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REPORT

ON THE

Health of the County Borough of Belfast for the Year 1963

Dr. JAMES McA. TAGGART
Medical Officer of Health

REPORT

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FOR THE YEAR 1963

Dr. JAMES McA. TAGGART.
Medical Officer of Health

COUNTY BOROUGH OF BELFAST

Health Committee
1963

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Councillor Miss IRENE MARGARET ELIZABETH McALERY

Deputy Chairman:

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Major WILLIAM DUNCAN GEDDIS, J.P.

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WILLIAM JOHN LARGEY
JAMES MARTIN KIRK McCARROLL
DAVID WALSH

HEALTH DEPARTMENT

STAFF AS AT 1st JULY, 1964

Medical Officer of Health and Port Medical Officer:—
J. McA. Taggart, M.B., B.Ch., D.P.H., D.P.A.

Deputy Medical Officer of Health and Deputy Port Medical Officer:—
W. J. McLeod, M.D., D.P.H., D.P.A., Ph.C.

HEADQUARTERS:—

Administrative Officer:— S. N. Smith, B.Com.Sc.

Administrative Branch:—

3 Receptionist/Operators.

Accounts Branch:—

1 Clerk Higher Division Grade I; 1 Clerical Officer; 3 Clerical Assistants.

Stores Branch:—

1 Clerk Higher Division Grade I; 1 Clerical Officer; 2 Clerical Assistants.

Registration Branch:—

Superintendent Registrar of Births, Deaths and Marriages — J. C. Walker.
1 Deputy Supt. Registrar; 4 Registrars; 3 Deputy Registrars; 2 Typists.

Typing Branch:—

1 Supervisor of Typists; 5 Shorthand Typists; 2 Typists.

ENVIRONMENTAL HEALTH DIVISION:—

Senior Medical Officer—vacant.
Executive Officer—G. H. Davis.

Infectious Diseases Branch:—

Medical Officer—J. A. Gilmore, M.B., D.P.H.
1 Clerk Higher Division Grade II; 10 Clerical Assistants.

Sanitary Branch:—

Chief Public Health Inspector	—W. Jenkins.
Senior Food Inspector	—R. J. Coulter
Senior Pests and Disinfecting Officer	—W. Robinson
Senior Inspector of Factories and Shops	—P. J. McMahon
Senior Smoke Officer	—C. Ellison.
Senior Port Public Health Inspector	—W. A. McBride
Senior Housing Inspector	—A. Bunting
Divisional Public Health Inspector, South	—W. N. Shields
Divisional Public Health Inspector, West	—F. W. Hill
Divisional Public Health Inspector, East	—T. F. Mills
Divisional Public Health Inspector, North	—J. Thompson

7 Food and Drugs Inspectors; 2 Port Public Health Inspectors; 5 Factory and Shops Inspectors; 1 Smoke Inspector; 25 Public Health Inspectors; 6 Pests Officers; 9 Pupil Public Health Inspectors.

1 Clerk Higher Division Grade I; 1 Clerk Higher Division Grade II; 2 Clerks Higher Division Grade III; 3 Clerical Officers; 8 Clerical Assistants; 1 Clerical Attendant; 1 Notice Server.

Meat Inspection Branch:—

City Veterinarian—J. F. Gracey, Ph.D., B.Agr., M.R.C.V.S., D.V.S.M.
Senior Meat Inspector—G. F. Moore.
6 Meat Inspectors; 1 Clerical Assistant.

MATERNITY AND CHILD HEALTH DIVISION:—

Senior Medical Officer — H. A. Warnock, M.D., B.Sc., D.P.H.
Clinic Medical Officer — K. M. Cathcart, M.B., D.P.H.
9 Part-time Medical Officers
Superintendent Nursing Officer —Miss M. F. J. Baird, M.B.E., S.R.N., S.C.M., H.V.Cert.
Deputy Superintendent Nursing Officer — Mrs. M. E. DUKE, S.R.N., S.C.M., H.V.Cert.
Superintendent of District Nurses — Miss H. A. Harris, S.R.N., S.C.M., H.V.Cert., Q.N.
Supervisor of Midwives — Mrs. M. A. Whinnery, S.R.N., R.S.C.N., S.C.M.
Area Superintendent Health Visitors
Miss J. Stirling, S.R.N., S.C.M., H.V. Cert.
— Miss K. Smyth, S.R.N., S.C.M., H.V.Cert.
— Miss D. E. McFarland, S.R.N., S.C.M., H.V.Cert.

First Assistant Superintendent of District Nurses:—
Miss D. Ritchie, S.R.N., S.C.M., H.V. Cert., Q.N.

Second Assistant Superintendent of District Nurses:—
Mrs. A. Beattie, S.R.N., S.C.M., Q.N.

56 Health Visitors; 47 District Nurses; 3 State Registered Nurses; 3 Enrolled Nurses; 2 Senior Midwives; 23 Midwives (salaried); 17 Midwives, (fee-per-case).

Chiropodists : 3 full-time, 3 part-time.

Executive Officer — A. Watson, A.C.I.S.

1 Higher Division Clerk, Grade 2; 3 Clerical Officers; 1 Shorthand Typist; 1 Typist; 15 Clerical Assistants; 9 Clinic Clerks (part-time); 3 Cook-Housekeepers.

SCHOOL HEALTH DIVISION:—

Senior Medical Officer — A. L. Walby, M.B., D.P.H.
Clinic Medical Officers:— A. D. Campbell, M.B., D.P.H.
E. A. M. McMordie, M.B., D.P.H.
P. S. Kerr, M.B., D.P.H.
K. McKee, M.D., D.P.H., D.C.H.
Medical Officers: — G. K. Moffatt, M.B., D.P.H.
D. B. Keith, M.B., D.P.H.
K. M. Corbett, M.D., B.Sc., D.P.H., D.C.H.
S. G. Gordon, M.B., B.S., M.R.C.S., L.R.C.P., D.C.H., D.T.M.H.
F. L. O'Rourke, M.B., D.P.H.
Chief Dental Officer: — S. R. Sheane, L.D.S.
Clinic Dental Officers: — V. M. G. Rattie, L.D.S.
H. C. Thornberry, L.D.S.
P. J. R. Griffith, M.B., L.D.S.
J. R. Faulkner, L.D.S.
Dental Officers: — W. R. Morrow, L.D.S.
J. B. Hanna, L.D.S.
T. S. Brannigan, L.D.S.
W. J. Hutchinson, L.D.S.
H. M. Gilfillan, L.D.S.
J. S. Jassal, L.D.S.
W. J. C. Davidson, L.D.S.
N. M. Stratford, L.D.S.
O. Love, L.D.S.
M. P. Cassidy, L.D.S.

7 Part-time Medical Officers (Anaesthetists); 5 Part-time Dental Officers.

4 Senior School Nurses; 24 Health Visitors; 1 Speech Therapist; 2 Speech Therapists (part-time); 2 Physiotherapists; 3 Psychiatric Social Workers; 1 Chief Dental Clerk; 3 Senior Dental Surgery Assistants; 29 Dental Surgery Assistants.

Executive Officer — F. J. Lyttle

1 Clerk Higher Division Grade II; 1 Clerical Officer; 5 Shorthand Typists; 1 Typist; 1 Senior Clerical Assistant; 12 Clerical Assistants.

SUMMARY OF STATISTICS, 1963

LATITUDE 54° 37′ N.: Longitude 5° 55′ W.

AREA (Census 1961: excluding 2,237 acres tidal water): 15,815 acres (24.7 sq. miles)

POPULATION (Registrar-General's Estimate, December, 1963) 412,000
(Males: 194,000)
(Females: 218,000)

POPULATION per acre 26: per square mile: 16,680.

INHABITED BUILDINGS (Census 1961); 114,889

RATEABLE VALUATION (1963/64): £5,209,037.

PRODUCT OF A PENNY RATE (1963/64): £20,100.

MARRIAGES: 3,632 MARRIAGE RATE: 8.8 per 1,000 of population.

	1963	1962	Average 1953-62
Live Births (M. 4,528; F. 4,311) ..	8,839	8,636	8,441
Rate	21.5	20.9	19.3
Still Births (M. 98; F. 75)	173	225	227
Rate (per 1,000 total births) ..	19	25	26
Illegitimate Live Births (M. 123; F. 137)	260	228	218
Percent of Live Births	2.9	2.6	2.6
Deaths (M.2,587; F. 2,459) ..	5,046	4,594	4,771
Rate	12.2	11.1	10.9
Infant Mortality (M. 145; F. 114) ..	259	252	282
Rate	29	29	33
Neo-Natal Mortality (M. 97; F. 71) ..	168	172	176
Rate	19	20	21
Peri-Natal Mortality (M. 186; F. 137) (Stillbirths and deaths under 1 week)	323	366	377
Rate (per 1,000 total births) ..	36	41	44
Maternal Deaths	3	4	5
Rate (per 1,000 total births) ..	0.33	0.46	0.5

	Deaths	Death Rate
Measles	Nil	—
Scarlet Fever	Nil	—
Diphtheria	Nil	—
Whooping Cough	Nil	—
Dysentery	Nil	—
Poliomyelitis	1	0.00
Influenza	20	0.05
Tuberculosis (Respiratory)	52	0.13
Tuberculosis (other forms)	3	0.01

To:

The Right Honourable The Lord Mayor, Aldermen and Councillors of the Belfast County Borough Council acting as the Belfast Health Authority and the Belfast Port Sanitary Authority.

My Lord Mayor, Ladies and Gentlemen,

I have pleasure in presenting the report of the work of the Health Department for the year 1963 during the term of office of my predecessor, Dr. W. G. Swann.

Population:

The Registrar General estimates the population in December, 1963, as 412,000 (males 194,000; females 218,000) a reduction of 1,900 compared with 1962. This is in keeping with the population decline during the past twelve years the population being 31,671 less than at the 1951 census largely due to families moving to new housing areas just outside the legal boundary of the city. The total population of the urban areas adjoining Belfast has increased by over 26,000 during this period.

Births and Deaths:

There was an increase in the number of live births registered, 8,839 (birth rate 21.5) as compared with 8,636 (birth rate 20.9) in 1962. Infant mortality showed a small increase, 259 deaths of infants in the first year of life compared with 252 in 1962. (the rate remains the same at 29 per 1,000 live births). Both neo-natal mortality (deaths of infants during the first month of life) and peri-natal mortality (still births and deaths under one week) were less than in 1962. The number of deaths registered showed an increase in 1963, 5,064 as against 4,594, i.e., a death rate per 1,000 of the population of 12.2 as compared with 11.1 for 1962.

Tuberculosis:

Deaths from all forms of tuberculosis, 55, showed an increase of 13 over 1962, but the downward trend in the number of cases of this disease notified continued this year by 19% to a record low total of 209 cases. One death of a young child from tuberculosis is worthy of comment. This child was a member of a family to whom much help and advice had been given by statutory and voluntary bodies but, in spite of the knowledge of previous tuberculosis infection in other members of the family, the parents declined to allow their child to receive B.C.G. vaccination. This was the only death from tuberculosis during the year of a person under the age of 15 years.

There has been a tendency for tuberculosis to be considered as a disease of the past but in this complacency lies real danger. Active tuberculosis is still abroad in the community and, in order that it may be eventually completely eradicated, all those suffering from this disease and their family contacts must co-operate more fully with medical personnel whose task it is to prevent, to treat and to control tuberculosis in all its forms. Treatment with modern drugs if not diligently followed in accordance with medical advice may become ineffective, resulting in members of the community becoming infected with organisms which are resistant to modern drug therapy.

Cancer:

There were 788 deaths from all forms of cancer as compared with 777 in 1962. Deaths from cancer of the lungs and bronchi showed an increase, 195 (males 165, females 30) as compared with 179 in 1962 (males 150, females 29). A analysis of the deaths from malignant neoplasms is given in Table 8.

Infectious Disease:

The incidence of notifiable disease, apart from food poisoning caused by a single isolated outbreak, was below the average of recent years. This was the first year in the last 20 years in which no cases of poliomyelitis were notified. It may be significant that this immediately followed the introduction of oral vaccine.

Care of the Aged:

Practically all sections of the Health Department have a role to play in the care of the aged members of the community, including home nursing, health visiting, care and after care and chiropody services. This latter service, which is available free of charge to priority groups, e.g., the handicapped and expectant and nursing mothers in addition to the aged, enables many patients to move about in comfort when they might otherwise be confined to their homes or in some cases bedridden. This service which was continued during the year by two full time and three part-time Chiropodists both in clinics and in the patients' homes has expanded rapidly, an indication of the real need which exists for this treatment. At the end of the year, although 36 sessions were being held weekly, there were still long waiting lists. During 1963 9,134 treatments were carried out, 8,192 in clinics and 942 in patients' homes.

Home Accidents Survey:

By arrangement with the Royal Belfast Hospital for Sick Children and the Ulster Hospital for Women and Children all cases of accident occurring in the home or in its immediate surroundings treated at the out-Patients Departments are notified to the Medical Officer of Health. On the receipt of this information visits are made to the homes concerned by health visitors in order to obtain more detailed information on the accident, to examine conditions in the home which might predispose to accidents and to give appropriate advice to parents of young children on accident prevention. In addition, medical officers and health visitors in their day to day duties are constantly engaged in giving advice to the public on home accident prevention and give illustrated talks to mothers in the Maternity and Child Welfare Centres. Much use is made of visual aids in this work and cine projector, film strip projector, flannelgraph and other demonstration materials are employed. In view of the fact that much publicity is given to accidents on the roads, it is not generally realised that more people die as a result of accidents in their own homes than from accidents on the roads. In addition to those which prove fatal, many of these accidents cause much suffering and prolonged inpatient hospital treatment, many, especially burns and scalds, resulting in much disfigurement and permanent physical disability.

The principal causes of accidents notified in 1963 were burns 201—94 of which were due to the unguarded open fire,—scalds 164 and accidental swallowing of poisonous substances 71. The majority of these were the outcome of a chain of causes and most of them could have been prevented with just a little extra care and thought on the part of those who were responsible for the supervision of the children. One cannot over-emphasise the importance of more rigid supervision on the part of parents in the education of their children to the potential dangers of home accident so that this ever-increasing annual toll of injury can be reduced.

Abattoir:

The City Veterinarian reports that his staff have had a heavy year in their important duties. The total number of animals slaughtered (280,634) in 1963 represents the highest animal kill to date in the Belfast Abattoir. All animals killed are carefully inspected by qualified Meat Inspectors to ensure that they are free from disease and fit for human consumption before their meat is permitted to be sold in the City's shops. Tuberculosis as a cause of condemnation has now become a rarity, largely due to the Ministry of Agriculture's Attested Herds Scheme.

During the year the Meat Inspectors found it necessary to condemn 94½ tons of cattle and sheep liver as unfit for human consumption due to infestation by liver fluke. This figure, which represents 60.9% of the livers of all animals slaughtered in Belfast during the year, is an indication of the extent of the problem generally in Northern Ireland where, during the same period, Meat Inspectors condemned 400 tons of cattle and sheep liver for this cause. This represents a serious loss to the province in food for human consumption and surely constitutes a challenge to the Ministry of Agriculture and to all those associated with animal husbandry.

