P.H.
OLIVE M. DARLING, M.B., B.Ch., D.P.H. (part-time).
ANNA WATSON, M.B., B.Ch., B.A.O., D.P.H. do.
MURIEL G. PRICE, M.B., B.Ch., B.A.O., D.P.H. do.
MARGARET ELLIOTT, M.B., B.Ch., B.A.O., D.P.H. (part-time).

Veterinary Inspector, Diseases of Animals Acts :
J. EWING JOHNSTON, M.B.E., M.R.C.V.S. (part-time).

City Veterinarian and Veterinary Inspector of Dairies and Cowsheds :
ALEXANDER McLEAN, M.R.C.V.S., D.V.H.

Public Analyst :
J. HAROLD TOTTON, B.A., B.Sc., F.I.C.

Assistant Tuberculosis Medical Officers :
J. SHAW, M.B., B.Ch., D.P.H.
T. R. V. IRWIN, M.B., B.Ch., D.P.H.
H. McMASTER, L.R.C.P. Ed., D.P.H.
E. P. DEWAR, L.R.C.P. Ed.

Assistant School Medical Officers :

H. A. WARNOCK, M.D., D.P.H., B.Sc.
F. J. DEMPSEY, B.A., L.L.B., M.B., D.P.H.
EILEEN H. DOWSE, M.B., D.P.H.
ANNA WATSON, M.B., D.P.H. (Part-time).

Resident Medical Officers :

F. F. KANE, M.D., M.R.C.P.I., D.P.H., Purdysburn Fever Hospital.
W. KELLY, L.R.C.P., M.R.C.S., Purdysburn Fever Hospital.
S. L. W. ERSKINE, M.B., B.Ch., Purdysburn Fever Hospital.
D. K. WATTERSON, M.D., B.Ch., D.P.H., Whiteabbey Sanatorium.
A. E. LAVELLE, M.B., B.Ch., Whiteabbey Sanatorium.

Visiting Medical Officer, Whiteabbey Sanatorium

J. C. RANKIN, M.D., B.Ch.

Ophthalmic Specialists, etc. :

T. W. G. HOGG, M.B., B.Ch. (part-time), School Medical Services. (*Ophthalmic and Aurist Specialist*).
I. A. DAVISON, B.A., M.D., D.P.H. (part-time), School Medical Services. (*Ophthalmic Specialist*).
WM. S. GIBSON, M.B., B.CH. (Hons.), (part-time), School Medical Services. (*Aurist Specialist*).

Dentists :

C. H. MATTHEWS, L.D.S.	(part-time)	School Medical Services.
A. S. IRVINE, L.D.S.	do.	do.
T. J. GILMORE, L.D.S.	do.	do.
V. G. RATTIE, L.D.S.	do.	do.
O. BLACK, L.D.S.	do.	Tuberculosis Dept.

HEALTH VISITORS AND NURSES.

Maternity and Child Welfare :

2 Superintendents of Midwives.
19 Health Visitors.

Purdysburn Fever Hospital :

Matron—Miss A. C. CAMERON.
Asst. Matron—Miss M. LANCASTER
10 Ward Sisters.
64 Nurses.

Whiteabbey Sanatorium :

Matron—Miss E. WOODS, S.R.N.
5 Sisters.
6 Staff Nurses.
25 Probationers.

Municipal Hospital for Tuberculous Children, Graymount :

Matron—Miss A. E. LYNESS, S.R.N.
1 Sister.
3 Staff Nurses.
7 Probationers.

Tuberculosis Institutes :

11 Visiting Nurses.
Institute and Outdoor.

School Medical Services :

14 School Nurses.

PUBLIC HEALTH DEPARTMENT.

Sanitary Sub-Officers, Etc.

Divisional	Inspector,	W. J. SEFTON—South Division.	
do.	do.	J. B. BOYD—North Division.	
do.	do.	*S. DENNISON—West Division	*till 30th April.
do.	do.	T. SHANNON—East Division.	
do.	do.	*W. J. HARRIS, West Division.	*from 1st May.

16 District Sanitary Sub-Officers.
3 Sanitary Sub-Officers—Factory and Workshops—1 Male and 2 Female.
1 Dairy and Cowsheds Inspector (who is also employed part-time under Diseases of Animals Acts).
5 Sale of Food and Drugs Acts Inspectors.
1 Port Sanitary Officer.
1 Lodging House Inspector.
1 Inspector i/c Disinfectors.
4 Assistant Disinfectors.
1 Manager, Disinfecting Station.
1 Assistant Disinfector, Disinfecting Station.
1 Assistant (Female), at Disinfecting Station.
1 Motor Driver, at Disinfecting Station.
2 Assistant Drain Testers.
1 Storeman.
1 Time and Complaints Clerk.
1 Notice Server.

Clerical Staff.

1 Chief Clerk.
2 Assistants to Chief Clerk.
3 Clerks in charge of Divisions.
2 Senior Clerks.
5 Junior Clerks.
1 Shorthand Writer and Typist.
1 Female Assistant
1 Storeman and General Clerical Attendant.
1 Clerk at Meat Inspection Department.

MATERNITY AND CHILD WELFARE.

Clerical Staff.

1 Senior Clerk.
3 Female Clerks.
1 Junior Clerk.

MUNICIPAL LABORATORY

1 Laboratory Attendant.
2 Junior Assistant Attendants.

District Medical Officers of Health (part-time) who are the Dispensary Medical Officers under the Poor Law :

No.	1	Dispensary	District—	Dr. H. A. SKILLEN.
	2	do.	do.	Dr. D. KINLEY.
	3	do.	do.	Dr. R. ENGLISH
	4	do	do.	Dr. A. C. GARDINER.
	5	do.	do.	Dr. R. HALL.
	6	do.	do.	Dr. G. SCARLETT.
	7	do.	do.	Dr. D. WILSON.
	8	do.	do.	Dr. C. J. MILLIGAN.
	9	do.	do.	Dr. J. KENNEDY.
	10	do.	do.	Dr. S. WALLACE.
	11	do.	do.	Dr. T. E. HILL.
	12	do.	do.	Dr. J. D. HAMILTON.
	13	do.	do.	Dr. H. R. IRVINE.
	14	do.	do.	Dr. W. D. DONNAN.
	15	do.	do.	Dr. T. J. KERR.
	16	do.	do.	Dr. H. D. HEASLEY.

PROFESSIONAL NURSING IN THE HOME.

"The Society for Providing Nurses for the Sick Poor, Belfast," employs a staff of eleven nurses for district work. The nurses visit the poor in their own homes and in cases of illness apply such ministration and assistance as may be required. Members of the medical profession as well as the clergy of all denominations are invited to bring deserving cases under the notice of the District Matron, but no case can be regularly attended by a nurse unless seen by a doctor.

The Society is dependent upon voluntary subscriptions and gifts in kind to enable it to carry on the magnificent work of alleviating human suffering and caring for the sick poor.

The Corporation has no working arrangement with the Society, but any cases referred to the Society by the Medical Officers of the Public Health services have always received the willing attention of the district nurses.

The district nurses do not attend infectious cases. It is hoped that in the near future the Corporation will come to an arrangement for the home nursing of cases of Measles, Whooping Cough, etc., by the district nurses. Such an arrangement would relieve hospital strain during an epidemic and would also tend to lessen the mortality rate of these diseases.

MATERNITY AND CHILD WELFARE
MIDWIVES.

During the year, 223 midwives gave the required notice of their intention to practice, of these 209 were certified by examination and 14 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 register 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 Medical Superintendent Officer of Health or the Maternity and Child Welfare Committee.

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.

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

148 cases of Inflammation of Eyes occurred during the year.

86 cases of Puerperal Pyrexia occurred during the year, of these 6 died.

EMERGENCY CASES.

Under the Midwives (Ireland) Act, 1918, and the Midwives and Nursing Homes Act (Northern Ireland), 1929, any Medical Practitioner who may be called in by a midwife in an emergency case is entitled to a fee (under certain circumstances) payable by the Local Supervising Authority.

During the year the services of Medical Practitioners were requisitioned by midwives in 360 emergency cases, and the Corporation, as the Local Supervising Authority, paid in fees £278 7s. 0d. for attendances in 146 cases.

SUMMARY.

Number of Midwives who notified their intention to practise :—

Certified by examination	209
Otherwise Certified	14
	223

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 Midwives :—

To Midwives certified by examination	739
To Midwives otherwise certified	73
Total Visits to Midwives	812
To cases attended by Midwives	474
To Nursing Homes	135
Re Puerperal Fever	11
Re Puerperal Pyrexia	156
Re Ophthalmia Neonatorum and Inflamed Eyes	244
Re Rise of Temperature	11
To Babies' Homes	8
Re Medical Fees	458
Re Maternal Mortality	62
Re Still Births	56
Miscellaneous Visits	76

Births :—

Attended	by Medical Practitioners and Midwives	2,716
,,	only by Midwives certified by examination	3,585
,,	by Midwives otherwise certified	143
,,	in Union Maternity Hospital	1028
,,	in other Maternity Hospitals	1176
,,	by Nurses from Maternity Hospitals	315
,,	in Malone Place Home	128
,,	in Thorndale Home	82
,,	in Nursing Homes	594

Notifications received by Medical Superintendent Officer of Health :—

Under	Form	A.—Sending for Medical help	360
,,	,,	B.—Notification of Death	19
,,	,,	C.—Notification of Still birth	456
,,	,,	D.—Notification of having laid out a Dead Body	4
,,	,,	E.—Source of Infection	9
,,	,,	F.—Artificial Feeding	28

Irregularities :—

Number of Midwives reported to Medical Superintendent Officer of Health or Maternity and Child Welfare Committee	2
Number of Midwives suspended	5

Number of Midwives disinfected owing to :—

Puerperal Fever	1
do. Pyrexia	15
Rise of Temperature	20
Scarlet Fever	3
Diphtheria	1

Number of Midwives who died 1

NOTIFICATION OF BIRTHS ACT.

9,767 births were notified pursuant to the Notification of Births Act and in addition 99 were either discovered by Health Visitors or notified by the Registrars of Births, making a total of 9,866 ; of these 5,096 were males and 4,770 were females ; 456 were stillbirths and 468 were illegitimate births.

Of the total number notified 7,491 were selected for visitation and supervision, and during the year 40,632 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 instruction as to the care of infants and young children, the preparation of food and the storage of milk, butter, etc., 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 CENTRES.

There were 12 Centres (14 sessions) in operation during the year, situated at Donegall Road, Danube Street, Mervue Street, Dee Street, Falls Road, York Street, Woodstock Road, Hillview Street, Shankill Road, Divis Street, Charlotte Street and Ligoniel. Ten of these Centres were open one afternoon per week and two were open two afternoons per week, when a Medical Practitioner, properly trained and qualified Health Visitors 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 Ostermilk, Ambrosia, Cow and Gate, etc., is supplied at cost price, under cost price, or 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 :—

TABLE No. IX.

	On Roll.	Total No of attendances by mothers.	Babies medically Examined.	Total medical examinations of babies.
Danube Street	787	8,286	571	1,730
Donegall Road	733	6,547	583	1,634
Dee Street (two sessions)	1,055	12,348	811	4,071
York Street	564	6,214	544	2,313
Shankill Rd. (two sessions)	698	8,292	446	2,491
Falls Road	547	4,980	479	2,522
Charlotte Street	288	2,429	198	1,237
Mervue Street	344	3,793	292	1,697
Woodstock Road	422	5,142	288	1,784
Hillview Street	420	3,114	385	1,705
Divis Street	504	6,965	459	2,127
Ligoniel	193	1,628	142	785
	6,555	69,738	5,198	24,096

In 1933 the total number on the rolls was 6,563 and the total number of attendances 66,262. 4,887 babies were medically examined, the total number of such examinations being 17,722.

The total cost to the Department of Dried Milk, etc., distributed at the several Child Welfare Centres during the year was £3,433 compared with £3,043 during the preceding year. The Dried Milk is given to necessitous cases only, at either cost price, under cost price, or free, according to the circumstances of the recipient.

During the year 1934, 784 recipients were supplied with 90,053 pints of sweet milk free. The figures for 1933 were 971 recipients and 85,004 pints of milk.

TABLE No. X.

Shewing the Deaths of children under one year old per 1,000 births each year from 1881-1934.

Year.	Deaths per 1,000 Births.	Year.	Deaths per 1,000 Births.
1881	136	1908	147
1882	151	1909	139
1883	162	1910	143
1884	126	1911	128
1885	170	1912	129
1886	135	1913	144
1887	163	1914	143
1888	145	1915	137
1889	163	1916	113
1890	162	1917	130
1891	149	1918	144
1892	173	1919	113
1893	160	1920	132
1894	160	1921	115
1895	169	1922	94
1896	148	1923	101
1897	166	1924	107
1898	164	1925	104
1899	161	1926	112
1900	152	1927	101
1901	154	1928	103
1902	151	1929	112
1903	134	1930	78
1904	154	1931	90
1905	136	1932	111
1906	144	1933	102
1907	136	1934	80

TABLE XI.

Deaths of Infants under One Year old from stated Causes in Weeks and Months, notified to this Department, during the year ended 29th December, 1934.

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.		4-5Months.		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	
Small-pox																																			
Chicken-pox																																			
Common Infectious Diseases — Measles																			1			1		1									3	1	4
Scarlet Fever																																			
Diphtheria : Croup																																			
Whooping Cough											1		1	2	1		4	3		2	2		1	1	1	1			3	1			14	10	24
Diarrhoeal Diseases — Diarrhoea, all forms					1				1		1				2	1		1					1			1							4	4	8
Enteritis (*not Tuberculous*)					2		1		3		10	1	4	6	5	6	9	6	4	3	1	2		3			2	1	3	1	2	1	43	30	73
Gastritis, Gastro-intestinal Catarrh											1				1		1					1											3	2	5
Wasting Diseases — Premature Birth	75	70	7	6	6	1	4		92	77	5	2	1	1			1																99	80	179
Spina Bifida	2	4	3	2		1		2	5	9	1	1																	1				7	10	17
Other Congenital Defects	9	6	1	2				3	10	11	5	1		1		1							1	1						1			17	15	32
Injury at Birth	1								1																								1		1
Want of Breast Milk																																			
Atrophy, Debility, Marasmus	17	12	6	1	5	2	3	1	31	16	6	6	8	1	5	2	1	1	2	3	3	2	1										57	31	88
Tuberculous Diseases — Tuberculous Meningitis															1		1							1		2			1		2		5	3	8
Tuberculous Peritonitis Tabes Mesenterica																					1												1		1
Other Tuberculous Diseases															1							1							1				1	2	3
Erysipelas												1																			1			2	2
Syphilis	1	1				1			1	2		1			1		1																3	3	6
Rickets																																			
Meningitis (*not Tuberculous*)			1						1			1		1													1						2	2	4
do. Cerebro-Spinal																																			
Convulsions	5	1	2		4			2	11	3				1	5	1		2	2			1	1				1	2		1	2		22	11	33
Bronchitis	1					1	2	1	3	2	1		1	1		1	2	1	1				1	1		1							9	7	16
Laryngitis																																			
Pneumonia	3	2	1	1			2		6	3	5	3	2	7	6	2	6	5	8	3	4	5	6	4	2	2	5	2	2	3	5	3	57	42	99
Suffocation, overlaying			2		1				3						1			1															4	1	5
Other Causes	28	12	5		2		3		38	12	4	2	4	2	4	1	4	2	3	1		3	1		2	4	2	1	5	2	2	2	69	32	101
Total	142	108	28	12	21	6	15	9	206	135	40	19	21	23	33	15	30	22	21	12	11	15	13	12	6	11	11	7	15	10	14	7	421	288	709

Summary of Visits.

Cases investigated	7,491
,, visited a second time	6,414
,, ,, third time	5,655
,, ,, fourth time	4,780
,, ,, fifth time	4,026
,, ,, sixth time	3,211
,, ,, seventh time	2,428
,, ,, eighth time	1,810
,, ,, ninth time	1,306
,, ,, tenth time	979
,, ,, eleventh time	738
,, ,, twelfth time	509
,, ,, thirteenth time	369
,, ,, fourteenth time	253
,, ,, fifteenth time	175
,, ,, sixteenth time	116
,, ,, seventeenth time	87
,, ,, eighteenth time	67
,, ,, nineteenth time	61
,, ,, twentieth time	45
,, ,, twenty-first time	39
,, ,, twenty-second time	32
,, ,, twenty-third time	19
,, ,, twent-fourth time	13
,, ,, twenty-fifth time	9
	40,632

Number of visits re Infant Mortality	645
,, visits to Child Welfare Centres	1,866
,, visits re Infectious Disease	1,236
,, visits re other diseases	85
,, visits to cases discharged from Hospital after Scarlet Fever	1,447
,, visits to expectant mothers	581
,, miscellaneous visits	1,557
,, visits to mothers	51,306
,, visits to children over 1 year	68,461
,, visits re Ophthalmia Neonatorum and Inflamed Eyes	576
,, unsuccessful visits	7,083
,, Nursed out babies	1,468

LEGISLATION IN FORCE.

Public Health (Ireland) Acts, 1878 to 1907.
Housing of Working Classes Acts.

BELFAST CORPORATION LOCAL ACTS.

8/ 9 Vic., Cap.	cxlii (1845).
9/10 Vic., Cap.	ccxciv (1846).
10/11 Vic., Cap.	ccliv (1847).
13/14 Vic., Cap.	cviii (1850).
16/17 Vic., Cap.	cxiv (1853).
27/28 Vic., Cap.	cxcviii (1864).
28/29 Vic., Cap.	clxxxiii (1865).
29/30 Vic., Cap.	cxiii (1866).
31/32 Vic., Cap.	cxvii (1868).
36/37 Vic., Cap.	cxcix (1873).
37/38 Vic., Cap.	cxxv (1874).
40/41 Vic., Cap.	cxxii (1877).
41/42 Vic., Cap.	clxxx (1878).
47/48 Vic., Cap.	xciii (1884).
50 Vic., Cap.	xxiii (1887).
50/51 Vic., Cap.	cxxvii (1887).
52/53 Vic., Cap.	xlii (1889).
53/54 Vic., Cap.	cv (1890).
53/54 Vic., Cap.	cxcii (1890).
54/55 Vic., Cap.	lvii (1891).
55/56 Vic., Cap.	ccx (1892).
55/56 Vic., Cap.	ccxxxi (1892).
59/60 Vic., Cap.	ccxlvi (1896).
60/61 Vic., Cap.	lxxxvi (1897).
61/62 Vic., Cap.	xliv (1898).
61/62 Vic., Cap.	liii (1898).
62/63 Vic., Cap.	ccxlvi (1899).
2 Ed. VII., Cap.	cix (1902).
4 Ed. VII., Cap.	ccxxix (1904).
8 Ed. VII., Cap.	cxxvi (1908).
10 Ed. VII., & 1 Geo.V Cap.	xlv (1910).
1 & 2 Geo. V., Cap.	cxc (1911).
2 & 3 Geo. V. Cap.	ix (1912).
3 & 4 Geo. V., Cap.	c (1913).
4 & 5 Geo. V., Cap.	xxxviii (1914).
13 & 14 Geo. V., Cap.	v (1923).
14 & 15 Geo. V., Cap.	iv (1924).
15 & 16 Geo. V., Cap.	iii (1925).
20 & 21 Geo. V., Cap.	ii (1930).

Port Sanitary Authority Local Government Board (Ireland) Provisional Orders Confirmation (No. 4) Act, 1900 ; 63 & 64 Vic., Cap, ccv.

The Belfast Holywood and Castlereagh Joint Board, L.G.B. (Ireland) Provisional Orders Confirmation (No. 2) Act, 1905, 5 Edw. VII., Cap. cxxiii.

PUBLIC ACTS ADOPTED BY THE COUNCIL.

ACT.	DATE OF ADOPTION.
Baths and Washhouses Act, 1846	1st February, 1854.
Public Libraries (Ireland) Act, 1855	1st December, 1882 (By Plebiscite).
Public Health Acts Amendment Act, 1890 (Part III.)	1st January, 1891.
Infectious Disease (Prevention) Act, 1890	5th March, 1891.
Infectious Disease (Notification) Act, 1889.	1st January, 1897
Housing of the Working Classes Act, 1890 (Part 3).	1st November, 1897.
Notification of Births Act, 1907	2nd December, 1907.
Public Health Acts Amendment Act, 1907 (Parts 7, 8 and 9)	By Order of Chief Secretary for Ireland, dated 9th May, 1908.
Public Health Acts Amendments Act, 1890 (Part 4)	1st April, 1908. 1st May, 1908.
Museum and Gymnasiums Act, 1891 (So much as relates to Museums)	1st February, 1909.
Tuberculosis Prevention (Ireland) Act, 1908 (Part 1)	1st September, 1908,
Public Health Acts Amendment Act, 1907 (Parts 2, 3, 4, 5, 6, and 10)	By Order of L.G.B. for Ireland, dated 20th July, 1910.

BYE-LAWS AND REGULATIONS.

NATURE OF BYE-LAWS.	WHEN MADE.	WHEN CONFIRMED AND BY WHOM.
Advertising Vans	2nd May, 1887.	Confirmation Unnecessary.
Advertising Hoardings	4th Oct., 1889.	L.G.B., 19th Oct., 1900.
Aldermen and Councillors Non-Acceptance of Office	June, 1901.	Lord Lieutenant.
Art Gallery, &c.	1st June, 1905.	L.G.B., 14th Sept., 1905.
do.	1st May, 1930.	Ministry of Home Affairs for Northern Ireland, 27th August, 1930.
Abattoir, Butchers working in	1st July, 1909.	L.G.B., 26th Nov., 1909.
Abattoir, Public—		
Management and Charges	1st Sept., 1913.	L.G.B., 4th Nov., 1913.
do.	3rd April, 1922.	Ministry of Home Affairs for Northern Ireland, 20th May, 1922.
do.	3rd Jan., 1927.	10th March, 1927.
do.	1st April, 1927.	13th May, 1927.
do.	1st Oct., 1929.	29th Nov., 1929.
Allotments	1st February, 1933	10th February, 1933
Baths and Wash-houses	5th April, 1904.	L.G.B., 16th May, 1904.
Buildings—New	1st Feb., 1890	L.G.B., 30th April, 1890.
Buildings	1st Nov., 1928.	Ministry of Home Affairs for Northern Ireland, 12th Dec., 1928.
Bicycles, etc.	1st Jan., 1898.	L.G.B., 13th Mar., 1898.
Betting in Streets	3rd Feb., 1902.	L. Lieut., 14th Mar., 1902.
Bowling Greens	1st July, 1926.	Ministry of Home Affairs, 23rd August, 1926.
do.	2nd May, 1927.	2nd July, 1927.
Burial Grounds	3rd Jan., 1921. Amended 1st Feb., 1927.	L.G.B., 17th Jan., 1921.
do.	1st May, 1933.	Ministry of Home Affairs, 13th June, 1933.
Butchers' Shops	1st June, 1932	Ministry of Home Affairs; 18th July, 1932.
Cattle Drovers	1st July, 1925.	Ministry of Home Affairs for Northern Ireland, 1st Sept., 1925.
Cattle, Passage through Streets	2nd Nov., 1931.	do. 10th Dec., 1931.
Coal, Sale of	1st Aug., 1919.	Board of Trade, 15th Sept., 1919
Children—Prevention of Cruelty to	1st Aug., 1893.	L. Lieut., 6th October, 1893.
Children's Playgrounds	1st Nov., 1923.	Ministry of Home Affairs, 21st Dec., 1923.
Place of Safety, Nazareth House	1st June, 1906.	

NATURE OF BYE-LAWS.	WHEN MADE.	WHEN CONFIRMED AND BY WHOM.
Carriage Traffic—		
At Opera House	1st Jan., 1896.	
At Ulster Hall	1st Dec., 1894.	
Carrick House	16th May, 1902.	L.G.B., 26th July, 1902.
Conveyances plying for Public Hire—		
Hackney Carriages	2nd Dec., 1867, and subsequent dates.	Chairman, Quarter Sessions., Jan., 1868, and subsequent dates.
do.	1st April, 1898.	Chairman of Quarter Sessions, 14th Oct., 1898.
do.	1st Sept., 1910.	Recorder of Belfast, 4th Nov., 1910.
do.	2nd April, 1918.	Recorder of Belfast, 18th June, 1918.
do.	1st June, 1920.	18th Sept., 1920.
Motor Taxi Cab (Fares)	1st May, 1923.	Chairman of Quarter Sessions, 19th July, 1923.
do. do.	1st March, 1928.	Ministry of Home Affairs, 16th June, 1928.
NOTE.—Under the provisions of the Motor Vehicles (Traffic and Regulation) Act. (N.I.), 1926, the licensing of mechanically propelled Public Service Vehicles to ply for hire passed to the Minister of Home Affairs.		
Dairies, Cowsheds and Milkshops	1st Sept., 1908.	Confirmation Unnecessary
Dogs, Wearing of Collars by	1st May, 1907.	Confirmation Unnecessary.
Dogs, Street Nuisances by	1st July, 1932.	His Grace the Governor of Northern Ireland, 27th October, 1932
Drovers of Cattle (see Cattle Drovers).		
Female Domestic Servant's Registries	1st March, 1911.	Chief Secretary for Ireland, 27th April, 1911.
Factory and Workshop	20th June, 1916.	L.G.B., 2nd Aug., 1916.
Garden Allotments	1st Feby., 1933.	Ministry of Home Affairs, 10th February, 1933.
Hoarding (Advertising)	4th Oct., 1899.	L.G.B. 19th Oct., 1900.
House Refuse, Removal of	1st Feb., 1909.	do. 8th April, 1909.
Ice Cream, Manufacture and Sale of	1st Feb., 1927.	Ministry of Home Affairs, 31st March, 1927.
Ice Cream, Premises used for sale of	1st Dec., 1931.	13th Jan., 1932.
Juvenile Street Trading (see Street Trading)		
Lodging Houses—		
Other than Common	1st May, 1876.	L.G.B., 7th June, 1876.
Seamen's	March, 1883.	Board of Trade, 17th March, 1883.
Common	2nd Nov., 1903.	L.G.B., 20th Jan., 1904.
Lights on Vehicles	1st Jan., 1901.	do. 18th April, 1901.
Lord Mayor, non-acceptance of Office	June, 1901.	L. Lieutenant, 8th February, 1902.
Locomotives—		
Streets	5th June, 1906.	L.G.B. 19th July, 1906.
Hours	1st May, 1914.	do. 15th June, 1914.
Markets	1st Feb., 1851	Chairman Quarter Sessions, 12th April, 1851.
Grain and Meal Market	1st Sept., 1896.	do. 27th Oct., 1896.
Mortuary	1st Dec., 1895.	
Motor (Taxi) Cabs Plying for Hire (see Conveyances Plying for Hire).		
Meat, Conveyance of	1st May, 1922.	Ministry of Home Affairs, 7th June, 1922.
do.	2nd June, 1930.	19th July, 1930.
Meat, Inspection of	1st Dec., 1913.	13th Feb., 1914.
Meat, Protection of	1st June, 1932.	18th July, 1932.
Motor Car Parking Places	2nd Sept., 1929. Additional Order made— 3rd March, 1930.	22nd Oct., 1929.
do.	1st Feb., 1932.	

NATURE OF BYE-LAWS.	WHEN MADE.	WHEN CONFIRMED AND BY WHOM.
Offensive Trades	2nd Nov., 1903.	20th Jan., 1904.
do.	2nd Nov., 1914.	11th Dec., 1914.
do.	1st April, 1930.	10th May, 1930.
Omnibuses	1st May, 1931.	26th June, 1931.
Public Parks General	1st Aug., 1923.	27th Sept., 1923.
do.	2nd May, 1927.	2nd July, 1927.
Public Parks	1st Nov.. 1928,	18th Dec., 1928.
Parks, Recreation Grounds, Pleasure Grounds, Open Spaces and Children's Playground.	1st March, 1932	Ministry of Home Affairs, 13th April, 1932. His Grace the Governor of Northern Ireland, 3rd June, 1932.
Bellevue Gardens and Hazelwood	1st Aug., 1923.	Ministry of Home Affairs (N.I.), 27th Sept., 1923.
do.	2nd May, 1927.	do. 5th Aug., 1927.
Children's Playgrounds	1st Nov., 1923.	Ministry of Home Affairs, 21st, Dec., 1923.
Regulation of Vehicular Traffic, Ormeau Park	2nd Oct., 1922.	Ministry of Home Affairs (N.I.), 4th Dec., 1922.
Piggeries	1st May, 1894.	L.G.B., 2nd Aug., 1894.
Pork—See "Meat, Conveyance of."		
Public Libraries, Art Gallery and Museum	1st June, 1905.	do. Aug., 1905.
do.	1st May, 1930.	Ministry of Home Affairs, 27th August, 1930.
Public Sanitary Conveniences	2nd Nov., 1908.	do. 2nd Jan., 1909.
Public Service Vehicles	1st May, 1931.	Ministry of Home Affairs, 26th June, 1931.
Places of Public Resort—Regulations re Ingress to and Egress from	1st Nov., 1909. Amended 3rd Nov., 1913.	Confirmation Unnecessary.
School Attendance	2nd June, 1924.	Ministry of Education, 18th Aug., 1924.
do.	1st October, 1929.	21st Dec., 1929.
School Committee, Scheme regulating the Constitution, Powers, Duties and Procedure	2nd Jan., 1928.	
Spitting	4th Aug., 1903.	L. Lieut., 1st September, 1903.
do.	1st Nov., 1933.	His Grace the Governor of Northern Ireland, 8th January, 1934.
Street Nuisances	6th Nov., 1903.	L. Lieut., 12th Oct., 1905.
Street Traffic	1st June, 1904. 1st Feb., 1906. 1st Oct., 1917. 3rd Oct., 1927. 3rd Dec., 1928. 3rd Feb., 1930. 1st June, 1931. 1st Sept., 1931. 1st March, 1932.	Confirmation Unnecessary.
Street Trading (Juvenile)	1st Oct., 1925.	Ministry of Home Affairs, 16th December, 1925.
Standing Orders of Council	1st Sept., 1930. Amended 1st May, 1931. and 1st June, 1934.	
Sheep Scab	1st April, 1915.	
Sanitary Conveniences (see Public Sanitary Conveniences.)		
Swimming Ponds—Regulations for use of	1st April, 1910.	
Tennis Courts	2nd Jan., 1922.	Lord Lieutenant, 9th January, 1922.
Tents, Vans, etc.	1st July, 1919.	
Tramways	2nd Oct., 1905.	Commissioner of Public Works, 2nd December, 1905.
Vehicles, Lights on	1st Jan., 1901.	L.G.B., 18th April, 1901.

PREMISES AND OCCUPATIONS CONTROLLED BY BYELAWS AND REGULATIONS ADMINISTERED BY PUBLIC HEALTH DEPARTMENT.

NATURE OF BYELAW	CHARACTER OF PREMISES
Abattoir— Butchers working in	City Abattoir.
Abattoir— Management and Charges	do.
Burial Grounds	The Burial Grounds under the control of the Belfast Corporation are City Cemetery, Dundonald Cemetery and Knock Cemetery. The City Cemetery is situated about 2½ miles from the centre of the City on the West side of Falls Road. It contains about 45 acres and was opened in the year 1869. Dundonald Cemetery is situated in the parish of Dundonald, about 4 miles distant from the centre of the City. It also contains about 45 acres and was opened in the year 1905. Knock Cemetery is situated on the Knock Road. The private burial grounds are:— Friars' Bush Cemetery, Stranmillis Road. Milltown R.C. Cemetery, Falls Road. Malone Burial Ground, Stockman's Lane. Quakers' Burial Ground, Balmoral Avenue. Old Charitable Institution Burial Ground, Clifton Street. Greencastle Burial Ground, Greencastle. Ballymacarret Methodist Church Burial Ground, Newtownards Road. St. Matthew's Church Burial Ground, Shankill Road. All the graveyards are regularly inspected by the officers of the Public Health Department in order to ensure that the requirements of the Public Health Act and Byelaws made thereunder are complied with.
Butchers' Shops	Shops where Butchers' Meat is sold.
Dairies, Cowsheds & Milkshops (Ireland) Order.	

Premises and Occupations Controlled by Byelaws and Regulations administered by Public Health Department—*Continued.*

NATURE OF BYELAW	CHARACTER OF PREMISES
Ice Cream— Manufacture and Sale of	Grocery Shops; Confectionery Shops; Fish and Chip Shops; Kitchen Houses, &c., &c.
Lodging Houses— Common	The Common Lodging Houses are old type of houses, situated principally in the centre of the City, with accommodation for lodgers varying from 5 to 319.
Other than Common	
Meat— Conveyance of	———
Inspection of	———
Offensive Trades	Hide Stores; Gut Scrapers; Bone Boilers; Soap Manufacturers; Fellmongers; Fat Boilers; Fat Extractors; Tanners.
Piggeries	———
Sheep Scab	———
Tents, Vans, &c.	———
Rag Flock Act, 1911, Regulations	Bedding manufacturers and Upholsterers.

FACTORY AND WORKSHOP ACTS.

Summary of inspections and of sanitary improvements carried out in pursuance of the provisions of above Acts.

FACTORIES.

578 visits were made to factories.

SANITARY IMPROVEMENTS.

The following improvements were carried out by the owners or occupiers of the premises, after being duly noticed, in order to remedy sanitary defects discovered in the course of inspection :—

No of Factories in which improvements were carried out.	Nature of Improvements.
3	Water closet accommodation provided.
2	Additional water closet accommodation provided.
3	Separate water closet accommodation for each sex provided.
69	Water closets cleansed.
11	Water closets repaired.
2	Offensive trough closets abolished and water closets provided.
7	Intervening ventilated spaces provided between workrooms and water closets.
3	New flushing cisterns provided to water closets.
2	Roofs of water closets repaired.
6	Factories cleansed and limewashed.
4	New drains provided.
2	Drains cleansed.
4	Wash-hand basins provided.
3	Wash-hand basins cleansed.
3	Floors repaired.
5	Roofs and spoutings repaired.
1	Spouting repaired.
2	Stairs cleansed.
2	Tiling repaired.
3	Water supply provided.
1	Smoke consuming apparatus provided.
1	Dust nuisance abated.
1	Waste pipe repaired.
5	Trade refuse removed.

WORKSHOPS.

2,640 workshops on register on 1st January.
98 registered during the year.
84 removed from register during the year.
2,112 visits made.

SANITARY IMPROVEMENTS.

The following improvements were carried out by the owners or occupiers of the premises, after being duly noticed, in order to remedy sanitary defects discovered in the course of inspection :—

No. of Workshops in which improvements were carried out.	Nature of Improvements.
6	Water closet accommodation provided.
8	Separate water closet accommodation provided for each sex.
2	Water closet roofs repaired.
78	Water closets cleansed.
22	Water closets repaired.
6	Intervening ventilated spaces provided between workrooms and water closets.
3	Walls of water closet apartments limewashed.
1	Offensive privy abolished.
3	Wash-hand basins provided.
1	Waste pipes repaired.
3	Means of ventilation provided.
2	Means of heating provided.
7	Drains relaid.
2	Drains cleansed.
2	Walls repaired.
4	Staircases provided with hand-rails.
9	Stairs cleansed.
20	Workshops cleansed.
91	Workshops cleansed and limewashed.
6	Water supply provided.
1	Door provided.
3	Yards cleansed.
5	Tiles relaid or floors repaired.
3	Hoods and flues provided to stoves.
8	Trade refuse removed.
2	Dustbins provided.
3	Ceilings repaired.
4	Roofs repaired.
4	Roofs and spoutings repaired.
2	Spoutings repaired.
2	Premises closed on sanitary grounds as unfit to be used as workshops.

WORKPLACES.

566 Visits were made to workplaces.

SANITARY IMPROVEMENTS.

The following improvements were carried out by the owners or occupiers of the premises, after being duly noticed, in order to remedy sanitary defects discovered in the course of inspection :—

No. of Workplaces in which Sanitary improvements were carried out.	Nature of Improvements.
3	Water closet apartments provided.
12	Water closets cleansed.
13	Water closets repaired.
2	Water closet cisterns repaired.
2	Separate water closet accommodation provided for each sex.
2	Yards cleansed.
14	Workplaces cleansed.
5	Workplaces provided with means of ventilation.
3	Tiles relaid or flooring repaired.
3	Roofs repaired.
6	Walls limewashed and cleansed.
2	Spouting repaired.
4	Roofs and spouting repaired.
5	Stairs cleansed.
3	Accumulations of trade refuse or rubbish removed.
2	Dustbins provided.

BAKEHOUSES.

1,319 Visits were made to Bakehouses.

SANITARY IMPROVEMENTS.

The following improvements were carried out by the owners or occupiers of the premises, after being duly noticed, in order to remedy sanitary defects discovered in the course of inspection :—

No. of Bakehouses in which improvements were carried out.	Nature of Improvements.
7	Water closets cleansed.
5	Water closets repaired.
3	Separate water closet accommodation for each sex provided.
4	Means of ventilation provided.
1	Opening into drains within bakehouses closed up.
43	Hoods and flues provided to carry off fumes from hot plates and ovens.
3	Drains relaid.
2	Drains repaired.
3	Drains cleansed.
4	Roofs and spouting repaired.
2	Floors repaired.
1	Bakehouse reconstructed.
2	Ceilings repaired.
4	Closed as unfit to be used as bakehouses.
83	Bakehouses cleansed, limewashed or painted.
3	Accumulations of trade refuse removed.
2	Dustbins provided.

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

TABLE XII.

HOME WORK.

	OUTWORKERS						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
	Lists received from Employers													
	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	134	....	449	12	....	11	All Occupiers were Notified	....	1,565	.....	....	.	....	....
Household Linen	102	273	2,711	5	22	20		....	2,395	205	205	18	18	109
Furniture and Upholstery	4	....	7	....	....	....		....	9	....	.....	.....	.....	.....
Paper Bags and Boxes	4	....	8	....	....	....		....	10	....	—	.....	....	.....
Total	244	273	3,175	17	22	31		....	3,979	205	205	18	18	109

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.

421 sanitary defects, nuisances, etc., were discovered and remedied.

All work found on infected premises was disinfected.

SHOPS.

3,683 Visits were made by the Female Sanitary Sub-Officers.

SANITARY IMPROVEMENTS.

The following improvements were carried out by the owners or occupiers of the premises, after being duly noticed, in order to remedy sanitary defects discovered in the course of inspection :—

No. of Shops in which improvements were carried out.	Nature of Improvements.
3	Rooms adjoining shops ceased to be used as bedrooms.
6	Suitable storage for food provided.
132	Premises cleansed.
10	Stairs cleansed.
18	Water closets cleansed.
2	Water closets provided with new basins.
7	Cisterns of water closets repaired.
13	Water closets repaired.
4	Roofs of water closets repaired.
3	Drains cleansed.
7	Tiling repaired.
4	Flooring repaired.
4	Spoutings repaired.
2	Waste pipes repaired.
10	Roofs repaired.
12	Walls and ceilings limewashed.
2	New doors provided.
4	Ceilings repaired.
2	Water taps repaired.
3	Door steps repaired.
2	Window frames repaired.

COMMON LODGING HOUSES.

Number on Register at 1st January	50
Removed from Register during the year	5
Number of lodgers for whom there was accommodation	1,323
Number of visits during the year by lodging house Inspector	2,729
Nuisances discovered	58
Breaches of Bye-laws	186

The accommodation varies 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 and immediate remedial measures taken for the abatement of any nuisance or the repair of any sanitary defect found to exist.

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

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

SANITARY IMPROVEMENTS.

No. of Lodging Houses in which improvements were carried out.	Nature of Improvements.
12	Drains cleansed.
3	Drains repaired.
13	Roofs repaired.
5	Spouting repaired.
2	Cisterns repaired.
13	Water closets repaired.
2	Water closet apartments repaired.
3	Water pipes repaired.
5	Tiles relaid or flooring repaired.
1	Stairs repaired.
6	Windows repaired.
2	Fire Grates repaired.
7	Plaster of walls and ceilings repaired
2	Trade refuse removed.

RAG FLOCK ACT, 1911.

18 samples of Rag Flock were submitted to the City Analyst for examination during the year 3 of which were found to be below the standard of cleanliness laid down by the Rag Flock Regulations, 1912. In two cases warning letters were sent to the persons from whom the samples were taken, and in one case a prosecution was instituted and the defendant was fined 40/- and costs.

SMOKE NUISANCE.

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

OFFENSIVE TRADES.

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

TABLE XIII.

LEGAL PROCEEDINGS.

	Summonses	Orders.	Fines. £ s. d.
Under Public Health Acts:—			
For abatement of nuisances	483	51	6 1 6
Disobedience of Justices' Orders	5	—	—
Having deposited for the purpose of sale a fowl which was unsound and unfit for the food of man	1	—	—
Buildings not provided with proper sinks or other necessary appliances for carrying off refuse water	2	—	—
The want of proper separate Sanitary accommodation for persons of each sex	2	1	0 2 6
Establishing an offensive trade without the consent in writing of the Urban Authority	3	—	0 10 0
Under Public Health (Preservatives, etc., in Food) Regulations	5	—	3 5 0
Under Dairies, Cowsheds and Milkshops Order	2	—	1 0 0
Under Belfast Corporation Acts	15	—	3 0 0
Under Merchandise Marks Acts	3	—	6 0 0
Under Bye-Laws prohibiting the sale of meat until after inspection	2	—	2 0 0
Under Bye-Laws for the regulation of piggeries	1	—	2 0 0
Under Rag Flock Act	1	—	2 0 0
Under Diseases of Animals Acts:—			
Sheep Scab Order	9	—	20 0 0
Under Sale of Food and Drugs Acts	—	—	57 0 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 1934 as recorded at the Water Works at Old Park, compared with the preceding ten years.

TABLE No. XIV.

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
January	5.06	3.16	5.09	3.57	7.63	2.29	4.80	4.49	2.96	2.07	2.80
February	0.85	4.15	4.80	1.75	4.61	4.23	0.90	3.30	.07	2.85	0.25
March	1.36	1.24	1.52	2.65	3.79	0.57	2.03	1.30	1.86	2.43	2.07
April	3.15	3.89	1.93	1.26	1.40	1.28	2.01	2.77	3.27	1.32	3.07
May	5.12	6.23	2.30	1.43	1.65	2.93	2.02	4.33	2.77	2.27	3.55
June	4.32	0.41	1.97	3.91	4.83	3.12	2.35	5.41	1.30	2.80	2.39
July	4.42	3.96	3.74	2.93	2.35	3.51	3.34	2.71	5.02	2.89	2.78
August	5.71	1.70	3.67	3.10	3.82	5.67	6.41	3.40	2.68	2.31	4.95
September	6.93	3.96	2.23	5.42	2.13	0.83	4.51	1.63	3.32	0.83	4.18
October	3.00	3.47	3.85	3.66	7.38	4.33	6.03	2.19	3.44	2.69	4.10
November	4.17	1.86	4.18	4.84	5.61	5.10	5.39	6.11	1.92	1.30	0.91
December	4.83	4.68	1.05	2.91	4.55	7.67	4.24	3.25	5.35	2.01	6.55
Total	48.92	38.71	36.33	37.43	49.75	41.53	44.03	40.89	33.96	25.77	37. 60

REPORT

of the City Veterinarian on the Work of his Department for the year 1934.

Dear Dr. Thomson,

I beg to submit my report on the work at the Belfast Municipal Abattoir in connection with the Ante-Mortem and Post-Mortem examinations of the animals slaughtered for human food.

Reference is also made to the work carried out under the Sanitary (Veterinary Inspectors) Order, 1909 and to visits made to the Balmoral Boys' School, Musgrave Park ; Whiteabbey Sanatorium, Whiteabbey, and the different Butchers' Shops and Curing Establishments in the city.

TABLE 1.

Table showing the number of animals slaughtered and inspected in the Public Abattoir during the year 1934.

1934	Cows	Heifers	Bulls	Bullocks	Calves	Sheep	Lambs	Goats	Pigs
January	2327	103	178	1716	150	6623	3768	103	884
February	1807	87	167	1345	147	4698	2939	131	446
March	1774	74	169	1477	198	5307	3022	173	580
April	1643	50	121	1488	191	5784	3530	158	461
May	1661	50	159	1606	148	5111	4779	125	354
June	1174	63	167	1163	148	4064	5243	113	473
July	1286	73	46	1262	126	2803	7016	68	401
August	1593	61	21	1549	179	3691	6190	91	539
September	1604	96	30	1465	190	4056	5183	94	1027
October	2114	127	37	1958	232	6056	4976	113	1239
November	1874	136	41	1623	296	6011	2982	139	1904
December	1805	136	79	1465	169	7928	2191	119	1574
Totals	20662	1056	1215	18117	2174	62132	51819	1427	9882

Compared with 1933 : Cattle show an increase during the year of 2,226, Sheep a decrease of 529, Pigs an increase of 4,762 and Goats an increase of 116.

TABLE 2.

Table showing the number of carcases condemned (from all causes) during the year 1934 as being unsound and unfit for human food.

Species.	1934	1933
Cows	449	415
Heifers	9	5
Bulls	6	3
Bullocks	25	28
Calves	33	37
Sheep and Lambs	131	139
Goats	10	8
Pigs	89	24
Totals	752	659

The percentage of animals condemned at the Public Abattoir (from all causes) during the year 1934 was .4%.

TABLE 3.

Table showing the different diseased conditions which involved seizure and total destruction of carcases in the Public Abattoir during the year 1934.

	CATTLE					SHEEP LAMBS	GOATS	PIGS	TOTAL
	Cows	Heifers	Bulls	Bullocks	Calves				
Abscesses	—	—	—	—	—	1	—	1	2
Anaemia	—	—	—	—	—	1	—	—	1
Caseous Lymphadenitis	—	—	—	—	—	1	—	—	1
Decomposition	1	—	—	—	—	12	1	3	17
Dropsical	13	2	—	—	—	51	6	1	73
Emaciated	37	—	1	—	—	6	3	3	52
Enteritis	—	—	—	—	1	—	—	—	1
Fevered	23	—	2	3	10	26	—	38	102
Gangrene	2	—	—	—	—	—	—	—	2
Inflammation	1	—	—	—	3	5	—	—	9
Injured	2	—	—	2	—	10	—	1	15
Jaundice	—	—	—	—	2	—	—	—	2
Joint Ill	—	—	—	—	3	—	—	—	3
Neoplasms (Cancer Sarcoma)	27	—	—	—	—	4	—	1	32
Peritonitis	—	—	—	—	1	3	—	—	4
Pericarditis	2	—	—	—	—	—	—	1	3
Piroplasmosis	5	—	—	—	—	—	—	—	5
Pneumonia	—	—	—	—	2	—	—	—	2
Pyaemia	—	1	—	—	2	—	—	1	4
Rheumatism	1	—	—	—	—	—	—	—	1
Septicaemia	6	1	—	—	2	6	—	6	21
Septic Mastitis	6	—	—	—	—	3	—	1	10
Septic Metritis	2	1	—	—	—	—	—	—	3
Septic Nephritis	—	—	—	—	1	—	—	—	1
Septic Pleurisy	4	1	—	1	—	2	—	2	10
Swine Fever	—	—	—	—	—	—	—	2	2
Swine Erysiphelas	—	—	—	—	—	—	—	3	3
Tuberculosis	318	3	3	18	2	—	—	24	368
White Scour	—	—	—	—	3	—	—	—	3
Total	415	5	3	28	37	139	8	24	659

In addition to the above summary, there were 4 tons, 17 cwts., 0 qrs., 0 lbs. of Beef; 1 cwts., 0 qrs., 24 lbs. of Mutton and 0 cwts., 28 lbs. of Pork seized as being unsound and unfit for human food.

TABLE 4.

Tables showing comparison between Tuberculosis and other diseases as causes of condemnation of carcases of animals slaughtered at the Public Abattoir during the year 1934.

TUBERCULOSIS.

	Cattle.			Sheep Lambs	Goats	Pigs	Total
	Cows	Other Cattle	Calves				
Total Seizure	318	24	2	....	....	24	368
Partial Seizure	49	5	....	....	....	....	54
Total and Partial	367	29	2	....	....	24	422

OTHER DISEASED CONDITIONS.

	Cattle			Sheep Lambs	Goats	Pigs	Total
	Cows	Other Cattle	Calves				
Total Seizure	131	16	31	131	10	65	384
Partial Seizure	17	4	....	11	....	2	34
Total and Partial	148	20	31	142	10	67	418

It will be seen from the above table that Tuberculosis in cattle is a most fruitful source of total seizure, accounting for 48 per cent. of the seizures, as compared with other diseased conditions. Compared with 1933 this shows a decrease of 16 per cent.

Some indication of the losses from Tuberculosis borne annually by the meat trade may be obtained from the above figures which represent a cash value of roughly £50 per week.

TABLE 5.

Table showing the percentage by age of the animals slaughtered and condemned at the Public Abattoir during 1934 for Tuberculosis :—

SPECIES	BY AGE							
	From one month to one year	Per Cent	One to three years	Per Cent	From three to six years	Per Cent.	Over six years	Per Cent
Cows	....	....	....	....	....	....	318	100
Heifers	....	....	2	66	1	33	....	....
Bullocks	....	....	4	22	14	77	....	....
Bulls	....	....	1	33	1	33	1	33
Pigs	24	100	....	....	....	....	....	—
Calves	2	100	....	....	....	....	....	—

TABLE 6.

Table showing the percentage by condition of the animals slaughtered and condemned at the Public Abattoir for Tuberculosis during the year 1934.

SPECIES	BY CONDITION.							
	Good		Fair		Indifferent		Poor	
	Number	Per Cent	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.
Cows	2	.62	169	53.14	139	43.71	8	2.51
Heifers	....	....	3	100.00	....	....	....	....
Bulls	....	....	2	66.66	1	33.33	....	....
Bullocks	....	....	16	88.88	2	11.11	....	....
Calves	....	....	....	....	....	....	....	....
Pigs	24	100.0	....	....	....	....	....	....

TABLE 7.

Table showing the number of Diseased Organs seized and destroyed as being unsound and unfit for human food during the year 1934 (the figures of the preceding year are given for comparison).

	1934	1933	Increase.	Decrease.
Beef :—				
Heads	218	201	17	....
Tongues	217	201	16	....
Hearts	210	190	20	....
Lungs	3305	2683	622	....
Livers	9027	8863	164	....
Stomachs	268	215	53	....
Udders	1927	1762	165	....
Mesenteries	392	310	82	....
Omentum	278	140	138	....
Diaphragm	52	40	12	....
Kidneys	70	142	....	72
MUTTON :—				
Hearts	5	8		3
Lungs	12	153	....	141
Liver	3669	6732	....	3063
Kidneys	9	20	....	11
PORK :—				
Heads	437	89	348	....
Tongues	437	89	348	....
Hearts	191	58	143	....
Lungs	447	68	379	....
Liver	268	74	194	....
Mesenteries	....	3	....	3
Kidneys	2	2	....	....
GOAT :—				
Liver	42	73	....	31
Kidneys	....	6	....	6

The above does not include the viscera of animals totally destroyed.

It will be seen from the above table that the total number of Livers seized was 13,006, and in the great majority of cases the cause of seizure was Cirrhosis due to Distomes. From the above it is quite evident that no universal attempt is made to reduce Distomatosis by systematic dosing of infected animals, and as a result the amount of valuable food lost is great.

TABLE 8.

Table showing percentage incidence of Generalised Tuberculosis in animals slaughtered at the Public Abattoir during the year 1934.

	1934	1933
Cows	1.50	1.53
Other Cattle	.10	.11
Cattle (all classes)	.80	.85
Calves	.08	....
Pigs	.20	.10

INSPECTION OF MEAT PREPARED OUTSIDE THE CITY BOUNDARY.

According to Section (2) Sale of Meat Bye-Laws, every person bringing meat within the City for sale, shall bring such meat to the Public Abattoir, Stewart St., and there submit same for inspection between the hours of 8 a.m. and 10 a.m, To facilitate the trade a special Depot is provided.

(A) Table Showing Amount Examined.

	Beef	Mutton	Pork	Veal	Goat	Rabbit
Sides	1980	....	....	....	....	....
Quarters	58	....	....	....	....	....
Cuts	2197	61	....	....	....	....
Carcases	....	3268	94	3	2	....
Heads	1000	444	....	....	....	....
Tongues	1013	....	....	....	....	....
Hearts	915	3264	....	....	....	....
Lungs	882	3275	....	....	....	....
Livers	1015	3256	....	....	....	....
Mesenteries	933	....	....	....	....	....
Kidneys	....	....	....	....	....	....
Tails	929	....	....	....	....	....
Diaphragms	885	....	....	....	....	....
Udders	23	....	....	....	....	....

(B) Table Showing Amount Seized and Destroyed.

	Beef	Mutton	Pork	Veal	Goat	Rabbit
Sides	14	....	....	....	....	....
Quarters	4	....	....	....	....	....
Cuts	3	....	....	....	....	....
Carcases	....	6	5	....	....	....
Heads	8	....	....	....	....	....
Tongues	8	....	....	....	....	....
Hearts	7	....	....	....	....	....
Lungs	71	4	....	....	....	....
Livers	122	129	....	....	....	....
Tails	3	....	....	....	....	....
Diaphragms	3	....	....	....	....	....
Udders	3	....	....	....	....	....
Mesenteries	7	....	....	....	....	....

INSPECTION OF PORK IN THE PORK MARKET.

TABLE C.

The following table shows the number of carcases of Pork inspected and results.

Number Examined	Total Seizures	Partial Seizures	Cause of Seizure
28	—	11 Heads and Tongues	Tuberculosis

INSPECTION OF BUTCHERS' SHOPS, PORK STORES and COLD STORES.

During the year the Butchers' Shops, Pork Stores and Cold Stores within the City Boundary were visited regularly by the Food Inspectors. The following were surrendered as being unsound and unfit for human food and Justices' Orders obtained for their destruction :—

Carcases of Pork	79
Beef	20 lbs.
Hams	6 lbs.
Rabbits	4.
Fish	1 cwt., 2 qrs., 24 lbs.
Livers	6
Sausages	16 lbs.
Bacon	20 lbs.
Fowl	2

In addition to the above a considerable number of small quantities of pickled meat on Butchers' and Provision Merchant's premises were found to be unsound and destroyed by the owner under the supervision of the Inspector.

The close collaboration between the Meat Inspectors at the Abattoir and the Food Inspectors who regularly visit the shops in the city make the system of food inspection—Individual and Detective—so perfect that a person might purchase meat or pork from any Butchers' or Provision Shop in the city and feel certain that it is sound.

HANDLING AND TRANSPORT OF FOOD.

During the year there has been considerable improvement in the method of conveying meat and offal from the Abattoir to the respective Butchers' Shops. Closer attention by the Inspectors to this important point has resulted in the carriers providing themselves with satisfactory covering for the meat during transit through the city. We are yet still far from the ideal method, namely closed or covered waggons.

INSPECTION OF COWSHEDS AND DAIRY COWS.

The approximate number of Milch Cows within the city boundary is 1,037 and the total number of cowsheds on the register is 74.

During the year I have made systematic inspections of all milch cows and cowsheds, and as a result of the inspections 4 cows were reported under the Bovine Tuberculosis Order (1925).

These were dealt with by the Officer carrying out the Order and have been reported in detail in previous reports.

Repeated Bacteriological examinations of milk from cows showing any udder lesion were carried out. In the majority of cases dealt with the lesion was of streptococcic origin. This organism although regarded as non-pathogenic to man renders the milk quite unsuitable for human food owing to

the alterations in the appearance and palatability. In every case the owner was ordered not to use the milk from the affected quarter and advised to milk the affected cow last to prevent transmission of the disease to other cows.

Since my last annual report, the Milk and Milk Products Act (Northern Ireland) 1934 has come into force, and it is with a feeling of pride that one states that the majority of the producers inside the city have secured Grade B licenses. The Ministry of Agriculture is to be congratulated on introducing such a measure. It is unnecessary for me to stress the importance of this Act as far as Belfast is concerned. Most of the milk supply for the city is produced in rural areas outside our jurisdiction and I am afraid in the past was not up to the high standard of that produced in the city. We now have a definite assurance that the premises and animals of producers outside the boundary will be inspected by fully qualified Veterinary Officers and that the milk will conform to a definite standard of cleanliness.

The cowsheds have been carefully inspected, paying attention to lighting, ventilation, drainage and water supply. In every instance under my notice, the cowshed has been limewashed at least twice during the year.

BALMORAL BOYS' SCHOOL, MUSGRAVE PARK.

The herd of cows maintained for the purpose of supplying the school with milk has been inspected at frequent intervals during the year. On the occasion of each visit everything has been found highly satisfactory.

ELECTRICAL STUNNING OF ANIMALS.

This method of stunning has been adapted during the year for all the smaller animals (sheep, goats, pigs and calves) and as a result of my experience I have no hesitation in saying this is the simplest, cheapest, most suitable and least objectionable method of stunning animals known.

All the members of the butchering trade are well pleased with the method, and the slaughter men say they would not go back to the old method of slaughter.

SWINE FEVER.

During the year two cases of Swine Fever was detected at the Public Abattoir. This was reported to the Central Authority who confirmed the cases and dealt with the matter.

ANTHRAX.

During the course of meat inspection at the Depot set aside for those animals slaughtered outside the City Boundary, the dressed carcase of an animal which had suffered from Anthrax was presented for inspection. All the necessary precautions with regard to disinfection and destruction of the carcase were carried out and the case reported to the Ministry of Agriculture who confirmed the diagnosis.

This case had an unfortunate sequel in that the butcher who dressed the carcase contracted a malignant fustule on his arm. Cases such as this bring home very forcibly the necessity of ante and post mortem examination of all animals intended for the food of man.

To my colleague Dr. Tinsdale, I am again deeply grateful for the considerable amount of laboratory work which he so kindly undertook in connection with the examination of milk, specimens, etc.

To my staff for their loyal support and manner in which they carried out their onerous duties at all times, I say thanks.

In concluding, the foregoing summary of the year's work, I again Sir, wish to acknowledge the many kindnesses you have shown me during the year and to thank you for the personal interest you have taken in my department.

Yours faithfully,

ALEX McLEAN,

City Veterinarian.

THE MUNICIPAL ABATTOIR.

Dear Dr. Thomson,

I have pleasure in submitting my Annual Report for the year 1934.

The Abattoir is situated in Stewart Street, and covers an area of 3¼ acres. It is within easy access of the Cattle Market, Oxford Street, and Sale Yards, all of which are in the immediate vicinity, thus it will be seen that the Markets Committee, in their foresight, were fully justified in erecting the establishment in a central position as much time is thereby saved by the Butchers, owing to the fact that an animal for slaughter can be driven from the Markets and Auction Marts to the Abattoir inside five minutes. A special entrance from the Markets under one of the Archways of the East Bridge has also been provided by the Committee and is largely availed of by the Butchers on Mondays and Tuesdays of each week, the former day for transit of sheep and the latter for cattle. This arrangement, from a traffic point of view, is an excellent one, and greatly relieves congestion in the surrounding streets.

The present buildings are comparatively new, thoroughly up-to-date, and contain all the equipment, electrical and otherwise, necessary to carry on a modern Abattoir.

I append particulars of the Abattoir Buildings, &c., also the present Staff and their duties.

Buildings, &c.

1. THE ADMINISTRATIVE BLOCK contains Resident Foreman's Apartments in second storey, Veterinarian's Office, Laboratory, General Office and Toll Collector's Office, also Meat Inspectors' Rest Room, on Ground Floor, all with complete telephonic communication and necessary equipment.

2. MESS ROOM for use of Butchers prior to commencing their work.

3. LIVE SHEEP LAIRAGE BUILDING capable of accommodating 1,200 Sheep.

4. SHEEP KILLING HALL capable of providing accommodation for the slaughter of from 500 to 700 animals per day.

5. SHEEP HANGING HALL capable of storing upwards of 700 carcases of Mutton.

6. LIVE PIG LAIRAGE BUILDING capable of accommodating 100 pigs.

7. PIG KILLING AND HANGING HALL fitted up with the most modern appliances (including Special Hot Water Tanks for scalding purposes) with accommodation for 250 carcases.

8. LIVE CATTLE LAIRAGE (220 ft. long x 48 ft. wide) capable of accommodating 250 Head of Cattle.

9. CATTLE KILLING PENS (20) (each 10½ ft. long x 14 ft. wide).

10. CENTRAL CATTLE DRESSING HALL (220 ft. long x 40 ft. wide).

11. MEAT HANGING HALL (166 ft. long x 48 ft. wide) capable of storing 500 sides of Beef, and fitted up with special overhead Twin Bar Trolleys for removing same.

Cold Storage Chambers.

The Cold Storage Chambers were open from May to November and owing to the exceptionally warm Summer and Autumn were largely availed of by the Fleshers of the City.

Pig Singeing Machine.

In order to encourage the slaughter of Pigs in the premises and also to comply with a demand from the various representatives interested in the shipping of Pork cured in the Danish or Wiltshire method, the Markets Committee have installed a Pig Singeing Machine.

New Sheep Slaughter and Carcase Hanging Hall.

Owing to congestion in the present Sheep Slaughter Hall, the Markets Committee have erected a palatial extension to the Abattoir.

The Building provides accommodation for the slaughter of upwards of 1,000 Sheep per day and hanging space for 1,050 Carcases of Mutton, and will relieve the pressure in the present Sheep Hall which at times is quite unable to cope with the rush at peak periods.

Licensed Butchers.

In accordance with requirements of By-Law, there were 120 Licences issued during the year to competent persons, and included 2 under authority of the local Rabbi, in connection with the Jewish ritual form of slaughter.

The following return shows the number of animals slaughtered in the Abattoir during the year ended 31st December, 1933 :—

Cattle	41,087
Calves	4,143
Sheep and Lambs	111,010
Goats	1,364
Pigs	12,055
Total	169,659

I may here mention that before removal all Meat is subject to a close inspection by the Public Health Officials who detain anything of an unsound or diseased nature.

Painting Work.

During the year it was necessary to have Roof and Ironwork of Byres, Roof and Runways of Meat Hanging Hall, also portion of Corridors in Administrative Block, painted.

Equipment.

During the year the Machinery, Overhead Equipment, Refrigerating Plant, Electrical Plant and Digester Plant, have been well supervised by the Engineer also the Electrolethaler Installation. Several small repairs were effected to Motors, Machinery, etc., and the equipment generally has been kept in good running order and is in a satisfactory state.

General Repairs.

The premises are in good repair, the Cattle Lairages, Sheep Lairages, Pig Lairages, also the numerous Slaughter Halls throughout the premises have been kept in a thoroughly clean condition, regularly cleansed with a copious supply of water, and, where suitable, disinfectants have been applied to keep the premises in a good sanitary order.

12. REFRIGERATOR AND CHILL ROOMS capable of storing 150 carcases of Beef, 300 carcases of Mutton and 100 carcases of Pork per day.

13. BOILER HOUSE.
14. ENGINE HOUSE.
15. CONDEMNED MEAT STORE.
16. DIGESTER PLANT BUILDING.
17. TRIPE DRESSING STORES (2).
18. GUT DRESSING STORES (3).
19. BUTCHERS' LOCKERS.
20. WEIGHING MACHINES (various).

21 ELECTRIC CLOCKS (complete installation).

STAFF (MARKETS COMMITTEE).

1 Manager	1 Charwoman.
	3 Checkers.
1 Resident Foreman.	8 Porters (Cleaning Floors, etc.)
	1 Constable.
1 Toll Clerk.	1 Mechanic.
	1 Weighmaster.
1 General Clerk.	1 Night Watchman.
	1 Fireman.
1 Engineer.	1 Digester Plant Operator.
	1 Asst. Digester Plant Operator.
1 Assistant Engineer	1 Refrigerator Operator.
6	20

Total Staff 26

Humane Killers and Electrolethaler.

All classes of animals are now stunned before slaughter, either by means of the Humane Killer or Electrolethaler. The Humane Killer is used principally for Cattle and the Electrolethaler for Sheep, Pigs, Calves and Goats. There are now 30 Humane Killers in use and continue to give every satisfaction from a humane point of view, no accidents have occured during the year or unnecessary cruelty inflicted on any animal during slaughter. This may be accounted for by the fact that all Butchers have become expert in its use.

Electrolethaler.

The apparatus known as the Electrolethaler consists of a pair of tongs and a Transformer. The tongs are applied behind the animals ears and simultaneously with the switching on of the electric current the animal loses consciousness and is then bled and from observation it appears to be the most up-to-date, expeditious and humane form of stunning animals yet devised. It is simplicity in itself and easy to operate. The apparatus is used chiefly for Sheep and Pigs and has been found most satisfactory, particularly with regard to Pigs, which under the old method of stunning with Iron Hammer was most objectionable, the squealing of the animals previous to slaughter being continuous. Under the new system this has been entirely eliminated and the killing is now done under more congenial conditions for man and animal.

Live Cattle Lairages.

These Lairages, which provide accommodation for 250 Head of Cattle previous to slaughter, have been kept in first class order during the year. The floors have been kept clean, well lime-washed and disinfected after hosing and the automatic Drinking Troughs, which ensure a constant supply of clean drinking water for the animals, continue to work well. The extensive walls of the Building have been specially treated with disinfectant paint and portion lime-washed, thus making them quite clean and sanitary.

To the Members of the Staff I return my best thanks for the efficient manner in which they carried out their multifarious duties during the year, and to you Sir, I also desire to record my thanks for kind co-operation and practical interest taken in the administration of the establishment.

(Signed),

ALEX. McLEAN,

Manager of the Abattoir.

Public Abattoir,
Stewart Street, Belfast.

MILK SUPPLY.

Milkshops—

On Register 1st January	1,830
New Registrations effected during the year	245
Removed from Register during the year	174
Number of Visits made during the year	3,504
* Number of unregistered persons discovered selling milk	75
Verbal notices given	46

*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	67	217	225	162	99	148	10	21	127	145	203	161	94	.....	135	87	1901
Inspections	218	620	480	277	252	215	24	69	302	247	245	131	81	....	235	108	3504

Cowsheds—

On Register	74
Number of Cows	1,037
Number of Inspections made	307
All Cowsheds were limewashed at least twice during the year.	
Special visits to Cowsheds principally in connection with Cattle Diseases	85

Return shewing the number of Cowsheds and the number of inspections made in each of the several Dispensary Districts.

Dispensary District	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Cowsheds	.....	1	2	5	.....	6	2	18	19	3	6	4	5	.....	3	.....	74
Inspections	.....	4	11	20	.....	27	4	58	89	5	37	18	26	.....	8	.....	307

SALE OF FOOD AND DRUGS ACTS

Return showing particulars of samples of food, etc., taken for analysis during the year.

TABLE XV.