The incidence of bovine cysticercosis also gives cause for concern (4% of all animals slaughtered during the year); in some areas in Northern Ireland the rate is as high as 10%. Carcases showing signs of active cysticercosis require refrigeration treatment for a period of up to 21 days prior to their release for human consumption. The cost involved in this and the subsequent lowering of value of the carcase constitutes a considerable loss to the meat trade.

General Sanitary Services:

The Sanitary Department continued its wide and varied range of duties, described in detail in the report of the Chief Public Health Inspector, under the guidance for the last six months of the year of Mr. William Jenkins who took over the post of Chief Public Health Inspector from Mr. Joseph Walker who had held this appointment for 13 years.

Food Hygiene:

It is essential that a high standard of food hygiene be maintained by all those engaged in the manufacture, storage, transport, sale and serving of food and much of the time of the Food and Drugs Inspectors has been taken up with the important work of making the public aware of the importance of this. This entails poster display, leaflet distribution and personal visits to shops, hotels, cafes and restaurants where food is prepared and sold to the public. During the past 12 years there have been no outbreaks of food poisoning or other food borne infection attributable to food consumed in catering establishments in the City, but there can be no relaxation of vigilance in this field and an improvement in the general standard of personal hygiene and habits is highly desirable.

Housing:

The Corporation's first major slum clearance and redevelopment scheme, Area "A" Upper Library Street, was well under way at the end of the year, the first stage being partially cleared and the families rehoused. The second slum clearance and redevelopment scheme Area "B" (Artillery Street district)

consisting of 149 dwellings adjoining Victoria Barracks site was adopted by the Council on the 1st November, 1963, and is now awaiting Ministry approval. The main factor impeding more rapid progress in slum clearance is that of lack of new housing accommodation. Restrictions placed on the legal extension of the city's boundary have had a detrimental effect on progress as there are few available sites left of any size suitable for building development within the boundary. This housing shortage has also impeded the rehousing of citizens who are living in conditions prejudicial to health in individual unfit houses. During the year the Housing (Clearance and Redevelopment) Committee adopted my report recommending action on 260 dwellings which are very old and in a poor state of repair, containing in many cases families living in overcrowded conditions. By the end of the year 41 of these houses had been dealt with and closing orders confirmed.

The acute shortage of qualified Public Health Inspectors continued and at the end of the year the Department was eleven officers under establishment. Officers under training amounted to nine but it is hoped to increase this number considerably in future years.

The report contains statistical information as required by the Ministry of Health and Local Government and the officers in charge of each section give a detailed account of the various duties carried out by their divisions.

I would like to thank the Chairman and members of the Health Committee for their consideration and support in furthering the cause of health in the City, the heads and other officers of Corporation departments with whom my work is closely associated and finally the members of staff of the Health Department for their conscientious service and for their loyalty, co-operation and support throughout the year.

I have the honour to be

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

J. McA. TAGGART,

Medical Officer of Health and Port Medical Officer

CAUSES OF DEATH AT DIFFERENT AGE PERIODS, 1963

TABLE 1

Abbreviated List Nos.	Causes of Death	Total Deaths	MALES												FEMALES									
			All Ages	AGED											All Ages	AGED								
				Under 1 mth.	1—5 mths.	6—11 mths.	Total Under 1 year	1-4	5-14	15-24	25-44	45-64	65-74	75 & over		Under 1 mth.	1—5 mths.	6—11 mths.	Total Under 1 year	1-4	5-14	15-24	25-44	45-64	65-74	75 & over
	All Causes	5,046	2,587	97	41	7	145	22	17	21	88	841	709	744	2,459	71	34	9	114	15	10	12	76	509	634	1,089
B1	Tuberculosis of Respiratory System	52	46	—	—	—	—	—	—	—	2	21	13	10	6	—	—	—	—	—	—	1	—	4	1	—
B2	Tuberculosis, other Forms	3	2	—	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—
B3	Syphilis and its sequelae	12	5	—	—	—	—	—	—	—	1	2	1	1	7	—	—	—	—	—	—	—	—	—	3	4
B4	Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B5	Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B6	Dysentery, all Forms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B7	Scarlet Fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B8	Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B9	Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B10	Meningococcal Infections	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—
B11	Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B12	Acute Poliomyelitis	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—
B13	Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B14	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B15	Typhus and other Rickettsial diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B16	Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B17	Other Infections and Parasitic Diseases	18	8	—	1	1	2	—	1	—	—	3	2	—	10	—	—	—	—	—	1	—	—	6	3	—
B18	Malignant Neoplasms, including neoplasms of lymphatic and haematopoietic tissues																									
	(a) Cancer	788	421	—	—	—	—	1	1	2	16	181	119	101	367	—	—	—	—	1	—	2	19	140	110	95
	(b) Hodgkin's disease and Leukaemia	30	20	—	—	—	—	1	2	—	4	7	5	1	10	—	—	—	—	1	—	—	3	2	4	—
B19	Benign and unspecified neoplasms	20	9	—	—	—	—	1	—	—	—	6	2	—	11	—	—	—	—	—	1	—	1	3	4	2
B20	Diabetes Mellitus	22	6	—	—	—	—	—	—	—	—	1	—	5	16	—	1	—	1	—	—	—	—	7	2	6
B21	Anaemias	13	6	—	—	—	—	—	—	—	—	—	3	3	7	—	—	—	—	—	—	—	—	—	—	7
B22	Vascular Lesions affecting Central Nervous system	661	246	—	1	—	1	—	1	2	5	50	79	108	415	—	—	—	—	—	1	1	8	64	112	229
B23	Nonmeningococcal Meningitis	7	4	1	—	—	1	1	—	—	—	1	1	—	3	2	—	—	2	—	—	—	1	—	—	—
B24	Rheumatic Fever	5	4	—	—	—	—	—	—	—	2	1	1	—	1	—	—	—	—	—	—	—	—	1	—	—

B25	Chronic Rheumatic Heart Disease	91	22	—	—	—	—	—	—	1	6	11	4	—	69	—	—	—	—	—	—	2	8	32	12	15
B26	Arteriosclerotic and Degenerative Heart Disease	1,433	811	—	—	—	—	—	—	—	21	324	247	219	622	—	—	—	—	—	—	—	7	115	186	314
B27	Other Diseases of Heart	183	84	—	—	—	—	—	—	—	1	16	23	44	99	—	—	—	—	—	—	—	—	8	28	63
B28	Hypertension with Heart Disease	98	34	—	—	—	—	—	—	—	—	11	9	14	64	—	—	—	—	—	—	—	—	9	15	40
B29	Hypertension without Heart Disease	35	19	—	—	—	—	—	—	—	3	11	3	2	16	—	—	—	—	—	—	1	—	2	5	8
B30	Influenza	20	10	—	—	—	—	—	—	—	—	2	5	3	10	—	—	—	—	—	1	—	—	2	—	7
B31	Pneumonia (excluding new-born)	286	136	—	14	5	19	3	2	1	1	14	24	72	150	—	9	2	11	—	2	—	3	14	23	97
B32	Bronchitis	366	240	—	—	—	—	—	—	—	—	79	90	71	126	—	1	—	1	—	—	—	4	29	38	54
B33	Ulcer of Stomach and Duodenum	36	28	—	—	—	—	—	—	—	—	8	12	8	8	—	—	—	—	—	—	—	—	1	4	3
B34	Appendicitis	3	3	—	—	—	—	—	—	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
B35	Intestinal Obstruction and Hernia	31	17	1	—	—	1	—	—	—	1	3	4	8	14	—	—	—	—	—	—	—	—	2	3	9
B36	Gastritis, Duodentis, Enteritis and Colitis, except Diarrhoea of the new-born	23	7	—	2	—	2	—	—	—	—	2	1	2	16	—	3	—	3	—	—	—	—	2	5	6
B37	Cirrhosis of Liver	21	15	—	—	—	—	—	—	—	1	6	4	4	6	—	—	—	—	—	—	—	—	5	1	—
B38	Nephritis and Nephrosis	16	5	—	—	—	—	—	—	—	2	—	1	2	11	—	—	—	—	—	—	1	3	2	4	1
B39	Hyperplasia of Prostate	15	15	—	—	—	—	—	—	—	—	1	7	7	—	—	—	—	—	—	—	—	—	—	—	—
B40	Complications of Pregnancy, Childbirth and the Puerperium	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	1	2	—	—	—
B41	Congenital Malformations	74	38	17	11	—	28	4	3	—	2	1	—	—	36	14	7	3	24	3	2	—	2	4	—	1
B42	Birth Injury, Postnatal Asphyxia and Atelectasis																									
	(a) With Prematurity	35	19	19	—	—	19	—	—	—	—	—	—	—	16	16	—	—	16	—	—	—	—	—	—	—
	(b) Without Prematurity	27	14	14	—	—	14	—	—	—	—	—	—	—	13	12	1	—	13	—	—	—	—	—	—	—
B43	Infections of the New-born																									
	(a) With Prematurity	2	1	1	—	—	1	—	—	—	—	—	—	—	1	1	—	—	1	—	—	—	—	—	—	—
	(b) Without Prematurity	7	4	4	—	—	4	—	—	—	—	—	—	—	3	3	—	—	3	—	—	—	—	—	—	—
B44	Other Diseases peculiar to Early Infancy																									
	(a) With Prematurity	48	29	29	—	—	29	—	—	—	—	—	—	—	19	19	—	—	19	—	—	—	—	—	—	—
	(b) Without Prematurity	13	9	9	—	—	9	—	—	—	—	—	—	—	4	4	—	—	4	—	—	—	—	—	—	—
B45	Senility without mention of Psychosis, Ill-defined and Unknown Causes	14	6	—	—	—	—	—	—	—	—	—	2	4	8	—	1	—	1	1	—	—	—	2	1	3
B46	All Other Diseases	365	167	2	11	1	14	5	4	3	14	48	39	40	198	—	10	4	14	1	—	2	3	41	52	85
BE47	Motor Vehicle Accidents	35	16	—	—	—	—	4	1	4	1	4	1	1	19	—	—	—	—	3	—	—	2	4	4	6
BE48	All Other Accidents	95	36	—	1	—	1	2	1	4	2	12	3	11	59	—	1	—	1	3	2	1	4	4	11	33
BE49	Suicide	36	23	—	—	—	—	—	—	2	2	14	3	2	13	—	—	—	—	—	—	—	5	4	3	1
BE50	Homicide and Operations of War	2	2	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	Gastro-Enteritis and Colitis of Children under two years of age (included in B.36 and B.43)	5	2	—	2	—	2	—	—	—	—	—	—	—	3	—	3	—	3	—	—	—	—	—	—	—
—	Pneumonia of New-born (included in B.43)	8	5	5	—	—	5	—	—	—	—	—	—	—	3	3	—	—	3	—	—	—	—	—	—	—

Number of deaths, death rates and percentages of total deaths by age groups

TABLE 2

Age Group (Years)	Deaths			Rate per 1,000 of population of age group (based on 1961 Census figures)	Percentage of total deaths
	Male	Female	Total		1963
Under 1 Year	145	114	259	31	5.1
1— 4	22	15	37	1.2	0.7
5—14	17	10	27	0.4	0.5
15—24	21	12	33	0.5	0.6
25—44	88	76	164	2.2	3.2
45—64	841	509	1,350	13.3	26.8
65—74	709	634	1,343	47.7	26.5
75 and over	744	1,089	1,833	132.4	36.5

Principal causes of death in order of importance

TABLE 3

1.	Heart Disease (B26-27)	1,616
2.	Cancer	788
3.	Vascular lesions affecting the central nervous system	661
4.	Bronchitis	366
5.	Pneumonia	286
6.	Violent and accidental deaths	168
7.	Hypertension	133
8.	Chronic Rheumatic Heart Disease	91
9.	Associated with prematurity	85
10.	Congenital malformations	74

Comparative Statistics for Counties and County Boroughs, 1963

TABLE 4

Area	Rate per 1,000 population				Rate per 1,000 live births		Still-birth rate per 1,000 total births	Accidental deaths
	Marriage	Birth	Death	Death rate from tuber-culosis	Infant Mortality	Maternal mortality per 1,000 total births		
Northern Ireland	7.0	23.1	11.0	0.08	27	0.41	19	511
Belfast C. B.	8.8	21.5	12.2	0.14	29	0.33	19	130
Londonderry C. B.	8.1	31.4	10.7	0.05	25	0	22	25
Co. Antrim	6.2	24.0	9.6	0.6	25	0.59	18	101
Co. Armagh	7.0	23.9	11.0	0.05	33	0	26	37
Co. Down	6.0	21.1	10.8	0.06	28	0.84	20	103
Co. Fermanagh	5.1	20.8	12.2	0.12	23	0.10	16	16
Co. Londonderry	6.2	25.9	9.9	0.26	20	0.33	21	36
Co. Tyrone	6.4	24.9	10.4	0.07	26	0	16	60

Trend of mortality from certain principal causes of death from 1910

TABLE 5

Year	Heart Disease		Cancer		Pulmonary Tuberculosis		Bronchitis, Influenza and Pneumonia	
	Number	Rate Per 1,000	Number	Rate Per 1,000	Number	Rate Per 1,000	Number	Rate Per 1,000
1910	—	—	—	—	825	2.1	1,538	3.9
1915	—	—	—	—	813	2.0	1,667	4.1
1920	—	—	—	—	762	1.8	1,566	3.8
1925	—	—	—	—	575	1.3	1,163	2.7
1930	852	2.0	466	1.12	346	1.0	839	2.0
1935	935	2.0	463	0.99	389	0.89	1,042	2.23
1940	1,387	3.1	576	1.29	412	0.93	1,001	2.25
1945	1,130	2.59	664	1.52	326	0.75	533	1.22
1950	1,500	3.33	717	1.59	225	0.5	565	1.26
1951	1,630	3.67	693	1.56	221	0.49	813	1.83
1952	1,416	3.18	757	1.7	151	0.34	483	1.0
1953	1,155	2.56	758	1.68	114	0.26	466	1.03
1954	1,348	3.0	777	1.7	84	0.18	482	1.07
1955	1,365	3.0	741	1.6	76	0.17	597	1.3
1956	1,297	2.9	840	1.89	74	0.16	471	1.06
1957	1,383	3.14	844	1.9	60	0.13	592	1.34
1958	1,493	3.42	822	1.88	56	0.13	549	1.25
1959	1,443	3.33	802	1.85	62	0.16	657	1.51
1960	1,476	3.4	793	1.84	28	0.07	546	1.25
1961	1,425	3.4	763	1.83	35	0.08	876	2.1
1962	1,428	3.45	777	1.87	39	0.09	520	1.25
1963	1,616	3.92	788	1.91	52	0.13	672	1.63