Nature of Sample.	Samples taken	Adulterations	Prosecutions	Convictions	Discharged on Payment of Costs	Dismissed	Withdrawn	Fines £ s. d
Arrowroot	2							
Aspro Tablets	1							
Baking Powder	16							
Barley	26	5						
Beans with Pork (tinned)	2							
Beef Suet	1							
Blood Compound	1							
Butter	135	4	4	4				4 0 0
Buttermilk	201	14	9	9				13 0 0
Cheese	24							
Chemical Food Parrish's Syrup	7							
Chicken, Ham & Tongue	1							
Cocoa	15							
Coffee, Ground	3							
Coffee, Extract of, with Rum	1							
Coffee & Chicory Essence	6							
Compound Balsam of Aniseed	1							
Confectionery	4							
Cordial	2							
Cordial Powder	1							
Corn Flour	5							
Corned Beef (tinned)	2							
Cream	12							
Cream of Tartar	8							
Custard Powder	4							
Dripping	27							
Epsom Salts	1							
Farola	1							
Flour, Self Raising	2							
Fruit Pectin	1							
Fruit (dried)	33							
Fruit (tinned)	5							
Gin	1							
Ginger (ground)	3							
Ginger (preserved)	1							
Ginger Wine, Essence	2							
Glauber Salts	1							
Golden Syrup	1							
Ground Almonds	1							
Ground Nutmeg	1							
Gravy Powder	1							
Halibut Liver Oil Tablets	1							
Ice Cream	1							
Jam	19							
Lard	14							
Lemon Cheese	1							
Magnesia, Citrate of	3							
Margarine	26							
Marmalade	1							

TABLE XV. (Continued)

Nature of Samples.	Samples taken	Adulterations	Prosecutions	Convictions	Discharged on Payment of Costs	Dismissed	Withdrawn	Fines £ s. d.
Meat Paste	1	....	....	....	....	....	....	....
Milk, Condensed	9	....	....	....	....	....	....	....
Mineral Waters	12	....	....	....	....	....	....	....
Mustard	6	....	....	....	....	....	....	....
Oil, Cod Liver	4	....	....	....	....	....	....	....
Oil, Olive	6	....	....	....	....	....	....	....
Paraffin, Medicinal Liquid	1	....	....	....	....	....	....	....
Peas (dried)	4	....	....	....	....	....	....	....
Peas (tinned)	5	....	....	....	....	....	....	....
Peas and Beans (dried)	1	....	....	....	....	....	....	....
Pepper	11	....	....	....	....	....	....	....
Pickles	2	....	....	....	....	....	....	....
Rice	6	....	....	....	....	....	....	....
Rum	1	....	....	....	....	....	....	....
Salad Cream	1	....	....	....	....	....	....	....
Salmon (tinned)	1	....	....	....	....	....	....	....
Sauce	16	....	....	....	....	....	....	....
Sausages & Sausage Meat	26	1	1	1	....	....	....	1 0 0
Seidlitz Powders	1	....	....	....	....	....	....	....
Semolina	1		....	....	....	....	....	....
Sponge Mixture	1	....	....	....	....	....	....	....
Steak (mince)	1	....		....	....	....	....	....
Sweetmilk	1,329	56	32	28	1	2	1	42 5 0
Tea	8	....	....	....	....	....	....	....
Tomatoes (tinned)	1	....	....	....	....	....	....	....
Vinegar	23	2	2	2	....	....	....	3 0 0
Vita Cup (Cocoa Mixture)	1	....	....	....	....	....	....	....
Whiskey	8	....	....	....	....	....	....	....
Wine	3	....	....	....	....	....	....	....
	2,119	82	48	44	1	2	1	63 5 0

In five cases of Buttermilk and 24 cases of Sweetmilk the percentages below standard were so small no proceedings were taken but owners were cautioned.

In 1 case of barley, owner was cautioned, proceedings having been taken under the Public Health (Preservatives, etc. in Food) (Northern Ireland) Regulations, 1927, against importer.

In 4 cases of barley no proceedings were taken, but owners were cautioned. The barley was re-exported.

INFORMAL SAMPLES TAKEN

4 Barley, 7 Butter, 9 Buttermilk, 2 Cream, 2 Custard Powder, 1 Iodine, 1 Jam, 1 Milk of Magnesia, 1 Preserved Meat, 9 Condensed Milk, 4 Dried Milk, 1 Mineral Waters, 1 Dried Peas, 1 Tinned Peas and 206 Sweetmilk, of these, 1 Butter, 5 Buttermilk, and 1 Mineral Water were found to be adulterated.

TABLE XVI.

Return showing particulars of samples of sweetmilk taken for analysis during the year.

Month.	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	154	3.66	8.84	6.60	8.91	9.30	3.90	1.85	9.11	7.35	2.45
February	103	3.58	8.85	4.90	9.17	9.37	3.00	2.40	8.74	7.33	3.10
March	116	3.59	8.87	5.30	8.83	9.48	4.30	2.70	8.12	7.86	3.70
April	128	3.60	8.81	5.60	9.16	9.55	4.30	2.10	8.42	7.70	2.90
May	127	3.54	8.82	4.88	8.72	9.46	2.70	2.60	8.78	8.13	3.60
June	119	3.29	8.80	4.95	8.76	9.28	4.10	2.50	7.50	7.50	2.50
July	81	3.57	8.60	8.30	8.02	9.30	3.00	2.70	9.04	7.52	2.90
August	94	3.52	8.68	4.90	8.52	9.18	4.40	2.80	8.62	7.65	3.20
September	99	3.57	8.72	6.70	8.78	9.20	3.60	2.90	8.68	8.16	3.20
October	127	3.78	8.82	5.90	8.74	9.45	3.25	2.70	9.11	8.02	3.30
November	106	3.89	8.79	7.60	8.71	9.28	3.90	2.90	8.28	7.74	3.60
December	85	3.73	8.79	5.80	8.80	9.36	4.30	2.70	8.62	8.18	3.50
	*1,339										

*—Including 10 Informal Samples.

Return showing shops, etc., visited during the year 1934 by the Inspectors under the Sale of Food and Drugs Acts.

Description of Shops, Etc.	No. of Visits.
Butchers' Shops	3,903
Cold Stores	57
Confectionery Shops	852
Fish Shops	433
Fish and Chip Shops	638
Fruit Shops	1,926
Grocery Shops	4,753
Hawkers' Carts, Etc.	1,369
Ice Cream Shops	1,473
Markets	193
Meat Factories	261
Pork Stores	149
Provision Shops	1,708
Railway Stations	181
Restaurants	350
	18,246

SEIZURES.

Bacon	20 lbs.
Beef	20 lbs.
Eggs	1 Tin
Fish	1 cwt. 2 qrs. 24 lbs and 25 boxes.
Fruit	56 lbs. and 208 Melons
Fowl	2
Hams	6
Livers	6
Pork Carcases	79
Rabbits	4
Sausages	16
Tomatoes (Tinned)	1064 Tins

Report of the Proceedings under the Contagious Diseases Annual Acts for the Year 1934.

No. of Cases of Disease dealt with in County Borough of Belfast during year from 1st January to 31st December, 1934.

BOVINE TUBERCULOSIS

No. cases reported.	No. Animals reported	Cows	Milk Cows	No. cases confirmed		Type of Disease	No. not B. T. and alive	No. "Advanced"		Total Valuation	Total Compensation	No. Animals Compensated for	No. cases detected at Mayfields	No. of "ordinary" cases
				Slaughtered	Died			Slaughtered	Died	£ s. d.	£ s. d.			
9	10	2	8	4	1	6 C. C.	4	5	1	20 0 0	8 5 0	5	3	6

SHEEP SCAB			PARASITIC MANGE	GLANDERS	FOOT and M DISEASE	ANTHRAX	OTHER DISEASES	RABIES		
No. cases reported	No. cases confirmed S. S.	No. Sheep affected with scab	No. cases reported	No. cases reported	No. cases reported	No. cases reported	No. cases reported	No. cases reported	Kind of animals	Result of examination
13	13	27	NONE	NONE	NONE	NONE	NONE	1	Male Collie	Hysteria

SWINE FEVER CASES

No. Cases reported	No. cases confirmed	No. cases not S. F.	No. SWINE SLAUGHTERED BY MINISTRY		No. OF SWINE DIED		No. OF SWINE SLAUGHTERED BY OWNER		TOTAL
			S. Fever	Not S. F.	S. F.	Not S. F.	S. F.	Not S. F.	
8	1	7	8	1	—	21	—	31	61

In addition to the above a number of suspected animals were subjected to critical examination and found to be "Not affected" within the meaning of the Bovine Tuberculosis Order.

These examinations in most cases entailed the microscopical examination of Udder secretions, and in some cases the application of the Tuberculine Test.

INSPECTION OF SALEYARDS AND LAIRAGES.

The Saleyards of which there are three, each holding weekly auctions for cattle, sheep and swine, were constantly visited and the stock exposed subjected to general observation.

Cleansing and disinfection of these yards, and lairages of private owners were efficiently carried out.

Railway termini were visited from time to time and found at all times to have been kept in a satisfactory manner.

MOTOR TRANSPORT.

All Motor Vehicles are cleansed and disinfected after loads are discharged at the various Saleyards.

J. EWING JOHNSTON,
M.B.E. M.R.C.V.S.

INFECTIOUS DISEASES.

SCARLET FEVER.

2,599 cases of Scarlet Fever were notified during the year, but on investigation 49 were found not suffering from the disease. In addition to those notified 5 cases notified as Diphtheria were found to be suffering from Scarlet Fever, which made the total number that occurred during the year 2,555; an attack rate of 6.2 per 1,000 of the population.

The number of cases which occurred during the preceding year was 2,076, and the average number notified annually during the ten years 1924-1933 was 1,385.

11 deaths were registered, equivalent to a case mortality of 0.43 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 11 and the average number registered annually during the ten years, 1924 to 1933 was 20.

DIPHTHERIA.

933 cases were notified, but on investigation 88 were found not suffering from the disease. In addition to those notified 1 case notified as Scarlet Fever and 1 as Membraneous Croup were found to be suffering from Diphtheria, which made the total number of cases that occurred during the year 847, an attack rate of 2.0 per 1,000 of the population.

The number of cases that occurred during the preceding year was 541, and the average number notified annually during the 10 years 1924—1933 was 512.

43 deaths were registered, equivalent to a case mortality rate of 5.1 per cent., or a death rate of 0.10 per 1,000 of the population. The number of deaths registered during the preceding year was 47, and the average number registered annually during the 10 years 1924—1933 was 27.

The procedure adopted in former years of allowing "contact" children to return to school in 2 days if their throat swabs were found "negative" has been continued. This arrangement has given entire satisfaction. It is claimed that by adopting such a procedure much valuable school time is saved and the early detection of a secondary infected child or a diphtheria "carrier" is more easily accomplished.

TYPHOID FEVER.

12 cases were notified during the year, 2 of which were found not suffering from the disease, which made the total number of cases that occurred 10, an attack rate of 0.02 per 1,000 of the population.

The number of cases which occurred during the preceding year was 10, and the average number notified annually during the 10 years 1924—1933 was 83.

No death from Typhoid Fever occurred during the year.

The number of deaths registered during the preceding year was 2 and the average number registered annually during the 10 years 1924—1933 was 6.

TABLE No. XVII.

Shewing the annual death rate per 1,000 of the population from Typhoid Fever during the 20 years 1915—1934, also the average rate for quinquennial periods.

Year	Rate		Year	Rate	
1915	0.02		1925	0.04	
1916	0.05		1926	0.01	
1917	0.10	0.05	1927	0.02	0.02
1918	0.06		1928	0.03	
1919	0.04		1929	0.01	
1920	0.08		1930	0.005	
1921	0.04		1931	0.002	
1922	0.02	0.03	1932	0.002	0. 002
1923	0.01		1933	0.005	
1924	0.007		1934	0.00	

Average annual death rate for twenty years 1915—1934, 0.027.

ERYSIPELAS.

111 cases were notified during the year, an attack rate of 0.3 per 1,000 of the population.

The number of cases that occurred in the preceding year was 100, and the average number notified annually during the 10 years 1924—1933, was 95.

CEREBRO-SPINAL FEVER.

12 cases were notified during the year, one of which was found not suffering from the disease, making the total number of cases that occurred during the year 11, an attack rate of 0.02 per 1,000 of the population.

MEASLES AND WHOOPING COUGH.

During the year 754 cases of Measles and 667 cases of Whooping Cough were notified.

The number of deaths caused by measles was 18, equivalent to a death rate of 0.04 per 1,000 of the population. In the preceding year 78 deaths were registered as having been caused by measles and the average number registered annually during the ten years 1924—1933 was 88. 49 deaths were caused by whooping cough, equivalent to a death rate of 0.12 per 1,000 of the population. The number registered during the preceding year was 33, and the average number registered annually during the ten years 1924—1933 was 77.

DIARRHOEA.

111 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 0.3 per 1,000 of the population.

The number registered during the preceding year was 165, and the average number registered annually during the 10 years 1924—1933, was 173.

PUERPERAL FEVER.

20 cases of this disease were notified. The number of cases notified during the preceding year was 9, and the average number notified annually during the 10 years 1924—1933 was 16.

TABLE XVIII.

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 1915—1934; also the average for the quinquennial periods.

Year	Rate		Year	Rate	
1915	6.2		1925	5.3	
1916	3.8		1926	4.5	
1917	2.7	4.6	1927	4.6	4.9
1918	2.0		1928	6.5	
1919	8.4		1929	3.6	
1920	6.5		1930	4.7	
1921	3.4		1931	4.7	
1922	3.5	4.5	1932	4.6	6.0
1923	3.4		1933	7.0	
1924	5.6		1934	8.9	

Measles and Whooping Cough are not included. Measles was made notifiable for one year from 1st January, 1931, under the Infectious Disease (Notification) Act, and on the 1st December, 1932, the Public Health (Notification of Measles and Whooping Cough) Northern Ireland Regulations, 1932 came into operation.

EPIDEMIC DISEASES.

319 deaths were caused by epidemic diseases during the year, equivalent to 5.6 per cent. of the total number of deaths registered from all causes, or a death rate of 0.8 per 1,000 of the population. During the preceding year the deaths from epidemic diseases numbered 558, equivalent to 8.8 per cent. of the total deaths, or a death rate of 1.3.

18, or 5.6 per cent. of the total deaths from epidemic diseases were caused by measles; 11 or 3.4 per cent. by scarlet fever; 49 or 15.4 per cent. by whooping cough; 43 or 13.5 per cent. by diphtheria; 111 or 34.8 per cent. by diarrhoea and 87 or 27.3 per cent. by influenza.

TABLE XIX.

Shewing the annual death rate per 1,000 of the population from Epidemic Diseases during the twenty years 1915—1934; also the average rate for quinquennial periods.

Year	Rate		Year	Rate	
1915	1.7		1925	1.3	
1916	1.7		1926	1.3	
1917	1.1	1.6	1927	0.9	1.1
1918	1.8		1928	1.1	
1919	1.5		1929	0.9	
1920	1.5		1930	0.5	
1921	1.4		1931	0.7	
1922	0.6	1.1	1932	0.9	0.8
1923	1.2		1933	1.3	
1924	1.0		1934	0.8	

TABLE XX.

Shewing the number of deaths registered as having been caused by the principal Epidemic Diseases, also the annual rate of mortality per 10,000 of the population during the thirty-five years 1900-1934.

Year.	POPULATION.	Typhoid Fever		Typhus Fever		Small pox		Scarlet Fever		Simple Contin'd Fever		Diphtheria		Whooping Cough		Measles		Diarrhoea	
		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.
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
1929	415,151	4	0.1	...	...	...	...	8	0.2	...	...	19	0.5	138	3.3	77	1.9	149	3.6
1930	415,151	2	0.05	...	...	...	...	7	0.2	...	...	22	0.5	65	1.6	6	0.1	116	2.8
1931	415,151	1	0.02	...	...	...	...	13	0.3	...	...	13	0.3	32	0.8	133	3.2	100	2.4
1932	415,151	1	0.02	...	...	...	...	10	0.2	...	...	19	0.5	102	2.5	30	0.7	151	3.6
1933	415,151	2	0.05	...	...	...	...	11	0.3	...	...	47	1.1	33	0.8	78	1.9	165	4.0
1934	415,151	...	...	...	...	...	...	11	0.3	...	...	43	1.0	49	1.2	18	0.4	111	2.7

TABLE XXI.

Showing the number of cases of infectious diseases notified during the ten years 1925-1934, pursuant to the Infectious Disease (Notification) Act, 1889.

	Typhus Fever	Typhoid Fever	Scarlet Fever	Continued Fever	Diphtheria	Membraneous Croup	Small Pox	Cerebro-Spinal Meningitis	Polio-myelitis	Puerperal Fever	Erysipelas	Relapsing Fever	Encephalitis Lethargica
1925	....	143	1657	3	419	4	....	5	....	5	54	....	10
1926	....	84	997	....	599	4	....	9	3	37	120	....	17
1927	....	168	1113	1	484	2	....	10	4	20	85	....	8
1928	3	186	1783	1	628	1	....	7	1	14	84	....	1
1929	....	76	721	2	484	1	....	11	1	23	122	....	5
1930	....	32	1132	....	618	....	....	24	9	20	109	....	2
1931	....	53	1169	....	562	....	....	20	2	15	110	....	3
1932	....	33	1302	....	425	....	....	9	....	6	126	....	....
1933	....	10	2154	....	625	....	....	14	10	9	100	....	1
1934	....	12	2599	....	933	1	....	12	2	20	111	....	....

TABLE XXII.

Showing by Dispensary Districts the number of cases of Infectious Diseases notified pursuant to the Infectious Disease (Notification) Act, 1889, also the total number of cases of Measles and Whooping Cough notified pursuant to the Public Health (Notification of Measles and Whooping Cough) Northern Ireland Regulations, 1932.

DISTRICT.	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Simple Continued Fever.	Puerperal Fever.	Relapsing Fever.	Smallpox.	Diphtheria.	Membranous Croup.	Erysipelas.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Encephalitis Lethargica.	Total.		
1. Dock	—	—	27	—	—	—	—	28	—	2	—	—	—	57		
2. Duncairn	—	2	223	—	4	—	—	83	—	12	1	1	—	326		
3. Shankill	—	—	238	—	3	—	—	109	—	6	1	—	—	357		
4. Workhouse	—	2	311	—	2	—	—	159	—	11	1	—	—	486		
5. Millfield	—	—	72	—	1	—	—	36	—	7	1	—	—	117		
6. College	—	1	254	—	—	—	—	78	—	13	2	—	—	348		
7. Greencastle	—	—	9	—	—	—	—	5	—	—	—	—	—	14		
8. Ligoniel	—	—	32	—	—	—	—	5	—	2	—	—	—	39		
9. Falls	—	3	143	—	8	—	—	59	—	11	—	—	—	224		
10. Woodvale	—	—	142	—	—	—	—	68	—	13	—	1	—	224		
11. Ravenhill	—	—	424	—	—	—	—	70	1	14	1	—	—	510		
12. Ballymacarrett	—	—	269	—	—	—	—	77	—	8	1	—	—	355		
13. Ballyhackamore	—	2	268	—	1	—	—	84	—	5	—	—	—	360		
14. Ballymaghan	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
15. Central	—	2	89	—	1	—	—	31	—	5	4	—	—	132		
16. Pottinger	—	—	98	—	—	—	—	41	—	2	—	—	—	141		
Total	—	12	2,599	—	20	—	—	933	1	111	12	2	—	3,690		

Measles - 754. Whooping Cough - 667.

TABLE XXIII.

Showing 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	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Typhoid Fever	....	....	....	....	....	....	....	....	1	1	....	1	....	1	2	4	....	1	....	1	....	....	3	9	12
Scarlet Fever	....	10	5	50	53	287	356	478	669	172	239	50	41	22	26	45	79	9	5	1	1	....	1	1,124	1,475	2,599
Simple Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Puerperal Fever	....	....	....	....	....	....	....	....	....	....	....	1	....	3	....	10	....	....	....	....	....	6	....	20	20	....	....
Relapsing Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	....	16	8	24	20	95	99	179	201	70	98	13	33	5	20	12	33	4	3	....	....	....	....	418	515	933
Membraneous Croup	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....
Erysipelas	....	2	3	....	....	1	1	....	....	3	1	2	4	4	6	10	11	22	18	6	5	2	10	52	59	111
Cerebro-Spinal Meningitis	....	3	3	1	1	2	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	8	4	12
Poliomyelitis	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2
Encephalitis Lethargica	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total		31	19	75	75	386	457	657	870	246	339	66	80	31	56	69	137	36	27	7	7	2	17	1,606	2,084	3,690

INFECTIOUS DISEASES.

NOTIFICATIONS.

TABLE XXIV.

Showing the number of Cases notified under the Infectious Disease (Notification) Act, 1889, and the Notification of Measles and Whooping Cough (Northern Ireland) Regulations, 1932, during each of the four quarters of the year.

DISEASE.	Quarter Ended				TOTAL
	31st Mar., 1934	30th June, 1934	29th Sept. 1934	29th Dec., 1934	
Typhus Fever	....	....	....	....	....
Typhoid Fever	3	6	2	1	12
Scarlet Fever	598	416	475	1,110	2,599
Simple Fever	....	....	....	....	....
Puerperal Fever	8	5	3	4	20
Relapsing Fever	....	....	....	....	....
Smallpox	....	....	....	....	....
Diphtheria	314	195	160	264	933
Membraneous Croup	1	....	....	....	1
Erysipelas	41	21	11	38	111
Cerebro Spinal Meningitis	2	1	4	5	12
Poliomyelitis	....	....	....	2	2
Encephalitis Lethargica	....	....	....	....	....
Measles	18	38	38	660	754
Whooping Cough	222	311	87	47	667
Total	1,207	993	780	2,131	5,111

CORRECTED DIAGNOSIS.

2 typhoid fever, 49 scarlet fever, 88 diphtheria, 1 membraneous croup, 1 cerebro-spinal fever and 2 acute anterior poliomyelitis were found not suffering from the diseases notified. Of these, 5 cases notified as diphtheria were found to be suffering from scarlet fever and 1 case notified as diphtheria was found to be suffering from whooping cough; 4 cases notified as scarlet fever were found to be suffering from measles, and 1 case notified as scarlet fever and 1 as membraneous croup were found to be suffering from diphtheria. The remainder were not suffering from any notifiable infectious disease.

TABLE XXV.

Shewing the number of deaths from Cancer and other Tumours for the year 1934 as compared with the preceding 5 years.

Year.	1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over	Grand Total	M	F
Under 1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85				
1934	1	2	2	—	1	1	3	3	2	5	10	14	36	28	58	79	103	71	70	39	11	7	546	249	297
1929	—	—	—	1	—	1	3	3	1	5	13	15	28	39	73	72	72	48	43	26	13	3	459	195	264
1930	—	—	—	—	1	1	1	1	6	3	7	19	20	41	64	67	84	78	69	32	5	2	501	229	272
1931	—	—	—	—	2	1	1	4	1	5	8	22	24	37	60	79	89	76	57	46	11	—	523	243	280
1932	—	—	1	—	—	1	1	1	2	3	5	17	35	33	44	73	89	102	71	38	16	1	533	228	305
1933	—	1	1	1	1	—	1	1	7	4	11	19	18	54	58	84	83	75	70	32	16	4	541	249	292
Totals	—	1	2	2	4	4	7	10	17	20	44	92	125	204	299	375	417	379	310	174	61	10	2,557	1,144	1,413

It will be seen from the above table that the average number of deaths registered annually as having been caused by Cancer and other Tumours during the quinquennial period 1929 to 1933 was 511 (229 males and 282 females). The deaths notified to this Department by the several Registrars of Births and Deaths for the City do not correspond with the number shown in the returns of the Registrar General for Northern Ireland, owing to the fact that the deaths of residents of the City which occur outside are not notified to this department, but are allocated by the Registrar-General, in his return, to Belfast, and the deaths of non-residents which occur in the City are allocated by the Registrar-General to the former residence of the deceased.

COUNTY BOROUGH OF BELFAST.

TREATMENT OF VENEREAL DISEASES.

Patients desiring treatment under the scheme may apply and attend at any of the following hospitals, infirmaries or institutions that they may choose for the purpose, viz. :—The Royal Victoria Hospital, the Mater Infirmorum Hospital, and the Belfast Union Hospital ; at which there is available confidential treatment for all classes of the community, free of cost and irrespective of the means or place of residence of the patient including, as regards all these institutions, hospital accommodation for cases that cannot be properly treated at an out-patient department, or dispensary, or other clinic, and as regards the two first mentioned, accommodation for treatment at an out-patient department, in accordance with the following :—

Days and times at which treatment is available—

Royal Victoria Hospital.—Daily from 9 till 11 a.m. (Sundays excepted), and evening clinic on Mondays to Saturdays (inclusive), from 6-15 till 6-45 p.m.

Mater Infirmorum Hospital.—Tuesdays and Saturdays, from 9-30 till 11-30 a.m., and Thursdays, from 8 till 10 p.m.

Union Infirmary.—Daily, from 11 a.m. for admissions (Bed patients only).

VENEREAL DISEASES.

Statement showing the services rendered at the Treatment Centre at Royal Victoria Hospital, Belfast, during the year ended 31st March, 1935, classified according to the areas in which the patients resided.

Name of County or County Borough.	Belfast.	Co. Down.	Co. Antrim.	Co. Armagh.	Co. Derry.	Co. Tyrone.	Co. Fermanagh	Co. Cavan	Co. Donegal	Port.	Total.
A. Number of Cases from each area dealt with during the year for the first time and found to be suffering from :—											
Syphilis	352	11	21	1	2	1	1	....	....	17	406
Gonorrhoea	385	17	16	3	2	1	....	....	....	15	439
Soft Chancre	14	1	2	....	....	....	....	....	....	2	19
Conditions other than Venereal	1,972	5	2	1	....	....	....	....	....	3	1,983
Total	2,723	34	41	5	4	2	1	....	....	37	2,847
B. Total number of attendances of all patients residing in each area	26,821	760	786	57	80	12	6	8	....	144	28,674
C. Aggregate number of "Inpatient days" of all patients residing in each area	1,227	78	220	....	....	....	....	....	68	....	1,593
D. Number of doses of arseno-benzol compounds given in the : 1. Out-Patient Clinic.	7,671	466	458	5	56	1	9	3	....	42	8,711
2. In-Patient Dept.	103	....	2	....	....	....	....	....	....	....	105
to patients residing in each area											

VENEREAL DISEASES.

Return relating to all Persons who were treated at the Treatment Centre at Royal Victoria Hospital, Belfast, during the year ended 31st March, 1935.

	Syphilis.		Gonorrhoea.		Soft Chancre.		Conditions other than Venereal.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1. Number of cases which :— (a) at the beginning of the year under report were under treatment or observation for	1,484	643	1,147	30	3	...	...	...	2,634	673
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection ...	154	81	128	...	...	...	...	...	282	81
Total—Items 1 (a) and (b) ...	1,638	724	1,275	30	3	...	...	...	2,916	754
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time ...	256	150	427	12	19	...	1,225	758	1,927	920
Total—Items 1 (a), 1 (b) & 2 (a) ...	1,894	874	1,702	42	22	...	1,225	758	4,843	1,674
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection ...	7	...	8	...	...	...	...	...	15	...
3. Number of cases which ceased to attend (a) before completing the first course of treatment for	55	58	...	...	...	...	...	...	55	58
(b) after 1 or more courses, but before completion of treatment for	20	25	93	...	...	...	...	...	113	25
(c) after completion of treatment, but before final tests as to cure of	...	...	...	...	...	...	...	...	...	...
4. Number of cases transferred to other Treatment Centres after treatment for ...	2	...	3	...	...	...	...	...	5	...
5. Number of cases discharged after completion of treatment and observation for ...	...	...	57	...	...	...	...	...	57	...
6. Number of cases which, at the end of the year under report, were under treatment or observation for	1,817	791	1,549	42	22	...	...	...	3,388	833
Total—Items 3, 4, 5 and 6 ...	1,894	874	1,702	42	22	...	...	...	3,618	916
7. Out-patient attendances :— (a) For individual attention by the Medical Officer	...	...	...	...	...	...	...	...	...	...
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	224	7	13,531	...	...	...	...	...	13,755	7
Total Attendances	224	7	13,531	...	...	...	...	...	13,755	7
8. Aggregate number of "Inpatient days" of treatment given to persons who were suffering from	334	206	1,053	...	...	...	...	...	1,387	206

VENEREAL DISEASES.

Statement showing the services rendered at the Treatment Centre at Mater Infirmorum Hospital, Belfast, during the year ended 31st March, 1935 classified according to the areas in which the patients resided.

Name of County or County Borough.	Belfast.	Co. Down.	Co. Antrim.	Co. Armagh	Co. Derry.	Co. Fermanagh	Port.	Total.
A. Number of cases from each area dealt with during the year for the first time and found to be suffering from :—								
Syphilis	114	13	9	1	3	1	1	142
Gonorrhoea	190	10	9	...	...	...	1	210
Soft Chancre	16	2	...	...	...	...	...	18
Conditions other than Venereal	363	...	...	...	...	...	4	367
Total	683	25	18	1	3	1	6	737
B. Total number of attendances of all patients residing in each area	6,264	212	230	1	13	2	14	6,736
C. Aggregate number of "Inpatient days" of all patients residing in each area	526	12	23	3	87	15	...	666
D. Number of doses of arsenobenzol compounds given in the: 1. Out-Patient Clinic	1,390	63	61	...	4	1	4	1,523
2. In-Patient Dept.	98	3	7	...	25	4	...	137
to patients residing in each area								

VENEREAL DISEASES.

Return relating to all Persons who were treated at the Treatment Centre at Mater Infirmorum Hospital, Belfast, during the year ended 31st March, 1935.

	Syphilis.		Gonorrhoea.		Soft Chancre.		Conditions other than Venereal.		Total.	
	Males.	Females.	Males.	Females.	Males	Females.	Males.	Females.	Males.	Females.
1. Number of cases which :—										
(a) at the beginning of the year under report were under treatment or observation for	126	36	104	9	4	....	32	14	266	59
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	45	14	33	....	....	....	....	....	78	14
Total—Items 1 (a) and (b)	171	50	137	9	4	....	32	14	344	73
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time	102	40	189	21	18	....	223	144	532	205
Total—Items 1 (a), 1 (b) and 2 (a)	273	90	326	30	22	....	255	158	876	278
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	13	....	27	....	....	....	....	....	40	....
3. Number of cases which ceased to attend (a) before completing the first course of treatment for	26	12	38	2	....	....	....	....	64	14
(b) after 1 or more courses, but before completion of treatment for	16	8	....	....	....	....	....	....	16	8
(c) after completion of treatment, but before final tests as to cure of	12	....	40	....	....	....	....	....	52	....
4. Number of cases transferred to other Treatment Centres after treatment for	5	—	13	....	....	....	....	....	18	....
5. Number of cases discharged after completion of treatment and observation for	18	12	85	9	13	....	....	....	116	21
6. Numbef of cases which, at the end of the year under report, were under treatment or observation for	196	58	150	19	9	....	3	1	358	78
Total—Items 3, 4, 5 and 6	273	90	326	30	22	....	3	1	624	121
7. Out-patient attendances :—										
(a) For individual attention by the Medical Officer	1,484	612	1,309	78	24	....	278	186	3,095	876
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	....	....	2,748	....	17	....	....	....	2,765	....
Total Attendances	1,484	612	4,057	78	41	....	278	186	5,860	876
8. Aggregate number of "Inpatient days" of treatment given to persons who were suffering from	484	182	—	....	....	....	....	....	484	182

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.

LIBRARY BOOKS.

During the year a number of volumes belonging to the Central and Branch Public Libraries were taken by the officers of the Department from houses in which infectious diseases occurred, and withdrawn from circulation. The books of other libraries were disinfected and returned if the owners did not consent to the destruction of same.

DISINFECTING STATION.

The work undertaken at the Disinfecting Station includes:—

The disinfecting of bedding and clothing from houses where cases of Infectious Diseases have occurred.

The personal bathing and the disinfecting of the clothing of persons who have been in contact with Infectious Diseases, and whose business includes the handling of food-stuffs.

The bathing of verminous persons and the cleansing and disinfection of their clothing.

The delivery once per month of a quantity of disinfectants to each non-transferred Public Elementary School in the City.

The disinfection of clothing, etc., intended for export to the Irish Free State, for which service a small charge is made.

The cleansing of Emigrants who have failed to pass the United States Medical Inspection at the port, and the disinfection by steam or otherwise of all their baggage is also undertaken. For this service the various Shipping Companies are charged a fee of £10 for the use of the plant and staff on each occasion, plus a charge of 5/- per person dealt with.

TABLE XXVI

SUMMARY OF THE WORK DONE AT THE DISINFECTING STATION DURING THE YEAR

Work done by Motor Vans.						Number of Articles Disinfected for		No. of Bottles of dilute Disinfectants issued free to Poor Persons	Disinfection of Persons						Verminous Houses Sprayed	Library Books taken from Infected Dwelling Houses			Free School Books taken from Infected Dwelling Houses and Destroyed
Number of calls at		Mileage	Gallons of Motor Spirit used	Average Miles per Gallon	No. of calls re other work	Infectious Disease	Export to Irish Free State		Bathed		Sprayed		Verminous Persons Bathed			Public Library Books Destroyed	Private Library Books Disinfected and returned	School Library Books Destroyed	
Infected Dwelling Houses	P.E. Schools								M.	F.	M.	F.	M.	F.					
7,296	761	12,110	882	13.88	437	31,889	13,844 also 2 tons 13 Cwt. of Rags.	9,628	258	66	233	214	12	39	28	595	221	10	85

TABLE XXVII.

DISINFECTANTS
IN STOCK AND RECEIVED DURING THE YEAR 1934.

Disinfectant	Civic Fluid	Formalin	Paraffin Oil	Crude Oil	Petroleum Fluid	Izal	Sulphur Candles	Carbolic Acid	Insect Oil	Solution "D"	Pine Spray	Liquid Soap
	Gals.	Gals.	Gals.	Gals.	Gals.	Gals.	Cakes	Gal.	Gals.	Gals.	Gals.	Gals.
In Stock Dec. 30th, 1933	95½	4	9	4	29	6½	49	1	18¾	4	20	17
Received during the year	480	—	600	569	....	40	....	....	....	....	....	....
Total	575½	4	609	573	29	46½	49	1	18¾	4	20	17

TABLE XXVIII.

DISTRIBUTION OF DISINFECTANTS.

Public Elementary Schools	235	....	....	....	....	....	....	....	....	....	....	....
Disinfection of Houses	15	....	....	....	....	35½	10	....	....	....	....	....
Disinfecting Station	51½	2	12	4	....	....	....	....	....	....	....	3
Drain Testing	18	....	....	....	5	....	....	....	....	....	....	....
Verminous Houses	....	....	....	....	....	....	....	....	5¾	....	....	....
Insect Spraying, &c.	....	....	557	557	24	....	....	....	....	....	....	....
Port Sanitary Officer	5	....	....	....	....	....	....	....	....	....	....	....
Works Department	2	....	....	....	....	....	....	....	....	....	....	....
Destructor Works	1½	....	....	....	....	....	....	....	....	....	....	....
Municipal Laboratory	1	....	....	....	....	....	....	....	....	....	....	....
Abattoir	....	¼	....	....	....	....	....	....	....	....	....	....
Free Distribution	131	....	—	....	....	½	....	....	....	....	....	....
Total	459¾	2¼	569	561	29	36¼	10	....	5¾	....	....	3
In Stock Dec. 29th, 1934	115¾	1¼	40	12	....	10¾	39	1	13⅛	4	20	14

PURDYSBURN FEVER HOSPITAL.

To the Chairman and Members of the Public Health Committee.

Gentlemen,

I have the honour to present to you the following report on the working of Purdysburn Fever Hospital for the year 1934 (52 weeks ended 29th December, 1934).

3,717 cases were admitted during this period, there remained from the previous year 371, making a total of 4,088 cases under treatment.

3,705 of these were treated to a conclusion, leaving 383 cases in hospital at the end of the year.

The number of admissions in the previous year had been 3,037 and the average number of admissions in the previous five years 2,118.

TABLE I.

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

Disease.	Remaining on 30-12-33	Admitted during year	Total	Remaining on 29-12-34	Nett.	Died.	Mortality % calculated on cases treated to conclusion
Enteric—Typhoid	....	6	6	....	6	....	0.00
Enteric—Para A	....	....	....	....	....	....	....
Enteric Para B	....	7	7	....	7	....	0.00
Typhus	....	....	....	....	....	....	....
Scarlatina	280	2,557	2,837	282	2,555	8	0.31
Diphtheria	83	879	962	95	867	44	5.07
Diphtheria Carrier	....	....	....	....	....	....	....
Cerebro-Spinal Fever	....	11	11	....	11	2	18.18
Pneumonia	....	1	1	....	1	....	0.00
Tuberculous Meningitis	....	5	5	....	5	4	80.00
Other Diseases	7	216	223	6	217	16	7.37
Quarantine	1	35	36	....	36	....	0.00
Epidemic Encephalitis	....	....	....	....	....	....	....
Acute Poliomyelitis	....	....	....	....	....	....	....
Smallpox	....	....	....	....	....	....	....
Totals	371	3,717	4,088	383	3,705	74	2.00
Comparative Numbers In 1933.	220	3,037	3,257	371	2,886	98	3.39

ENTERIC FEVER.

13 cases of Enteric were admitted during the year. These included 6 cases of Typhoid and 7 cases of Paratyphoid B.

There were no cases of Paratyphoid A.

No cases remained from the previous year and all these admissions were treated to a conclusion.

Total enterics 13 of whom none died ; case mortality 0.00 per cent.

Of the 13 admissions 10 came from the city and 3 from outside the city boundary.

In the previous year the admissions numbered 12.

The average number of admissions in the previous five years was 42.

TABLE II.

Showing the case mortality in age periods in Typhoid (B. Typhosus).

Ages	Cases.	Died.	Mortality per cent.
Under 5 years	0	0	0.00
5—10 ,,	2	0	0.00
10—20 ,,	1	0	0.00
20—30 ,,	0	0	0.00
Over 30 ,,	3	0	0.00
Totals	6	0	0.00

TABLE III.

Showing the case mortality in age periods in Paratyphoid B.

Ages.	Cases.	Died	Mortality per cent.
Under 5 years	0	0	0.00
5—10 ,,	0	0	0.00
10—20 ,,	0	0	0.00
20—30 ,,	4	0	0.00
Over 30 ,,	3	0	0.00
Totals	7	0	0.00

TABLE IV.

Showing the number of Enteric Fever cases admitted in each month.

January	0	July	1
February	2	August	2
March	1	September	0
April	0	October	1
May	2	November	0
June	4	December	0

DIPHTHERIA.

879 cases were admitted during the year, making with the 83 cases remaining from the previous year 962 cases under treatment.

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

867 cases were treated to a conclusion, with 44 deaths giving a case mortality of 5.07 per cent.

Of the 44 fatal cases of Diphtheria 2 died within 12 hours of admission to hospital, 6 others within 24 hours, and 8 others within 48 hours.

The average stay in hospital of the cases which recovered was 33 days.

Of the 879 cases admitted, 850 came from the city and 29 from outside the city boundary.

In the previous year the admissions numbered 560.

The average number of admissions in the previous five years was 490.

TABLE V.

Showing the case mortality in age periods.

Ages.	Cases.	Died.	Mortality per cent.
Under 1 year	12	2	16.66
1—2 years	39	5	12.82
2—5 ,,	180	13	7.22
5—10 ,,	371	15	4.04
10—20 ,,	208	9	4.33
20—30 ,,	36	0	0.00
Over 30 ,,	33	0	0.00
Totals	879	44	5.07

LARYNGEAL DIPHTHERIA.

34 cases required operative interference for laryngeal obstruction. All these cases were treated by intubation of the larynx (O'Dwyer).

11 cases died giving a case mortality of 32.35 per cent.

TABLE VI.

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

Ages.	Cases.	Died.	Mortality. per cent.
Under 1 year	6	2	33.33
1—2 years	11	4	36.36
2—3 ,,	8	4	50.00
3—4 ,,	2	0	0.00
4—5 ,,	2	0	0.00
Over 5 ,,	5	1	20.00
Totals	34	11	32.35

DIPHTHERIA CARRIER.

There where no admissions of Diphtheria Carriers during the year.

CEREBRO SPINAL FEVER.

11 cases of Cerebro-Spinal Fever were admitted during the year and with no cases remaining from the previous year made a total of 11 cases under treatment.

No case remained at the end of the year so that 11 cases were treated to a conclusion. Of these 2 died giving a case mortality of 18.18 per cent.

In the previous year the admissions numbered 18.

The average number of admissions in the previous five years was 17.

TABLE VII.

Showing the case mortality in age periods.

Ages.	Cases.	Died.	Mortality per cent.
Under 1 year	6	1	16.66
1—2 „	1	0	0.00
2—5 „	2	0	0.00
5—10 „	0	0	0.00
10—20 „	1	0	0.00
20—30 „	0	0	0.00
Over 30 „	1	1	100.00
Totals	11	2	18.18

TUBERCULAR MENINGITIS.

5 cases of Tubercular Meningitis were admitted during the year. One case was taken home and died shortly afterwards. The remaining four cases died in Hospital.

ACUTE POLIOMYELITIS.

There were no admissions of Acute Poliomyelitis during the year.

PNEUMONIA.

One case of Pneumonia was admitted and made a satisfactory recovery.

EPIDEMIC ENCEPHALITIS.

There were no admissions of Epidemic Encephalitis during the year.

TYPHUS.

There were no admissions of Typhus Fever during the year.

SCARLATINA.

2,557 cases were admitted during the year, making, with 280 cases remaining over from the previous year a total of 2,837 cases under treatment.

282 cases still remained in hospital at the end of the year, so that 2,555 cases were treated to a conclusion.

8 of these ended fatally, giving a case mortality of 0.31 per cent.

The average stay in hospital of the cases which recovered was 31 days.

Of the 2,557 admissions, 2,454 came from the city and 103 came from outside the city boundary.

In the previous year the admissions numbered 2,149.

The average number of admissions in the previous five years was 1,329.

TABLE VIII.

Showing the case mortality in age periods.

Ages.	Cases.	Died.	Mortality per cent.
Under 1 year	9	0	0.00
1—2 years	99	3	3.03
1—5 ,,	621	1	0.16
5—10 ,,	1,134	4	0.35
10—20 ,,	482	0	0.00
20—30 ,,	115	0	0.00
Over 30 ,,	95	0	0.00
Totals	2,555	8	0.31

"RETURN CASES."

In 108 instances the return home of a patient from hospital was followed by other cases in the house, giving a return case rate of 4.24 per cent. On the average these 108 cases had reached the 32nd day from the onset of the disease when they were discharged.

OTHER DISEASES.

216 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 the convenience of nursing.

7 cases remained from the previous year, and 6 cases remained at the end of this year, so that 217 cases were treated to a conclusion.

Of these 16 died giving a case mortality of 7.37 per cent.

The causes of these deaths were as follows.

Septic Tonsillitis	4	Myeloid Leuhaemia	1
Streptococcal Meningitis	3	Whooping Cough	1
Pneumococcal Meningitis	1	Oedema of Glottis	1
Broncho Pneumonia	1	Influenza	1
Cellulitis g. Leg and Sephiaemia	1	Measles	1
		Otitis Media and Cerebral Abscess	1

INFECTIOUS DISEASES AMONGST THE STAFF.

4 Nurses developed Diphtheria. All made good recoveries.

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

1 Medical Superintendent.
1 Resident Medical Officer.
1 House Physician
1 Temporary House Physician.
1 Steward.
1 Clerk.
1 Storekeeper.
1 Engineer.
2 General Mechanics.
1 Joiner.
3 Motor Drivers.
1 Van Man.
4 Firemen.
1 Pumping Station Engine Man.
5 Day Porters.
1 Gate Porter.
1 Night Porter.

1 Disinfector.
1 Foreman Gardener.
3 Groundsmen.
1 Matron
1 Assistant Matron.
1 Night Superintendent.
1 Night Superintendent (joint).
1 Housekeeper.
8 Ward Sisters.
34 Nurses.
32 Probationer Nurses.
1 Seamstress.
1 Head Laundress.
7 Laundry Maids.
1 Cook.
4 Kitchen Maids.
5 General Maids.
18 Ward Maids.

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

I am,

Gentlemen,

Your obedient servant,

A GARDNER ROBB,

Visiting Physician in Charge.

BELFAST INFIRMARY, FEVER HOSPITAL.
SUMMARY FOR 1934.

	Remaining 30-12-33	Admitted since	Gross Total	Remaining 29-12-34	Nett. Total	Deaths	% Mortality
Typhoid Fever	....	1	1	1	....	....	....*
Measles	....	156	156	55	101	6	5.94
Scarlatina	7	207	214	29	185	1	.54*
Whooping Cough	8	90	98	4	94	11	11.70
Mumps	6	24	30	....	30	....	....
Chicken Pox	7	78	85	2	83	....	....
Erysipelas	7	95	102	5	97	4	4.12
Diphtheria	....	103	103	....	103	3	2.91*
Rubella	....	6	6	....	6	....	....
Pneumonia	....	5	5	....	5	1	20.00
General Medical	36	266	302	30	272	16	5.88
Tonsilitis	4	245	249	4	245	....	....
Influenza	....	11	11	....	11	....	....
Epidemic Encephalitis	....	....	....	....	....	....	....
Chronic Encephalitis	18	11	29	21	8	....	....
Tuberculous Meningitis	....	8	8	....	8	8	100.00
Cerebro-Spinal Fever	....	2	2	....	2	....	....*
Pneumococcal Meningitis	....	1	1	....	1	1	100.00
Quarantine	....	1	1	....	1	....	....
Total	93	1,310	1,403	151	1,252	51	4.07

*The cases of Typhoid Fever, Scarlatina, Diphtheria and Cerebro Spinal Fever were not all treated to a conclusion. A number of these cases were transferred to Purdysburn Fever Hospital.

A. GARDNER ROBB, *Medical Superintendent.*

MUNICIPAL LABORATORY,
QUEEN'S UNIVERSITY,
BELFAST,

19th April, 1935.

Dear Sir,

I beg to present the report of the work carried out in the Laboratory during the year 1934.

The number of specimens submitted for examination was 15,340, an increase of almost 3,000 on the figures of the previous year.

The work may be summarised in the following way :—

INFECTIOUS DISEASES.

1. *Diphtheria*—			
Throat Swabs	5,759		
Nasal Swabs	605		
Direct Examinations	368		
Virulence Tests	33		
		—	6,765
2.—*Vincent's Angina*	—	—	309
3.—*Enteric Group*			
Agglutination Tests	313		
Faeces, Blood, Urine, etc.	25		
		—	338
4.—*Food Poisoning*	—	—	2
5.—*Meningitis*—			
Cerebro-Spinal Fluids	—	—	226
6.—*Tuberculosis*—			
Sputa	682		
Pus	18		
Urine	105		
Pleural Fluids	5		
C.S. Fluids	57		
Faeces, etc.	6		
		—	873
7.—*Ringworm*	—	—	15
8.—*Plague*—	—	—	371

BR. ABORTUS.

Blood Examinations	99		
Milk Examinations	225		
		—	324

VENEREAL DISEASES.

Wasserman Reactions	1,936		
Microscopical Examinations	249		
		—	2,185

PATHOLOGICAL EXAMINATIONS.

Tumours, etc.	—	—	263

MILK EXAMINATIONS.

Fresh Milk	920		
Pasteurised Milk	151		
Grade A., T.T. Milk	24		
Examinations for T.B.	1,322		
Reductase Tests	21		
		—	2,438

WATER, FOODSTUFFS, ETC.

Bath Waters	150	
Ordinary Waters	22	
Foods and Ice Creams	12	
Shaving Brushes	37	
		221

VACCINES.

Autogenous	10

UNCLASSIFIED EXAMINATIONS.

Urines, etc.	1,000
Grand Total	15,340

In the following tables, a more detailed consideration is given to the above groups.

TABLE I.

Swabs Examined for Diphtheria.

Month	Throat Swabs	Pos.	Neg.	Nasal Swabs	Pos.	Neg.	From Doctors	From Hosps.	School Med. Ser	Contact Pos.	Contact Neg.	Total
January	473	55	418	45	13	32	224	282	12	0	13	518
February	573	93	480	46	13	33	248	250	121	12	119	619
March	672	88	584	72	4	68	271	399	74	4	98	744
April	532	79	453	31	10	21	204	343	16	3	58	563
May	509	90	419	37	12	25	196	324	26	1	35	546
June	384	65	319	50	12	38	140	284	10	0	10	434
July	367	44	323	41	13	28	143	265	0	0	13	408
August	311	32	279	46	12	34	129	220	8	3	9	357
September	398	66	332	81	24	57	189	277	13	1	7	479
October	468	64	404	77	22	55	259	272	14	1	7	545
November	533	44	489	27	5	22	282	270	8	0	12	560
December	539	65	474	52	18	34	314	271	6	0	23	591
Total	5,759	785	4,974	605	158	447	2,599	3,457	308	25	404	6,364

368 Swabs were examined by the direct method for Diphtheria. Of these, 68 were returned positive.

33 Virulence Tests were performed, of which, 21 were positive.

309 Swabs were examined for Vincent's Angina; in 36 of these the causal organisms were present.

TABLE II.

Blood from Suspected Enteric Group Infections.

Month	Positive T	Positive A	Positive B	Negative T	Negative A	Negative B	From Doctors	From Hospitals	Total
January	0	0	0	5	5	5	4	1	5
February	0	0	2	10	10	8	4	6	10
March	0	0	0	3	3	3	3	0	3
April	0	0	0	5	5	5	3	2	5
May	2	0	0	15	17	17	7	10	17
June	2	0	1	7	9	8	5	4	9
July	1	0	1	11	12	11	9	3	12
August	2	0	1	8	10	9	6	4	10
September	0	0	0	4	4	4	4	0	4
October	0	0	1	9	9	8	8	1	9
November	0	0	0	11	11	11	9	2	11
December	0	0	0	4	4	4	3	1	4
Total	7	0	6	92	99	93	65	34	99

Of the 13 positive reactions, 7 were positive to Typhoid, 6 to Paratyphoid B., and none to Paratyphoid A.

Tests were done on 2 samples of Blood for various organisms of the Food-Poisoning group; all were negative.

TABLE III.

Examination of Sputa for B. Tuberculosis, Etc.

Source	Positive	Negative	Total
Hospitals	0	17	17
General Practitioners	105	560	665
Total	105	577	682

66 Specimens of Sputa were examined for Organisms other than B. Tuberculosis.

TABLE IV.

Examinations of Cerebrospinal Fluids.

Month	B. Tuberculosis Pos.	B. Tuberculosis Neg.	Meningococci Pos.	Meningococci Neg.	Other Organisms Pos.	Other Organisms Neg.	Protein	Typing	Total
January	0	1	2	3	0	5	2	1	14
February	0	3	0	3	0	3	3	0	12
March	0	0	0	0	0	0	0	0	0
April	1	1	0	2	1	1	2	0	8
May	0	2	1	1	1	1	1	1	8
June	0	2	0	2	0	2	0	0	6
July	2	9	1	11	3	9	7	1	43
August	0	4	0	4	0	4	2	0	14
September	0	3	2	1	1	2	2	1	12
October	1	3	0	4	0	4	3	0	15
November	0	13	7	7	0	14	4	3	49
December	0	12	7	7	0	14	2	4	45
Totals	4	53	20	45	6	59	28	11	226

The 6 Cerebrospinal Fluids which contained other organisms, all gave pure cultures of Hemolytic Streptococci.

RINGWORM.

15 Specimens of Hairs were submitted for examination; of these 5 were infected with the small spored fungus.

BR ABORTUS.

99 Specimens of Blood were examined by aglutination for Br. Abortus. Of these 5 were returned positive.

225 Milks were examined for the presence of Br. Abortus, and of these, 17 Specimens contained the organism.

TABLE V.

Examinations carried out under the Venereal Diseases Scheme.

The number of Specimens submitted during the year was 2,185.

Source of Specimens.

	Bloods & C.S.F.	Smears
Co. Borough of Belfast	1,880	246
Co. Antrim	21	1
Co. Down	13	2
Co. Armagh	9	0
Co. Tyrone	1	0
Co. Derry	4	0
Co. Fermanagh	5	0
Co. Donegal	1	0
Co. Monaghan	2	0

The Specimens can be grouped as follows :—

Detection of Treponemata	1
Detection of Gonocci	248
Wasserman Reactions (Blood)	1,915
Wasserman Reactions (C.S.F.)	21
	2,185

WASSERMAN REACTIONS.

Stage of Syphilis indicated by Clinical Report	No. of Tests	Number Positive	Number Negative
Primary	157	38	119
Secondary, Untreated	51	16	35
Secondary, Treated	32	15	17
Tertiary	848	132	716
Latent, Untreated	551	64	487
Latent, Treated	53	21	32
Congenital	192	25	167
Particulars not Stated	52	8	44
	1,936	319	1,617

19 Specimens of Blood were taken from patients referred to the Laboratory by general practitioners.

BACTERIOLOGICAL EXAMINATIONS OF MILK.

During the year, 2,438 examinations were made. 920 of these were specimens of fresh milk, 151 were of pasteurised milk, 24 were of Grade A T.T. milk, 227 were examined specially for B. Tuberculosis, 21 were examined by the Methylene Blue Reductase Test, of these 2 Samples reduced the Dye in less than 4½ hours.

TABLE VI.

This table shows the number and classification per month.

Month	Grade A T.T. Milk	Pasteurised Milk	Fresh Milk	Specially Examined for B. Tuberculosis	Total
January	0	10	109	7	126
February	0	4	76	16	96
March	3	11	83	23	120
April	0	23	57	23	103
May	0	11	101	42	154
June	1	17	72	0	90
July	0	7	52	8	67
August	0	8	66	33	107
September	0	8	100	30	138
October	15	27	74	19	135
November	5	17	73	17	112
December	0	8	57	9	74
	24	151	920	227	1,322

TABLE VII.

This table shows the source of the specimens of milk.

Month	Street	Milkshop	Railway	Other Sources	Total
January	46	72	0	1	119
February	31	46	2	1	80
March	38	57	0	2	97
April	12	48	20	0	80
May	53	57	0	2	112
June	42	44	2	2	90
July	37	22	0	0	59
August	52	22	0	0	74
September	59	49	0	0	108
October	51	63	0	2	116
November	54	41	0	0	95
December	21	40	4	0	65
	496	561	28	10	1,095

TABLE VIII.

Showing the B. Coli content and the number of Organisms.

No. of Milks	Type of Sample	B. Coli in 1/10cc	B. Coli in 1/100cc.	B. Coli in 1/1,000cc	B. Coli in 1/10,000cc	No. of milks which showed over 200,000 organisms per c.c. in Grade A.T.T. & Fresh Milk and over 30,000 in Past. Milk
920	Fresh	662 71.96%	411 44.67%	211 22.93%	60 6.52%	408 44.35%
24	Grade ATT	5 20.83%	0 —	0 —	0 —	3 12.50%
151	Past	89 59.60%	57 37.75%	27 18.60%	8 5.30%	129 85.43%

225 milks were examined by the biological method for B. Tuberculosis. Of these, 7 were infected with Live B. Tuberculosis. This gives a percentage of 3.11.

TABLE IX.

MISCELLANEOUS EXAMINATIONS.

Urine Examinations, Microscopical	278
Urine Examinations, Chemical	223
Urine Examinations, Bacteriological	237
Pus	119
Pathological Fluids	6
Faeces	12
Blood Cultures, Films, Counts, etc.	59
Sputa, other than T.B.	66
	1000

I am, Sir,

Your obedient servant,

GEO. F. W. TINSDALE,

City Bacteriologist.

To Dr. Thomson, M.S.O.H.,

City Hall, Belfast.

PORT SANITARY AUTHORITY, BELFAST.

The Corporation of Belfast as the Sanitary Authority was permanently constituted the Port Sanitary Authority for the Port of Belfast by the Local Government Board (Ireland) Provisional Orders Confirmation (No. 4) Act, 1900.

The jurisdiction of the Port Sanitary Authority extends to all that part of the said Port of Belfast, which lies on the landward side of a straight line drawn from Blackhead in the Larne Rural District to Orlock Point in the Newtownards Rural District, together with the waters of the said Port of Belfast within such limits; and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits, and the place or places which may from time to time be appointed as the Customs Boarding Station or Stations for such part of the said Port, and the place or places for the time being appointed for the mooring or anchoring of ships for such part of the said Port, under any regulations for the prevention of the spread of diseases issued under the authority of the statutes in that behalf; and for the purposes of any regulations, as aforesaid, shall also extend to any ship which in pursuance thereof, or of any directions given thereunder, may be moored or anchored at the place appointed thereunder, as aforesaid, or which may be on its way thither.

The expenses of the Port Sanitary Authority are contributed by the Urban and Rural Sanitary Authorities in the following proportions:—

The Corporation of Belfast	92 per cent.
The Carrickfergus Urban District Council	1 ,,
The Holywood Urban District Council	1 ,,
The Bangor Borough Council	1 ,,
The Belfast No. 1 Rural District Council	1½ ,,
The Belfast No. 2 Rural District Council	1½ ,,
The Larne Rural District Council	1 ,,
The Newtownards Rural District Council	1 ,,

Amount of Shipping entering the Port during the year.

TABLE A.

	Number	Tonnage	Number Inspected		Number reported to be Defective	Number of vessels on which Defects were remedied	Number of vessels reported as having or having had during the voyage Infectious Disease on Board
			By Medical Officer	By Sanitary Inspector			
Foreign:—							
Steamers	527	729,753	56	527	192	190	11
Motors	28	102,008	4	28	....	....	....
Sailing	3	6,153	....	3	....	....	....
Fishing	....	....	....	....	....	....	....
Total Foreign	558	837,914	60	558	192	190	11
Coastwise:— Steamers Motors Sailing Fishing	6,877	2,947,420	10	1,158	306	283	2
Non-Trading Steamers Sailing	214	121,357	....	....	....		....
Total Coastwise	7,091	3,068,777	10	1,158	306	283	2
Total Foreign and Coastwise	7,649	3,906,691	70	1,716	498	473	13

II. Character of Trade of Port.

TABLE B.

(a) Passenger Traffic during the year.

The total number of passengers landed and embarked at Belfast during the year was as follows :—

Landed.			*Embarked.*		
Aliens.	*British.*	*Total.*	*Aliens.*	*British.*	*Total.*
993	3,507	4,500	852	2,621	3,473

These figures do not include cross-channel services with England and Scotland.

(b) Cargo Traffic.

Principal Imports : Maize, wheat, barley, timber, flax, ores, paper pulp, hemp, iron, steel, slates, coal, cement, fertilizers, oils, flour, bran, oats, tobacco (leaf), glass, salt, fruit (fresh and dried), vegetables and wines.

Principal Exports : Machinery, ropes, linen, yarns, tobacco, potatoes, grass-seed, butter, eggs, poultry, pork, apples, live cattle, whiskey and aerated waters.

(c) Ports from which vessels arrive excluding Great Britain.

Aarhus 3, Abadan 10, Albany 1, Adelaide 2, Alexandria 6, Almeria 1, Archangel 5, Antwerp 28, Aruba 3, Baltimore 5, Barcelona 2, Baton Rouge 1, Baytown 1, Bergen 2, Bona 2, Braila 2, Bremen 5, Buenos Ayres 9, Castellon 1, Carthagena 1, Chatham N.B. 1, Cherbourg 1, Constanza 5, Cork 2, Curacoa 2, Danzig 7, Dublin 11, Dunkirk 2, Fecamp 1, Freemantle 7, Galway 3, Geraldton 2, Ghent 53, Genoa 2, Gothenborg 26, Halifax 2, Hamburg 60, Haukipidas 1, Helinski 1, Helsingfors 2, Havana 1, Herring Cove 1, Huelva 1, Jaffa 3, Kemi 1, Kotka 4, Koningsborg 2, Leghorn 4, Leningrad 9, Liban 2, Lisbon 5, Malaga 2, Marseilles 1, Miramichi 1, Mobile 1, Montreal 14, Montyluto 1, Murmansk 12, Nantes 1, Naples 1, New York 14, New Orleans 9, Newcastle N.B. 3, Nord Kopping 1, Parrsboro' 1, Palma 1, Patras 1, Portland O. 1, Pomeran 1, Port Victoria 1, Pugwash 3, Ramella 1, Raumo 5, Rangoon 3, Revel 1, Riga 15, Rimouski 2, Rosario 38, Rotterdam 48, Rouen 9, San Nicholas 2, San Lorenza 1, Skogall 1, Sornaes 1, St. Johns 15, Sundsvall 4, Sydney 8, Talara 2, Tallinn 1, Shevenach 1, Trangsund 3, Valencia 1, Vancouver 3, Villa Constitution 1, Walleroo 2, Waterford 1, Waija 1, Zarate 1.

The Nationality of the vessels which arrived was as follows :—American 27, British 1,487, Danish 9, Dutch 47, Finnish 7, French 1, Estonian 1, German 39, Greek 18, Italian 3, Jugo-Slav 5, Norwegian 38, Panama 2, Russian 20, Spanish 1, Swedish 11.

III. Source of Water Supply.

(a) and (b). For the Port and Shipping.

The water supply for the docks and for vessels in the Port is taken from the mains which supply the city and the various districts surrounding Belfast. The supply is controlled by the Belfast and District Water Commissioners, who have hydrants on all quays and wharves.

The water is subjected to regular Chemical and Bacteriological examination.

(c). There are no water boats at the Port.

IV. Port Sanitary Regulations (Northern Ireland), 1934.

Arrangements for dealing with Declarations of Health :—

Declaration of Health Forms were printed as recommended by the Association of Port Sanitary Authorities of the British Isles. Special instructions relating to the Port of Belfast are given on the fourth page and a supply of these forms has been distributed to H. M. Customs Officers, the Belfast Harbour Commissioners for the Pilotage Service, and to the various Shipping Companies and Agents.

A Declaration of Health signed by the Master and countersigned by the Ship Surgeon (where one is carried) is received from each vessel arriving in the Port, from a foreign port. The Declaration of Health is received by H.M. Customs Officer or the Port Sanitary Officer on the arrival of the vessel, and the answers

to the questions contained in the Declaration are scrutinised and supplementary questions are asked. In cases where the Customs Officer first boards the vessel and the Declaration of Health is satisfactory, pratique is granted. If the Declaration of Health is not satisfactory the circumstances are immediately reported to the Port Medical Officer who makes investigations before passengers are allowed to land. During the year vessels arriving at the port were required to display the appropriate quarantine signals as laid down in these regulations.

2. Boarding of Vessels.

All vessels from a foreign port are boarded on arrival by an Officer of H.M. Customs, and an Officer of the Port Sanitary Authority. An exception is made in the case of vessels (Trans-Atlantic) arriving at the Port and disembarking a small number of passengers by tender; in this case the Customs Officer boards the vessel and receives the Declaration of Health. The Port Sanitary Officer awaits the arrival of the tender at the docks where the passengers are to be disembarked. When a large number of passengers is arriving, it is the custom for an Officer of the Port Sanitary Authority to board the vessel.

3. Notification to the Authority of inward vessels requiring special attention (wireless messages, land signal stations, information from Pilots, Customs Officers, etc.)

Arrangements for the transmission of wireless messages from inward bound vessels requiring special attention under the Regulations have been made with the Shipping Companies and Agents in Belfast. Under these arrangements the Shipping Companies or Agents receive the wireless message required under Article 7, and forward the information to the Port Medical Officer. Alternatively, or in addition, wireless messages are received direct by the Port Sanitary Authority, the telegraphic address " Portelth, Belfast " having been registered for this purpose.

No land signalling system is in operation. Close co-operation exists between the Port Sanitary Authority, and the Officers of H.M. Customs and notification of the arrival of vessels requiring special attention is also promptly received from the latter.

4. Mooring Stations Designated under Article 10.

(a) Within the Docks : (b) Outside the Docks.

(*a*) With the concurrence of H.M. Customs and the Belfast Harbour Commissioners the ordinary places of mooring, discharge or loading, in relation to inward vessels, arriving from foreign ports, have been designated " mooring stations" within the docks. Where such vessels are unhealthy owing to the presence on board of smallpox, typhus fever, dysentry, cerebro-spinal fever, or where any of these four diseases are suspected, or where typhoid fever or chickenpox are present, or suspected, or where the ship is suspected they remain at the mooring stations with gangways off until pratique is granted.

(*b*) The outside mooring station is situated at Carrick Roads, about three and a half miles from the nearest point of the docks in Belfast Lough, and ships will be detained here which have on board of plague, cholera or yellow fever.

5. Particulars of any Standing Exemptions from the Provisions of Article 14.

Standing exemptions from detention under Article 14 are granted (*a*) in the case of vessels arriving from a port or seaboard included in the list referred to in Article 11, unless such port or seaboard has been specially referred to in the current list or special instructions have been issued in regard to same. (*b*) in the case of vessels having on board one of the common infectious diseases such as scarlet fever, measles, tuberculosis, mumps, diphtheria, whooping cough, influenza, and malaria. Chickenpox and typhoid fever are not included in this list as the Port Medical Officer will see such, lest the former might be smallpox and the latter typhus fever.

6. Experience of Working of Article 16 :—

Restriction on Boarding or Leaving Vessels.

In the carrying out of the provisions of this article during the year, no difficulty arose and it was not necessary to require passengers to furnish names and destination etc., as there was no case of infectious disease on board any vessel arriving at the port calling for this procedure.

7. What, if any Arrangements have been made for :—

(a) Premises and Waiting Rooms for Medical Examination.

Waiting Rooms are provided at the Trans Atlantic Shed, Queen's Quay. This building was erected as a Customs Examination Hall with rooms set apart for the medical examination of inward and outward passengers.

(b) Arrangements for Cleansing and Disinfection.

After the removal of a case or cases of infectious disease, disinfection of the vessel is carried out by the Port Sanitary Officer. Clothing and other effects are removed to the Municipal Disinfecting Station, Laganbank Road, where they are subjected to steam pressure disinfection. The cleansing of persons is carried out at the Disinfecting Station also baths have been provided for this purpose.

(c) Temporary Accommodation.

Owing to the removal of the Intercepting Hospital at the West Twin Island, Victoria Channel, no premises for the temporary accommodation of persons for whom such accommodation is required for the purposes of these regulations exist. The Intercepting Hospital was demolished to make a waterway for a new dock. The provision of premises for the purpose of these Regulations is under consideration by the Port Sanitary Authority.

(d) Hospital Accommodation Available for Plague, Cholera, Yellow Fever, Smallpox and Other Infectious Diseases.

The Corporation Isolation Hospital at Purdysburn is available for the reception of cases of infectious diseases. Separate premises situated in the hospital grounds but self-contained and isolated from the other hospital buildings are available for the reception of cases of smallpox.

(e) Ambulance Transport.

The Port shares the facilities provided for ambulance transport in the City as a whole. For infectious cases the ambulances attached to the fever hospitals are available, whilst for non-infectious cases the ambulances attached to the Corporation Fire Brigade are available.

(f) Arrangements for Supervision of Contracts.

Where contacts of infectious disease are members of the crew, these are kept under supervision by the Port Medical Officer.

In the case of passengers or members of the crew landing, their destinations are obtained, and they are kept under supervision, and if they are proceeding to a place situate outside Belfast, the Medical Officer of Health of the district is notified.

8. Arrangements for the Bacteriological or Pathological Examination of Rats for Plague.

Bacteriological and Pathological examinations of rats for plague are carried out by the City Bacteriologist at the Municipal Laboratory, Queen's University.

9. Arrangements for other Bacteriological and Pathological Examinations.

All other bacteriological and pathological examinations are carried out at the Municipal Laboratory, Queen's University, by the City Bacteriologist.