— Signifies information not available

Comparative Statistics; Belfast, Northern Ireland, England and Wales, Scotland and Irish Republic, 1963

TABLE 6

	Belfast	Northern Ireland	England and Wales	Scotland	Irish Republic (See Note)
1. Rates per 1,000 Population:					
Marriages	8.8	7.0	7.5	7.6	5.4
Births	21.5	23.1	18.2	19.7	22.2
Deaths	12.2	11.0	12.2	12.6	11.8
2. Death rates per 1,000 births:					
Maternal	0.33	0.41	0.28	0.37	0.33
Infant	29	27	20.7	26	27
3. Death rates per 100,000 population:					
Tuberculosis	13.3	7.9	6.3	9.5	15.1
Cancer	191	156	210	225	165
Heart Diseases (B25-28)	438	420	398	427	400
Coronary disease	253	227	225	239	167
Diphtheria	Nil	Nil	0.0	Nil	0.0
4. Still-birth rate per 1,000 total births	19	19	17	19	No figures

Note: Figures for Irish Republic provisional

Population, births, birth rate per 1,000, deaths, death rate per 1,000 and natural increase from 1890

TABLE 7

Year	Population	Births		Deaths		Natural increase
		Number	Rate	Number	Rate	
1890	232,222	8,250	35.5	6,861	29.5	1,389
1895	295,000	9,772	33.1	7,168	24.3	2,604
1900	359,000	11,192	31.2	7,642	21.3	3,550
1905	360,000	11,395	31.8	7,178	20.0	4,217
1910	391,167	10,888	27.8	7,284	18.6	3,604
1915	403,000	10,196	25.3	7,220	17.9	2,976
1920	413,000	12,144	29.4	7,234	17.5	4,910
1925	438,000	10,234	23.4	6,131	14.0	4,103
1930	415,151	9,558	22.7	5,451	12.9	4,107
1935	415,151	8,848	21.3	6,238	15.0	2,610
1940	444,500	8,704	19.6	6,583	14.8	2,121
1941	444,500	8,383	18.9	6,641	14.9	1,742
1942	444,500	9,659	21.7	4,973	11.2	4,686
1943	425,000	10,713	25.2	5,511	13.0	5,202
1944	430,800	10,456	24.3	5,176	12.0	5,280
1945	435,900	9,853	22.6	5,069	11.6	4,784
1950	450,000	8,834	19.6	5,082	11.3	3,752
1951	444,222	8,789	19.8	5,433	12.2	3,356
1952	444,200	8,506	19.1	4,778	10.8	3,728
1953	450,800	8,527	18.9	4,653	10.3	3,874
1954	449,100	8,302	18.5	4,810	10.7	3,492
1955	453,900	8,100	17.8	4,752	10.5	3,348
1956	444,800	8,212	18.5	4,632	10.4	3,580
1957	440,100	8,459	19.2	4,899	11.1	3,560
1958	436,200	8,263	18.9	4,818	11.0	3,445
1959	433,800	8,365	19.3	4,821	11.1	3,544
1960	433,900	8,736	20.1	4,737	10.9	3,999
1961	416,500	8,806	21.1	4,989	12.0	3,817
1962	413,900	8,636	20.9	4,594	11.1	4,042
1963	412,000	8,839	21.5	5,046	12.2	3,793

Deaths from cancer by sex and site in 1963

TABLE 8

Detailed List Nos.	Sites	Males	Females
	Buccal Cavity and Pharynx		
140	Lip	1	—
141	Tongue	3	1
142	Salivary gland	—	—
143—144	Mouth	—	2
145—148	Pharynx	3	2
	Digestive Organs and Peritoneum		
150	Oesophagus	11	11
151	Stomach	68	57
152—153	Intestines	34	35
154	Rectum	19	21
155—156	Biliary passages and liver	10	10
157	Pancreas	12	19
158	Peritoneum	—	1
159	Other digestive organs	—	1
	Respiratory System		
160	Nose, nasal cavities, etc.	—	1
161	Larynx	1	—
162—163	Trachea, bronchus and lungs	162	26
164	Mediastinum	2	2
165	Thoracic organs (secondary)	—	1
	Breast and Genito-Urinary Organs		
170	Breast	—	60
171—174	Uterus	—	33
175	Ovary, Fallopian tube and broad ligament	—	20
176	Other female genital organs	—	3
177	Prostate	34	—
178	Testis	—	—
179	Other male genital organs	1	—
180	Kidney	6	8
181	Bladder and other urinary organs	16	11
	Other and Unspecified Sites		
190—191	Skin	3	2
192	Eye	—	1
193	Brain and other parts of the nervous system	9	6
194	Thyroid gland	1	4
195	Other endocrine glands	—	—
196	Bone	—	—
197	Connective tissue	—	1
198—199	Other Sites	16	14
200—202, 203—205	Neoplasms of lymphatic and haematopoietic tissues (exclusive of Hodgkin's disease, leukaemia, etc.)	9	14
	Total	421	367

Deaths from certain communicable diseases from 1890

TABLE 9

Year	Meningo-coccal infections	Diph-theria	Dysentery	*Gastro-Enteritis	Measles	Polio-myelitis	Scarlet fever	Typhoid fever	Whooping cough	Influenza
1890	—	37	—	247	378	—	41	177	292	—
1895	—	34	—	325	197	—	88	184	109	—
1900	—	54	—	241	42	—	14	261	115	—
1905	—	32	—	295	227	—	35	128	24	—
1910	3	27	—	241	504	—	18	18	259	—
1915	39	27	—	240	177	0	107	10	134	—
1920	4	45	1	223	132	0	94	34	84	243
1925	0	38	0	203	167	0	49	18	99	84
1930	—	22	0	116	6	—	7	2	65	38
1935	0	55	0	249	251	2	37	11	22	65
1940	22	85	0	316	150	1	10	1	54	161
1945	2	7	1	188	10	4	2	1	26	16
1950	5	3	0	37*	5	11	2	1	16	32
1951	4	1	4	54	3	2	1	0	4	232
1952	4	0	0	43	4	2	0	0	10	18
1953	2	0	0	70	3	1	0	0	8	24
1954	2	0	1	29	2	1	0	0	2	20
1955	5	0	3	31	2	0	0	0	10	34
1956	10	0	1	8	0	1	0	0	6	27
1957	0	0	0	12	2	2	0	0	1	63
1958	1	0	1	13	0	0	0	0	5	13
1959	3	0	3	12	1	0	0	0	7	40
1960	0	0	2	10	0	1	0	0	0	8
1961	0	0	0	13	2	3	0	0	0	124
1962	2	0	1	16	0	0	0	0	3	16
1963	1	0	0	5	0	1	0	0	0	20
Average Annual Deaths 1953-62	2.5	0	1.2	21.4	1.2	0.9	0	0	4.2	36.9

— Signifies information not available

* From 1950 onwards, deaths of those under 2 years of age only.

Notifications of certain communicable diseases from 1900

TABLE 10

Year	Cerebro-Spinal fever	Diph-theria	Dysentery	Food poison-ing	Gastro-Enteritis	Infective hepatitis	Measles	Polio-myelitis	Puer-peral pyrexia*	Scarlet fever	Ty-phoid fever	Whooping cough
1900	—	407	—	—	—	—	—	—	44	658	1,777	—
1905	—	234	—	—	—	—	—	—	19	650	631	—
1910	—	238	—	—	—	—	—	—	16	734	95	—
1915	65	179	—	—	—	—	—	1	6	1,994	49	—
1920	8	300	—	—	—	—	—	1	48	1,939	210	—
1925	5	423	—	—	—	—	—	0	5	1,657	143	—
1930	24	118	—	—	—	—	—	9	20	1,132	32	—
1935	19	1,201	—	—	—	—	6,203	22	31	3,394	117	337
1940	166	1,165	—	—	—	—	5,062	2	9	1,266	17	701
1945	39	213	—	—	—	—	1,702	20	1	768	14	603
1950	22	45	35	55	377	28	4,209	109	4	1,668	5	1,078
1951	34	10	170	40	560	54	3,354	36	4	349	24	834
1952	44	3	69	16	489	74	2,702	65	56	399	7	2,131
1953	29	1	112	26	614	69	3,146	47	55	612	8	945
1954	32	1	217	23	513	59	1,613	14	42	496	5	773
1955	26	0	401	29	689	65	4,328	3†	46	791	23	1,460
1956	20	0	198	31	412	166	1,797	9	37	540	8	790
1957	14	0	269	18	410	112	4,109	141	50	492	4	119
1958	9	0	310	24	430	83	280	11	29	384	2	1,132
1959	14	0	278	27	450	179	4,731	11	18	506	10	721
1960	2	0	276	58	455	296	487	3	36	519	0	88
1961	12	0	232	40	420	132	3,976	13	23	306	0	74
1962	13	0	326	35	401	71	1,535	5	17	194	0	635
1963	13	0	199	42	324	155	2,989	0	29	193	0	95
Average Annual Notif-ications 1953-62	17	0	262	31	479	123	2,600	26	35	484	6	674

— Signifies information not available

* Figures up to 1951 for Puerperal fever only

† Diagnosis of two of these cases was subsequently amended to Diphtheria and acute Encephalitis

NOTES:— 1. Food poisoning notifiable only since 1949.

2. Measles—notifiable only as the first case occurring in a household within a period of 2 months.

3. Whooping cough— notifiable only as the first case occurring in a household within a period of 3 months.

Notification of certain communicable diseases in 1963, by age periods and sexes.

TABLE 11

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 25 Years		25 Years and under 45 Years		45 Years and upwards		Age unknown		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Dysentery	13	15	14	6	32	24	15	21	7	5	1	4	5	6	2	8	4	17	199
Cerebro-Spinal meningitis	—	—	—	—	1	2	3	2	—	1	1	1	—	—	—	1	—	1	13
Infective hepatitis	—	—	—	—	13	10	27	37	12	23	10	9	5	4	2	3	—	—	155

Diphtheria and Typhoid Fever—No cases.

Type and age grouping of Dysentery notifications

TABLE 11A

DYSENTERY TYPE	Under I 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 25 Years		25 Years and under 45 Years		45 Years and upwards		Age unknown		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Sonne	13	15	13	6	27	22	14	21	5	4	—	1	2	5	2	4	2	14	170
Flexner	—	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Not classified	—	—	—	—	3	2	1	—	2	1	1	3	3	1	—	4	2	3	26
Total	13	15	14	6	32	24	15	21	7	5	1	4	5	6	2	8	4	17	199

COMMUNICABLE DISEASES

1963 was outstanding as the first year in the last 20 years in which no cases of poliomyelitis were notified. It is significant that this immediately followed the introduction of oral vaccine.

There were no cases of typhoid fever for the 4th consecutive year and none of diphtheria for the 9th consecutive year. The incidence of tuberculosis continues to fall; this year by 19% to a record low total of 209 cases. The incidence of tuberculosis in Belfast has been halved in the last 5 years, a rate of progress we hope to maintain.

The absence of improvement in the incidence of dysentery and gastroe-nteritis was the subject of comment in the 1962 report, hence it is gratifying to report a reduction in 1963 of one third in the incidence of both infections, to record low levels.

There was an increase in the number of notifications of food poisoning, accounted for by an outbreak of 20 cases in a hospital ward. The remaining 21 cases were sporadic and of varying types, including Salmonellae Heidelberg, Dublin, Munchen and typhimurium. For 12 years now there have been no outbreaks of enteric fevers, food poisoning or dysentery traceable to public catering establishments in the city. For this credit is due to the food inspectors and the co-operation they maintain with the food trades. In the past, the Health Department has rarely been consulted in matters of hospital catering, but there are now signs that the experience of food inspectors in the preventive aspects of food handling begins to be acknowledged even in hospitals.

Nothing is more burdensome in the control of infectious diseases than the receipt of thousands of useless notifications, that is, the notification of cases in which no effective action can be taken. This applies to notifications of measles, acute pneumonias, erysipelas, Vincent's angina and scarlet fever. In Belfast in the last five years these diseases accounted for 16,260 notifications, that is, 71% of the total of 22,733 notifications in that period. Considerable time is spent by clerks in counting, recording and classifying these for statistical and other purposes. This results in the average payment of £2 per annum per general practitioner but, in any one year, almost 20% of doctors fail to notify even a single case of infectious disease. The degree of thoroughness with which a disease will be notified depends on the doctors' assessment of the Health Department's ability to act effectively on behalf of his patient or the community as a result of his notification. Today, the practice of notification of infectious diseases is brought into disrepute by useless notifications, to the detriment of essential notifications. Revision of the notification Act and Regulations is long overdue. This matter was first raised by the British Medical Association in 1955; the Ministry of Health in England had the benefit of the recommendations of the B.M.A. Public Health Committee in 1959 and these were followed by the recommendations of the Representative Body in 1963.

IMMUNISATION

Immunisation against Diphtheria, Tetanus, Whooping Cough, Poliomyelitis and Smallpox is available at special clinics, many of the child health clinics and in schools and is also done by general practitioners. B.C.G. vaccination against Tuberculosis is offered to school children by the School Medical Service and to contacts of cases of tuberculosis by Chest Physicians at the Central Chest Clinic of the Hospitals Authority. A few entrants to industry and nursing also receive B.C.G. vaccination.

The variety of immunising preparations continues to increase by permutation. In March 1963 a quadruple vaccine, (Diphtheria-Tetanus-Pertussis-Poliomyelitis) was introduced. This was eagerly accepted by parents as it reduced the number of injections necessary to immunise against these four diseases. However, it soon became apparent that infants were experiencing a considerable rise of temperature after the injection, this often making the infant fretful and ill-looking for 6 to 48 hours. Trials of a series of modifications of the formula were instituted in co-operation with Professor Dick of Queen's University.

Another new combination (Diphtheria-Tetanus-Poliomyelitis) was brought into use as a booster antigen for children at school entry. Assessment of this preparation was made by Professor Dick on the result of antibody titres in blood samples taken before and four weeks after inoculation. This indicated an excellent booster effect against all three diseases, but it was not strong enough to be used for primary courses of immunisation against diphtheria and tetanus.

The extent and change in use of the various preparations are shown in Table A2. The main changes are the increasing use of quadruple vaccine and diphtheria-tetanus toxoid and substantial decreases in the use of diphtheria toxoid, triple vaccine, Salk vaccine and oral polio vaccine used alone.

Vaccination against smallpox became unpopular in 1963, mainly due to adverse publicity drawing attention to the possible, if remote, complications of such vaccination. Finally, in December 1963, the law requiring vaccination compulsory was repealed. The number of infants vaccinated in 1963 was 3,102, compared with 5,528 in 1962.

Vaccination against tuberculosis (B.C.G.) is offered to children at the school intermediate medical examination at ages 9+; these statistics are shown in the report of the Senior Medical Officer, School Health Division (later in this Report). A survey of cases of tuberculosis notified in 1963 revealed that, in the 10-25 years age group, 6 cases had had prior B.C.G. and 36 had had no vaccination. Taking into account the populations at risk, the incidence in the non-immunised is 8 times that of the immunised, an advantage which compares favourably with that found for other immunising procedures.

Since the first immunisation procedure (against Diphtheria) was introduced in Belfast in 1936, a careful check has been kept on the incidence of the various diseases to ascertain the advantage experienced by immunised children. The incidence in the non-immunised has been higher than in the immunised by 6 times in Diphtheria, 4 times in Whooping Cough and 6 times in Poliomyelitis (Salk immunisation). Over a short 2 year period, oral polio vaccine appears to have prevented paralysis in the non-immunised as well as the immunised, a result which was forseen by the advocates of oral vaccine. In general, the superiority of live vaccines (oral polio, B.C.G. and smallpox) as immunising agents is outstanding.

Immunisation

Showing completed courses and booster dose given against the various diseases, using varying combinations of immunising preparations.

TABLE A 1

Disease	Age at 31.12.63	Primary Course		Booster Dose	
		Completed in 1963	Cumulative Total	Completed in 1963	Cumulative Total
Diphtheria	— 5	4,027	16,888	162	214
	—15	1,232	47,264	1,822	23,292
Pertussis	— 5	3,921	16,590	35	141
	—15	78	—	70	—
Tetanus	— 5	3,999	14,182	594	2,367
	—15	794	6,795	1,393	4,678
Poliomyelitis	— 5	6,074	14,633	525	3,453
	—15	2,237	51,508	369	12,746

Use of Immunising Preparations showing number of doses of each preparation administered.

TABLE A 2

Prophylactic	1962		1963	
	By General Practitioners	By Health Authority	By General Practitioners	By Health Authority
Diphtheria Toxoid	102	3,544	54	1,989
Diphtheria-Tetanus	89	416	97	2,648
Dip-Tet-Pertussis	7,110	6,268	4,344	1,588
Quadruple	—	—	1,985	5,107
Diphtheria-Pertussis	529	1	100	—
Tetanus Toxoid	736	221	424	101
Salk Vaccine	18,888	29,288	3,159	27
Oral Polio Vaccine	9,138	35,397	8,072	8,138
Dip-Tet-Polio	—	—	—	1,272
Total	36,592	75,135	18,235	20,870

W. J. McLEOD, M.D., D.P.H., D.P.A., Ph.C.
Deputy Medical Officer of Health

Staff

Mr. J. Walker, the Chief Public Health Inspector retired on the 31st July, 1963, after more than 32 years service with the Health Department. He was appointed to that position in May, 1951. More than half of the work recorded in this Section of the Annual Report was carried out under Mr. Walker's supervision.

During the year the Department suffered a loss, through death, of Mr. Gordon Black. The late Mr. Black was a former pupil and qualified as a public health inspector in 1955. He gave excellent service to the Department and was a popular colleague. The Department also lost heavily in the departure to other authorities of five recently qualified officers. Four received appointments with London Boroughs and one with the Co. Antrim Health Committee. This was a serious drain on the technical staff, particularly as they were well qualified and capable young officers.

Two pupils whose period of training had been extended by the Health Committee passed their examinations and were appointed as Inspectors. A former pupil returned to the Department after a number of years in the Colonial Service as a public health inspector. Four new pupils were appointed, making a total of nine under training. The Public Health Inspectorate was twelve under strength at the end of the year, and with a wastage of ten Inspectors in the next five years, due to retirement on reaching the age limit, the position is viewed with much concern. The Health Committee authorised an increase in pupils under training and advertisement for Inspector vacancies. However, at the time of writing, there are no qualified Inspectors in Northern Ireland without appointments, and the position is similar elsewhere in the United Kingdom.

New and impending legislation, such as the Housing Acts dealing with houses in multiple occupation, further grants for improvements of older houses, compensation for houses in Clearance and Re-Development Areas, the Clean Air Act, and an expected Offices, Shops and Railway Premises Bill will add heavily to the duties of a much understaffed Inspectorate. A review of duties is being carried out so that the best possible use can be made of the available staff. Shortages and recruitment of staff are at present under consideration at Ministerial and Local Government level with the Professional Association and Examining Body concerned.

A recent review of salaries paid to Public Health Inspectors in England and Wales showed that the majority of comparable authorities paid the highest permitted salaries within the National Scales. This, with offers of housing, better training facilities, and other allowances, tends to attract staff. Such matters require to be considered in any efforts to retain and attract staff so that the functions of the Health Committee can be properly carried out.

General

The 1962 Report by the Chief Public Health Inspector was a very full and informative one and to avoid repetition it is intended to make this Report a progress one on certain aspects of the Public Health Inspectors' work. This first part is a summary, under various headings, of the work carried out, and at the same time serves to highlight certain events which have taken place. The detailed and statistical information of the work undertaken is set out in the various sections later on in the Report.

The Senior Officers in charge of the Atmospheric Pollution, Food and Drugs, Factories and Shops, Port Sanitary and Pests Control Divisions have made valuable contributions for which I am most grateful. The clerical staff of the Sanitary Branch have supplied much statistical information and I am greatly indebted to them. I also wish to thank the City Surveyor, his Chief Building Inspector, and Cleansing Superintendent and the Water Office for information about work closely allied with that of the Department.

Slum Clearance and Redevelopment

1963 saw the start of demolition of the houses in the City's first Redevelopment Scheme. At the end of the year most of the houses in Stage I of "Area A" had been demolished. Also during the year the second scheme known as the Artillery Street Redevelopment ("Area B") was passed by the Council, and represented to the Ministry of Health and Local Government. Survey was completed by the Public Health Inspectors during the year, of the area bounded by Albert Street, Cullingtree Road and Divis Street, the planning and redevelopment of which is to be carried out by the Northern Ireland Housing Trust.

Non-Industrial Premises

The new Offices, Shops and Railway Premises Act introduced in England and Wales was hailed as a major piece of social legislation. It is expected that similar legislation will be introduced in Northern Ireland. Under the Act local authorities have power to deal with conditions in premises not previously covered by legislation. Surveys show there is a need for such powers.

Port Inspection

What has become known as the "dead meat" trade, particularly with regard to pork, continues to grow and prosper. Many thousand tons of pork, made up of bacon, carcases, fillets and coarse meat (feet, etc.), were exported during the year. The Port Public Health Inspectors have to be forever vigilant to ensure compliance with the provisions of the Regulations dealing with the prevention of contamination.

Air Pollution

The long awaited Clean Air legislation had not been enacted at the end of the year although the Government's intention to introduce a Bill was made known at the opening of Parliament. Existing legislation is used to effect improvements where necessary and industry in the City on the whole co-operates well with the Department. The problem of domestic smoke, which is responsible for more than 50% of pollution from smoke, still remains until such time as the new legislation is introduced. The year ahead should see the introduction of this new law, and although it will add greatly to the duties of the Department, the hoped for improvement in the health of the City will amply compensate.

Much educative work will have to be done with the public. Those organisations which have pioneered clean air legislation in Northern Ireland are willing and anxious to co-operate with local authorities. Northern Ireland has the opportunity of profiting by the experiences of the rest of the United Kingdom and it is hoped to take full advantage of this.

Food Inspection

Although the new Food Hygiene (General) Regulations for Northern Ireland have been published they had not become law by the end of the year.

New proposals contained in the Regulations dealing with facilities for the washing of food and equipment, personal hygiene, cloakroom accommodation, the temperatures at which certain foods are to be kept, the transport and handling of food, will all help in the attainment and maintenance of hygiene standards and reduce the incidence of food poisoning. Although some of the proposals affect certain types of mobile food traders, generally speaking the problem of the food hawkers remains much the same. It was hoped that Regulations requiring licensing of mobile food traders by local Authorities would have been introduced. This would eliminate the "butterfly" traders and remove a constant source of complaint from established traders.

New compositional standards for certain foods were introduced during the year and the Food Inspectors continued to procure samples for chemical analysis of those foods which are in daily use by the general public. With the ever increasing use of additives and constantly changing methods of canning, preservation and packaging, an up to date knowledge of food technology is a must for Public Health Inspectors. A refresher course on this subject is being arranged.

Meat Inspection

The Slaughterhouses (Hygiene) Regulations (N.I.) 1963 came in to force in December and apply to the Municipal Abattoir. In applying the provisions of the Regulations the short life of the present Abattoir is being borne in mind. The Meat (Staining and Sterilization) Regulations (N.I.) 1963 also came into force and require the sterilization of all meat found unfit for human consumption.

Other new Regulations dealing with the marketing of poultry came into force in December. Health Authorities are responsible for the hygiene of poultry packing stations and the inspection of dead poultry.

Milk Control

The Milk Regulations (N.I.) 1963 came into force on the first day of April. The Regulations have regard to modern dairying techniques and introduce a new milk designation—"Farm Bottled" and lay down stringent conditions for the handling of this milk.

Rodent and Insect Pest Control

It would now appear that after several years of systematic surveys of lands and buildings, and repetitive eradication measures, positive results are being obtained. Further reference is made to this point later on in the Report. Preventive measures and materials used are constantly under review and the Department endeavours to keep abreast of any new and improved methods.

General Inspections

The preceding paragraphs of the Report refer to certain sections of the Public Health Inspectors work but the bulk of the Inspectorate's work is dealt with by what is conveniently called the General Branch. About half of the Inspectors in the Department are in this Branch and are split up into four Divisions—North, South, East and West. This branch is principally concerned with the discovery and abatement of public health nuisances, Housing Acts survey work, and the application to premises and places of various local Acts and By-Laws. The severe weather during the early months of the year taxed the Inspectors to the utmost. Much damage was done to property and the older houses in the City suffered severely. Complaints received and discovered jumped from 50,278 in 1962 to 66,540 in 1963, an increase of approximately 30%. The aftermath was still being experienced at the end of the year. This branch also carried out the survey work referred to in the paragarph "Slum Clearance and Redevelopment". Some Inspectors had to be taken off specialist duties to assist.

Examination of Plans

Approximately 200 plans were submitted by the City Surveyor to the Department for approval of public health requirements. Details of the premises concerned are set out later in the Report. Much preliminary discussion takes place with architects and consultants before submission of plans. This is welcomed and encouraged and makes for good relations with the professions concerned.

Co-Operation with other Departments

The Department works in close association with several of the other Departments, particularly the City Surveyors in, for example, the Inspector's report on the public health aspects of plans submitted, Planning Acts applications, and applications for grants under the Housing Acts. The disinfestation service is used by several Departments for houses, schools, lands and tipping grounds and food supplied under contract is inspected and sampled. Chlorination and filtration plants in the swimming baths are checked weekly and water samples are submitted monthly for bacteriological examination. The Inspectors liaise with the Welfare Department on closely allied work and with the Electricity Department on recording of atmospheric pollution. Assistance is also given in the training of certain students from Queen's University, The Royal College of Nursing and the Belfast College of Technology. The Department receives reciprocal co-operation from these Departments.

Water Supplies

The information regarding the sources of supply to the City has been most kindly supplied by Dr. N. Agnew, M.A., M.Sc., Ph.D., Secretary and Registrar to the Belfast City and District Water Commissioners.

SEWERAGE, SEWAGE DISPOSAL, LAND DRAINAGE AND RIVER WORKS

These works are under the control of the City Surveyor and Engineer. During the year plans were completed for the second section of the High Level Intercepting sewer from Mervue Street to Argyle Street and it is anticipated that tenders for the work will be invited during 1964. Also a contract was let for the construction of a new pumping station at Glenmachan Street and work on this should start early in 1964. The reconstruction of the sewer through the grounds of Stranmillis Training College was completed. Work is expected to begin in the early part of the new year on the reconstruction of the Lisburn Road sewer from Claremont Street to University Road. An overhaul of the screen house equipment at Sydenham and Greencastle Pumping Stations was carried out during the year and work was in progress on the overhaul of pumping plant at Duncrue Street pumping station.

The culverting of the Glenwood River between Alliance Avenue and Butler Street was commenced during the year. This work will eliminate an eyesore and the cause of many complaints to the Department. Plans are now being prepared for the culverting of portions of the Brianville and Tillysburn Streams under the Urban Drainage Act. It is expected that work on these will commence during 1964. Drawings and specifications are being prepared for the first stage of the development of lands in the

Bog Meadows comprising access road, sewers and an extension of the Blackstaff River pitched channel to the City Boundary. The construction of the roads and drainage at the new Abattoir site at Duncrue Street was completed during the year and work is proceeding on the construction of the pumping station.

REFUSE COLLECTION AND DISPOSAL

This work is carried out by the City Surveyor's Department by direct labour under control of the Superintendent of Cleansing. For administrative purposes, the city is divided into fifteen districts, each being supervised by a Cleansing Inspector who is also responsible for street cleansing.

The amount of house refuse collected continues to increase and the weekly tonnage is now approximately 3,800 tons which, together with 550 tons of street sweepings, was disposed of at the various tipping grounds. To deal with any fires which occur from time to time on tip heads, the Department purchased a trailer fire pump and have two fully trained teams available for duty during day or night.

During the year, tipping was completed at the Garnerville site, but has been resumed at Holywood Road between Inverary Avenue and Garnerville Road. This low lying ground, subject to flooding, which was a potential breeding ground for mosquitoes, is the property of the Belfast Education Authority and will, when tipping is completed, be developed as playing fields. The Health Department's services for rodent and insect control are utilised on tipping grounds.

In addition to the 1¼ cubic yard containers being used at Annadale and other multi-storey flats, this Department hopes to promote the use of these containers in schools, hospitals and business premises, for reasons of hygiene and economy.

Five new 50-cubic yard continuous loading compression refuse vehicles have been purchased which will reduce the cost of the collection services. In preparation for another severe winter, 17 new snow ploughs, 12 bulk gritters and a general purpose vehicle, together with radio telephones, have been ordered. Additional salt storage has also been provided, bringing the present stock up to 2,600 tons.

WATER SUPPLIES

The City's water supply is controlled by the Belfast City and District Water Commissioners. The district served is approximately 64 square miles and extends beyond the area enclosed by the Belfast County Borough Boundary. The population catered for in the Commissioners' area of supply is estimated to be 541,000 and the daily consumption is about 38 million gallons including that used for industrial purposes. The needs of neighbouring local authorities are also met and bulk supplies to these amount to approximately 5 million gallons per day.

The service area is supplied from three main sources, the largest being in the Mourne Mountains, which supplies on an average 24 million gallons per day. The catchment of the Kilkeel and Annalong Valleys, consisting of upwards of 9,000 acres of mountain slopes free from human habitation, were acquired by the Commissioners. The high quality of the water and the great quantity available were the determining factors in deciding on the use of the two deep valleys for catchment purposes. The Silent Valley Reservoir is capable of storing three thousand million gallons, and the new Ben Crom reservoir has a capacity of one thousand seven hundred million gallons. The service reservoir is about five miles south of the City and the conduit from this point to the Mourne is some 35 miles long. The water from this source is so pure that filtration is not required, although, as a precautionary measure, it is chlorinated at the Knockbracken service reservoir. The water is soft, the total hardness being only 28 parts per million.