10. Diagnosis and treatment of Venereal Disease among Sailors, under International Arrangements.

Upon the arrival of vessels in the Port information is given to the Masters as to the arrangements for the diagnosis and treatment of venereal disease among sailors. Pamphlets are left on board which give the situation, and days and hours of V. D. Clinics. These pamphlets give warning of the dangers of the disease and every encouragement is given for attendance at any of the following Clinics :—The Royal Victoria Hospital, the Mater Infirmorum Hospital, and the Belfast Union

Infirmary. At each of the Clinics beds are available for intern treatment. No charge is made for intern or extern treatment to the patients. Where continuation of treatment at other Ports is necessary, the sailors "grey" book is filled in by the Medical Officer in charge of the V. D. Clinic giving full particulars of the treatment he has received.

11. Arrangements for the Interment of the Dead.

All Arrangements for the interment of the dead are attended to by the Shipping Companies or their Agents.

TABLE C.

Cases of Infectious Sickness landed from vessels.

Disease.	No. of Cases during 1934.		No. of Vessels concerned.	Average Number of Cases for previous 5 years.
	Passengers.	Crew.		
Malaria	—	—	—	1
Influenza	—	6	4	3
Tuberculosis	—	3	3	2
Typhoid	—	—	—	—
Diphtheria	—	—	—	—
Scarlet Fever	—	—	—	—
Measles	1	—	1	1
Chickenpox	1	—	1	1
Whooping Cough	—	—	—	1
Pneumonia	1	—	1	1
Mumps	1	—	1	—

TABLE D.

Cases of Infectious Sickness occurring on vessels during the voyage, but disposed of prior to arrival.

Disease	No. of Cases during 1934		No. of Vessels concerned	Average Number of Cases for previous 5 years.
	Passengers	Crew		
Influenza	—	—	—	—
Measles	—	5	2	2
Malaria	—	—	—	1
Pneumonia	—	—	—	—

No case of plague, cholera, yellow fever, smallpox or typhus fever occurred, and no plague infected rats were discovered during the year.

The Parrots (Prohibition of Import) Regulations, 1930.

During the year notices were served on the Masters of six vessels which arrived at the Port with birds of the parrot species on board, namely :—

S.S. "Duke of Argyll"	from	Heysham	2 Budgerigars
M.V. "Wenton"	,,	Geraldton	1 Parrot
M.V. "King Edwin"	,,	Geraldton	1 Parrot
S.S. "Kingsland"	,,	Rosario	1 Parrot
S.S. "Lago"	,,	Miramichi	1 Parrot
S.S. "Winga"	,,	Gothenborg	2 Budgerigars

forbidding the landing of these birds and requiring them to export them within a time specified in the notices. The birds were subsequently exported within the time specified.

Permits were granted by the Ministry of Home Affairs (N. I.) for the entry of a number of birds of the parrot species, on condition that they were not for re-sale.

V. Measure Against Rodents.

(a) In Ships in Port. All vessels arriving from Ports where plague is endemic are boarded by the Port Sanitary Officer as soon as possible after berthing. Enquiries are made as to the prevalence of rats on board, and as to whether any sick or dead rats were found during the voyage. The vessels are then inspected to ascertain probable rat infestation, and are periodically inspected during the time they remain in Port in order to ascertain if any dead rats have been found in the cargo. Traps are set with a view to obtaining rats for bacteriological examination by the City Bacteriologist at the Municipal Laboratory.

(b) On Quays, Wharves and Warehouses.

Instructions are given to the owners, occupiers and employees on the quays etc., that rats caught or killed should be preserved in air-tight tins for the Port Sanitary Officer, who arranges for them to be sent to the Municipal Laboratory for bacteriological examination.

Measures taken to prevent the passage of rats between ship and shore.

All vessels arriving from foreign ports are required to affix rat guards to all moorings, and maintain them so fixed during their stay at the port. If the rat population is estimated to be abnormal, all gangways and communications are raised at night, and a light affixed on each.

Methods of Deratisation of Ships.

Deratisation of ships is carried out by fumigation with Sulphur Dioxide or Hydrocyanic Acid Gas. The fumigations are carried out by private firms under the supervision of the Port Sanitary Officer. When fumigating with sulphur the requisite quantities are placed in the different parts of the vessel, allowing three pounds to every thousand cubic feet. Sulphur dioxide gas is generated by burning the sulphur in pans. Wood wool and tinder sticks saturated with methylated spirits or paraffin, are used to start combustion. The minimum time of exposure is six hours. No vessel was deratised with Hydrocyanic Acid gas during the year.

Methods of Deratisation of Premises in the Vicinity of the Docks, Quays, etc.

The various Shipping Companies, Warehousemen and Occupiers of premises in the vicinity of the docks carry out, at the request of the Medical Superintendent Officer of Health, who is also Port Medical Officer, such works as may be necessary for the extermination of rats. Notices are issued, if necessary, under the Rats and Mice Destruction Act and are served on the occupiers of the premises. Cats are kept in most of the stores and warehouses. Trapping and poisoned baits are also employed. During the year the Belfast Harbour Commissioners had men employed putting down baits in the sheds and on the lands under their jurisdiction, with effective results, and marked reduction in the rat population.

Measures Taken for the Detection of Rats in Ships and on Shore.

In ships :—Vessels arriving in Port are inspected by the Port Sanitary Officer who ascertains as to whether they are infested with rats, and if so, to what extent ; this is arrived at by taking into account the number of droppings (whether old or fresh) and by tracing runs on decks and beams, cuttings, soiled woodwork, etc. Another indication of the presence of rats is the peculiar odour given off in confined places when rats have been present for any length of time.

On Shore :—Stores, etc., in the vicinity of the docks are inspected regularly for the detection of rats. Droppings, cuttings and damage to the produce are the main indications that the premises are infested with rats During the year very little trouble has been caused in the stores at the port through rat infestation.

Rat Proofing.

(*a*) To what extent are docks, wharves, warehouses, etc. ratproof ?

The docks and wharves on the County Antrim side of the Port are all constructed to be as near ratproof as possible. The floors of the sheds and warehouses and the roadways leading thereto are constructed of concrete or granite setts laid on concrete. The offices in the sheds are constructed so as to allow of the minimum of rat harbourage. On the County Down side the wharves are mostly erected on piles, and these afford a certain amount of harbourage. These wharves are used principally for the discharge of coal, ores, steel, etc., and not so enticing to rats as wharves where grain or food-stuffs are landed or stored.

(b) Action taken to extend ratproofing.

(1) in ships. (2) on shore.

In Ships :—Efforts are directed towards sealing vulnerable places, such as provisions-storerooms and pantries where food is kept. This is generally done by encasing with sheet metal, and closing the means of access of rats between one apartment and another, so as to make them as ratproof as possible.

On Shore :—Periodical inspections are made by the Officers of the Sanitary Authority to see that the various premises are kept in good condition, and that no accumulations are allowed to gather, which would entice and harbour rats. When necessary, the owners or occupiers are required to take such action as may be found necessary to prevent the access of rats to their premises and reduce the rat harbourage to the minimum.

The owners and occupiers of premises are aware of the damage done by rats to merchandise and take every possible means accordingly to keep clear of them as far as practicable.

Number of Rats destroyed during the year.

TABLE E.

(a) On Vessels.

Species.	Jan.	Feb	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Black	11	18	18	42	16	15	62	24	18	13	28	4	269
Brown	....	....	....	....	....	....	....	....	....	....	....	....	....
Species not recorded	....	....	....	....	....	....	....	....	....	....	....	....	....
Examined	11	18	11	29	16	9	42	14	18	13	28	4	213
Infected with Plague	....	....	....	....	....	....	....	....	..	....	....	....	....

TABLE F.

(b) In Docks, Quays, Wharves and Warehouses.

Species.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec	TOTAL.
Black	10	8	20	22	10	6	10	9	15	19	62	9	200
Brown	....	1	....	....	1	....	....	....	....	....	....	....	2
Species not recorded	....	....	....	....	....	....	....	....	....	....	....	....	....
Examined	10	4	10	18	9	2	4	7	12	17	56	9	158
Infected with Plague	....	....	....	....	....	....	....	....	....	....	....	....	....

TABLE G.

Measures of Rat Destruction on "Infected or Suspected" Vessels from Plague Infected Ports arriving in the Port during the year.

Total Number of such vessels arriving.	Number of such vessels fumigated with So2	Number of rats killed.	Number of vessels fumigated by HC.n	Number of rats	Number of vessels on which trapping, poisoning, etc. were employed.	Number of rats killed.	Number of Vessels on which measures of destruction were not carried out
16	—	—	—	—	2	27	14

TABLE H.

Deratization and Deratization Exemption Certificates issued during the year.

Nett Tonnage.	Number of Ships.	Number of Deratization Certificates Issued.					Number of Deratization Exemption Certificates Issued.	Total Certificates Issued.
		After fumigation with			After Trapping, Poisoning etc	Total.		
		HC.n.	Sulphur	HC.n. and Sulphur.				
Under 300 Tons (nett reg.)	1	—	—	—	—	—	1	1
From 301 „ to 1,000	10	—	—	—	—	—	10	10
„ 1,001 „ to 3,000	15	—	2	—	—	2	13	15
„ 3,001 „ to 10,000	21	—	7	—	—	7	14	21
Over 10,000	—	—	—	—	—	—	—	—
Total	47	—	9	—	—	9	38	47

VI. Hygiene of Crew's Spaces.

TABLE J.

Classification of Nuisances.

Nationality of Vessel.	Number Inspected during 1934.	Defects of Original Construction.	Structural defects through wear and tear.	Dirt, Vermin and other conditions prejudicial to health
British	1,487	3	4	448
Other Nations	229	17	9	167

VII. Food Inspection.

During the year all sheds and warehouses where food is stored were inspected regularly for the detection of unsound food. The quantities arriving maintained much the same average as last year.

The quality of the produce which arrived maintained a very good standard.

3 Samples of Imported Barley were taken for Chemical Analysis to ascertain if SO2 was present. The result of the analysis was negative.

2 Samples of Water were taken for Bacteriological Examination from one of the Cross Channel Boats.

Seizures.

	tons	cwts.	qrs.	lbs.
100 Bags of Dutch Onions	5	0	0	0
7 Bags of Cauliflowers	0	5	0	0
1 Box of Herrings	0	0	2	0
219 Bags of Potatoes	10	19	0	0
15 Boxes of Fish Fillet	0	2	0	0
109 Boxes of Tomatoes (Jersey)	0	12	0	0
50 Barrels of Salt Fish	3	18	0	0
142 Tins of Canned Fruit	0	5	0	0
1 Box of Fish	0	0	0	7
	21	1	2	7

TABLE XXIX.

SANITARY REPORT FOR THE YEAR.

	DISPENSARY DISTRICTS.															
	I.	II	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII	XV.	XVI.	TOTAL.
Houses Inspected:—																
Systematically	1347	2294	1430	904	588	1362	...	47	647	1359	1782	1504	898	1111	1085	16358
Re-inspections	2597	6029	4217	3266	3479	3913	117	627	4717	5389	5563	4230	2641	4114	4120	55019
For Specific Purposes	1086	2657	2941	1843	1285	1750	87	377	2479	2166	2048	2095	1157	1695	1778	25444
Where Infectious Diseases occurred																
Inspections	77	368	380	499	132	387	16	35	221	263	548	385	405	159	154	4029
Re-inspections	110	560	446	331	164	232	8	36	178	345	263	175	241	112	104	3305
Under the Tuberculosis (Prevention) Act																
Inspections	14	46	51	51	17	36	3	8	30	53	37	23	17	31	15	432
Re-inspections	—	—	—	—	—	2	—	—	—	—	1	—	—	—	—	3
Factory and Workshop Acts:—																
Factories																
Inspections	100	42	45	84	24	29	—	—	10	17	40	30	18	91	48	578
Nuisances	43	12	35	34	10	14	—	—	3	14	5	11	4	38	23	246
Workshops																
Inspections	371	310	251	102	88	125	5	13	48	111	167	105	126	198	92	2112
Nuisances	114	51	26	18	22	12	—	—	5	5	37	13	22	46	39	410
Workplaces																
Inspections	290	30	15	11	26	44	—	—	1	7	4	4	14	99	21	566
Nuisances	15	—	1	—	—	1	—	—	—	—	—	2	3	1	1	24
Outworkers' Premises																
Inspections	1	67	57	962	16	474	—	—	62	13	967	521	171	185	483	3979
Nuisances	—	6	6	122	1	53	—	—	10	—	106	42	17	14	44	421
Bakehouses																
Inspections	58	161	208	123	45	76	—	6	35	85	156	137	90	77	62	1319
Nuisances	18	46	76	42	10	27	—	2	9	15	58	50	41	29	21	444

SANITARY REPORT (Continued).

	DISPENSARY DISTRICTS.															
	I.	II.	III.	IV	V.	VI	VII.	VIII	IX.	X.	XI.	XII.	XIII.	XV.	XVI.	TOTAL.
Shops inspected by F.S.S.O., including :—																
Confectionary, Ice Cream, Vegetable and Fruit, Grocery, Others	137	594	462	258	188	125	27	65	200	541	270	310	90	280	136	3683
Schools:—																
Inspections	109	268	146	100	116	132	40	28	113	104	151	63	35	123	56	1584
Common Lodging Houses:—																
Inspections—Day	1147	458	5	95	531	—	—	—	—	4	—	—	—	362	116	2718
,, Night	4	3	—	—	4	—	—	—	—	—	—	—	—	—	—	11
Breaches of Bye-Laws	99	37	—	—	26	—	—	—	—	—	—	—	—	22	2	186
Nuisances	18	6	—	1	24	—	—	—	—	—	—	—	—	7	2	58
Under the Dairies, Cowsheds and Milkshops Order:—																
Cowsheds																
Inspections	—	4	11	20	—	27	4	58	89	5	37	18	26	8	—	307
Milkshops																
Inspections	218	620	480	277	252	215	24	69	302	247	245	131	81	235	108	3504
Breaches of Order	3	8	6	1	—	—	—	—	—	1	6	—	1	2	1	29
Under the Bye-Laws for the Regulation of Offensive Trades:—																
Inspections	34	8	7	42	—	161	—	—	—	—	33	—	8	54	192	539

DISPENSARY REPORT (Continued).

	DISPENSARY DISTRICTS.															
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XV.	XVI.	TOTAL.
Tipping Grounds:—																
Inspections	49	47	1	45	4	51	49	42	137	116	60	—	89	—	—	690
Black Smoke:—																
Observations made	—	45	—	42	36	45	2	7	69	56	37	18	15	47	25	444
Graveyards:—																
Inspections	—	45	2	44	—	2	15	—	18	35	—	5	4	—	—	170
Marine Stores:—																
Inspections	49	84	—	—	148	—	—	—	31	2	—	—	—	27	60	401
Public Urinals:—																
Inspections	734	127	148	220	189	303	47	181	312	134	36	69	20	164	165	2849
Amusement Halls:—																
Inspections	440	183	52	144	139	54	—	—	—	2	33	29	2	79	56	1213
Rivers:—																
Inspections	—	23	—	—	5	1	22	—	24	9	8	6	22	7	—	127
Drain Tests:—																
Requests	—	—	1	—	2	1	1	—	20	13	—	—	1	—	—	39
Defective	—	—	—	—	—	—	1	—	6	8	—	—	1	—	—	16
New Work	1	—	3	1	—	4	—	—	—	2	—	—	3	1	—	15
Defective	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	2
Typhoid Fever	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	2
Defective	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Others	7	36	58	4	10	21	—	—	1	4	18	12	4	16	14	205
Defective	3	14	20	4	5	9	—	—	1	1	12	9	3	11	12	104
Total No. of Tests	8	37	62	6	12	26	1	—	21	19	18	12	8	17	14	261
,, Defects	3	15	21	5	5	9	1	—	7	9	12	9	4	11	12	123

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	121	67	190	176	173	112	223	119	77	46	142	109	5	3	8	12	107	78	116	44	136	127	92	98	68	57	148	95	222	88	1,828	1,231
Tiling, Paving, or Flooring Defective	220	59	401	216	380	277	155	164	156	104	184	196	11	2	33	21	300	133	335	150	664	219	274	164	144	70	288	141	327	166	3,872	2,082
No Water Closet Accommodation	...	...	1	2	...	...	1	...	1	...	1	1	...	...	...	...	...	2	...	...	...	...	1	1	...	1	1	2	...	3	6	12
Water Closets Foul or Defective	138	66	209	161	199	179	72	134	83	93	108	143	7	8	18	23	180	92	134	126	178	152	162	108	65	56	192	93	156	107	1,901	1,541
No Ashpit Accommodation	7	1	9	9	3	12	68	8	4	2	18	12	1	...	1	2	3	5	3	4	14	8	27	3	36	6	1	8	3	3	198	83
Ashpit Defective, Dilapidated or Unsuitable	96	12	134	45	102	83	30	33	51	28	37	43	9	1	26	5	100	23	121	32	108	38	54	38	58	30	49	17	46	32	1,021	460
Sink Waste Pipes Defective, or want of	11	9	36	21	25	20	15	31	10	12	16	16	...	...	5	1	35	8	24	9	37	24	29	13	10	14	28	15	20	15	301	208
Soil and Ventilation Pipes Defective	4	...	2	...	3	...	1	...	1	...	3	...	...	...	...	...	3	...	...	...	1	...	...	...	2	...	5	...	...	...	25	...
Roof or Spouting Defective.	358	130	1012	325	770	363	238	172	289	153	347	235	12	6	76	38	687	195	512	191	617	243	368	144	186	67	424	164	497	209	6,393	2,635
Premises Dirty	52	19	108	19	11	16	3	4	7	14	4	12	...	...	...	2	5	6	7	6	12	6	5	5	6	2	37	11	4	7	261	129
House or Premises Damp	33	67	89	221	158	353	150	162	47	141	96	231	2	2	8	24	60	168	67	199	242	263	162	170	78	93	196	153	114	188	1,502	2,435
General Dilapidation	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	6
Insufficient Light or Ventilation	2	1	2	2	2	...	2	1	6	2	2	2	...	...	1	...	11	...	17	4	...	3	5	2	1	3	3	1	3	...	57	21
Offensive Smells	1	19	7	18	10	27	15	29	...	6	4	33	...	2	...	1	1	16	...	20	8	26	4	12	6	23	4	8	1	10	61	250
Fowl or Animals Kept	1	...	2	11	2	6	2	4	3	6	...	6	...	...	...	1	1	3	2	3	3	15	...	2	...	11	1	4	1	3	18	75
Accumulation of Manure or other Offensive Matter	36	15	33	49	51	52	25	30	25	16	25	36	...	1	7	2	18	18	24	25	17	31	28	13	10	27	41	19	6	14	346	348
No Domestic Water Supply or Improper	2	4	1	5	7	4	...	4	...	2	...	4	...	...	...	1	20	2	...	1	...	9	5	5	...	2	...	2	...	7	35	52
Black Smoke	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Passages Dirty	9	3	9	17	5	16	4	12	16	5	12	11	...	...	2	2	1	7	4	5	14	11	14	14	4	6	7	6	17	7	118	122
Schools Dirty	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	5	...	...	...	1	...	...	...	1	...	...	...	8
Schools Overcrowded	38	...	68	...	48	...	29	...	52	...	22	...	27	...	22	...	40	...	48	...	34	...	23	...	4	...	75	...	13	...	543	...
Houses Overcrowded	7	11	3	14	3	12	2	3	1	16	1	6	...	...	...	1	...	3	1	3	...	5	...	4	1	11	...	7	2	6	21	102
Offensive Privies	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Miscellaneous	320	173	606	519	561	604	262	377	275	254	364	355	11	6	69	48	551	286	393	282	522	386	325	300	166	139	533	339	420	348	5,378	4,416

SANITARY REPORT (Continued)

	DISPENSARY DISTRICTS.															
	I.	II.	III.	IV.	V.	VI	VII.	VIII.	IX.	X.	XI.	XII.	XIII	XV.	XVI.	TOTAL.
House Drains cleansed	170	342	227	331	103	180	3	19	148	149	242	153	109	200	325	2701
,, repaired	9	32	33	15	12	17	2	2	22	18	10	20	7	14	18	231
Length in feet of Pipe Drain laid in providing houses with new drains	59	437	442	319	601	537½	—	—	93	972	88	115	267	459	21	4410½
Gully and Disconnecting Traps put on house drains	7	5	23	18	13	6	—	—	4	20	—	—	6	2	—	104
Houses had the Tiling, Paving, or Flooring repaired	229	542	580	285	244	359	5	51	404	437	903	375	182	362	377	5335
Water Closets erected	—	—	5	2	—	2	—	—	1	13	1	1	1	—	—	26
Water Closets repaired	178	336	358	186	175	240	12	31	270	236	313	242	101	269	191	3138
Ashbins provided	90	178	167	154	76	83	10	15	128	156	154	77	105	74	60	1527
Houses provided with New Sinks	1	14	1	6	—	5	—	—	1	3	2	1	1	3	1	39
Houses provided with New Soil and Ventilation Pipes	—	1	3	2	—	5	—	—	—	2	—	—	—	—	—	13
Houses have had the Roofs repaired	259	715	604	230	263	400	7	45	486	355	500	307	127	360	413	5071
Houses have had the Spouting repaired	188	544	404	186	161	225	9	43	353	284	434	194	121	247	257	3660
Houses have been cleansed or whitewashed	9	4	6	1	9	4	—	1	6	5	6	5	3	30	4	93
Houses have had the Yard Walls lime-washed	19	50	2	—	—	—	—	—	—	—	—	—	—	1	—	72
Houses (that were overcrowded) had the number of Inmates reduced	8	8	6	1	3	—	—	—	—	1	1	3	1	2	2	36
Houses closed	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Houses have had minor repairs effected	516	1154	1240	585	607	729	10	121	906	758	870	555	264	889	687	9891
Miscellaneous nuisances abated	128	131	163	74	83	103	4	14	73	125	99	125	62	115	62	1361

TABLE XXX.

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—Motor	....	....	3	....	5	....	5	....	2	6	5	2	4	5	24	13	37
„ Other	....	....	3	1	....	....	1	....	10	2	14	3	5	4	33	10	43
Drowning	....	....	....	....	3	1	1	....	1	....	1	....	1	....	7	1	8
Gas Poisoning	....	....	....	....	....	....	1	1	1	1	1	....	4	2	7	4	11
Heart Disease	....	....	1	....	....	....	1	....	5	3	8	....	3	3	18	6	24
Inattention at Birth	2	1	....	....	....	....	....	....	....	....	....	....	....	....	2	1	3
Murder	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Natural Causes	3	....	1	....	....	1	2	2	2	2	3	1	4	2	15	8	23
Overlaying	4	1	....	....	....	....	....	....	....	....	....	....	....	....	4	1	5
Shock due Burns, etc.	2	4	3	4	2	4	1	4	1	....	....	3	....	2	9	21	30
Stillborn	3	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	3
Suffocation	4	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	4
Suicide	....	....	....	....	....	....	1	....	10	3	10	3	1	....	22	6	28
															148	72	220

REPORT OF THE CHIEF TUBERCULOSIS OFFICER ON THE WORK OF THE TUBERCULOSIS DEPARTMENT.

For the Year ended 31st December, 1934.

LORD MAYOR :

The Right Honourable SIR CRAWFORD McCULLAGH, D.L. J.P.

MEMBERS OF THE TUBERCULOSIS COMMITTEE (1934).

Councillor F. G. H. ANDERSON, M.A. Chairman.

Councillor CLARKE SCOTT, Deputy Chairman.

Alderman W. H. ALEXANDER.
Alderman ROBERT PIERCE.
Alderman J. D. WILLIAMSON, D.L., M.D., J.P. High Sheriff.
Councillor W. A. COCHRANE, J.P.,
Councillor J. BOYLE.
Councillor Mrs. COLEMAN.
Councillor R. J. GROVES.
Councillor Lt. Com. R. M. HARCOURT.
Councillor JAS. HOLLAND.
Councillor M. HOPKINS, J.P.
Councillor Dr. H. P. LOWE.
Councillor MALCOLM McKIBBIN.
Councillor S. V. TUGHAN.

(Co-opted Members)

Mr. KYLE M. ALEXANDER, F.L.A.A.
Miss E. McCOMB.
Mr. JAMES PARKHILL, J.P.

MEDICAL OFFICERS OF THE DEPARTMENT.

Tuberculosis Institutes.

Chief Tuberculosis Officer	.....	Dr ANDREW TRIMBLE.
Assistant Medical Officer	.....	Dr. JAMES SHAW.
Assistant Medical Officer	.....	Dr. T. R. V. IRWIN.
Assistant Medical Officer	.....	Dr. HERBERT McMASTER.
Assistant Medical Officer	.....	Dr. E. P. DEWAR.

Municipal Sanatorium, Whiteabbey.

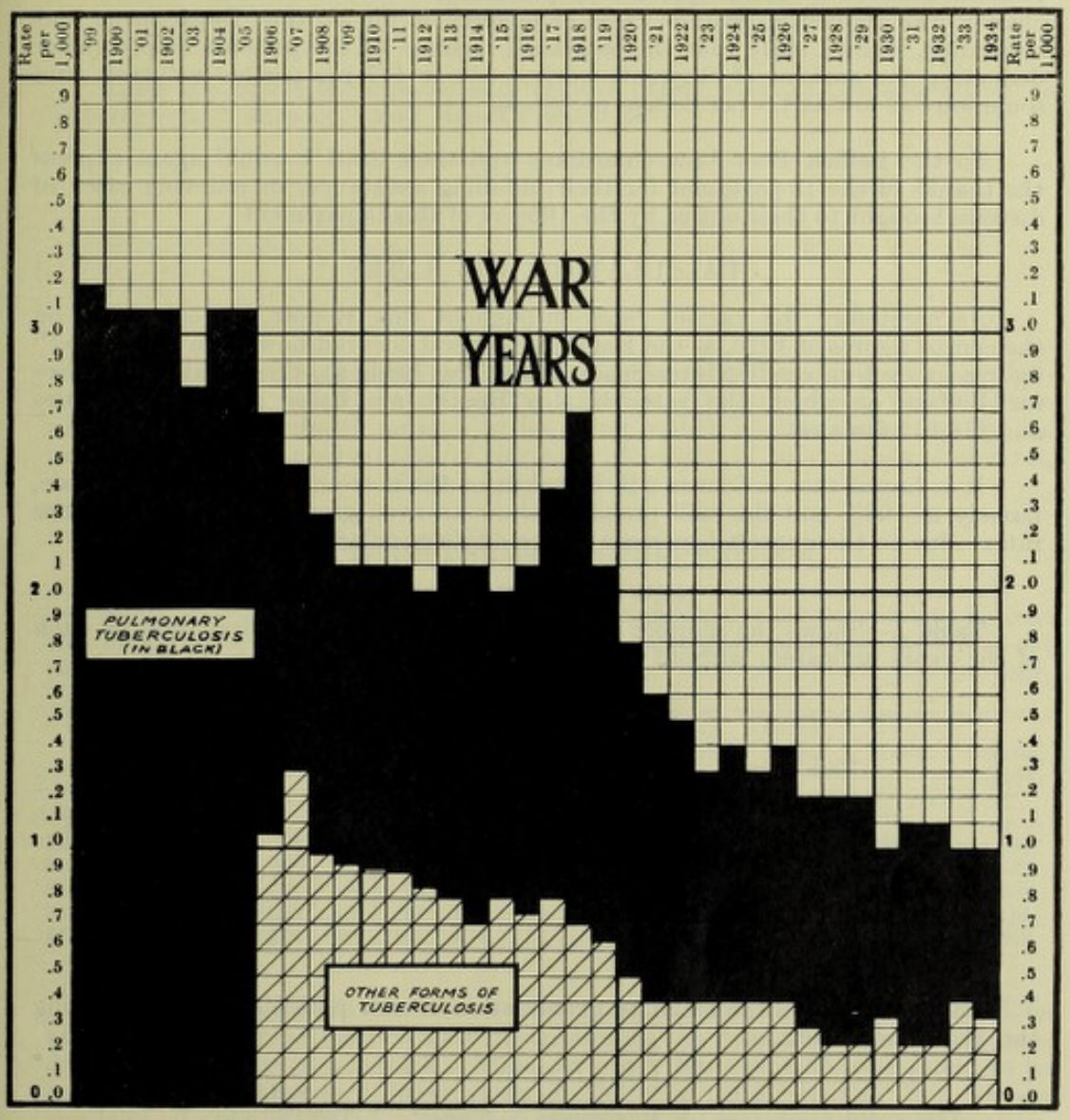
Resident Medical Superintendent	.....	Dr. PERCY WALKER.
Assistant Medical Officer	.....	Dr. D. K. WATTERSON.
Assistant Medical Officer	.....	Dr. A. E. LAVELLE.
Visiting Medical Officer	.....	Dr. JOHN RANKIN.

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 1899 ONWARD, AND FROM THE NON-PULMONARY FORMS OF TUBERCULOSIS FROM 1906 ONWARD.



Mr. Chairman, Ladies and Gentlemen,

I have much pleasure in submitting to you my Annual Report for the year ended 31st December, 1934.

As in previous years, I would like to express my gratitude to the Belfast Council of Social Welfare and other social welfare workers for their ungrudging assistance to the patients during the year. Our grateful thanks are also due to the British Legion for valuable assistance rendered during the year to tuberculous ex-service patients and their families. The Committee of the Coal Relief Fund again rendered a very acceptable service in supplying free coals to almost a thousand patients referred to them from this Department. It will be admitted that this charity was applied in genuine cases of poverty so far as this Department was concerned, when I state that the *maximum* incomes of the patients helped (after deducting the amount of the rent) worked out at 4/7 per person per week, and some were as low as 1/- per person per week.

To the Belfast Poor Law Guardians and their Staff I would again express the thanks of the Department for their unfailing assistance, in relieving cases of distress brought to their notice by the Officers of the Department.

CALCULATION OF RATES.

As heretofore the various rates throughout this Report, are calculated on the census figures of 1926, as the Registrar General does not now issue "estimated" figures for each succeeding intercensal year. This being so, the population figures for Belfast, on which the rates in this Report are based are 195,539 males and 218,612 females.

It is hoped that a Census will be taken at the customary end of the decade, namely in 1936, and this will probably show an even greater fall in the various rates—due to the expected increase of the city's population.

NEW EXAMINATIONS.

Table 1—Shows the number of persons examined for the first time, in each of the years indicated, without regard to sex or diagnosis.

Year ended	Number of Examinations.
31st December, 1930	1638
31st December, 1931	1894
31st December, 1932	1880
31st December, 1933	2161
31st December, 1934	**2233**

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

Year ended	Tuberculous	Suspect	Non-Tuberculous	Total
31st December, 1930	881	120	724	1725
31st December, 1931	1065	172	744	1981
31st December, 1932	1008	177	828	2013
31st December, 1933	1164	157	1031	2352
31st December, 1934	**1329**	**161**	**939**	**2429***
Percentages for year ended **31st December, 1934**	**55%**	**6%**	**39%**	**100%**

*Includes 196 transfers from patients formerly only suspect, to tuberculous or non-tuberculous.

It will be noted that 595 more patients were examined in the year 1934 than in the year 1930, and that 448 more were found to be suffering from tuberculosis. This increase, however, need not necessarily be presumed to be due to an increase in the numbers suffering from tuberculosis in the community. It is, in all probability, due in a large measure to the operation of the Medical Benefit Regulations which came into force in 1930, and in accordance with which the Panel Practitioner is required to report to the Chief Tuberculosis Officer " in regard to each patient whom he finds *or suspects* to be suffering from tuberculosis." The increase is also possibly due to the more extended use by general practitioners of the facilities provided at the Institutes for the diagnosis of tuberculosis amongst all classes of patients.

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.	227	23	228	478
Per Cent.	47%	5%	48%	100%

With reference to the high percentage of contacts (all ages) found to be tuberculous, it may be well to state that the majority of these contacts were children who had been previously noticed to be ailing, either by the parent, or by the visiting nurse. The advantage of this early detection of tuberculosis is obvious, and shows the importance of the visiting nursing service.

SPECIFIED 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., 1930	270	332	61	52	29	33	29	15	32	28	421	460	881
31st Dec., 1931	206	389	90	72	35	24	23	39	55	32	509	556	1065
31st Dec., 1932	291	360	83	79	29	22	40	35	34	35	477	531	1008
31st Dec., 1933	329	339	114	124	21	16	45	42	70	64	579	585	1164
31st Dec., 1934	**374**	**399**	**164**	**174**	**23**	**14**	**58**	**41**	**42**	**40**	**661**	**668**	**1329**

A study of the relative numbers of men and women found to be tuberculous at their first examination reveals a diminution in the relative numbers of women during the 20 years of our work. Thus, for every 100 men who were found to be suffering from pulmonary tuberculosis in the year 1915, we had 150 women similarly affected ; in 1934 for every 100 men *diagnosed* as suffering from pulmonary tuberculosis, we had only 106 women.

When we come to consider *deaths* amongst men and women, the change is quite as noticeable. Thus, in 1915, for every 100 males dying from pulmonary tuberculosis, we had 144 females who died of the disease ; in 1934 for every 100 males who died of pulmonary tuberculosis only 102 females died.

These figures would seem to me to indicate that the course of the disease in this country is gradually becoming more chronic and fibrotic in type—a fact which may explain the lengthening period now observed between the inception of the disease and its termination.

RE-ATTENDANCES OF OLD PATIENTS.

The re-attendance of "old" patients at the Institutes for examination and treatment numbered 25,157, as compared with 24,854 in the year previous. 112 patients were unable to attend at the Institutes, and were re-examined in their homes, and 123 patients were examined at the Belfast Infirmary by the Medical Staff of the Institutes. All these figures go to explain a fact noticed in recent years—a steady increase in the general work of the Institutes.

PATIENTS ON THE VARIOUS FORMS OF TREATMENT.

Table 5.—Shows the number of patients on the different forms of treatment at the 31st of December, 1934.

Institute (Dispensary)	Domiciliary		Institutional				Total
	Ins.	Non-Ins.	Sanatorium.	Graymount Hospital.	Belfast Infirmary	Open-Air School (Day Section)	
1123	2306	1950	231	58	21	122	5811

The Total number of patients treated during the year was 7084.