The second largest source of supply is from the Woodburn area, near Carrickfergus. This catchment area consists of some 6,937 acres of uplands, a large proportion of which was acquired by the Commissioners. The catchment is almost entirely clear of human habitation. The works comprise seven storage reservoirs, from which the water is conveyed to the service reservoir at Oldpark in Belfast. The water from Woodburn, with the exception of that drawn off at Dunanney, is passed through slow sand filters at Oldpark. There are seven of these filters with a surface area of 26,628 square yards. All water from this source is also chlorinated at this point. The maximum yield of water from this catchment is about 11¼ million gallons per day and, based on the three dry-year minimum yield, should average 8 million gallons per day. The hardness of this water is 88 parts per million.

The third main source is from Stoneyford, near Lisburn. This catchment consists of uplands, with an area of some 5,348 acres and, as in the case of the Woodburn catchment, these lands are

largely owned by the Commissioners and contain few human habitations. The works comprise a storage reservoir at Stoneyford and another at Leathemstown, with filter beds at Forked Bridge and a service reservoir at Lagmore. The conduit, 8½ miles in length, conveys the water from Stoneyford and Leathemstown to Lagmore and is passed through slow sand filters at Forked Bridge. There are six filter beds with a surface area of 16,380 square yards. The water is also chlorinated at this point. The water is moderately soft with a hardness of 65 parts per million. The yield of water from this catchment averages about three million gallons per day. The Commissioners supply Belfast City and District from the following service reservoirs in addition to the three main service reservoirs, viz., Knockbracken, Oldpark High Service and Lagmore.

Service Reservoir	*Source*	*Gallons per day*
Whiteabbey Lower	Woodburn	1 million
Whiteabbey Upper	Woodburn	1 million
Ballysillan	Woodburn	¾ million
Dunanney	Woodburn	½ million
Colinward	Woodburn	½ million
Ballyaghagan Upper	Woodburn	½ million
Whiterock Upper	Mourne	½ million
Whiterock Lower	Mourne	½ million
Ligoniel Tank	Spring	50,000

During the year 52 samples of untreated water and 35 samples of filtered water were taken at the Commissioners' Works. At the various service reservoirs 1,183 samples were taken and in only one instance was B-coli Type I present. A further 651 samples were taken at random from consumers' taps and 20 of these were recorded as suspicious, but only one had B-coli Type I present. Officials of the Water Commissioners also took 120 samples which were examined by the Counties Public Health Laboratories.

The distribution of water was interrupted during the very severe weather conditions that occurred in January and February, 1963, but the inconvenience suffered by the public was reduced to a minimum. Consumption rose considerably during the frost period and immediately afterwards.

The work of linking the Mourne and Stoneyford systems by means of an interconnection main from Knockbracken to the Upper Falls was completed and the main is now in service. Work has also continued on the triplication of the final stages of the Mourne Conduit, which will improve the supply to the City.

Water samples collected by the Health Department Staff from consumers' taps

Apart from routine weekly sampling averaging 6 per week throughout the year, samples are taken following complaints of abnormal taste, odour or colour. In following up adverse results of samples of mineral waters and milk it is sometimes necessary to take samples of the water supply to adjoining property. In one instance concerning a dairy several samples had to be taken in the vicinity in attempting to trace the cause of repeated adverse results of milk samples.

321 samples were submitted for bacteriological examination, 15 of which were reported as being unsatisfactory. The results of the unsatisfactory samples were as follows:—

TABLE B 1

Coliform organisms (Count per 100 ml.)	Number of samples	Coliform organisms of faecal origin (Count per 100 ml.)	Number of samples
1—3	10	1—3	2
4—10	1	4—10	1
Greater than 10	4	Greater than 10	3

6 samples contained both faecal and non-faecal organisms.

As a check on the condition of water supplies where storage tanks may be in use 282 samples of water were collected from flats and tenement dwellings. 15 of these samples were reported as unsatisfactory because of the presence of coliform organisms: in 5 samples there were coliform organisms of faecal origin. If storage tanks are in use their sanitary condition is inspected.

In the case of samples taken direct from a mains supply, copies of the results are sent to the water office.

Samples of water from Mineral Water Manufacturers' premises

Simultaneously with sampling of mineral water products, the Food Inspectors collect samples of the water supply in use. This may be from the City mains or a private well supply in the premises. 114 samples of mains supply were thus collected for bacteriological examination and 5 of these were reported as unsatisfactory due to the presence of coliform organisms. Inspections follow the receipt of adverse results and it is often found that defects in storage tanks or filtering apparatus are contributory factors. After cleansing, further samples are collected. From the firms which have a private well supply for manufacturing purposes, 61 samples were collected and submitted to the Central Laboratory. 10 samples were reported as unsatisfactory due to the presence of coliform organisms. The percentage was much too high and the manufacturers concerned were requested to institute cleansing and sterilization of pipe lines, tanks, etc. Follow up samples are always taken in such instances.

Sampling for Chemical Analysis

As part of the investigation into a case of lead poisoning a sample of water was submitted for chemical analysis. The Public Analyst reported on the sample as follows:—

"Lead (Pb) 0.04 PPM

The trace of lead found was well below the recommended limit of 0.1 parts per million".

Domestic Water Supplies from Wells and Springs

Because of their isolated positions and non-proximity to water mains, there are still some houses within the City Boundary depending upon shallow wells and springs for water supply. For some there appears to be little likelihood of change to a mains supply. Some of the supplies are most unsatisfactory, being exposed to much contamination. Of 238 samples taken, only 50 were returned as highly satisfactory. The remainder contained coliform organisms and 184 of these had organisms of faecal origin. The householders were written to in each instance and advised on practical methods of treatment to make the water fit for consumption.

SWIMMING BATHS

Enclosed Swimming Baths

The opening of the new Grove Baths during the year was a great event in the recreational life of the City. The plant and ponds are very modern and up-to-date, and provide excellent facilities for competitive swimming and general use by the public. There were some "teething" troubles with the plant in the early days and the Department was glad to assist in the finding and elimination of the faults. After the plant had settled down, thrice weekly tests for chlorine residual and frequent sampling of the water for bacteriological examination produced satisfactory results.

All the swimming baths in the City are inspected at least once per week. Chlorine residual and pH tests are carried out and each month samples are submitted to the Central Laboratory for bacteriological examination. Of the 209 samples submitted to the Central Laboratory only one was returned as unsatisfactory—coliform organisms being present. 919 inspections of the baths were made by Public Health Inspectors during the year. 710 samples of water were tested for chlorine residual and pH value. In 16 instances the tests showed the pH value to be above or below the agreed standards. The standards are a useful check on the efficiency of the plant, but are also influenced by bathing loads, the cleanliness and habits of bathers, etc.

Structural defects discovered in the buildings during the inspections are notified to the General Manager for his attention. 33 such notices were given during the year.

A swimming bath in one of the Borstal Institutions in the City is, by agreement, subjected to the same tests and the water sampled for bacteriological examination as in the case of the Corporation's swimming baths. The pond was out of action for some time following damage to the roof during the severe weather at the start of the year. Ten samples of water were collected for bacteriological examination and all were reported as being satisfactory. 47 visits were made during the year and the 37 tests carried out for chlorine residual and pH value all produced satisfactory results.

Open Air Swimming Pools

There are two such pools in the City controlled by the Parks and Cemeteries Department. The fact that they are open-air and therefore exposed to surface and atmospheric pollution necessitates close supervision of the condition of the water from a public health aspect. 50 samples of the waters were submitted for bacteriological examination and all were reported as satisfactory. During 129 inspections made by the Public Health Inspectors, 79 samples were tested for chlorine residual and pH value. Results were correct in all instances. Bathing conditions were therefore satisfactory throughout the season and the operators concerned are deserving of credit for this.

Two pools are owned by Public Schools and similar sampling and tests as mentioned above were carried out. One of the pools has suitable chlorination and filtration plant, the other has hand chlorination only and improvised filtration. Following adverse results the school management were interviewed and the treatment methods are to be reviewed. 30 samples were submitted for bacteriological examination, of which 2 were reported as unsatisfactory, coliform organisms of faecal origin being present. 80 inspections of the pools were made and of the 49 tests carried out, 3 produced results not in accordance with agreed standards.

HOUSING ACTS (NORTHERN IRELAND) 1890 to 1963

Slum Clearance and Redevelopment

During the year the second re-development scheme known as Artillery Street Redevelopment (Area "B") was approved by the Council and submitted to the Ministry of Health and Local Government. The total number of premises in the area is 164 made up of 144 dwelling houses, 5 combined business and dwelling houses and 15 business premises. The streets in the area are Artillery Street Bruslee Street, Carnmoney Street, Carntall Street, Pinkerton Street and part of the New Lodge Road. It is intended that the area be cleared of all buildings and erections and laid out primarily for housing purposes, including the necessary shopping and other facilities, and that the New Lodge Road be widened. The redevelopment, when completed, will link with and form an extension to the adjacent Carlisle Development Scheme.

It is proposed to provide new accommodation in the area as follows:—

18 three-storey houses containing 4 bedrooms to accommodate families of 7 persons.

One thirteen-storey block of flats which will contain 50 dwellings comprising:—

48 two-bedroom flats accommodating families of 4 persons.

1 two-bedroom flat accommodating a family of 3 persons.

1 one-bedroom flat (2 person unit) which will be suitable for an aged couple.

(in addition it is proposed to provide 28 one-bedroom two person flats suitable for aged couples in 4 two-storey blocks, and a further 13 one-bedroom two person flats at ground floor level suitable for aged couples in the one six-storey and 2 five-storey buildings mentioned hereunder).

One six-storey and 2 five-storey blocks which will contain, in addition to the other accommodation mentioned above, a total of 30 three-bedroom maisonettes accommodating families of 5 persons.

In addition there will be shops, garages and parking facilities.

Upper Library Street Redevelopment Scheme

At the end of the year almost all of the families in stage I of this area had been re-housed and demolition of the houses was well under way.

The Housing (Clearance and Redevelopment) Committee in October authorised the City Architect to proceed with the invitation of tenders for the carrying out of the roadworks. At the same time the City Architect reported that the working drawings were in progress for the building works contract

which was programmed to commence immediately upon completion of the road works. Re-housing of the families in Stage 2 had also begun by the end of the year.

Individual Unfit Houses

In January the Housing (Clearance and Redevelopment) Committee accepted a report prepared by the Deputy Medical Officer of Health on approximately 260 dwellings in the City which were very old and dilapidated and considered to be in the worst condition. It was anticipated that it would take at least two years to deal with the houses on the list. By the end of the year 41 of the houses had been represented to the Committee and Closing Orders made.

Extensive site clearance in the Bridge End/Newtownards Road area to permit the construction of a new roundabout in connection with the new Lagan Bridge scheme involved the demolition of 106 houses, mostly sub-standard. A further 17 houses were closed in this area.

Participation by the Northern Ireland Housing Trust

In March the Committee accepted the Trust's offer to undertake the planning and redevelopment of an area bounded by Albert Street, Cullingtree Road and Divis Street. The Trust drew attention to the following points:—

1. There was no vacant ground on which new houses could be built and accordingly before redevelopment could start the existing houses would have to be demolished.

2. There were approximately 10% more families in the area than there were dwellings, and

3. That the Corporation proposed to widen Cullingtree Road which would reduce the area available for new houses.

Contained in the area are 864 dwelling houses, 30 combined business and dwelling houses and 138 lock-up business premises. In addition there are 5 Halls, 2 Clubs, 2 Bandrooms and 1 Electricity Sub-Station.

The Committee instructed the Medical Officer of Health to carry out the necessary detailed survey of dwelling accommodation in the area with a view to formal representation thereof.

By the end of the year the public health inspectors had completed the survey and the area was virtually ready for formal representation.

New Houses

(i) *Private*—During the period between December, 1962 and November 1963, 516 houses were completed.

(ii) *Corporation*—During the same period

Number of houses	275
Number of flats	149
Number of old peoples dwellings ..	22
Total	446

Conversion/Improvement Scheme

Improvements to houses were completed in 58 instances and 84 flats were provided as the result of conversion of houses. During the period mentioned above the City Surveyor received 271 applications for improvement grants. The public health inspectors report on the internal conditions of the houses in respect of which applications have been received.

Under the Housing Act (Northern Ireland) 1963, further financial assistance for improvement of houses has been made available. The Act authorises local authorities to make grants for the provision of standard amenities. The standard amenities are listed as (a) a fixed bath or shower (b) a wash-hand basin (c) a hot water supply (d) a water closet in and accessible from within the house or, if that is not reasonably practicable, in such a position in the curtilage of the house, or, where the house is part of a larger building, in that building, as to be readily accessible from the house (e) satisfactory facilities for storing food. The total amount of grant available for the provision of all these amenities is £155. Before approving the grant the local authority must be satisfied that after the execution of

the works specified in the application, the house will be fit for human habitation and is likely to remain in that condition and available as housing accommodation for a period of not less than fifteen years. The Building Inspectorate and the Public Health Inspectorate combine to report on those matters on which the Corporation must be satisfied before approving an application for a grant.

Houses Let in Lodgings

The Housing Act (Northern Ireland) 1963 makes provision for the abatement of overcrowding in, and the management of, houses in multiple occupation. Control of such houses was previously exercised under the Corporation's By-laws relating to tenement dwellings and by the requirements of the Belfast Corporation (General Powers) Act (N.I.) 1961 that dwelling houses shall not be converted into, or used as, more than one dwelling without the consent of the Corporation.

The Housing Act of 1963 gives the Corporation power to deal with overcrowding by stating, in relation to any room on the premises, what is, in their opinion, the maximum number of persons who can be provided with sleeping accommodation at any one time. The Corporation are also empowdered by notice to fix as a limit the maximum number of individuals who should live in a house, having regard to the amenities available and by this means can prevent or reduce overcrowding. The Act further empowers the provision of additional facilities and amenities having regard to the number of individuals or households or both accommodated for the time being on the premises. Means of escape from fire must also be provided in houses so occupied.

The Act enables the Ministry to make regulations requiring a house occupied by members of more than one family to be so occupied in accordance with proper standards of management. The regulations may, in particular, require the repair, maintenance, cleansing and keeping in good order:—

(a) of all means of water supply and drainage in the house;

(b) of kitchens, bathrooms and water closets in common use;

(c) of sinks and wash-basins in common use;

(d) of common staircases, corridors and passageways and

(e) of outbuildings, yards and gardens in common use;

and the making of satisfactory arrangements for the disposal of refuse and litter from the house. The Regulations may impose certain specific duties on persons having the management, or being responsible for the management of such houses.

The Act will apply to a very large number of houses in the City, ranging from the rather squalid tenement dwellings to large houses with multiple tenancies in the more select residential districts. The existence of this property and the need for it, in any large industrial community, is now recognised, and the Act and the proposed regulations are designed to secure reasonable living conditions having regard to present day standards. Careful administration of the provisions of the Act will have to be exercised so as to avoid evictions as an easy way to comply with requirements.

Enforcement of the Act will, of course, greatly add to the duties of the public health inspectors but its need is recognised and, rightly used, these provisions can help a lot in the improvement of living conditions in houses in multiple occupation. The undernoted figures give some indication of the work carried out in the surveillance of known tenement dwellings by the public health inspectors:—

Inspections	513
Sanitary defects discovered	65
Sanitary notices served	45
Sanitary defects remedied	43
Number of houses on Register at 31/12/63	95
Number of houses not on register but known to be in multiple occupation	71
Number of families	607
Number of rooms	1,202
Number of adults	1,068
Number of children	530
Number of samples of water taken for bacteriological examination	282

Rent and Mortgage Interest (Restrictions) Acts (Northern Ireland) 1920-1961

As can be seen from the particulars which follow, considerable use is made by tenants and landlords of the provisions of these Acts. A fair amount of documentation is associated with each application for a certificate or a report under the Acts. The particulars show the number of applications received for certificates and reports and those refused during the period 1st September, 1951 until 31st December, 1963.

(a) During 1963:—

Certificates and reports outstanding at 1/1/63	10
Applications for certificates and reports	658
Certificates issued to tenants	430
Reports issued to landlords	100
Certificates refused to tenants	2
Reports refused to landlords	100
Applications for certificates and reports cancelled	28
Certificates and reports outstanding at 31/12/63	8

(b) Totals from 1st September, 1951 till 31st December, 1963:—

Applications for certificates and reports	42,697
Certificates issued to tenants	29,535
Reports issued to landlords	7,322
Reports refused to landlords	4,998
Certificates refused to tenants	514
Applications for certificates and reports cancelled	320

Discretionary Points system for allocation of Housing Accommodation on Medical Grounds

175 applications for re-housing, supported by medical certificates, were received from the Estates Superintendent during the year. All the houses were inspected and conditions assessed as to points allocation on medical grounds. In some instances there was little relationship between the housing and medical conditions. Most of the overcrowding conditions found could be described as "man-made" i.e., sub-letting where there was no accommodation available for so doing or in-laws being added to the resident family.

Planning Acts (Northern Ireland) 1931 and 1944 and Planning (General Interim Development) Order (N.I.) 1944

There were 46 applications and enquiries received from the City Surveyor's Town Planning Section concerning the proposed development of various properties in the City such as the conversion of dwelling houses into shops, bookmakers betting offices, second-hand dealers, launderettes, office accommodation etc., and the conversion of properties into factories, food premises, etc. In 28 of these cases approval from the public health aspect was recommended, subject to works being carried out and the submission of plans in order to bring them up to modern standards. In 18 cases the Department had to recommend disapproval on the grounds of unsuitability due to the likelihood of public health nuisances being committed and the lack of space and amenities, which would not comply with the requirements of the Public Health Acts and Food legislation. Of the 18 cases referred to, 10 were concerned with the carrying on of ladies' hairdressing, in private dwellings not fitted out for the purpose and which were not registered with the Department.

Public Health Nuisances Discovered and complained of in Dwelling Houses, etc., during 1963

Reference was made at the beginning of this section of the Report that about half of the total strength of the Inspectorate was employed in the General Branch and that their duties were largely concerned with the discovery and abatement of public health nuisances. A glance at the tables which follow shows how true this is.

The severe weather during the early months of the year rocketted the complaints received and the much under strength Inspectorate was severely taxed to cope with the deluge. Compared with the previous year complaints were up by over 15,000. Consequently there was a very large increase in

the number of notices to be prepared and issued and the clerical staff of the branch deserve much credit for keeping abreast of the increased volume of work.

TABLE B 2

Nuisance	Divisions				Totals
	North	South	East	West	
Drains, traps, etc., foul or defective	904	761	655	626	2,956
Tiling, paving or flooring defective	690	667	799	794	2,950
Sinks defective, or want of; wastepipes foul or defective	120	139	77	59	395
Water closets foul or defective; no watercloset accommodation; soil or ventilation pipes defective or want of	1,183	1,264	1,341	1,617	5,405
Dustbins defective, or want of	465	63	66	122	716
Roofs defective	2,513	2,314	2,592	3,584	11,003
Spouting defective, or want of	2,527	2,522	2,887	3,821	11,757
Damp state	6,054	3,798	4,225	5,670	19,747
Plaster on walls and ceilings defective	192	779	654	857	2,482
Domestic water supply; want of, or unsuitable	14	10	28	15	67
Lighting or ventilation insufficient, or want of	125	26	55	188	394
Schools overcrowded	5	—	5	1	11
Dwelling houses overcrowded	6	2	4	1	13
Accumulation of manure or offensive matter; offensive smells; premises or passages dirty	356	298	242	328	1,224
Fowl or animals kept so as to be a nuisance	—	—	—	—	—
Schools dirty or defective	1	—	2	—	3
Miscellaneous	1,760	1,904	1,992	1,761	7,417
Totals	16,915	14,547	15,634	19,444	66,540

Public Health Nuisances abated in dwelling houses, etc., during 1963

Nuisance abated	Divisions				Totals
	North	South	East	West	
House drains cleansed	370	536	504	334	1,744
House drains repaired and relaid	111	65	97	85	358
Houses had tiling, paving, or flooring repaired	627	684	673	786	2,770
Houses had waterclosets cleansed or repaired	1,139	1,169	1,106	1,358	4,772
Number of dustbins provided	152	43	41	67	303
Houses provided with new sinks	—	—	—	—	—
Houses had roofs repaired	2,346	2,347	2,264	2,993	9,950
Houses had spouting repaired	3,318	2,889	2,572	3,054	11,833
Passages cleansed	6	1	—	14	21
Houses cleansed	1	3	—	4	8
Houses had minor repairs effected	2,109	2,536	1,502	2,029	8,176
Miscellaneous nuisances abated	248	304	262	347	1,161
	10,427	10,577	9,021	11,071	41,096
Length in feet of drain pipes laid	269	32	60	250	611
Gully and disconnecting traps provided	1	3	—	—	4

Summary for 1963 in connection with defects in dwelling houses

Nuisances complained of and discovered	66,540
Inspections	102,917
Statutory notices issued	25,460
Sanitary improvements carried out	41,711
Summonses issued for non-compliance with notices ..	2,368
Court orders for abatement of nuisances	263
Summonses for disobedience of magistrates' orders ..	54
Disobedience convictions	54
Amount of fines imposed by courts	£658 18s. 6d.
Costs imposed by the courts	£141 10s. 0d.

By-Laws made under section 23 of the Public Health Acts (Amendment) Act 1890 relating to keeping water closets supplied with sufficient water for flushing

Much of the work necessitating notices to be served under these By-laws stems from water supplies being cut off to prevent waste of water following burst pipes. A satisfactory working arrangement has now been made with the Water Commissioners' officials to isolate the premises directly affected to avoid the hardship which follows when a number of premises have the supply cut off.

There were one or two instances during the year which caused much concern to both the Department and the Water Office. These were owner/occupiers and the supply to their houses had been cut off due to non-payment of the water rates. In one instance the electricity supply was also cut off due to non-payment of the account. The position was one of great difficulty and a long time elapsed before it was finally resolved.

Inspections during the year	3,158
Notices issued under the By-Laws	1,579
Summonses for non-compliance with notices	133
Amount of fines imposed by the courts	£309 0s.0 d.
Costs granted by the courts	£36 16s. 0d.

Stabling Yards

Systematic inspection of the stabling yards in the City is carried out to secure the abatement and prevention of nuisances arising therein. Anti-fly measures were carried out during the appropriate season by the Pests Control Section and were found to be most effective in controlling fly infestations.

Stabling yards on register at 31st December, 1963	95
Inspections during the year	568
Anti-fly treatments carried out	285

BURIAL GROUNDS AND CREMATORIUM

Number of burial grounds (six controlled by the Corporation) ..	10
Inspections made during the year	84
Number of burials in Corporation cemeteries	2,899
Number of cremations	246

For a variety of reasons persons apply to the Ministry of Health and Local Government for permission to exhume the remains of relatives for re-interment in other grave plots in the same cemetery and sometimes in other cemeteries. The Department is asked if there are any public health objections to the proposed exhumations. If there are no objections and a licence is granted a Public Health Inspector is present to ensure that the exhumation and re-interment are carried out in accordance with good public health practice.

BUILDINGS USED FOR PUBLIC ENTERTAINMENT

Frequent day and evening inspections of cinemas, theatres and dance halls are made to check cleanliness, the adequacy of sanitary accommodation and the efficiency of the heating and ventilating systems. Attention is also paid to the conditions under which food is prepared, stored and sold.

(*i*) *Cinemas and Theatres*

Number in the City	30
Inspections carried out	371
Number of tests carried out	141
Number of Kata Thermometer recordings	705

In one cinema the tests showed the rate of air flow to be too low. The manager was advised and he was able to take remedial action.

(ii) *Dance Halls*

Number of premises licenced for public dancing	73
Inspections carried out (including evening)	144
Defects discovered	14
Defects remedied	16
Number of tests carried out	52
Number of Kata Thermometer recordings	260

In three dance halls the tests revealed air conditions below accepted standards. When attention was drawn to the conditions the managements were able to take remedial measures. During the year a new Ballroom was opened with a capacity for 1,300 patrons. The premises have a modern system of heating and ventilation and snack bar facilities are available.

The following table illustrates the conditions found by the Public Health Inspectors and the action taken to remedy them:—

Dance Halls

TABLE B 3

Defects	Instances	Notices served	Remedied	Outstanding
Damp and defective conditions	1	1	1	—
Dirty conditions	—	—	1	—
Sanitary Conveniences:				
Not provided with proper intervening ventilated spaces	4	2	2	2
Not properly screened	1	1	—	1
Not properly ventilated	—	—	1	—
In a dirty state	2	1	2	—
In a defective condition	2	1	2	—
Insufficient accommodation	—	—	1	—
Insufficient or defective urinal accommodation	—	—	1	—
Unsuitable washing facilities or want of	1	1	2	—
Other defects	3	2	3	2
Totals	14	9	16*	5

* Defects remedied include defects outstanding from previous year.

PUBLIC SANITARY CONVENIENCES

There are still a number of the old iron conveniences in existence but it is planned to remove these and replace them with buildings more in keeping with present day standards.

1,827 inspections of conveniences were made during the year by the Public Health Inspectors.

DRAIN TESTING

Following complaints of rat infestation, offensive odours, basement flooding, water seepages and sunken surfaces, etc., tests of drainage systems may have to be carried out. The following particulars show the number and types of tests carried out, defects found and drains repaired:—

Tests re complaints of rats	436
Tests re offensive odours, water seepages, etc.	203
Defects found by colour test	19
Defects found by smoke test	220
House drains completely relaid	78
Drains repaired	358
Drainpipes, gully traps, etc., used in repair of drains	733

BELFAST CORPORATION ACT 1930 SECTION 44 (PROVISION OF DUST BINS)

Notices served requiring provision of dustbins	73
Summonses for non-compliance with notices	2
Dustbins provided following notices	303

OFFENSIVE TRADES

There are several premises within the City in which the following trades are carried on:—hide and skin merchants, fat melting, bone boiling, gut scraping and tripe cleaning and boiling. 94 inspections were made by the Public Health Inspectors to ensure compliance with the By-Laws relating to these trades.

MARINE STORES

There are 62 persons licensed in the City to carry on the business of general dealer. Frequent inspections of the premises are made to secure compliance with the provisions of the relevant legislation.

Inspections made	175
Contraventions discovered	19
Notices issued	13
Repairs effected	10

The following table indicates the conditions found and the action taken:—

TABLE B 4

Defects	Instances	Notices served	Remedied	Outstanding
Walls in rooms not rendered vermin proof	2	1	2	—
Rooms not properly lighted	2	1	—	2
Rooms not properly ventilated	2	1	—	2
Materials stored so as to obstruct lighting or ventilation	1	1	—	1
Dustbins not provided or trade refuse not removed weekly	—	—	1	—
Premises not kept in a clean state	2	1	—	2
Walls, ceilings, partitions, etc., requiring redecoration	2	1	—	2
Premises, apparatus, utensils, etc., not kept in a state of repair	—	—	1	—
Yards, loading bays, etc., not properly surfaced	—	—	—	—
Other defects	1	1	—	2
Sanitary Conveniences:				
Insufficient accommodation	1	1	1	—
Not properly lighted	1	1	1	—
Not properly ventilated	1	1	1	—
In a dirty state	3	2	3	—
In a defective condition	1	1	—	1
Totals	19	13	10	12

SCHOOL BUILDINGS

The Public Health Inspectors make frequent visits to schools to observe the general standards of sanitation, cleanliness, heating, lighting and ventilation and attendance figures are checked against the accommodation available. Canteens and school meals kitchens are inspected to ensure compliance with the provisions of the Public Health (Prevention of Contamination of Food) Regulations. By arrangement with the Education Department the purity and quality of the food supplied under contract to the kitchens is checked periodically. Milk supplied to the schools for drinking is sampled weekly for bacteriological examination. Calls are made by the Schools Meals Service when unsound food has been delivered. Reports on adverse conditions in schools by the staff of the School Health Services are investigated by the Inspectors and actioned where necessary.

Plans for alterations to existing schools or for new schools are submitted to the Department for observations. 12 of these were received during the year. Close liason is maintained with the Principal Education Architect for County Schools and the private architects (for voluntary and other schools).

Number of inspections carried out	520
Adverse reports from the School Health Services	22
Intimation notices concerning sanitary defects:—	
(a) Director of Education	5
(b) Managers of Voluntary Schools	22
Sanitary improvements effected	21

RIVERS POLLUTION PREVENTION ACTS, 1878-1893
URBAN DRAINAGE ACT (N.I.) 1957

In 1962 the Chief Public Health Inspector's Report gave fairly full details of proposed land drainage schemes, anti-flooding measures and culverting of rivers. In an earlier section of this Report the information supplied by the City Surveyor details the work in progress and plans for the future. Little further comment would appear to be necessary for the time being, except to say that the works, when completed, will eliminate many causes of complaint to the Department. However, it does seem a pity in some ways that rivers which might have added to the visual amenities of a district must disappear from view, because they have become eyesores and insanitary, due to indiscriminate dumping of all sorts of rubbish and dead animals.

Inspections of rivers by Public Health Inspectors	1,221
Samples of river water collected during the year	126

The results of the examinations of river water were as follows:—

TABLE B 5

Coliform organisms	No.	Faecal coli	No.	cl. welchii	No.
5 to 180+per 100 ml.	125	0 to 180+per 100 ml.	125	0 to 100,000+per 100 ml.	62

HAIRDRESSERS ACT (N.I.) 1939

The Act requires that every person carrying on the trade or business of barber or hairdresser must be registered with the Corporation. Approval under the Planning Acts for such use of premises is also required. Complaints are received from time to time of persons carrying on the trade in unregistered premises, usually ladies' hairdressing. On investigation, it is generally found that the offenders are (1) persons in ignorance of the law (2) employees doing a bit of "homework" or (3) ex-members of the trade carrying on business on a small scale. Appropriate action is taken in each instance.