These figures include 2,306 insured persons on panel treatment whose supervision devolves upon the Tuberculosis Department in accordance with Par. 47 (b) of the Medical Benefit Regulations which reads:—

A practitioner is required—

"(b) To prepare and send to the Tuberculosis Officer in regard to each "patient who is recommended by the Tuberculosis Officer to receive "treatment for tuberculosis from the practitioner reports on forms "to be provided by the Tuberculosis Officer and approved by the "Ministry for the purpose, at such reasonable intervals, not "exceeding three months, during the continuance of such treatment "as may be arranged between the practitioner and the Tuberculosis "Officer."

RE-EXAMINATION OF PATIENTS ON DOMICILIARY AND PANEL TREATMENT.

In addition to the quarterly reports of Domiciliary Doctors regarding tuberculous patients under their care, a special re-examination of patients on Domiciliary and Panel treatment is made at regular intervals by the medical staff of these Institutes. During the year 1934, 1,007 such special re-examinations were made, with the results set out hereunder:—

Table 6.—Shows the Condition of Domiciliary and Panel patients re-examined during the year.

Year	Disease Apparently Cured	Disease Quiescent	Greatly Improved	Improved	In Statu Quo	Worse	Total
1931	52	69	79	177	541	112	1030
1932	52	155	77	163	748	119	1314
1933	56	136	74	141	620	84	1111
1934	**55**	**81**	**61**	**151**	**584**	**75**	**1007**

(It should be noted that the above re-examinations are exclusive of repeated examinations of new patients for purposes of establishment of diagnosis; of routine re-examinations of patients in attendance at the Institutes: and of all re-examinations of patients for special purposes).

The figures under the headings "Disease Apparently Cured" and "Disease Quiescent" afford clear proof that tuberculosis is a disease which is amendable

to treatment. These figures represent 13.5 per cent. of the total re-examinations of Domiciliary patients, but many patients of the same class fail to attend for re-examination, so that 13.5 per cent. may be taken as a modest estimate.

Occupations of Tuberculous Patients at their First Examination.

TABLE 7.

I.—GENERAL, OR LOCAL GOVERNMENT OF THE COUNTRY.

Male.	Female.
Nil.	Nil.

II. PERSONS ENGAGED IN THE DEFENCE OF THE COUNTRY.

Policeman	1	Nil.	
Sailor (Discharged)	1		
Soldier (Discharged)	36		

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

Chemist	1	Nurse	3
Musician	1	Pianist	1
Optician	1		

IV.—PERSONS ENGAGED IN DOMESTIC OR PERSONAL OFFICES OR SERVICES.

Cleaner	2	Charwoman	3
Hairdresser	3	Companion	1
Orderly	1	General Servant	21
		Housekeeper	9

V.—PERSONS ENGAGED IN COMMERCIAL OCCUPATIONS.

Agent	1	Canvasser	1
Clerk	18	Clerk	12
Shop Assistant	8	Shop Girl	9
Traveller	1		

VI.—CONVEYANCE OF MEN, GOODS, MESSAGES.

Carter	7	Messenger	1
Messenger	3	Telephonist	1
Motor Man	12		
Newsboy	1		
Postman	1		
Tram Conductor	1		
Tram Driver	2		
Vanman	1		

VII.—PERSONS ENGAGED IN AGRICULTURE.

Gardener	1	Nil.

VIII.—PERSONS ENGAGED ABOUT ANIMALS.

Groom	1	Nil.

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

Compositor	1	Paper Turner	1
Copy Holder	1		
Engraver	2		
Letter Cutter	1		
Litho Plater	1		
Printer	1		

X—PERSONS ENGAGED WITH MACHINES AND IMPLEMENTS.

Male.			Female.		
Blacksmith	....	2	Nil.		
Brass Moulder	...	1			
Caulker	....	1			
Electric Welder	....	1			
Engine Cleaner	....	2			
Engineer	....	11			
Fireman	...	4			
Iron Moulder	....	2			
Iron Turner	....	4			
Motor Mechanic	....	3			
Oiler	...	4			
Roller Boy	....	1			
Sheet Metal Worker	....	3			

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

Carpenter	....	1	Nil.		
French Polisher	....	1			
House Repairer	....	2			
Joiner	—	5			
Painter and Glazier	....	1			
Plumber	....	2			
Shop Fitter	....	1			
Stone Mason	....	1			
Wire Matress Worker	....	1			

XII.—CARRIAGES AND HARNESS.

Carriage Examiner	....	1	Nil.		

XIII.—SHIPS AND BOATS.

(See also under X.—"Machines and Implements.")

Driller	....	1	Nil.		
Plater	...	1			
Red Leader	....	1			
Shipwright	....	1			

XIV.—CHEMICALS AND COMPOUNDS.

Chemical Worker	...	1	Nil.		

XV.—TOBACCO AND PIPES

Pipe Maker		1	Tobacco Worker	—	2

XVI.—FOOD AND LODGINGS.

Barman	...	1	Baker	—	1
Bread Server	....	1	Waitress.	—	4
Butcher	....	1			
Miller	....	1			
Vintner	...	1			

XVII.—TEXTILES.

Male.		Female.	
Bobbin Turner	3	Box Folder	3
Cager	1	Carder	3
Flax Rougher	1	Cloth Finisher	1
Machinist	4	Designer	1
Packer	1	Doffer	18
Pattern Maker	1	Drawer	8
Rougher	1	Examiner	7
Spool Boy	1	Feeder	2
Textile Worker	1	Folder	2
Warehouse Apprentice	1	Laundress	9
Winder	1	Layer	4
Yarn Looser	1	Linen Lapper	1
Yarn Boy	1	Machinist	2
		Machine Knitter	1
		Netter	1
		Ornamentor	2
		Packer	2
		Piecer	1
		Reeler	5
		Rover	7
		Spinner	16
		Spreader	1
		Stitcher	29
		Sweeper	1
		Wareroom Worker	5
		Weaver	22
		Winder	9
		Factory Worker or Mill-worker (not otherwise defined)	5

XVIII.—DRESS, ETC.

Boot and Shoe Maker	4	Dressmaker	4
Cutter	2		
Tailor	1		

XIX., XX., and XXI.—ANIMAL, VEGETABLE AND MINERAL SUBSTANCES.

Nil.		Brush Maker	1

XXII.—GENERAL OR UNSPECIFIED COMMODITIES.

Bill Poster	1	Bag Sewer	2
Caretaker	1	Boxmaker	2
Dealer	9	Housewife	118
Labourer	95		
Packing Case Maker	4		
Storeman	2		
Watchman	1		
Window Cleaner	1		

XXIII.—REFUSE MATTERS.

Nil.	Nil.

XXIV.—PERSONS NOT FOLLOWING PRODUCTIVE OCCUPATIONS.

School Boy	287	School Girl	240
Male Child under School Age	68	Female Child under School Age	50
No Occupation	13	No Occupation	13
Total Males	685	Total Females	668

N.B.—24 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 New 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., 1932	201	84	24	8	0	1	0	318
31st Dec., 1933	242	114	31	13	5	2	3	410
31st Dec., 1934	**293**	**117**	**43**	**14**	**8**	**5**	**0**	**480**

The foregoing Table shows that of the 1,329 new patients examined during the year, 480, or 36 per cent. had a definite opportunity of infection through contact with other tuberculous patients. The 849 patients who gave no history of contact with the disease may have included a considerable number who actually had been in contact with tuberculosis, but were unaware of the fact.

It cannot be too often repeated nor too widely known that the essential source of tuberculosis is the tubercle bacillus in the sputum or other infective discharge of the patient. If this infected sputum is carefully disposed of, and if scrupulous care is taken by the patient and person in charge of the tuberculous patient as to the thorough washing of hands, and segregation or sterilisation of the utensils used by the patient, there will be little risk of infection spreading to other members of the family.

VISITATION OF THE PATIENTS IN THEIR HOMES.

With the object of diffusing amongst the people a more practical knowledge of the causes of tuberculosis, and of the prevention of its spread in the family and in the community, our staff of Tuberculosis Health Visitors paid 35,485 visits to patients in their own homes during the year. But the prevention of tuberculosis is not the only objective of the Health Visitor: she is the adviser and helper of the patient and his family in their domestic, economic and financial problems, and it is through her efforts that the necessities of the patients are brought to the knowledge of the various welfare societies who may be in a position to offer assistance. In this way our Health Visitors form a very efficient "after care" corps, and their reports as to the needs of their patients are received and carefully investigated and where necessary passed on to the B.C.S.W. or otherwise dealth with.

HOME CONDITIONS.

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

Year Ended	Rooms in Domicile ☞	One	Two	Three	Four	Five	Six	Seven	Over Seven	Total
31st Dec., 1932	Patients	37	53	109	479	78	59	10	1	826
31st Dec., 1933		42	57	122	621	114	66	12	2	1036
31st Dec., 1934	☞	**47**	**61**	**138**	**693**	**113**	**69**	**16**	**4**	**1141**

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., 1932	3	17	127	536	87	45	11	826
31st Dec., 1933	3	21	159	614	147	63	29	1036
31st Dec., 1934	**3**	**32**	**163**	**707**	**144**	**78**	**14**	**1141**

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.

PERSONS IN THE SAME BEDROOM AS THE PATIENT.

Table 11.—Shows the number of tuberculous patients sleeping in the **same bedroom** with 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., 1932	147	324	187	104	42	11	7	4	826
31st Dec., 1933	181	370	272	118	52	23	14	6	1036
31st Dec., 1934	**184**	**439**	**285**	**141**	**60**	**25**	**4**	**3**	**1141**

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., 1932	219	407	154	39	5	2	826
31st Dec., 1933	271	485	213	50	15	2	1036
31st Dec., 1934	**325**	**544**	**200**	**63**	**6**	**3**	**1141**

SPITTING.

There is still room for a good deal of improvement in the matter of refraining from spitting on footpaths and in public conveyances. Many of the people who offend in this matter do so from want of thought, and only need to have their attention directed to its danger. Apart altogether from the offence which this habit causes to others in the vicinity of the person guilty of it, there is the grave risk that dried sputum carried in the air will be inhaled by little children who may, thereby, become infected not only with tuberculosis, but with other equally dangerous and infective diseases.

WHERE THE PATIENTS LIVE.

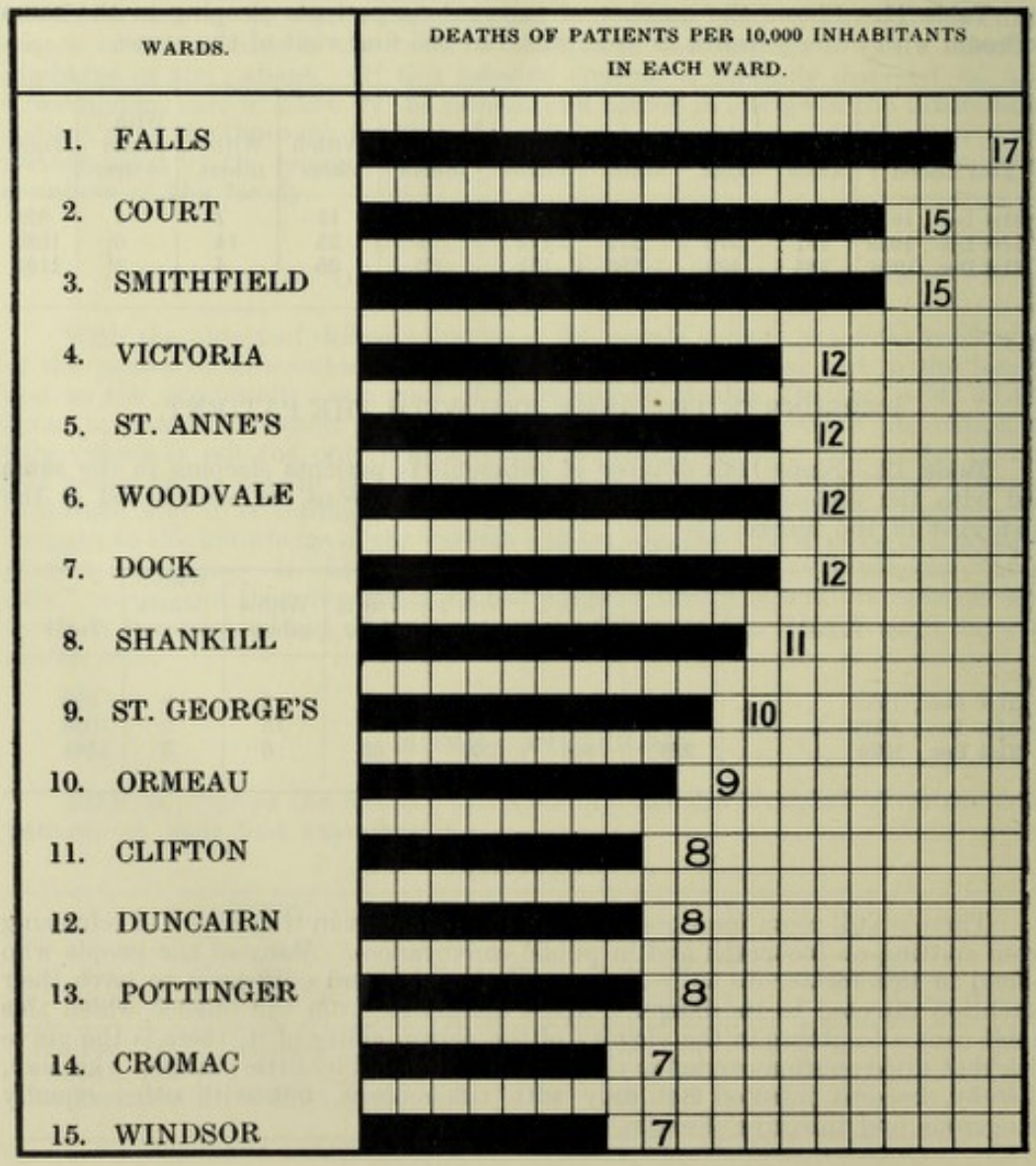
Table 13.—Indicates by wards, arranged in alphabetical order, the localities in which new tuberculous patients lived at the time of their first examination.

Clifton	85	St. George's	66
Court	98	Shankill	117
Cromac	45	Smithfield	53
Dock	87	Victoria	108
Duncairn	94	Windsor	41
Falls	88	Woodvale	88
Ormeau	116	Outside City Boundary	5
Pottinger	151		
St. Anne's	87	Total	1,329

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 1934.

CHART 2.

SHOWS THE DEATHS FROM PULMONARY TUBERCULOSIS AS A RATE PER 10,000 INHABITANTS, LIVING IN THE WARDS IN WHICH THE DEATH OCCURRED (1934)



X-RAY DEPARTMENT.

During the year, 1,269 X-ray films were made: 1,216 for patients in attendance at the Institutes, and 53 for patients under treatment at Graymount Hospital. The x-ray work for the Hospital is now being done by the Visiting Surgeon with a new mobile x-ray unit installed during the year.

It will be realised that this increasing use of x-ray examinations has involved a very considerable increase in the duties of the Medical Staff, and although the work has been, to some extent, its own reward in a greater precision in diagnosis, I take the opportunity at this stage to express my gratitude to the Assistant Medical Officers for the pains which they have taken in this and in other departments of the work.

ARTIFICIAL LIGHT DEPARTMENT.

The Artificial Light Installation (five types of lamp at the Central Tuberculosis Institute and two types at the Albertbridge Road Institute) is still found of value in the treatment of various non-pulmonary forms of tuberculosis, especially in the glandular and osseous forms, and in lupus. The results of treatment of delicate "contact" children with the carbon-arc lamp (radiant heat and ultra-violet light combined) have been most gratifying. The new infra-red (gas) lamps have also been found very useful in the treatment of painful conditions generally, and also in promoting cure in the more slowly-healing ulcers.

Table 14.—Shows the number of Light Treatments administered during the year :—

Institution	Treatments Given					Total
	Carbon Arc	Mercury Vapour	Kromayer	Sollux	Infra Red	
Central	3267	9	29	39	62	3406
A.B. Road	—	5000	—	—	96	5096
	3267	5009	29	39	158	8,502

DENTAL DEPARTMENT.

Table 15.—Shows the nature and amount of the dental work carried out for patients during the year. These figures indicate a very considerable increase in the work of the Dental Department, as compared with 1933.

Institute	Fillings	Dressings	Extractions	Total Treatments
Central	134	647	147	928
A.B. Road	111	541	115	767
Graymount	153	501	20	674
G.O.A. School	119	417	32	568
Total	517	2106	314	2937

LABORATORY WORK.

Table 16.—Shows the nature and amount of the laboratory work done during the year.

Year Ended	Examinations.			Tuberculins prepared
	Sputa	Chemical (Sputa & Urines)	Haematological (Blood Sedimentation & blood film reaction)	
31st Dec., 1933	867	926	142	46
31st Dec., 1934	1200	1278	144	56

This table also indicates the increasing amount of work falling on the medical staff.

The haematological examinations consist mainly of blood sedimentation tests and differential blood-counts. Without making any claim as to the value of blood examination in itself as an aid to diagnosis, I have found that the sedimentation test and blood cell assessment are of great assistance in arriving at a decision as to prognosis, and as a scientific and reliable guide in treatment. By means of these tests, the physician is relieved from dependence on the frequently misleading opinion of the patient as to his own condition and progress.

Table 17.—Shows the result of examinations of sputa for tubercle bacilli and albumin, or albumose.

T.B.+Alb.+	T.B.+Alb.—	T.B.—Alb—	T.B.—Alb.+
187	6	897	110

ALBUMIN IN SPUTUM.

The presence of albumin or albumose in sputum is always significant, and a consideration of Table 17 above shows how rarely albumin or albumose is absent when tubercle bacilli are found in the sputum. In all probability the presence of albumin or albumose is due to cytolysis, and if the pulmonary lesion is active it is natural that these should be found in the sputum of the tuberculous patient.

We have begun an interesting follow-up (which will require some years to complete) of patients whose sputum shows albumin or albumose, but no tubercle bacilli.

TECHNIQUE of the Albumin Test. The following has been found satisfactory: Two volumes of three per cent. Acetic acid is mixed with one volume of sputum to get rid of mucus. If the mucus comes through on first filtration, the filtration must be repeated until the fluid is clear. Albumin is then tested for by one of the classical methods, and, if present, will appear as a curdy precipitate which settles on standing as a sediment in the bottom of the tube. Fishberg observes that " nothing but a curdy precipitate should be regarded as positive, because the presence of mucus may give a cloudy precipitate on boiling, although this precipitate is not curdy, nor does it settle on standing."

TREATMENT OF INSURED PERSONS.

Table 18.—Shows the number of Insured and Non-Insured persons examined for the first time, and patients formerly diagnosed ' Suspect " or " Non-tuberculous " whose diagnoses were altered to " Tuberculous " or " Non-tuberculous " during the year 1934 :—

Year	Insured & Exempt		Total	Per cent of Grand Total	Non-Insured		Total	Per cent. of Grand Total	Grand Total
	Male	Female			Male	Female			
1934	330	355	685	28%	839	905	1744	72%	2429

Table 19.—Shows the number of patients found on examination to be tuberculous or " suspect " requiring treatment, and number found to be non-tuberculous

Year	Tuberculous or Suspect				Total	Per cent. of Grand Total	Non-Tuberculous				Total	Per cent. of Grand Total	Grand Total
	Insured		Non-Insured				Insured		Non-Insured				
	M.	F.	M.	F.			M.	F.	M.	F.			
1934	259	250	470	511	1490	61%	71	105	369	394	939	39%	2429

The grand total includes 196 " suspects " transferred in the year under review to the tuberculous or non-tuberculous class.

Table 20.—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.	
1934	221	208	3	7	4	4	3	1	—	1	452

The number of Insured persons under supervision or treated, throughout the year was 3,088. The number on Panel treatment at the end of the year, compared with previous years, is shown in the following table.

Table 21.—Shows the number of insured persons on treatment or under medical supervision at the end of the years indicated.

Year	1926	1927	1928	1929	1930	1931	1932	1933	1934
Persons	1664	1784	1817	1909	1806	2068	2448	2189	2564

The figures set out in the above Table clearly indicate that the increase in the numbers of patients is due largely to increasing numbers of Insured Persons presenting themselves for examination and treatment.

TREATMENT OF EX-SERVICE MEMBERS.

The number of men who served in the war, examined for the first time during the year, was 37 as compared with 27 in the year 1933.

Table 22.—Shows the number of Discharged Service members on the various forms of treatment, at the dates mentioned.

Date	Institute	Panel	Sanatorium	Belfast Infirmary	Total
31st December, 1932 ...	37	158	6	—	203
31st December, 1933 ...	17	163	8	—	186
31st December, 1934 ...	**6**	**186**	**2**	**2**	**196**

PREGNANCY AND TUBERCULOSIS.

Regarding the effects of pregnancy on tuberculosis and of tuberculosis on pregnancy, I have made continued enquiry into the results of pregnancy in tuberculous mothers, and the results are set out hereunder :—

Table 23.—Shows the end results of pregnancy in tuberculous mothers :—

	Miscarried	Delivered of—			Total
		Living Full-term child	Premature child	Deadborn child	
No.	93	1535	32	44	1704
Percentage	5.4%	90.1%	1.9%	2.6%	100%

These percentages remain practically the same as those observed in previous years.

With regard to the condition of children born of tuberculous mothers : we have kept records of the condition of a number of these children over a period of nine years. All these children were born since the mothers were diagnosed tuberculous, and the reports on their health at the end of the year 1934 were as follows :—

Table 24.—Shows the condition of 1,169 children born of tuberculous mothers, as noted at the last visit of the Nurse during the quarter ended 31st December, 1934. :—

	Healthy	Delicate	Tuberculous	Dead	Total
No.	877	135	68	170	1250
Per cent.	70.2%	10.8%	5.4%	13.6%	100%

RAINFALL.

Table 25.—Shows the Rainfall in inches and the days on which rain fell during the year 1934, as compared with 1932 and 1933.

Year	Rainfall in inches	Days on which rain fell.
1932	38.19	261
1933	25.77	165
1934	37.90	204

INSTITUTIONAL ACCOMMODATION.

In accordance with a request from the Ministry of Home Affairs, the following particulars are set out annually :—

Hospitals provided by the Council of the County Borough of Belfast

Tuberculosis Hospitals.

1.	Municipal Hospital for Tuberculous Children, Graymount, Belfast For the treatment of non-pulmonary tuberculosis in children)	58 beds
2.	Municipal Sanatorium, Whiteabbey, Co. Antrim (For all forms of tuberculosis in adults and children)	285 beds

Clinics and Treatment Centres.

1. Central Tuberculosis Institute, Durham Street, Belfast.
2. Tuberculosis Institute, 225 Albertbridge Road (Branch).
3. Open-air School—Day Section—Graymount, Belfast ..... — 120 places

Artificial Light Clinics for Tuberculosis Diseases.

1. At Central Tuberculosis Institute, Durham Street, Belfast.
2. At Tuberculosis Institute, 225 Albertbridge Road, Belfast.

MUNICIPAL SANATORIUM.

For details of the work carried on at the Municipal Sanatorium the Report of the Resident Medical Superintendent, Dr. P. S. Walker, should be consulted. Here it will be sufficient to say that during the year, 594 patients were admitted to the Institution and 580 were discharged.

GRAYMOUNT HOSPITAL.

Details of the work carried on at the Municipal Hospital for Tuberculous Children, Graymount, will be found in the Annual Report of the Visiting Surgeon, Mr. H. P. Malcolm, M.C. Since the opening of the Hospital in 1921, 327 patients have been admitted suffering from the various forms of non-pulmonary tuberculosis (mainly osseous). In over 80 per cent. of the patients discharged from the Hospital the disease was cured without deformity. There is urgent need for additional accommodation for children, and the extension of Graymount Hospital is at present engaging the attention of the Committee.

GRAYMOUNT OPEN-AIR SCHOOL.

The Open-air School still labours under the difficulties already referred to in previous reports, as regards restricted accommodation. But for the whole-hearted zeal of the Principal, Miss W. H. Thompson, and her four devoted Assistants, it would be almost impossible to carry on the school in its present environment. It is hoped that extended accommodation will be provided at the School alongside the extensions contemplated at the Hospital. We could easily occupy double the present accommodation with the delicate " contacts " of tuberculous patients—children who are not really suffering from any definite symptoms of tuberculosis, but are not sturdy enough for full attendance at the ordinary school.

Our close association with the School Medical Service Department, under Dr. T. S. F. Fulton, for several years past, indicates that there is also a need for other schools run on similar lines to Graymount Open-air School, to provide for the education of those " delicate " children who may have no known contact with tuberculosis. The fresh air, mid-day rest and nourishing food provided in such schools would go a long way to build up many delicate children into healthy adults.

The average daily attendance at both Sections of Graymount Open-air School during the year was as under :—

Day Section	105.4
Hospital Section (exclusive of children in the Hospital unsuitable for school)	45.2
Total average at both Sections	150.6
Number on Rolls at 31/12/34	166.2

MILK.

It is satisfactory to note that the demand for Grade A milk goes on increasing from year to year ; thus, for the year ended 30th September, 1928, there were only 13 Grade A producers and distributors in the whole of Northern Ireland, while in the year ended 30th September, 1934, the number had risen to 68. The result of this greater attention to milk—both qualitatively and bacteriologically—must be to make milk less and less responsible for non-pulmonary tuberculosis. It will not, however, as is so often claimed, wipe out non-pulmonary tuberculosis altogether, since infection from cases of human tuberculosis may still operate to produce its quota of the non-pulmonary forms of the disease. But, however clean and bacteriologically pure milk may be at its source, care in its transport, distribution and in the home will always be a matter of urgent necessity, since contamination with bacteria from human beings will still be a possible means of conveying disease from the sick to the healthy. The benefits of clean milk may be summed up as follows :—

1. It will remove *one* source of infection by the tubercle bacillus.
2. It will help to reduce the incidence of diphtheria, scarlet fever, typhoid, and perhaps other indeterminate inflammatory illnesses.

Unfortunately it has been noticed in many places that the necessarily high price of clean milk has brought about the undesirable result that the poorer classes have fallen back in large measure on the use of tinned milk, which has the objection that its vitamin content is very much lower that that of whole fresh milk.

DEATHS AND DEATH RATES.

PULMONARY TUBERCULOSIS—The number of deaths from pulmonary tuberculosis in 1934, calculated from the Registrar General's Weekly Returns, was 398, as compared with 429 in 1933, and with 836 in 1914. The uncorrected death rate, therefore, in 1934 was 0.96 per 1,000, a decrease of 54.3 per cent., as compared with 2.1 in 1914. This constitutes the lowest recorded pulmonary tuberculosis death rate in Belfast, and is a gratifying contrast with the rate of 4.7 in 1890.

NON-PULMONARY TUBERCULOSIS—The number of deaths from the non-pulmonary forms of tuberculosis in 1934 was 144, as compared with 171 in 1933, and 290 in 1914. The death rate, therefore, from non-pulmonary tuberculosis in 1934 was 0.34 per 1,000, as compared with 0.72 in 1914—a reduction in the non-pulmonary mortality rate of about 53 per cent. in twenty years.

NOTIFICATION OF TUBERCULOSIS.

Of the 542 persons who died from all forms of tuberculosis during the year, 421 (77 per cent.) were patients who had been notified either to this Department or to the Medical Officer of Health. Of these 421, 45 (10.6 per cent.) died within one month of notification ; 97 (23 per cent.) lived over one month, but died within six months from the date of notification ; while 49 (11.6 per cent.) lived over six months, but died within one year. In other words, no fewer than 191 (45 per cent.) died within one year of notification. With the exception of the years 1933 and 1934, our general experience has been that of the patients dying in any year from tuberculosis, not more than 50 per cent. have been known to us for a year or longer. Notwithstanding the operation of Medical Benefit, and the consequent provision of free medical advice for a large section of the community, it would seem that late notification of tuberculosis is almost entirely due to delay on the part of the patient in consulting his Medical Attendant. It is to be feared that this delay is due to the fatal but vain hope of the average tuberculous patient

that there is nothing seriously wrong with him, or that his disease will clear up automatically. Even when there is no longer any doubt as to the tuberculous condition, the patient will frequently refuse to avail himself of the facilities for proper treatment, and it is only when he is no longer able to work, or to get about that he will admit his need for anything further than general treatment.

CHART 3

SHOWING THE INCIDENCE OF MORTALITY FROM PULMONARY TUBERCULOSIS AMONG 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, 1934.

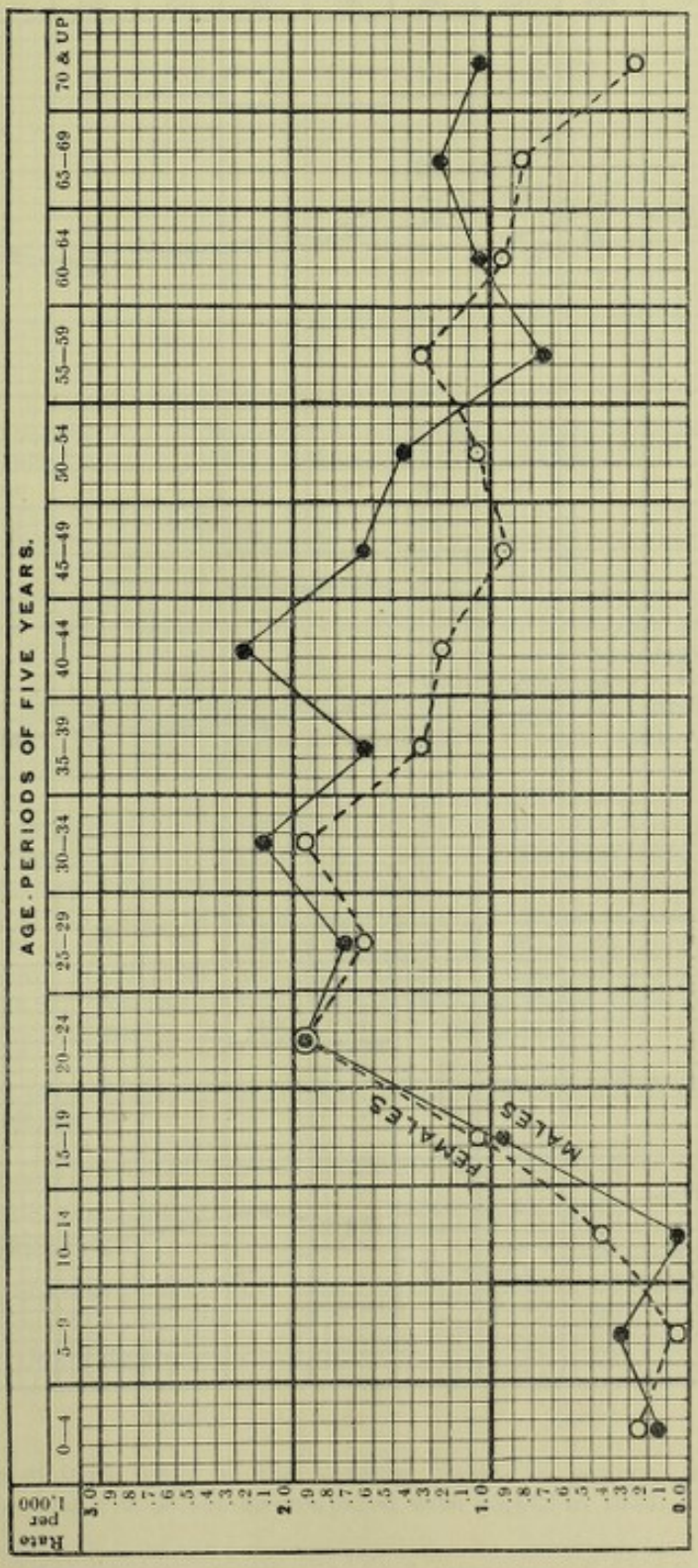


CHART 4

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

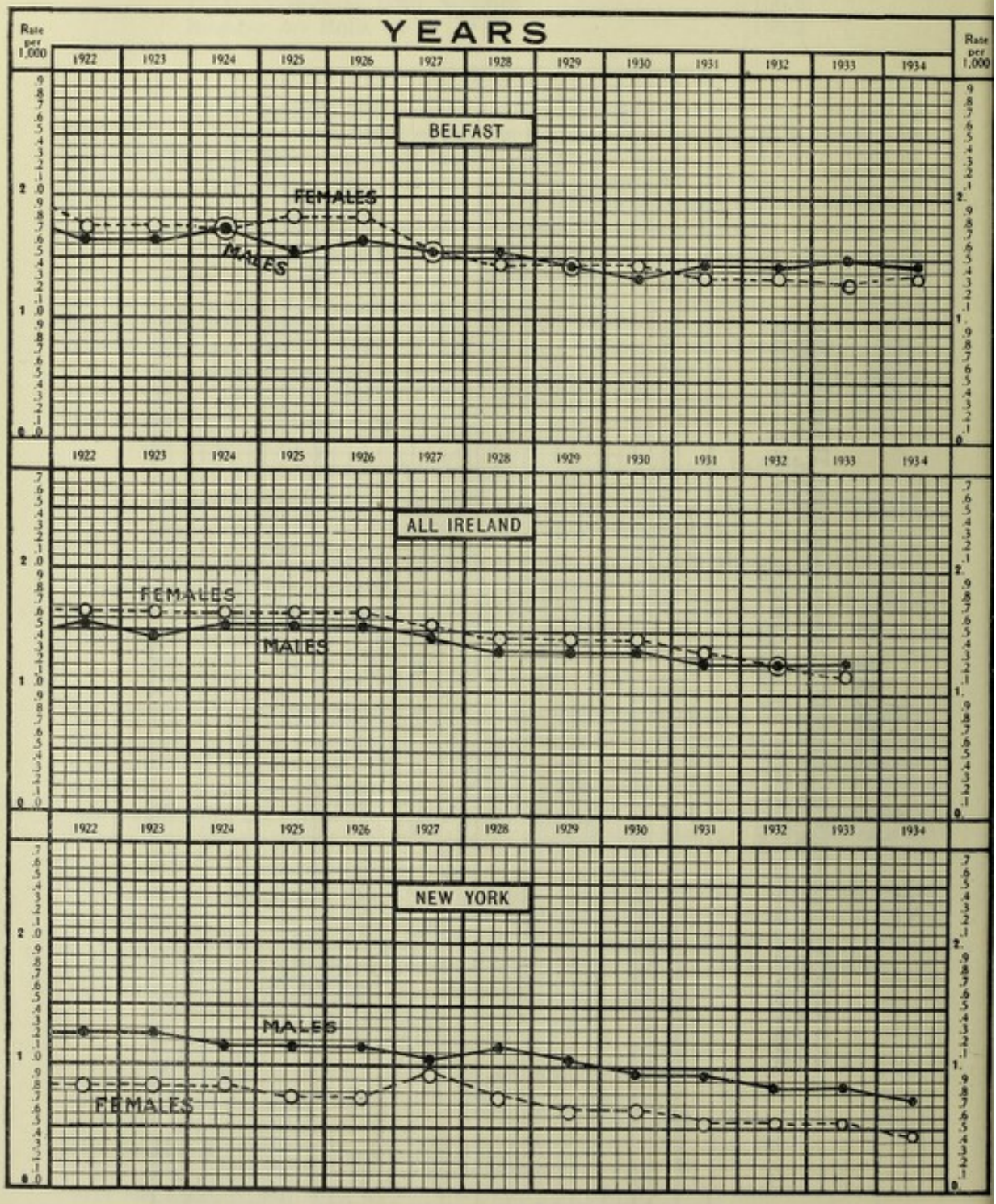


TABLE 26.