The Inspectors make frequent inspections of the registered premises to ensure that there are no contraventions of the Act or the By-Laws made thereunder. The following table gives particulars of the premises registered and the inspections carried out:—

Registered at 1st January, 1963	506
Registered during the year	39
Deleted during the year	71
Registered at 31st December, 1963	474
Inspections during the year	1,917

COMMON LODGING HOUSES

These Institutions are visited by the Public Health Inspectors to ensure compliance with the Public Health Acts and the By-Laws made thereunder. Close liaison is maintained with the Welfare Department on conditions found.

Number of inspections made	47

ITINERANTS

The Housing Act (N.I.) 1963 amends the Housing of the Working Classes Act by the provision of a new section which states that:—

"(1) A tent, van, shed or similar structure used for human habitation—

(a) which is in such a state as to be a nuisance or injurious to health; or

(b) which is so overcrowded as to be injurious to the health of the inmates, whether or not members of the same family; or

(c) the use of which, by reason of the absence of proper sanitary accommodation or otherwise, gives rise, whether on the site or on other land, to a nuisance or to conditions injurious to health;

shall be deemed to be a nuisance within the meaning of section 107 of the Public Health (Ireland) Act 1878 and the provisions of that Act shall apply accordingly".

This new provision was regarded as a strengthening of legal powers and, along with the possible use of the provisions of the Caravans Act dealing with unlicensed sites and the exercise of their rights by landowners to prevent trespass, the view was held that the law was adequate to deal with itinerants. Recent experiences, however, have shown that this is not so. The problem of the itinerants is one of much difficulty and is the cause of many and bitter complaints to the Department. There is no doubt that the habits of many of these itinerants are anathema to the householders in the vicinity of the sites. The breaking-up of old cars, the collection of scrap iron and rags and the strewing of the ground around their sites with the unsaleable parts of these articles; their other habits and the pestering of the householders, all combine to make them most unwelcome neighbours. While some have modern caravans, others live in deplorable conditions. The Inspectors deal with the situations as best as they can. Notices are served and the game of shuttle begins—over the City Boundary then back again, or move to another site in the City and then back again. Their trade marks are always left behind. The whole question requires urgent and earnest consideration by the Government and all local authorities.

ATMOSPHERIC POLLUTION

Impending Legislation

The statement made by the Minister of Health and Local Government, in the House of Commons regarding the introduction of clean air legislation has been welcome news to the growing number of people in Northern Ireland who have become acutely aware of this problem during the last decade. The Minister stated that existing legislation governing smoke abatement in Northern Ireland gave only limited control over industrial emissions and does not deal with domestic smoke. Domestic sources are generally reckoned to account for a high percentage of pollution from smoke, and the percentage is certainly high in a community such as ours, where the proportion of coal used for domestic purposes, compared with industry, is relatively high. While there is a very strong case for clean air on medical grounds, the social costs arising from corrosion, damage to buildings and fabrics, loss of efficiency, etc., are considerable. There is also the sheer waste of fuel from poor combustion, which produces smoke. The government have come to the conclusion that nothing less than a measure with the scope and aims of the Clean air Act 1956 in operation in Great Britain will suffice. If legislation on the lines indicated is in due course approved, it must be realised that we cannot expect a radical transformation overnight.

Fuel Availability

On the domestic side progress will depend on the solution of the problem of availability of suitable fuel, to which it is not yet possible to see a complete answer. Research is going on in Great Britain into the development of smokeless fuels which would solve the problems of availability. Under present circumstances, reliance will be placed mainly on coke, although householders will of course be free to choose any fuel which will comply with the requirements of the Act. In Northern Ireland the implementing of the domestic programme—so far as solid fuel is concerned—will rest largely on the availability of an abundant local supply of coke of appropriate quality and price. In view of the Belfast Corporation Gas Department's increased drive for efficiency, and the fact that when in operation a supply of petroleum gas will be obtained from the new oil refinery in the Harbour Estate, it is difficult to see any increased supply of coke available from this source. It may be that, if required for City smoke control areas, coke will have to be obtained from provincial towns and possibly from Great Britain. Apart from coke, however, we must not lose sight of the fact that all fuels which can be burned smokelessly will have a contribution to make, and greater attention will be directed to the use of oil,

electricity and gas. The use of oil in industry is now well established and has achieved considerable success and publicity for use in domestic heating both in new and existing dwellings. Electricity and gas would appear to be less prominent, and apart from offices and blocks of flats, little use has been made of these fuels for heating purposes in private dwellings. Belfast Corporation Electricity Department have pioneered the use of underfloor heating by electricity at Annadale and Carlisle Estates, but greater use could be made of the very pleasant and attractive portable and fixed heaters now available for gas and electricity. Automatic control of these appliances to suit individual room temperature requirements is easily obtained and there is no trouble with storage, cleaning or ash removal, while instant heat is always available.

Investigations of Complaints

During the year two faults which developed in ancillary plant in a foundry resulted in heavy deposits of dust and sand in dwellings in the vicinity. On both occasions, although the fault was soon detected and rectified, the emissions brought to the fore again the trouble experienced a few years ago shortly after the plant was installed. All faults were quickly rectified and precautions taken to prevent any recurrence. A number of complaints from the Stranmillis area related to the smell of oil from a long established factory in that locality. For a number of years this firm has carried out distillation of oil and bitumen in connection with the manufacture of bituminous roofing material. Every effort has been made to trap the oil vapours driven off by heating, and a number of suggestions by smoke abatement staff have been carried out which led to some reduction in the quantity emitted. As the amount of vapours given off still caused complaints, the firm carried out trials with a small pilot plant which proved successful, and an order was placed for equipment which it was hoped would be installed by the end of the year. From time to time complaints have been made regarding sulphur gases emitted from the cupolas of a small foundry off Crumlin Road. Here it was decided to install an instrument for the daily measurement of smoke and sulphur in this locality in order to obtain more information about emissions than had previously been available. During the seven weeks in which readings were taken, it was established that, while concentrations of sulphur gas may be relatively high for short periods, the overall results were quite average and in fact three other permanent recording points in the City gave higher daily sulphur concentrations.

With the ever increasing use of fuel oil for the firing of industrial boilers, occupiers of near by premises have frequently complained of smuts. These smuts consist of acidic agglomerations of black particles which are frequently $\frac{1}{8}''$ to $\frac{1}{4}''$ in diameter. They fall relatively close to the chimney and leave brown stains or rust marks on materials if moistened. This trouble can sometimes be traced to poor combustion, but is generally due to acid attack on the interior of steel flues and chimneys, due to the condensation of sulphuric acid on the cooled steel surface. A simple, efficient and durable form of insulation for steel chimneys is provided by fitting aluminium cladding or covering. This has been successfully carried out on a number of existing steel stacks in the city, and when plans for the installation of new plant come forward and the plant is to be sited in a built up area, it is usual practice to request insulation of the stack by aluminium.

As can be seen from the following tables, seventeen instruments for the recording of air pollution are maintained by the Health Department. These may be broken down into five deposit gauges for the recording of solid material falling out by its own weight, and four lead peroxide candles for recording sulphur pollution, both of which are worked on a monthly basis. Ten daily recording instruments for recording—both smoke and sulphur dioxide have been in use for a number of years and from these, valuable information on day-by-day pollution is obtained. As distinct from the solid material falling out by its own weight, "smoke" is the name given to particles and droplets which remain suspended in the air for long periods and travel with the air. They are invisible unless they happen to float in a sunbeam in a darkened room, but they cause obstruction of sunlight, and soiling of buildings and clothes. Some of the tarry products from partly burned coal contained in smoke are corrosive and produce cancer forming substances. Smoke particles can be harmful to health because they are small enough to enter the lungs and be retained there. When these particles are collected on a filter paper from a known volume of air, the weight of smoke is assessed by relating it to the darkness of the stain by use of a reflectometer. In the absence of accurate knowledge of the way in which pollution affects health, the "blackness" of smoke provides a useful index which has been shown to correlate closely with health. There was little difference in the distribution of pollution when compared with the previous year except that on some sites the daily average was higher for the first and last quarters of 1963 but lower during the months of April to September. Broadly the solid deposited matter and sulphur trioxide as collected by monthly recording instruments follows the pattern of previous years, but while these instruments are governed to some extent by rainfall which was lighter in 1963 than on the previous year, no appreciable changes were recorded.

The following table shows the work done in connection with Air Pollution during 1963:—

Timed observations	2,161
Minutes of black smoke observed	1,928
Average minutes black smoke per observation	0·9
Statutory notices served	30
Verbal notices given	107
Plant inspections and advisory visits	2,684
Complaints investigated	91
Number of factory chimneys	400

Location of Atmospheric Pollution Recording Sites

Health Department

1. Ormeau Avenue
2. York Road
3. Station Street
4. Forfar Street No. 1
5. Forfar Street No. 2
6. Northern Road
7. Grove
8. College Street
9. Templemore Avenue
10. North Road
11. Balmoral Avenue
12. Falls Road
13. Mountcollyer Street
14. Lowwood Park
15. Queen's Bridge
16. Dufferin Road
17. Forfar Street

Queen's University Belfast

18. Royal Victoria Hospital

Belfast Corporation Electricity Department

19. Sydenham Airport
20. Duncrue Street
21. Great Patrick Street
22. Skegoneill Street
23. Park Avenue
24. Madrid Street
25. East Bridge Street
26. Victoria Works Queen's Road
27. Thompson Dock Queen's Road
28. East Twin Lighthouse

Solid matter deposited in tons per sq. mile at collecting stations during 1963

TABLE B 6

Month	Stations					Totals	Monthly Averages
	1	2	3	4	5		
January	34.22	27.25	23.42	23.86	18.93	127.68	25.53
February	45.23	20.34	22.92	17.85	26.28	132.62	26.52
March	38.78	33.22	28.73	21.68	65.67	188.08	37.61
April	28.61	23.27	23.09	18.80	25.17	118.94	23.79
May	25.84	25.98	20.87	21.55	34.50	128.74	25.75
June	27.09	26.22	25.51	21.07	27.22	127.01	25.40
July	20.00	18.44	13.45	12.52	14.63	79.04	15.81
August	20.37	24.41	21.55	19.23	37.36	122.92	24.58
September	23.61	17.61	17.99	14.33	28.70	102.24	20.45
October	34.56	20.04	21.92	17.99	30.94	125.45	25.09
November	31.92	25.44	22.58	22.05	26.41	128.40	25.68
December	30.91	25.17	22.08	19.57	20.34	118.07	23.61
Totals	361.14	287.39	264.11	230.50	356.15		
Averages	30.09	23.95	22.01	19.21	29.68		

Sulphur determination by lead-peroxide method at the four stations during 1963

TABLE B 7

Month	Station				Totals	Monthly Averages
	4	5	6	7		
January	4.1	3.2	2.6	2.6	12.5	3.1
February	3.0	2.4	4.1	2.8	12.3	3.1
March	1.3	1.7	5.0	2.3	10.3	2.6
April	1.9	1.3	2.3	1.3	6.8	1.7
May	1.3	0.9	2.1	1.0	5.3	1.3
June	1.4	0.7	1.4	0.6	4.1	1.0
July	1.1	1.6	1.8	0.5	5.0	1.2
August	1.2	0.6	1.3	0.6	3.7	0.9
September	0.9	0.9	1.3	1.1	4.2	1.0
October	1.0	1.4	3.1	2.3	7.8	2.0
November	2.2	1.7	3.5	2.4	9.8	2.4
December	2.9	2.3	3.7	2.5	11.4	2.8
Totals	22.3	18.7	32.2	20.0		
Averages	1.9	1.5	2.7	1.7		

SO_3 per 100 sq. centimetres by instruments maintained by Belfast Corporation Electricity Department

TABLE B 8

Month	Stations										Totals	Monthly averages
	19	20	21	22	23	24	25	26	27	28		
January	3.26	4.17	3.54	3.20	1.96	3.27	2.97	3.69	6.25	2.07	34.38	3.44
Feb.	2.81	4.71	2.75	3.47	1.89	2.85	1.57	2.37	2.94	1.55	26.91	2.69
March	4.53	2.04	2.27	1.88	1.32	—	1.50	2.62	2.44	2.40	21.00	2.33
April	2.97	1.83	1.73	1.23	1.10	—	1.34	2.18	1.92	1.54	15.84	1.76
May	4.15	1.21	1.40	0.90	0.93	1.59	1.03	1.16	2.00	2.34	16.71	1.67
June	1.88	0.78	1.23	0.65	0.59	1.10	0.91	0.96	1.65	1.03	10.78	1.08
July	1.50	0.90	1.01	0.63	0.53	0.93	0.67	0.56	0.91	0.83	8.47	0.85
August	3.25	1.78	0.83	0.61	0.78	1.23	0.92	0.90	1.99	2.12	14.41	1.44
Sept.	2.33	1.10	0.98	0.85	0.84	1.26	0.88	1.05	1.70	1.36	12.35	1.23
October	3.65	1.96	1.85	1.52	1.21	1.56	1.22	1.55	2.50	2.39	19.41	1.94
Nov.	5.42	2.82	2.32	2.26	1.80	2.56	1.68	1.93	2.97	2.53	26.29	2.63
Dec.	2.55	2.74	2.64	2.21	1.68	2.63	1.89	2.17	4.10	2.44	25.05	2.50
Totals	38.30	26.04	22.55	19.41	14.63	18.98	16.58	21.14	31.37	22.60		
Averages	3.19	2.17	1.88	1.62	1.22	1.90	1.38	1.76	2.61	1.88		

— No recordings taken

Rainfall at five deposit gauge stations for 1963

TABLE B 9

Station	Rainfall in inches											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. 1	1.62	4.53	4.29	2.84	2.99	4.06	2.40	1.77	2.36	4.45	6.46	0.83
No. 2	1.22	2.99	3.98	2.32	3.31	4.22	2.56	3.82	2.33	4.30	6.46	0.79
No. 3	1.34	3.78	4.29	2.76	3.15	4.14	2.40	3.74	2.40	4.30	6.42	0.79
No. 4	1.42	2.99	4.06	2.80	3.63	4.10	2.80	4.77	2.64	5.04	6.50	0.79
No. 5	1.81	3.74	3.74	2.84	3.74	4.22	3.11	4.41	2.64	4.96	6.50	0.86
Monthly average	1.48	3.61	4.07	2.71	3.36	4.15	2.65	3.70	2.47	4.61	6.47	0.81

Results of the Daily Volumetric Instruments maintained by the Health Department

(Concentration of Smoke and Sulphur Dioxide in microgrammes per cubic metre)