NEW CASES AND MORTALITY DURING 1934.

Age Periods	New Cases		DEATHS.			
	All Forms of Tbs.		Pulmonary (Including Miliary)		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.
0-4 incl	58	51	3	4	21	15
5-9 ,,	172	152	5	1	2	5
10-14 ,,	106	87	1	7	2	4
15-19 ,,	48	68	18	21	7	8
20-24 ,,	59	87	35	41	2	6
25-34 ,,	100	111	58	65	6	6
35-44 ,,	59	63	45	35	4	2
45-54 ,,	38	32	31	22	2	3
55 and upwards	24	17	19	24	2	5
Totals	661	668	215	220	48	54

*These figures are compiled from the Returns of deaths occurring in the city submitted by District Registrars to the M.S.O.H. and are subject to correction by the Registrar General.

SUMMARY.

1. During the year, 2,233 persons notified as suffering from signs of tuberculosis in various forms were examined, as compared with 2,161 in the previous year (vide Table 1).

2. Of the 2,233 persons examined during the year, 55 per cent. were found to be tuberculous, and 6 per cent. "suspect," while 39 per cent. were regarded as not suffering from tuberculosis (vide Table 2).

3. The re-attendances of old patients at the Institutes, for examination and treatment, numbered 25,157 as compared with 24,854 in the year 1933. This in addition to the 2,233 new patients examined, makes a total of 27,390 attendances and treatments during the year. 112 old patients were too ill to attend the Institutes and were re-examined in their own homes, and 123 were re-examined at the Belfast Infirmary by the Staff of the Institutes. This, of course is exclusive of attendances on patients in their own homes by Panel Doctors; and Domiciliary Doctors acting under the scheme of the Corporation.

4. The numbers of patients on the various forms of treatment at the 31st December were as follows:—

Institutes	1,123
Panel and Domiciliary	4,256
Sanatorium	231
Graymount Hospital	58
Graymount O.A. School	122
Belfast Union Infirmary	21
Total	5,811

5. The number of visits paid by the Visiting Nurses to patients in their own homes during the year was 36,485 as compared with 35,442 in 1933.

6. The total number of patients who received treatment during the year was 7,084.

7. **Table 27.**—Shows the **results of treatment** according to the reports received from Institute, Institutional, Domiciliary, and Panel Doctors :—

Form of Treatment.	Reports received throughout the Year.	Condition as shown in Reports received during the last Quarter of the year.				
	D.A.C.* or D.Q.	G.I.	Imp.	I.S.Q.	Worse	Total
In Municipal San	7	5	86	39	11	148
Discharged Municipal Sanatorium	75	15	69	41	6	206
In Graymt. Hospital	33	25	13	8	2	81
Discharged Graymt. Hospital	12	1	....	1	....	14
At Graymount Open Air School	....	1	31	19	1	52
Domiciliary & Panel	152	114	873	2289	166	3594
Institutes	6	1	359	290	....	656
Total	285	162	1,431	2,687	186	4,751

*D.A.C.—Disease apparently cured.
D.Q.—Disease Quiescent.
G.I.—Greatly Improved.
Imp.—Improved.
I.S.Q.—In Statu quo.

8. During the year, 398 persons died of the pulmonary form of tuberculosis and 144 of the non-pulmonary forms as compared with 429 and 171 respectively in the preceding year.

These figures represent rates of 0.96 from pulmonary tuberculosis, and 0.34 from non-pulmonary tuberculosis.

9. Of the 542 persons who died in Belfast from all forms of tuberculosis during the year, 421 were patients under the care of this Department. Of these, 45 died within one month of their first examination by us ; 142 within six months 191 or over 45 per cent. within one year. From these figures it may be inferred that the stage at which patients are first notified is often too late to admit of effective treatment.

10. **Table 28.**—Shows the declining trend of the death rate from pulmonary tuberculosis in Belfast during the last 17 years :—

Year	No. of Deaths	Death rate per 100,000	Comparison with 1918 as 100.
1918	1051	267	100
1919	853	212	81.16
1920	762	184	72.5
1921	677	161	64.4
1922	624	147	59.37
1923	571	133	54.33
1924	605	139	57.56
1925	575	131	54.7
1926	570	136	54.2
1927	515	124	49.0
1928	499	120	47.3
1929	485	116	46.14
1930	426	102	40.5
1931	464	111	44.1
1932	448	107	42.6
1933	429	103	40.8
1934	**398**	**96**	**37.8**

From this Table it will be seen that for every 100 persons who died of Pulmonary tuberculosis in Belfast in 1918, only 37.8 died of the disease in 1934—a reduction in the rate of more than 62 per cent. in fifteen years.

Thanking the Committee for their help and encouragement at all times so freely extended.

I am, Ladies and Gentlemen,

Your obedient servant,

Andrew Trimble

Chief Tuberculosis Officer.

MUNICIPAL SANATORIUM, WHITEABBEY.

REPORT

OF THE

Medical Superintendent.

MEMBERS OF THE TUBERCULOSIS COMMITTEE, 1934.

THE RIGHT HONOURABLE THE LORD MAYOR,
Councillor SIR CRAWFORD M'CULLAGH, Bart., D.L., J.P.

Councillor F. G. H. ANDERSON, M.A., I.C.S.
(Chairman).

Councillor C. SCOTT
(Deputy Chairman).

Alderman W. H. ALEXANDER. Alderman R. PIERCE

Alderman DR. J. D. WILLIAMSON, D.L., J.P.

Councillor J. BOYLE.
Councillor W. A. COCHRANE, J.P.
Councillor Mrs. J. COLEMAN.
Councillor LT. COM. R. M. HARCOURT.
Councillor M. HOPKINS, J.P.
Councillor J. HOLLAND.
Councillor DR. H. P. LOWE.
Councillor M. M'KIBBIN.
Councillor S. V. TUGHAN.
Councillor R. J. GROVES.

Miss E. M'COMB.
Mr. K. M. ALEXANDER, F.I.A.A.
Mr. JAMES PARKHILL, J.P.

STAFF OF THE DEPARTMENT.

Medical Superintendent	....	Dr. P. S. WALKER.
Visiting Physician	....	Dr. J. C. RANKIN.
Assistant Medical Officer	....	Dr. D. K. WATTERSON.
House Physician	....	Dr. A. E. LAVELLE (Res.)
,, ,,		Dr. E. S. W. FORSYTHE
Visiting Dental Surgeon	....	Mr. O. BLACK, L.D.S.
Visiting Chaplain	....	Rev. W. B. M'MURRAY, B.A.
,, ,,	....	Rev. F. MAGUIRE, B.A.
,, ,,	....	Very Rev. J. O'NEIL, P.P., V.F.
,, ,,	....	Rev. J. W. STUTT.
Matron	....	Miss E. WOODS, S.R.N.
Steward	....	Mr. STEWART FINLAY.
School Mistress	....	Miss E. DUNLOP.
,, ,,	....	Miss E. HAMILTON.

THE REPORT OF THE MEDICAL SUPERINTENDENT

ON THE WORKING OF

THE BELFAST MUNICIPAL SANATORIUM,

For the Year ended 31st December, 1934.

SUBMITTED TO THE MEDICAL SUPERINTENDENT OFFICER OF HEALTH THROUGH THE CHAIRMAN AND MEMBERS OF THE TUBERCULOSIS COMMITTEE.

Mr. CHAIRMAN, LADIES and GENTLEMEN,

I have the honour to present to you the following report on the working and progress of the City Sanatorium.

The customary sections and statistical schedules have been followed in order to facilitate comparative reference and to preserve the formal continuity of these annual statements. The schedules, classification of cases, and records of results are based upon the requirements of the Ministry of Health in regard to like cross-channel institutions.

In accordance with the request of the Ministry of Home Affairs (N.I.) the situation of the Sanatorium, the question of maintenance, and the capacity are hereunder briefly set out:—

Situation.—The Sanatorium is situated some five and a half miles north of the city centre, on the southern slopes of the Antrim Hills. The vista embraces the City of Belfast, Belfast Lough, County Down, the distant coast of Scotland, the Copeland Isles, the Antrim Coast line including the town of Carrickfergus, as far as Kilroot Point.

Hills, which range in a semi-circle extending from the Cavehill to the Knockagh Mountain at Greenisland, shelter the Sanatorium from cold winds and render it well suited for a health resort at the one time mild, equable, and bracing.

Layout.—The Sanatorium is arranged as a Hospital and four Pavilions centreing round the Administrative Block and Nurses' Home as a nucleus. All structures are of a permanent nature, erected with brick.

The grounds comprise some 33 acres of land, sloping gently seawards. They have been laid out with discriminating taste and contain a profusion of rare and beautiful trees and plants. A large market garden with two greenhouses is under cultivation and supply the needs of the institution in respect of vegetables and vitamin carriers.

The terraces, walks, and carriageways have recently been relaid and are unexcelled.

Maintenance.—The Sanatorium is maintained on a basis of combined "state-and-rate-aided," one half of the expenditure being derived from the Ministry of Home Affairs and one half from the City rates. The problem as to the financial responsibility for further extensions and new works is at present under consideration, and the trend of opinion would seem to indicate that such responsibility will in future fall upon the City Exchequer, the Ministry probably only accepting liability for one half the total cost of maintenance.

Capacity.—The utmost capacity of the Sanatorium is 285 beds, distributed according to the following table. All types of cases at all ages are admitted—pulmonary and surgical cases at all ages.

TABLE No. 1. **CAPACITY OF SANATORIUM**

	Pulmonary Tuberculosis.		Surgical Beds	Total
	Sanatorium Beds.	Hospital Beds.		
Males	97	25	12	134
Females	54	25	8	87
Children	28	—	36	64
Total	179	50	56	285

The capacity of the institution is taxed and a considerable amount of overcrowding occurs. The situation is aggravated by reason of the varying type of cases presenting themselves for admission, when the above schedule cannot be strictly adhered to; departures from normal working are not infrequent. With an accommodation schedule which permits of little or no elasticity such departures from normal entail serious overcrowding at times.

Type of Case.—All forms of tuberculosis at all ages come under treatment in the Municipal Sanatorium. There is really no medical selection of cases, as this is the only institution which receives any considerable number of tuberculous cases. The Board of Guardians during the past year kindly agreed to admit a number of overflow cases, but the question of medical selection does not arise.

It is, however, again my melancholy duty to draw attention to the large number of patients suffering from one or both types of tuberculosis, who are admitted in advanced stages of the disease. An atmosphere of desolation is the inevitable outcome of admissions of some 25 advanced cases housed, without privacy, in the same ward, two wards being set apart for this purpose. It would seem to me that this voluntary incarceration is apparently the one act of grace left to the tuberculous victim, whose Marathon is past, in the campaign against tuberculosis.

Accommodation.—The demand for accommodation seems to grow apace. A temporary lull in the demand for beds was experienced around the Xmas Season, but at the time of writing this report, the number of beds available falls far short of those required and temporary expedients of an unsatisfactory nature are again in operation, both as regards staff and patients.

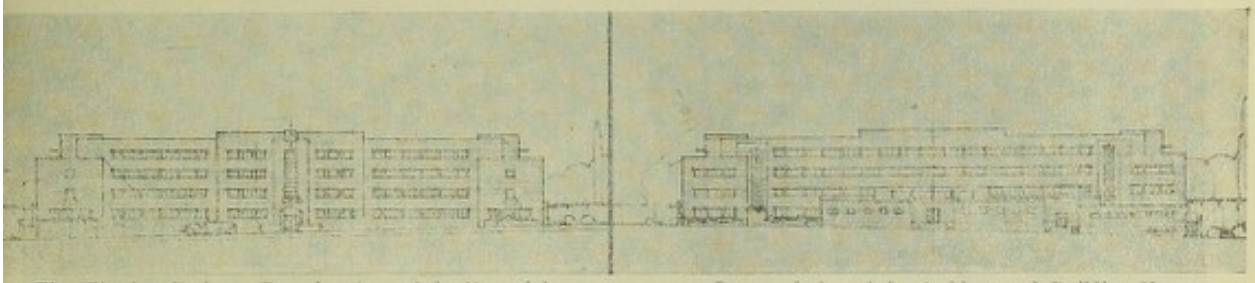
The Institution reveals an excessively high degree of decentralization. A central kitchen, central dining department, and central heating system would promote both economy and efficiency. There are some very serious defects in an institution of this character, principally—absence of sufficient accommodation for present staff, imperfect arrangements re kitchens, stock, storage of patients' clothing, etc. The absence of laundry and of a disinfecting station are perhaps the two most glaring anomalies and result in much inconvenience, increased stock, etc. The Tuberculosis Committee fully appreciate and sympathise with these deficiencies, and under their instructions, plans have been adopted to enlarge the sanatorium and bring the institution up to date.

During the year a competition was held, in respect of which architects were invited to compete and to submit schemes for the proposed extensions and improvements, Mr. R. S. Wilshere, A.R.I.B.A., being appointed assessor. Competitive schemes were submitted by thirteen competitors,over 100 drawings being sent in. The premiated design was that of Messrs. R. H. Gibson, F.R.I.B.A. and John McGeagh, A.R.I.B.A., and was accordingly adopted by the Committee. The following notes are abstracts from the Assessors' notes and thereafter is embodied a symposium by the Architects on the premiated scheme.

The scheme is roughly divided into three parts :—

(1) Hospital for 180 beds,
(2) Nurses' Home and General Staff Quarters,
(3) Laundry, Workshops, etc.

The accompanying diagrams are explanatory of the proposed extensions, demolitions and alterations in the site plan. At the time of writing, quantity surveyors have been appointed and the architects are rapidly pushing ahead with the work of specification, etc.



The Winning Design. Two elevations of the Nurses' home. *By permission of the Architect and Building News.*

WHITEABBEY SANATORIUM COMPETITION

Assessor : R. S. Wilshere, A.R.I.B.A.

From the Assessor's Report :—

Schemes have been submitted by thirteen competitors, a total of one hundred drawings in all being sent by these competitors.

The design placed first, No. 2, provides a scheme which is very successful in co-ordinating the new buildings required with those existing buildings it is desired to retain. It gives a grouping and layout which will be convenient and easy to supervise and economical to administrate. The scheme is particularly successful in that it achieves this without a sense of overcrowding, which is noticeable in several of the other schemes submitted.

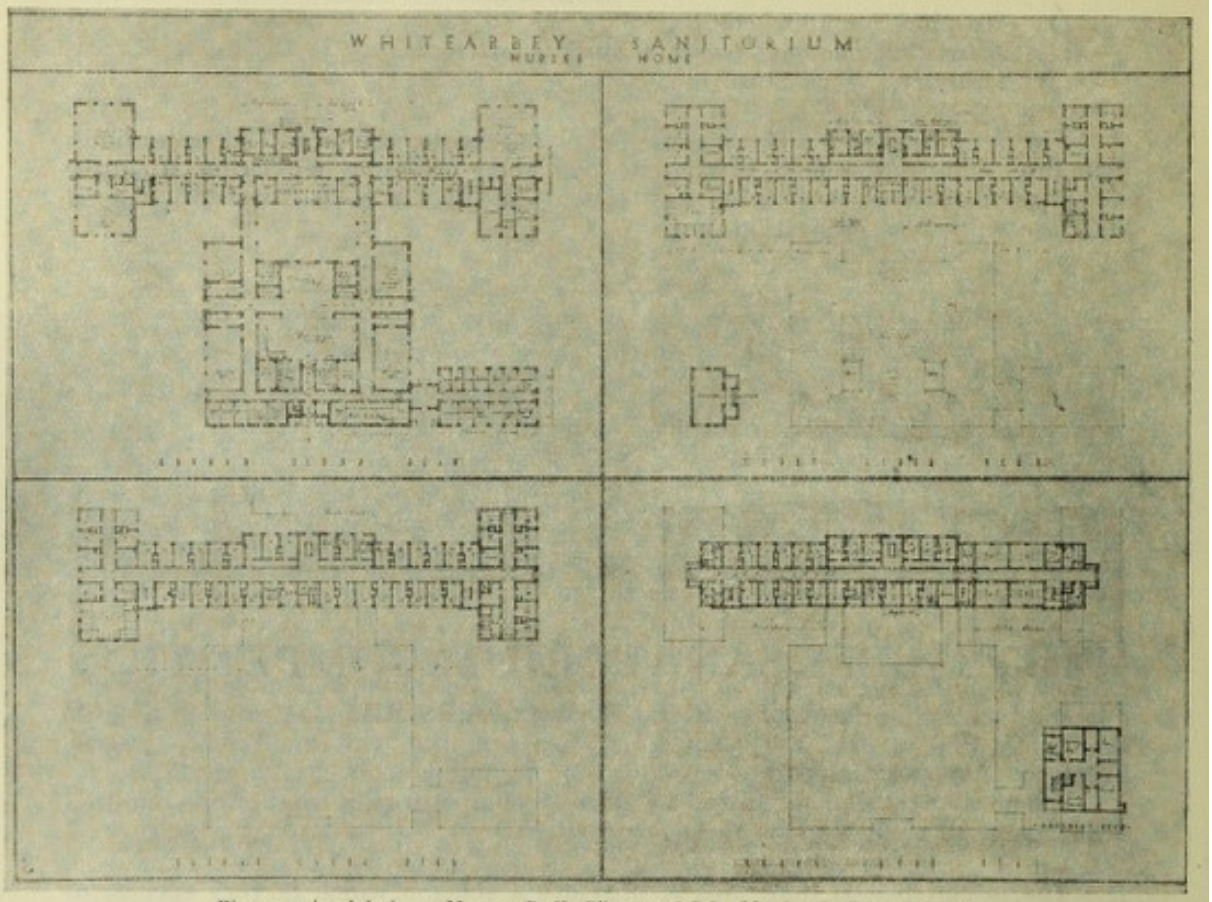
In this building the authors have produced a plan which is simple, direct, and easy to control and supervise, and of such formation that the frontage is reduced to a length that is reasonable for building in spite of the different levels of the site. The provision of terraces for all beds has not been fully solved, but it would appear that with a slight reconsideration of the east and west wings this defect would be overcome. The adoption of the double corridor on the ground floor, to provide the necessary bed terrace over, has the advantage of giving quietness to the single wards. It might, however, be advisable to consider whether the replanning of the " service rooms " with a single corridor and lighting bays would not give a more advantageous arrangement, as it would provide cross-ventilation and better lighting. The elevations of all the buildings are of distinct architectural merit.

The competitor's estimate of cost is given as £132,000 and, whilst this figure is higher than those given by other competitors, actually, the scheme as planned when considered on the same costs basis with the other schemes, is one of the three most economical submitted.

The design placed second, No. 13, has a very well-planned layout, with an effective grouping of the various units, which would give an excellent approach to the sanatoria. The buildings generally are well sited for administration and control, circulation between buildings is simple, straightforward and direct.

The design placed third, No. 5, has a very compact layout of buildings, which are well arranged for supervision and administration, but the compactness of the scheme has the fault that the general result is rather crowded.

NURSES HOME and CENTRAL KITCHEN.



First premiated design. Messrs. R. H. Gibson and John MacGeagh, F./A.R.I.B.A.
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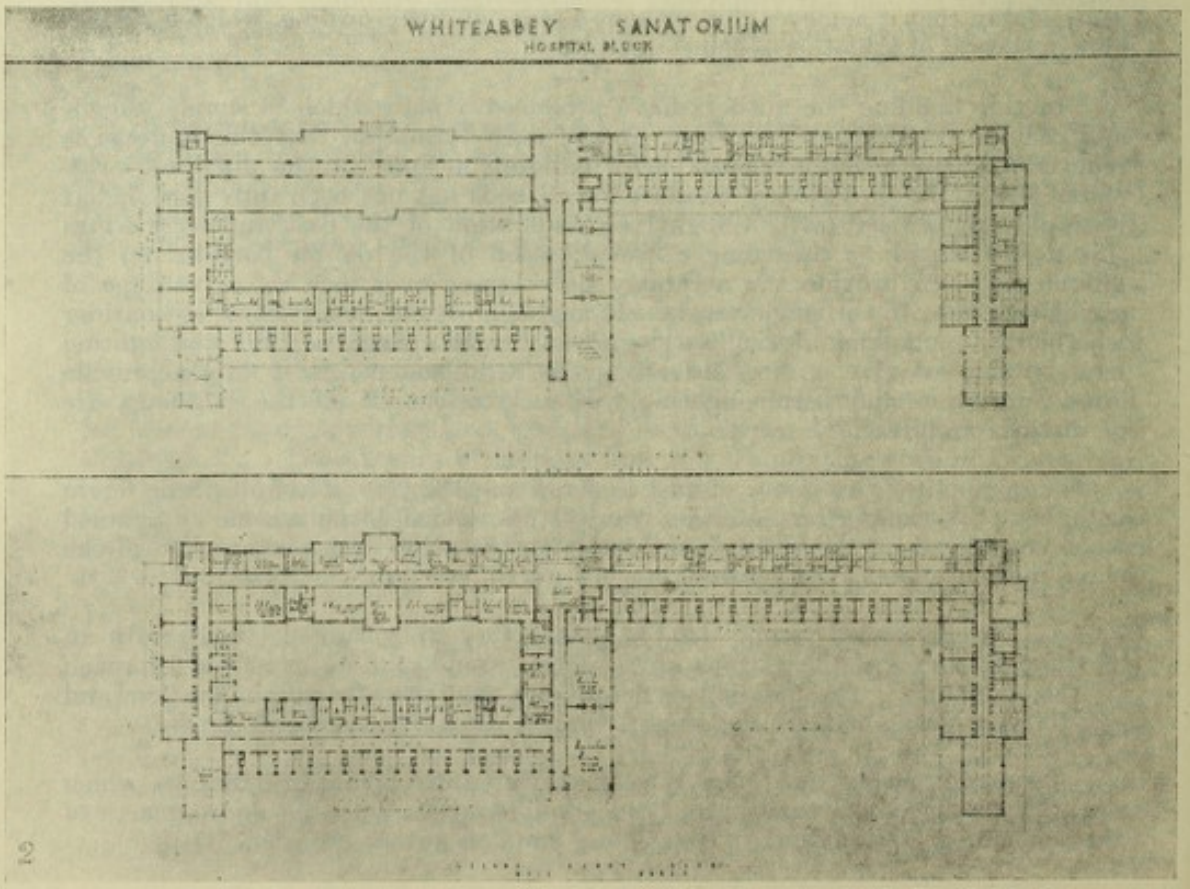
HOSPITAL UNIT.



The Hospital Block. First premiated design by R. H. Gibson and John MacGeagh, F./A.R.I.B.A.
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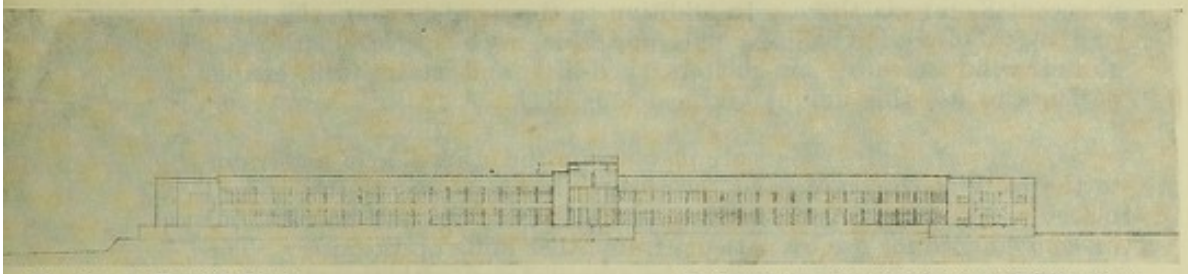


Elevation of Hospital Block. *By Permission of the Architect and Building News.*

I append herewith Memorandum, kindly prepared by the Architects, describing briefly the extensions and improvements contemplated in the scheme :—

GENERAL

The proposed scheme of extension and improvement at Whiteabbey will give a suite of buildings which, from the Medical, Administrative and Aesthetic points of view, should equal the best of any similar Institutions of recent years, both in this country and abroad.

The site is elevated and has a gentle fall towards the South, commanding fine open prospects, and by a successful co-ordination of the new buildings with those existing buildings it is desired to retain, the plans provide for taking full advantage of the outlook in several directions, whilst giving well arranged spaces for light and air about the buildings, and no sense of over-crowding, which should result in a lay-out convenient and easy to supervise and economical to administrate.

NEW HOSPITAL BLOCK

This lay-out is largely achieved by the plan-form of the new hospital block, which it is proposed will take a commanding position in the centre of the site, and facing South latterly. In length, it will lie between the present administrative offices and a line connecting the centre of the existing hospital building and the East side of Pavilion No. 1.

In this building the plan is simple, direct and easy to supervise, and of such formation that it achieves the advantages of lay-out above referred to, together with the maximum number of patients' rooms facing the warmer air, while the length is reduced to reasonable dimensions.

The accommodation is disposed over two floors, having the single bed-wards grouped in blocks along the South frontage and the four-bed and ten-bed wards on the flanks, with the Dining-rooms and Recreation Rooms in the centre on a grouped return. The Recreation Rooms in this position should be very fine rooms indeed. With a large semi-circular end mostly in glass facing South and overlooking the gardens and surrounding country, these rooms should be both pleasant and enjoyable to use by the patients, and all the wards will enjoy similar amenities. Wide terraces are arranged on the two floors over the entire length of the Southern frontages, and will allow beds to be taken directly out of the wards on to them under cover. The bed terrace of the upper floor will be set back on to the roof of the ground floor wards, so that the light and air to the lower wards is in no way impeded, and by an ingenious arrangement of the

terrace roofs windows are provided in the upper part of the outside ward walls, thus obtaining direct light and ventilation, notwithstanding the fact that roofs are provided over the terraces outside the wards. This system known as "terracing" combining the roofed terraces and direct light and ventilation has been adopted on the Continent in recent Sanatoria there. In addition to the ward terraces the main roof of the building will be flat, and this, with specially arranged glazed wind screens, sun-shelters, bed-lifts and stairs will enable patients to use this unique and spacious deck.

The usual service rooms are planned on the other side of a corridor to the back of the wards and the theatre block, facing North, is well placed on the ground floor, both in relationship to the new hospital and its convenience for use by patients from other units on the site. The arrangement enables this unit to be administered with the minimum of staff and simple for the control of patients.

NURSES' HOME AND CENTRAL KITCHEN

The Nurses' Home will lie to the North of the site in position of the present garden and the Nurses' Rooms will enjoy an excellent outlook over both country and Belfast Lough. This building is sited away from, yet convenient to the Hospitals and Pavilions. The Central Kitchen, equipped to serve the entire Institution, also the Staff Dining-rooms, Matrons and Stewards' Stores, are interposed between the Nurses' Home and to the back of the East wing of the new Hospital Block. A cloister arrangement connects the Nurses' Home with the Dining-rooms and Kitchen.

LAUNDRY BLOCK, Etc.

The Laundry and Mortuary will be placed in the most suitable position to be found, and in the North West corner of the site, well away from the other buildings.

SCHOOL and RECREATION HALL

A School for children is provided and sited a convenient position in relationship to the Children's Pavilion, and a Recreation Hall, which can be used also as a Church, will be situated for use by both patients and staff. This Hall will be arranged at one end with a platform with retiring rooms for concerts, amateur theatricals, etcetera, and at the other end with a recess for a Communion Table and platform for Church services.

The elevational appearance of all the new units will be simple, effective, economical in design and upkeep, and will not be institutional in character, and reflect to a marked degree something of a fine modern spirit in Sanatoria design as practised on the Continent.

Improvements.

During the year the following repairs and improvements were completed :—

(1) The provision of drying rooms to the Hospital Block and to No. 1 Pavilion. These drying rooms are equipped with washing and ironing facilities whereby patients may attend to their personal laundry.

(2) Further stretches of paths and roadway were laid down in Tar Macadam and Concrete respectively.

(3) The bedside lighting of the Hospital Block was completed under the superintendence of the City Electrical Engineer.

(4) The repainting of the Hospital, Exterior and Interior, and of the exterior of the Nurses' Home was completed.

(5) A Motor Truck was purchased to replace the old hand-pushed vehicle and was an instant success.

On the whole, despite the delays in the matter of extensions, considerable progress has been made of late years. We have now an isolated department for children of 14 years of age and under suffering from the surgical forms of the

disease. We have also isolated sections for boys suffering from hilar and pulmonary tuberculosis, for women in the ambulant stage and for men in the ambulant stage. One section is used for the isolation of every advanced and dying case—and wards have been set apart on this flat for adult cases of surgical disease. Each department has its own dining hall and there is no intermingling in the daily routine. This arrangement has worked admirably, but unfortunately can not always be adhered to by reason of sex and " stage of disease " fluctuations.

STAFF.

Medical Staff.—Dr. E. S. W. Forsythe has been appointed to the position of House Physician, consequent upon the retirement of Dr. A. E. Lavelle.

Clerical Staff.—No change occurred during 1934.

Nursing Staff.—It has been found necessary and expedient to overhaul the nursing staff considerably. As a result Miss E. Williams who had acted as the Night Superintendent for a long period was appointed to the new position of Assistant Matron. The position of Night Superintendent was not filled, as with the appointment of an additional sister it was decided that sisters should take night-charge in rotation for periods of three months.

Religious Ministrations.—The number of visiting chaplains has been increased to four by the appointment of the Rev. J. W. Stutt, as Methodist Chaplain to the Institution.

The staff complement of the sanatorium is as follows:—

General Staff—		**Nursing Staff—**	
Medical Superintendent	1	Matron	1
Resident Medical Officer	1	Assistant Matron	1
House Physician	1	Ward Sisters	5
Visiting Physician	1	Staff Nurses	6
Visiting Dental Surgeon	1	Probationers	25
Visiting Chaplains	4		
School Mistresses	2		
Clerical Staff—		**Mechanical Staff—**	
Steward	1	Fitter	1
Clerks	2	Firemen	2
Domestic Staff—		**Miscellaneous—**	
Housekeeper	1	Laboratory Technician	1
Cooks	2	Gardener	1
Maids	19	Carpenter	1
		Porters and Labourers	10

Total number of Staff	90
Total Number of Nursing Staff	38
Number of Nursing Staff per 10 beds	1.33

STATISTICAL RETURNS.

The following tables indicate the scope of the work of the Institution during the year.

For the sake of comparison, the comparative figures for 1933 are shown in brackets.

STATISTICS.

Table No. 2.—Annual Return showing the Extent of Treatment during 1934:

	In Institution 1/1/34	Admitted During 1934	Discharged During 1934.	Died During 1934.	In Institution 31/12/34.
Number of Patients	257 (273)	594 (550)	580 (510)	52 (56)	219 (257)

Table No. 3.—Annual Return showing the Classification of the Patients received for treatment in 1934 (excluding 22 re-admitted).

Type of Case.	Men.	Women.	Children.	Total.
Pulmonary Phthisis	243 (230)	181 (147)	76 (76)	500 (453)
Surgical Tuberculosis	9 (20)	14 (12)	35 (33)	58 (65)
Reclassified	10 (10)	1 (4)	3	14 (14)
Total	262 (260)	196 (163)	114 (109)	572 (532)

Table No. 4.—Annual Return showing the Classifications of the Patients discharged during 1934 (excluding those indicated in Table No. 5).

Type of Case.	Men.	Women	Children.	Total.
Pulmonary Phthisis	203 (196)	139 (108)	84 (54)	426 (358)
Surgical Tuberculosis	15 (14)	10 (6)	31 (40)	56 (60)
Total	218 (210)	149 (114)	115 (94)	482 (418)

Table No. 5—Annual return indicating patients discharged during 1934, but not included in Treatment Survey.

	Men.	Women.	Children.	Total.
In Residence Less than One Month	25 (28)	26 (17)	9 (20)	60 (65)
Re-discharges	9 (10)	2 (4)	4 (1)	15 (15)
Re-diagnoses, etc.	17 (9)	4 (3)	2	23 (12)
Total	51 (47)	32 (24)	15 (21)	98 (92)

An increase of the extent of treatment is shown in all sections, and is very marked since 1929; at the time of writing this increase is being still further intensified in the figures for 1935.

NON-TUBERCULOUS PATIENTS.

The following schedule indicates the clinical complexes ascertained in respect of 23 patients in whose cases the diagnoses were not confirmed after examination and residental observation.

1. Hodgskin's Disease .... (1 Case)
2. Cardiac Disease .... (3 Cases)
3. Bronchitis et Syphilis ..... (1 Case)
4. Asthma .... (2 Cases)
5. Jejunal Ulceration .... (1 Case)
6. Pernicious Anaemia ..... (1 Case)
7. Bronchiectasis .... (3 Cases)
8. Perthe's Disease .... (1 Case)
9. Congenital Syphilis .... (1 Case)
10. Chronic Nephritis .... (1 Case)
11. Hysteria .... (1 Case)
12. Syphilis .... (2 Cases)

In a further five observation cases no evidence of clinical tuberculosis was found.

The following complications were noted upon admission or occurred during residence :—

Other forms of Tuberculosis :			
a. Abdominal	6	Hysteria	2
b. Genito-Urinary	3	Incontinence	1
c. Glandular	5	Ischiorectal Abscess	1
d. Laryngeal	3	Infective Dermatosis	2
e. Meningeal	1	Nephritis	6
f. Osseous	5	Pleural Effusion	7
g. Phlyctenular Conjunctivitis	1	Pregnancy	1
Diabetes	1	Ringworm	1
Dyspituitarism	1	Rheumatoid Arthritis	2
Empyema	3	Sleepwalker	2
Endocarditis	3	Spontaneous Pneumothorax	2
Gun Shot Wounds	2	Syphilis	3
Hyperthyroidism	3	Toxic Neuritis	1

CLASSIFICATION OF DISEASE AND RESULTS OF TREATMENT.

The classification followed in this report in respect of patients is as follows :—

(1) Patients under 15 years of age are classed as children, and those of 15 years and upwards as adults.

(2) Patients are classified according to the organ or parts affected as follows :—

(1) **Pulmonary Tuberculosis** (including tuberculosis of Pleura or Intrathoracic glands).

(2) **Non-Pulmonary Tuberculosis** ("Surgical Tuberculosis").

Patients suffering from both pulmonary and non-pulmonary tuberculosis are classified as Pulmonary cases.

(3) Patients suffering from pulmonary tuberculosis are divided into :—

(1) **Class T.B. Minus,** viz., cases in which Tubercle Bacilli have never been demonstrated in the sputum pleural fluid, faeces, urine, etc.

(2) **Class T.B. Plus,** viz., cases in which the presence of Tubercle Bacilli has at any time been demonstrated.

Class T.B. Plus is further sub-divided into three groups, as follows :—

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 systemic disturbance or constitutional deterioration with marked impairment of function, and with little or no prospect of recovery.

(4) Patients suffering from non-pulmonary tuberculosis are classified according to the site of lesion, as follows :—

(1) Tuberculosis of bones and joints, i.e., "osseous."
(2) Tuberculosis of peritoneum, intestines, or mesenteric glands, i.e., "abdominal."
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

Patients suffering from multiple surgical lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the immediately preceding list.

In regard to Results of Treatment the following terms are used :—

"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 whom the general health is fair, and the symptoms of Tuberculosis have materially diminished.

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

It will be noted that the terms "arrested," or "recovered," or "cured," do not appear in these reports, and criticism has been made at times along these lines. The sanatorium being a residential, institution such terms are inapplicable, and the use of them would be misleading and erroneous. The official interpretation of such terms explains the position clearly :—

"**Arrested.**"—Cases in which the disease has been "**Quiescent**" for a period of two years.

"**Recovered or Cured.**"—Cases in which the disease has been "**Arrested**" for at least three years.

It will therefore be seen that such terms are entirely out of place in a report of an institution where residence is necessarily measured in months, and not in years.

PULMONARY PHTHISIS SECTION.

During 1934, 500 patients were received for treatment for Pulmonary Phthisis. Table No. 6 is an analysis of these cases, scheduled according to age, sex, and stage of disease.

Table No. 6.

	Stage of Disease.	Men.	Women.	Children	
Pulmonary Phthisis.	Class T.B. Minus	110	99	70	279
	Class T.B. Plus :—				
	Group I.	6	5	2	13
	Group II.	35	28	3	66
	Group III.	92	49	1	142
	Total	243	181	76	500

This figure is one of the highest on record, being 47 in advance of the comparative figure for 1933.

During the year, 426 patients were discharged after completing a course of treatment for Pulmonary Phthisis and 51 died.

This figure is also very considerably in excess of the comparative discharge figure for 1933, viz. 358.

The results of the treatment of these 426 discharged cases are indicated in Table No. 7, scheduled according to the classification previously detailed.

Table No. 7.

		DURATION OF RESIDENCE IN SANATORIUM.												
Condition upon Admission.	Condition upon Discharge.	Under 3 Months.			3 to 6 Months.			6 to 12 Months.			Over 1 Year.			Total
		M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	
Class T.B. Minus	Quiescent	2	1	2	22	6	13	12	....	20	3	2	20	103
	Improved	22	34	4	16	20	13	12	6	4	3	5	4	143
	N. M. Imp.	4	4	....	3	....	....	....	....	1	....	2	....	14
	Died	2	1	....	....	....	....	....	1	....	1	1	1	7
Class T. B. Plus—Group 1	Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....
	Improved	3	....	1	....	2	....	1	....	....	....	....	....	7
	N. M. Imp.	....	....	....	....	....	....	....	....	....	....	....	....	....
	Died	....	....	....	....	....	....	....	....	....	....	....	....	....
Class T. B. Plus—Group 2	Quiescent	1	....	....	1	....	....	....	....	....	....	....	....	2
	Improved	4	4	....	5	1	1	....	....	....	....	....	....	15
	N. M. Imp.	....	1	....	3	1	....	....	....	....	....	....	....	5
	Died	....	....	....	....	....	....	....	....	....	....	....	....	....
Class T. B. Plus—Group 3	Quiescent	....	....	....	....	....	....	1	1	1	....	....	....	3
	Improved	22	15	....	12	4	....	12	7	....	6	6	....	84
	N.M. Imp.	15	13	....	8	3	....	8	1	....	2	....	....	50
	Died	14	7	....	6	3	1	4	4	....	2	3	....	44
	Total	89	80	7	76	40	28	50	20	26	17	19	25	477

Features here worthy of enumeration are, briefly :—

(1) That 108 patients, admitted suffering from Pulmonary Phthisis, left the Sanatorium with no clinical evidence of the disease.

(2) That a further 249 patients in this class were discharged in a clinically improved condition ;

(3) That 69 patients derived no benefit from Sanatorium residence ; and

(4) That 51 patients died during the year. Relevant data in regard to these cases is available in a further section of this report.

SURGICAL SECTION.

During the year, 58 patients were received for treatment, of the surgical forms of tuberculosis. Of these, 35 were children. Table No 8 is an analysis of these cases.

Table No. 8.

Disposition of Lesion.	Men.	Women.	Children.	Total.
Osseous	4	7	3	14
Abdominal	2	4	23	29
Other Organs	—	—	—	—
Glandular	3	3	9	15
Total	9	14	35	58

DISCHARGES.

During the same period, 56 patients were discharged, and one died after a course of treatment for one or other of the forms of surgical tuberculosis.

TABLE No. 9. indicates the results of treatment in respect of these patients.

		DURATION OF RESIDENCE IN THE SANATORIUM.												
Type of Disease upon Admission.	Condition upon Discharge.	Under 3 Months.			3 to 6 Months.			6 to 12 Months.			Over 1 Year.			Total
		M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	
Osseous	Quiescent	—	—	1	—	1	—	—	—	1	—	—	4	7
	Improved	—	—	2	1	—	—	1	1	1	2	3	2	13
	N.M. Imp.	—	—	—	1	—	—	—	—	—	6	1	—	8
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Abdominal	Quiescent	—	—	—	—	1	3	—	1	2	—	—	1	8
	Improved	—	1	4	1	—	1	—	—	—	1	—	1	9
	N.M. Imp.	—	1	1	—	—	—	—	—	—	—	—	—	2
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Organs	Quiescent	—	—	—	—	—	—	—	—	—	—	1	—	1
	Improved	—	—	—	—	—	—	1	—	—	—	—	—	1
	N.M. Imp.	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	1	—	—	—	—	1
Glandular	Quiescent	—	—	1	—	—	—	—	—	2	—	—	—	3
	Improved	1	—	1	—	1	—	—	—	—	—	—	—	3
	N.M. Imp.	—	—	1	—	—	—	—	—	—	—	—	—	1
	Died	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	1	2	11	3	3	4	2	3	6	9	5	8	57

Features worthy of mention, are briefly :—

(1) Of the 57 patients suffering from the non-pulmonary forms of Tuberculosis, 29 were children.

(2) 19 such patients were discharged with the disease in a stage of quiescence and free from deformity.

(3) A further 26 such patients were discharged in a definitely improved condition. Many of these left the Sanatorium " against medical advice "—not a few just when the stage of quiescence was being reached. The majority returned home, restored in health and free from deformity.

(4) 11 such patients failed to benefit by admission and

(5) One patient (an adult) in this section died.

DEATHS.

During the year, 52 deaths occurred in the Sanatorium and the following schedules reveal the revelant data. No explanation of these is necessary, but attention may be directed to the following :—

(1) That 28 deaths occurred within a period of residence of 4 months.

(2) That the 15—25 year decade carries the brunt of the mortality.

(3) That in 73% of fatal cases, the " family history " revealed no trace of tuberculosis in the family on either side : this raises the interesting point of virgin soil.

(4) That in 85% of fatal cases, the sputum examination upon admission was positive to the Tubercle Bacillus. This fact but emphasises the criminal delay occasioned by waiting for a positive sputum report, before instituting definite therapeutic measures.

Duration or Residence Prior to Death:—

	Days.			Months.				
	1-7	8-20	21-31	1-2	2-4	4-8	8-12	Over 12
No. of Cases	4	2	2	11	9	10	9	5

The Age Periods in years between which death occurred:—

	Up to 14 Years.	15-20 Years.	21-25 Years.	26-30 Years.	31-35 Years.	36-40 Years.	41-45 Years.	46-50 Years.	Over 50 Years.
No. of Deaths	2	10	9	8	8	4	6	2	3

FAMILY HISTORY.

	Family History		Sputum	
	Plus	Minus	Plus	Minus
Number	14	38	44	8

REPORTS OF SPECIAL DEPARTMENTS.

DENTAL DEPARTMENT.

The figures of the report of the dental work carried out during the past year, January 1st—December 31st, 1934, still show an increase in the total number of treatments, although those of fillings and extractions do not quite reach the level of those of the previous year, as this branch of the work tends to gradually diminish with each successive year. The large proportion of other treatments is due mainly to the fact that the majority of the patients especially on their first entry are suffering from an acute stage of oral sepsis, which often requires a long course of treatment before the necessary advanced measures can be taken with safety and a fair prospect of success.

Besides the teeth themselves, other conditions demand attention, viz. gingivitis, stomatis, glossitis, scaling, lesions of mucous membrane and various affections of the oral cavity.

The patients, once treated are showing a greater readiness to avail themselves of the opportunities afforded them for improving their dental conditions and of maintaining the healthier state to which they have attained.

The establishment of school dental clinics has now been almost universally adopted throughout the large towns and areas in the Kingdom during the past few years and has already proved its utility and advantage in improving the health and vigour of the neighbouring peoples by the check it has given to dental caries and oral diseases.

The importance of a sound and healthy dentition on the general health of the body is daily becoming more stressed, in nearly all medical quarters, and dental treatment on entry is one of the preliminary measures in many of the large hospitals and Sanatoria.

Whilst this course cannot be too highly commended for sick and suffering adults, it is still more so in the case of children, not only for their present health and comfort, but also for its beneficial effects on their growth and future prospects.

Fillings	Dressings	Extractions	Total Treatments
150	782	90	1,022

O. BLACK, L.D.S.

ARTIFICIAL PNEUMOTHORAX CASES.

Number of cases induced during the year	11
Patients undergoing " collapse therapy "	24
Number of Refills	434
Number of " Gas Replacements "	4

It is regrettable that not a greater number of patients are found suitable for this very excellent mode of treatment.

GOLD THERAPY CASES.

Number of patients during year	15
Number of Injections	187

The compound used in these cases was " Myocrisine " : it is too early yet to permit of any comparison as to results with the salts previously used, namely Sanocyrsin, Crisalbine and Solganol.

The same remarks as to paucity of number apply here as in the artificial pneumothorax cases.

THEATRE.

The following operations were performed during the year :—

Abdominal Paracenteses	3
Aspirations of Abscesses (various)	38
Aspirations of Pleural Effusions	11
Aspirations of Empyemata	5
Minor operations, incisions, etc.	47

REPORT OF THE X-RAY DEPARTMENT.

The total number of radiological examinations during the past year shows a slight increase. By technical alterations during the year some improvement has been made in the quality of films taken.

Number of Skiagrams filmed	652
Number in respect of pulmonary disease	502
Number in respect of surgical disease	122
Number of Barium examinations	26
Number of Urological examinations	2
Number of Screen examinations	1152

REPORT OF THE ACTINOTHERAPY DEPARTMENT.

Number of patients treated	71
Number of patients treated by Ultra Violet Light	73
Number of patients treated by Radiant Heat	34
Number of treatments with Ultra Violet Light	1068
Number of treatments with Radiant Heat	962

REPORT OF THE PATHOLOGICAL DEPARTMENT.

The following schedules indicate the nature and amount of its laboratory work carried out during the year.

SPUTUM EXAMINATIONS :—

On Admission	395
Repeated	264
On Discharge	227
Total	886

ALBUMEN IN SPUTUM :—

395 specimens of sputa were examined for albumen, the findings being as follows :—

TB,— alb. +	49
TB, + alb.—	4

In the remaining 342 specimens the albumen index coincided with the presence or absence of the Tubercle Bacillus in the specimens.

HAEMATOLOGICAL EXAMINATIONS :—

Arneth Counts	101
Sedimentation Rates	83
Cell Counts	11
Special	6
Total	201

CONTROL AND EFFICIENCY TESTS :—

Renal Efficiency Tests	23
Gold-Salt Excretion Rates	125
P. H. Determinations	762
Calcium Excretion Tests	21
Total	931

In addition to the above, the following work was carried out by the City Bacteriologist, to whom thanks are due for his helpful co-operation :—

WASSERMAN TESTS :—

Positive	8
Negative	332

THROAT SWABS	4
SPECIAL URINE EXAMINATIONS	2
Total	346

OPEN AIR SCHOOL—PRINCIPAL TEACHERS' REPORT.

Average Number of Pupils on Rolls	72.7
Average daily attendance	70.0
Average daily attendance of Boys	43.9
Average daily attendance of Girls	26.1

There was no general inspection during the year 1934, but the school was visited by Mr. Kirkpatrick, Inspector of Schools. The remarks on the proficiency of classes in the various branches of the programme were very satisfactory—the high level of proficiency attained in the previous year (as shown in General Report, October, 1933) being maintained. Having a larger Senior division than usual more difficult types of Handwork were engaged in—basketry, beadwork and advanced woolwork.

REPORT OF THE RECREATION COMMITTEE.

No effort has been spared to avoid stagnation. At intervals a Recreation Committee is elected from the patients in residence. The members are elected by vote. The functions of the committee embraces the organisation and supervision of various forms of recreation, wireless, concerts, whist drives and the like, and in return for these privileges the committee is responsible to a certain degree for the maintenance of good discipline in the wards generally. This element of joint responsibility—recreation has undoubtedly an excellent and steadying influence on the atmosphere in the Institution.

Various entertainments and lectures have been arranged and given throughout the year by the Chairman of the Tuberculosis Committee (Councillor F. G. H. Anderson, M.A.) and other friends, to whom we are much indebted for their very practical interest and kindness.

In the summer time, the 18-hole golf putting green still holds unrivalled pre-eminence, and some of our patients would worry championship and "plus golfers" in respect of "short approaching" and putting.

TREATMENT.

The old adage that rest, proper nourishment, and fresh air are effective as curative agents in tuberculosis holds good to-day. But these can only be of benefit when taken methodically and adjusted or calibrated to the special requirement of each individual case. Herein lies the fundamental value of institutional treatment. In sanatoria the rules of rational life are strictly and minutely enforced,

and the discipline is of a military character in practically all well-conducted institutions.

As your Committee has undergone many changes in personnel during the past ten years I may be pardoned for repeating an extract from a report of that year. This extract indicates as a matter of no small interest to those engaged upon Anti-tubercular Schemes in Belfast that one of the pioneers of outdoor rationalised treatment was himself a Belfast Practitioner—Dr. Henry McCormac. My old teacher, the late Sir William Whitla, M.D., favoured me with the following details in regard to McCormac.

" He was elected to the Chair of Medicine in the New Queen's College of that day in 1836. He wrote in 1855, ' **For a long period of years** *I have with an increasing fulness of conviction discerned the undesirable results flowing from an ill-renewed atmosphere. I am perhaps the only practitioner of my time and standing, possibly the only one who is intimately and entirely convinced that consumption is not only, when taken early, very often removable, but what is of still greater importance it is in every case preventable.*' He was often summoned to police courts for the breaking of windows in houses where he visited the sick, if he found the windows would not open. His death took place in 1886."

About the same time, Dr. George Bodington, in England, published a treatise on outdoor treatment—" An Essay on the Treatment of Pulmonary Tuberculosis on Principles, Natural, Rational and Successful." A copy of the original treatise is preserved in the British Museum. Bodington also recommended that " The only gas fit for the lungs is the pure atmosphere freely administered without fear."

The outdoor practice thus established soon attended across the ocean and in Germany the first successful Sanatorium was founded in the year 1857, by Hermann Brehmer. In America, the pioneer was Edward Livingstone Trudeau, who built the Adirondack Sanatorium at Saranac Lake 40 years ago. The effort was modest, but was attended with very considerable success, until to-day the " Trudeau Sanatorium " has a world-wide reputation.

With similar aims in view, Institutions have been established in every civilised country and indeed in practically every administrative area for the reception, accommodation, and treatment of persons of all classes suffering from Tuberculosis. Some are endowed, others are financed by private companies and a great number form part of State and Municipal Anti-Tuberculosis Schemes. The undisputed fact that since the foundation of sanatoria the mortality from Tuberculosis has steadily decreased is proof of the valuable results attainable and prophesied as such by the former Belfast Professor over 70 years ago.

In the Belfast Municipal Sanatorium, outdoor principles, combined with rest and carefully graduated exercise, form the basis of the scheme of treatment of the pulmonary cases. Upon admission, each patient is placed at complete rest, in other words, he is confined to bed. During this resting stage clinical examination of every organ is made, the general physical condition is carefully observed, and relevant radiographic and bacteriological tests are carried out. According to these findings, the duration of the resting period is determined. Thereafter, in the absence of contraindicative signs or symptoms the patient is gradually advanced through six carefully graduated stages of exercise. The nature and amount of activity are definitely prescribed in the same manner as drug treatment, and are increased or diminished according to the individual condition as ascertained from temperature chart, pulse rate, and physical examination.

As adjuncts to the rationalized life prescribed in Sanatoria special and valuable lines of treatment are available for suitable types of cases. This report is not a medical thesis on the hackneyed subject of the treatment of Tuberculosis, so it may suffice to indicate the main lines of especial therapy followed in the Belfast Municipal Sanatorium, and such may be summarised as follows :—

(1) Lung Immobilization by Splinting, Artificial Pneumothorax, Gas Replacement, etc.

(2) Various Gold Therapies, Sanocrysin, Solganol, Crisalbine, and lately Myocrisine.

(3) Tuberculin Therapy, mainly practised in the Municipal Sanatorium in the cases of children and occasionally in cases of surgical disease in adults.

(4) Serotherapy: Ruppels' Serum.

(5) Actinotherapy and Radiant Heat.

(6) Various especial drugs, *e.g.* Jacobsen's Solution, Methyl Alcohol, Nordalin, Recytyl.

Control work is based on regular clinical examination and the following systematised observations:

(1) White cell count by Arneth's Method.

(2) The "suspension-stability of the blood" ("Sedimentation Rate")

(3) X-ray.

(4) Determination of excretion rate of compound injected in cases of Gold Therapy.

(5) In some cases, determination of the urinary hydrogen ion concentration (PH) and of the urinary calcium index.

In addition to treatment the educational value of the sanatorium is beyond question, teaching, as it does, objectively the rules of healthy life. This aspect is probably productive of the greatest benefit in regard to the children, upon whom the lessons taught are not lost during perhaps a long life-time and who in their turn can, and should so order and arrange their homes later on, that the unhealthy conditions of life seen so frequently to-day may become a steadily decreasing quantity.

It is at times a difficult task to induce patients in the incipient stages of the disease to come under sanatorium treatment, as they feel quite well and resent the idea of being classified "consumptive." Not only so, but it is at times also particularly difficult to induce a patient who has made an excellent recovery after a period of dangerous activity of the lesion to remain under institutional treatment until the healing process is stabilised. The onset and early progress of tuberculosis is often insiduous. Much evidence has accumulated to indicate that infection in many, if not all, cases dates from the first four or five years of life. This initial infection would appear to be dormant until some circumstances arise to favour development. These circumstances are varied and include all sorts of conditions, under-nutrition, etc., leading up to "reinfection," and the development of the disease may progress a very considerable distance before the individual is actually incapacitated for work. It is only too apparent in the wards of a large sanatorium that this inability to work is the deciding factor—the only factor which compels in a majority of instances the taking of medical advice. Briefly, the patient decides when he will have medical attention on the basis of this *incapacity for work*. But whether he accepts the advice of his medical attendant is still another matter. If he be advised to go to the tuberculosis clinic, he and he alone decides whether he will take the advice. If recommended for sanatorium residence, again he decides whether he will go, and, having perhaps gone at once, how long he will stay. In practically all these situations the governing factor is ability to work or the advantages of the National Benefits Act or Outdoor Relief Schemes as judged by the individual. But incapacity for work is as a rule a manifestation of consumption and accordingly what is termed a campaign against tuberculosis is in reality a campaign for tempering the wind to the shorn consumptive, tuberculosis being now completely left behind. In the words of another—"the human flotsam is cast upon the sanatorium so as to postpone his acquaintance with the Stygian Waves." The examination of a few contacts of the unable to work consumptives does not form a scheme to attack tuberculosis. It is all a mighty passive resistance where we should be aggressors

The alleviation of human suffering is an aim no less worthy than in the case of disease, but economically it is very far from sound. I fear the sanatorium is too often utilized to this end. Anyone who has witnessed the dreadful manifestations of consumption under poor home conditions, and the impossibility of tendering any rational therapeutic aid would hesitate to take part in the abolition of institutions for dealing with such cases. But such institutions should be separate from sanatoria, otherwise the sanatorium simply becomes a hospital for consumption. Tuberculosis patients cannot be forced to reside in an institution where consumptives are dying from what they regard as the same disease. Combination of Hospital + Sanatorium = Hospital ! Surely it cannot be logical to leave a consumptive at large until he has done most of the harm he can, and then when virtually bedridden, incarcerate him in a so called sanatorium.

To get an idea of the value of the sanatorium, too much weight must not be given to general impressions. There is a certain egoism associated not infrequently with consumption which generates an ishmaelitic aura. Certain patients are not loath to indulge in propaganda hostile to all whom they mentally connect with their own disease, e.g. physicians, institutional associates, nurses, etc. They are likewise indeed hostile to sanatoria. On the other hand, if a patient feels grateful for what has been done for him, he is anxious not to disclose the fact that he has been in a sanatorium by reason of the public attitude to the unfortunate victims of tuberculosis disease. Hence the ishmaelitic aura is the more potent and in a degree the more influential. In consequence it is difficult to get a true public standpoint with regard to the value of this phase of treatment. Tuberculosis work requires a knowledge of psychology no less than biochemistry.

In my last report I specified in more or less popular phraseology certain fundamental factors in sanatorium life and treatment. It is not proposed to cover this ground again, but it may be well to ask whether any progress has been attained during the year.

It will be seen that our work resulted in 127 patients having their disease reduced to a clinically quiescent stage or state. That they are and will remain useful members of the community, and what is equally important they are not sources of infection to others and to young lives. Further, the educational benefit derived from their residence in the sanatorium will do much to miligate any possibilities of infection if such should, peradventure again arise. In addition, 279 patients showed marked clinical improvement, and a goodly proportion of these will be fit to carry on sheltered lives and perform certain duties, and the educational advantages of the sanatorium should find most practical expression in the homes of this class of ex-patient. With regard to the remainder the benefits must be reckoned in terms of alleviation of human suffering on both individual and national basis.

It will be readily observed that our best results are obtained amongst children and young adults. Tuberculosis in children is, in the vast majority of cases, an eminently curable condition. The fact that the results are of a permanent nature is evinced by the rare re-admission of children who have been discharged as having their disease reduced to " quiescence."

As a last word, I should say that any facts suggestive of criticism in this report are not carping in nature and are by no means peculiar to Belfast. They are rather observations arising out of contemplation of the places where we fail and our shortcomings. Tuberculosis is a disease dating back to antiquity and the progress made in its study is but moderate in comparison with the ages since the disease was first described. At times I personally feel that the more I realize of Tuberculosis the less I know of it ! This is the spirit in which my report is written.

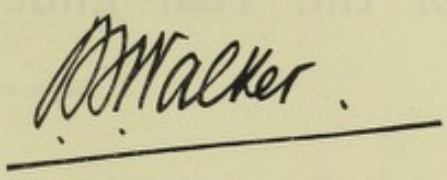
I have pleasure in thanking the Chairman and Members of the Tuberculosis Committee and the Medical Superintendent Officer of Health for the cordial encouragement and whole hearted co-operation and support which they have accorded me at all times.

In conclusion, it is my pleasant duty once more to acknowledge the loyal support of my staff. The clerical staff have given me generous assistance and I have to thank the Steward for the shouldering of much administrative detail. To my medical colleagues and to the staff in the wards who bear the brunt of the day, I tender my best thanks.

I am,

Ladies and Gentlemen,

Your obedient servant,



MUNICIPAL HOSPITAL FOR TUBERCULOUS CHILDREN, BELFAST

The Report of the Visiting Surgeon for the Year Ended 31st December, 1934

To the Medical Superintendent Officer of Health.
Sir,

I beg to submit my report on the Clinical work at Graymount for the year 1934.

As my previous report included a survey of the results in all cases from the foundation of the hospital, I have confined myself to the results of treatment during the year.

Fourteen patients were admitted suffering from tuberculous lesions and one from non-tuberculous ulceration.

Thirteen tuberculous patients were discharged with disease arrested, one as incurable, and there was one death.

Fifty-four patients remained in hospital on the 1st January, 1935. These included twenty-seven cases of spinal disease, nine of hip joint disease, nine of tuberculosis of the knee joint, two of the ankle and seven with more than one tuberculous lesion. One of the last group is also suffering from congenital syphilis.

In eight the disease is quiescent, thirty-four are greatly improved, nine are improved and three are in statu quo.

The sanitary accommodation still needs to be brought up to date.

Two of the wards are unsuitable for permanent treatment owing to their coldness and lack of light, with the result that on the verandah the children are overcrowded. They can reach and pull at each other, so increasing the difficulties of the nursing staff in keeping the immobilisation essential for the cure of the disease.

During the year, there occurred one case of diphtheria, and five of ringworm. The commonest complication is sore throat. Twenty-three of the patients, three of the nursing staff and two of the domestic staff suffered from this affection. In all these cases swabs were examined for the diphtheria bacillus, and one patient and one nurse were found to be positive and were transferred to Purdysburn Fever Hospital.

Nineteen staff contacts were swabbed and found to be negative.

One essential improvement has been carried out, the installation of a mobile X-ray plant. This apparatus is working satisfactorily, though it is not quite powerful enough for some spinal cases nor rapid enough to give the best results with restless young children. When the hospital has been enlarged, a more powerful fixed apparatus should be installed and the present mobile outfit reserved for cases which are unfit to be moved to the X-ray room.

NUMBER OF ADMISSIONS AND DISCHARGES DURING 1934.

Remained in hospital on 1/1/34	56
Admitted during 1934	13
Re-admitted after temporary discharge on account of Diphtheria	1
Re-admitted on account of recurrence of Spinal Caries	1
Discharged during 1934	16
Temporarily discharged on account of Diphtheria	1
Remained in hospital on 1/1/35	54

The following types of case were admitted:—

Spinal Caries	
New Patients	4
Re-admission for recurrence	1
Hip Joint Disease	4
Tuberculosis of Knee	3
Multiple Lesions	
Tuberculous Knee and Genito-urinary Tuberculosis	1
Spinal Caries, Adenitis and Phalangeal Caries	1
Non-Tuberculous	
Chronic Ulcers of Feet	1
Total	15

DISCHARGES DURING 1934.

Thirteen tuberculous patients were discharged as "disease arrested," one unimproved, one temporarily for diphtheria and there was one death in hospital.

Spinal Caries	
Disease arrested	3
Discharges with incurable paralysis	1
Hip Joint Disease	
Disease arrested	5
Died	1
Temporarily discharged, diphtheria	1
Tuberculosis of Knee Joint	
Disease arrested	4
Non-Tuberculous Cases	
Chronic Ulcers, disease arrested	1
Spinal rigidity of doubtful origin, in statu quo	1
Total	17

DISCHARGES DURING 1934

As the knowledge that the disease was arrested does not convey any idea of the patient's physical fitness or otherwise, I have given details of each patient in the following tables.

SPINAL CARIES

Disease Arrested 3

Incurable 1

Reg. No.	Age on Admission	Sex	No. of Days Treated	Condition on Admission.	Cause of Discharge	Condition on Discharge
202	11 yrs., 6 mths.	F	2,249	Thoracic Kyphosis and spastic paralysis of legs	Incurable	General health excellent, no improvement in paralysis
218 and 305	2 yrs., 6 mths.	M	1,485 and 436	Collapse 1st and 2nd thoracic vertebrae. Neck shortened till head appeared to rest on shoulders.	Disease Arrested	No visible deformity
285	11 yrs., 11 mths.	M	920	Caries lumbar spine, with abscess and very slight deformity.	Disease Arrested	A strong well-developed boy with no deformity
254	6 yrs.	M	1,508	Caries lumbar spine, with small deformity.	Disease Arrested	A strong healthy looking boy, with no deformity

HIP JOINT DISEASE

Disease Arrested	5
Died	1
Temporary Discharge	1

Reg. No.	Age on Admission	Sex	No. of Days Treated	Condition on Admission	Cause of Discharge	Condition on Discharge	Joint Movement on Discharge
277 and 320	—	F	—	Left Hip Joint Disease	Temporary for Diphtheria	—	—
124 and 299	6 yrs. and 13 yrs., 10 mths.	M	1,252 and 506	(1) Early Hip Joint Disease (2) Recurrent Hip Disease with multiple sinuses	(1) As "Disease Arrested" (2) Died	—	—
302	11 yrs., 8 mths.	M	515	Spasm of Left Hip. Irregularity of roof of acetabulum	Disease Arrested	Normal	Full Movement
292	10 yrs.	F	668	Rarefication neck of Right Femur, and abscess	Disease Arrested	Normal	Full Movement
143 and 262	5 yrs., 3 mths.	M	1,953 and 1,219	Left Hip Joint Disease, with adduction and abscess. Megalocolon	Disease Arrested	General condition good, but permanently crippled by shortness of leg, owing to lack of growth	Joint Fixed
259	8 yrs.	M	1,379	Head of Femur completely necrosed. Abscess, inguinal adenitis, ½ inch shortening	Disease Arrested	Excellent	Joint fixed with two inches shortening. Considerably compensated by abduction
231	3 yrs.	M	2,021	Hip stiff. Absorption of Head of Femur and erosion of Acetabulum. Large Abscess	Disease Arrested	Good	Joint fixed in straight position. One half inch shortening

TUBERCULOSIS OF KNEE JOINT.

Disease arrested 4

Reg. No.	Age on Admission	Sex	No. of Days Treated	Condition on Admission	Cause of Discharge	Condition on Discharge	Joint Movement on Discharge
288	12 yrs., 10 mths.	M	756	White swelling of Knee	Disease Arrested	No Swelling, no necrosis of bone. No shortening	45° Movement
281	8 yrs., 6 mths.	M	1,064	Synovial swelling, erosion internal condyle and slight flexion	Disease Arrested	No swelling. No shortening	90° Movement
291	5 yrs.	F	839	Typical white swelling	Disease Arrested	No swelling. No shortening. No necrosis	Full Movement
253	2 yrs., 4 mths.	F	1,512	Typical white swelling, erosion outer condyle and outer tuberosity	Disease Arrested	No swelling. No shortening. No necrosis	Full Movement

NON-TUBERCULOUS CASES.

Disease arrested 1

In Statu Quo 1

Reg. No.	Age	Sex	No. of Days Treated	Condition on Admission	Cause of Discharge	Condition on Discharge
315	8 yrs., 5 mths.	F	144	Chronic Ulcers, both ankles	Healed	In good health
282	5 yrs.	M	1,009	Marked Spinal rigidity, clinically typical of spinal caries	In statu quo	No necrosis developed and rigidity spread to legs. The cause was then considered to be a nervous lesion and he was transferred to the Royal Victoria Hospital

INFECTIOUS DISEASES.

Diphtheria	1
Ringworm	5
Tonsillitis	26

OPERATIONS.

There were no major operations. The following minor operations were performed :

Aspirations of Abscesses	18
Incisions for drainage	3

DENTAL TREATMENT.

There were two extractions under general anaesthesia and the following work was carried out by the Visiting Dental Surgeon :

Fillings	153
Dressings	501
Extractions	20
Treatments	674

I have the honour to be,

Your obedient Servant,

H. P. MALCOLM.

22nd February, 1935.

INDEX