TABLE B 10

Month	STATIONS																																	
	8				9				10				11				12				13				14				15				16				17			
	Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2		Smoke		SO_2	
	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr
January	383	1724	376	865	493	1044	291	663	227	688	188	464	228	792	161	315	330	828	203	417	378	1176	363	864	241	980	178	669	322	852	279	585	277	848	291	552	430	1156	361	801
February	303	1116	355	646	407	772	266	459	197	556	149	372	192	404	133	271	179	496	113	185	341	916	314	580	200	628	193	376	295	596	225	414	262	732	218	427	401	732	317	614
March	164	664	177	409	228	688	154	403	109	448	84	220	95	424	69	186	107	408	62	146	217	588	179	346	131	448	107	257	162	548	120	254	107	408	62	146	226	444	152	229
April	118	272	192	427	172	272	118	223	51	160	62	140	55	112	55	127	82	144	60	125	141	276	134	209	71	208	73	207	128	240	110	202	102	256	112	208	178	324	138	212
May	80	141	81	160	90	181	97	219	48	78	57	106	34	129	33	104	52	89	45	84	91	286	101	211	48	78	57	107	86	160	83	144	72	138	74	141	87	163	92	144
June	63	150	83	193	70	152	80	151	29	71	39	187	42	127	50	148	43	90	53	107	54	140	67	116	36	96	46	94	78	177	88	195	57	142	84	182	72	147	98	146
July	50	82	47	160	69	147	49	90	29	48	29	58	33	92	22	93	44	82	27	74	51	81	42	92	35	64	28	61	67	173	49	124	53	96	50	128	68	153	54	142
August	59	109	54	154	70	111	61	116	40	71	37	85	35	91	29	87	41	82	34	105	65	142	53	138	38	81	38	143	68	119	66	194	60	118	55	117	79	234	69	131
September	87	149	56	118	103	179	59	100	61	104	32	58	45	98	18	41	61	102	23	41	107	232	71	164	64	157	49	136	94	178	52	89	88	125	47	133	113	215	65	101
October	155	460	104	243	199	424	86	186	98	280	50	90	61	244	32	78	129	424	43	106	244	452	128	218	129	336	85	269	139	484	81	144	176	596	78	155	212	540	112	249
November	247	1784	184	789	333	748	99	248	161	440	83	213	141	444	83	197	171	408	61	108	303	636	187	363	200	572	113	287	245	540	131	308	246	936	135	334	300	776	168	490
December	203	1268	237	591	442	1396	191	603	199	892	112	362	193	772	121	301	224	1000	98	279	303	1056	229	445	215	1024	119	546	274	940	171	431	278	1040	169	444	361	940	226	437

ma—Monthly average. hdr.—Highest daily reading.

Heaviest Pollution—

Smoke—College Street, 30th November, 1,784 Mg. per cubic metre.

SO_2—College Street, 24th January; 865 Mg. per cubic metre.

Lightest Pollution—

Smoke—College Street, 8th August; 0 Mg. per cubic metre.

SO_2—Balmoral Avenue; Falls Road; Dates August and September; 0 Mg. per cubic metre

Results of Daily Volumetric Instrument maintained by Queen's University, Belfast

(Concentration in micrograms per cubic meter)

TABLE B 11

Month	Station 18			
	Smoke		SO_2	
	M.A.	H.D.R.	M.A.	H.D.R.
January	460	1,220	355	819
February	396	868	317	577
March	185	628	162	444
April	120	280	128	202
May	71	176	105	249
June	62	147	104	226
July	64	173	109	226
August	57	126	61	200
September	67	155	73	149
October	103	540	114	334
November	261	1,132	158	525
December	351	1,012	189	464

BELFAST PORT SANITARY AUTHORITY

Between the months of January and November a considerable quantity of pork listed as follows:—Bacon 20,134 tons; pork (carcases, fillets, etc.) 3,391 tons; coarse meat (feet, etc.) 1,349 tons, was exported direct from factories to cross-channel ports by sea. Carcases were hung on rails in insulated or ventilated containers. Fillets, etc., were packed in wooden cases; feet, maws, etc., were in bags and sausages in cardboard cartons. Consignments of bacon baled in clean hessian wrapping, in some instances augmented by an inner cellophane covering, arrive at the docks by lorry and rail. They are then discharged into open cargo boxes previously hose-cleaned after being emptied of previous cargo, such as machinery castings, bagged charcoal, etc., or are put on to wooden trays for heaving aboard to be set down on 'tween deck hatch covers, or stowed on pallets in holds with other cargo. The open meshed hessian does not afford the maximum protection against contamination.

At times when shed space is not available for storage of baled bacon, it may be either loaded into cargo-boxes and left uncovered in the area outside the shed and close to passing traffic with a risk of contamination. Where wooden trays are used and set down in a similar manner it has become the practice, after repeated urging by the Port Public Health Inspectors, to envelop the bacon in a tarpaulin cover. While the foregoing incidents are not the general rule, the constant likelihood of recurrence requires continual vigilance on the part of the Inspectors. Constant supervision of these cargoes is made somewhat difficult by the fact that delivery at the docks continues from early morning until early evening to sheds quite some distance apart. Daily contact is maintained with Shippers, Stevedores and Carriers to ensure that every care is taken in the handling of this type of cargo, and at times with cross-channel Port Health Authorities in respect of inward cargoes of a similar nature. Recent negotiation with local and cross-channel shippers and stevedores has resulted in daily hosing and steam-cleansing of containers and cargo boxes and the provision of all-metal containers which are more suitable for the carriage of meat, and large, white painted cargo boxes lettered "FRESH MEAT TRAFFIC ONLY", together with provision and maintenance, in good repair, of wooden pallets for shed and ship stowage of pork.

The Port Public Health Inspectors in company with Senior Staff of a local shipping company, attended at a demonstration of portable steam-cleaning equipment which included use of a detergent. A metal container which had been in continuous use for the carriage of pork, was treated with most convincing results, particularly in the thorough cleansing of rails and hooks also the spaces above same which are usually inaccessible to brush cleansing.

In comparison with the Public Health (Prevention of Contamination of Food) Regulations N.I. 1948, where "all reasonable precautions to prevent the contamination of food" are to be taken, the Food Hygiene (Docks, Carriers etc.) Regulations 1960, in operation at cross-channel Ports, aim at the prevention of any risk of contamination. ("The circumstances affecting risk of contamination having regard to the manner in which it is packed and the time it is to remain in any place"). The requirements of these Regulations and their specific application to accommodation, vessels, vehicles, equipment, dock-workers and other food handlers, give a greater degree of control over method of

containing, handling and stowage of foodstuffs throughout the journey, particularly during sea transit where it is accompanied by other varied cargo including, at times, live animals.

In April the m.v. Beaverglen loaded 380 tons of pork contained in strong cardboard cartons for shipment to Canada. The taking of samples of imported Australian flour continued during the year, and chemical analysis showed an improvement in the creta praeparata content as required by the Flour (Composition) Regulations (Northern Ireland) 1961. A considerable quantity of bagged flour arrived at a dock-side flour mill from outside Belfast, to be used by way of salvage in the making of provender. It was kept under scrutiny until so used.

Samples for bacteriological examination were taken from all consignments of Ceylonese desiccated coconut imported during the year, and in no case were intestinal pathogens isolated. Where coconut is packed in wooden cases little damage ensues. Unfortunately this method applies only to a small percentage of cargo, the remainder being packed in 100 lb. multi-ply paper bags which can be readily torn during discharge. Where damage is slight and immediate coopering resorted to, risk of contamination is avoided. In most cases, due to the weight of these bags, the damage is so extensive as to cause spillage and exposure of contents to contamination from adjacent cargo, spoilage by birds, etc. In such cases the coconut is surrendered and destroyed under the supervision of the Port Public Health Inspectors.

Improvement in the purity of ships' drinking water is indicated by the increase in number of negative results following bacteriological examination of samples taken from ships' tanks and systems. This is mainly due to the recent practice of making chlorination a routine measure while the vessel is in commission or undergoing annual refit, subsequent to tank cleansing and cement-washing. This routine treatment of ships' tanks and systems has for some time been advocated by the Port Public Health Inspectors, especially to the companies operating cross-channel passenger/cargo services. They have now, without exception, adopted it.

During the latter part of the year the export of seed potatoes, for direct shipment to foreign ports, increased considerably. Imported new potatoes from foreign ports arrived in a much better condition than in the previous year, indicating improvement in ship stowage.

By the appointment of a Pests Officer to carry out Rodent Control duties at the Port, more frequent and closer inspection of cargo spaces, cargo, stores, galleys, accommodation, etc., during and after discharge, can be carried out. Where rodent or insect infestation is evident, immediate remedy either by local or general application, according to extent and nature, is required. On at least twelve occasions, due to retention of a considerable quantity of cargo on board for discharge elsewhere, only interim eradicative treatment by baiting and trapping was given. Notification was also given to the Port Health Authority of the next port of call, or port of final discharge, of the condition of the vessel and treatment carried out. Where defects in original construction of the vessel contributed to either rodent or insect infestation (particularly in provision stores) report was made to the Marine Survey Department of the Ministry of Transport and Civil Aviation. In the case of one foreign-going vessel, insect infestation was so heavy and widespread throughout the vessel as to necessitate fumigation with hydrogen cyanide. An extremely high concentration at twelve hours exposure was used in order to gain penetration into the numerous spaces for harbourage and breeding created by the unsuitable construction of several compartments. The Master was advised that if re-infestation was to be avoided, it would be necessary to reconstruct store-rooms, cupboards, etc., with materials other than sheeting which, due to shrinkage, is capable of producing ideal harbourage. In other vessels, where infestation was less extensive, eradication was achieved by the use of insecticidal smoke generators, sprays, powders or lacquers.

There has been a slight increase in evidence of rodent infestation in sheds, stores, etc., where building construction or quay works are in progress in the vicinity. This has been kept under control by the constant use of warfarin baiting and removal or treatment of harbourage where plant is semi-permanent. Buildings such as shops, offices, stores, etc., previously so used in the shipbuilding industry, but now used for storage of timber and imported raw material for provender making, offer great attraction for rodents. There is an abundance and variety of feeding, comfortable harbourage and unlimited supply of nesting material from bags which remain for a much longer time than in dock-side sheds. In these stores, underfloor ducts, cables, piping, overhead cranes and gantries assist in the free movement of rodents. Despite the availability of varied diet from stored cargoes, considerably good takes of bait occur when laid in trays in the way of likely or evident runs. Constant replenishment of bait and variation in sites for setting down of trays is required. Frequent inspection is made by the Pests Officer for this purpose, also to ascertain that spillage and harbourage, capable of removal, does not accumulate and defective rat-proofing is made good. Such requirements necessary for rodent control when notified to Harbour Commissioners' officials receive immediate attention.

Occasionally mice are introduced into sheds from hogged cargo and straw-packed crates, but infestation is of short duration due to the effective toxicity of warfarin bait. Attractive cargo such as cheese is given close attention by the Port Public Health Inspectors when landed, and where possible on board vessels, to ensure that it has not been subjected to contamination from rodents. Droppings or gnawing is readily detected, but contamination from urine, which can give rise to serious illness, is less apparent. In every case where cheese or other food shows evidence of the presence of rodents, it is detained pending destruction. The routine servicing of ships and installations at the ship-yards and fitting-out berths, also laying of bait in vessels under construction, has reduced to a great extent the necessity of fumigation by HCN gas which, in the past, was a normal requirement.

Development at quays and wharves to meet increasing trade continues and recently at least 2½ miles of quayage have been constructed or reconstructed. Site preparation at the slobland on the west side of the Lough has progressed to the extent of completed wide roadways, some of which are now in daily use, providing a route direct to the City via Duncrue Street, which has been permanently surfaced.

The site clearance and other preparatory work in connection with the construction of the new new Lagan Bridge necessitated the removal of quayside sheds and berths at Queens and Donegall Quays, normally used by the Belfast and Preston Transport Co. Ltd., and Burns-Laird cargo vessels. The former are being temporarily berthed at Donegall Quay and the latter at a prepared and equipped berth on the north wall of the York Branch Dock. No. 4 berth at Donegall Quay is being prepared to accommodate the Belfast/Glasgow passenger vessels.

The grain silo of 25,000 tons capacity, at present being built at the northern end of the West Twin, is expected to be completed early in 1964. The accompanying wharf, capable of taking the largest grain vessels, has been completed and provided with mobile pneumatic suction plant, belt bulk conveyors and elevators. At Stormont Wharf the 1,140′ x 145′ shed has been completed and is now receiving a considerable amount of varied cargo. The wharf has been extended by 1,254 feet and dredged to a depth of 31′ 3″ below Harbour Datum, providing easily approached and suitable berthage for large ocean-going vessels. Many arrive fully laden with timber which, on discharge, can be stored under cover. At the Richardson Wharf in the Herdman Channel, continental and coastwise vessels arrive with sulphur, sulphate of ammonia, basic slag and other chemicals, to be used in the manufacture of chemical fertilizer at the adjacent fertilizer factory.

The discontinuance of use of the shed at Pollock Basin No. 3 for discharge of bagged cement has removed the risk of contamination of foodstuffs which at times, owing to the lack of suitable shed space or wharf accommodation, had to be discharged into the shed adjoining that used for stowage, handling and carting of cement. Constant inspection of cargoes by the Port Public Health Inspectors was very necessary to obtain protection of the cargo by coopering and covering. The Stevedores and Traffic Control Superintendent of the Harbour Commissioners assisted us greatly in securing the best conditions possible. Cement is now discharged at Pollock Dock No. 7, where provision of additional cranes facilitates loading direct on to lorries. The use of wooden pallets and fork-lifts in discharge and handling has reduced spillage and dust to a minimum. The shed at this berth (used solely for the reception of cement), is equipped with a spillage recovery plant thus removing the main source of dust.

The construction of the £8 million Oil Refinery at the East side of the Victoria Channel, adjoining Belfast Harbour Airport, is nearing completion. The Victoria Channel in the vicinity has been widened and deepened to 30′ 3″ below Harbour Datum. Also a 1,200 feet long jetty with a causeway connecting with Airport Road West has been completed. The first arrival (a 32,000 tons cargo of crude oil from the Middle East) is expected early in 1964.

The modernization scheme at Harland & Wolff's Musgrave Yard has extended to yet a third slipway which, when completed, will be the longest in the British Isles. Included are new travelling cranes to handle large sections from the new fabrication shop. Launched from this yard during the year was the tanker "Rimfonn" of 86,750 tons D.W. (50,677 G.T.), the largest ship of the year, also the liquid natural gas carrier "Methane Progress", 20,300 G.T.

Contact was maintained with officers of H.M. Customs and Excise (Waterguard, Landing and Shipping Branches), Home Office Immigration Branch, Ministry of Transport and Civil Aviation Marine Survey Branch, the Belfast Harbour Commissioners, the Belfast City and District Water Commissioners (Ships' Water Office), Portal Inspection Branch of the Ministry of Agriculture also the Harbour Masters of Bangor and Carrickfergus, all of whom have been most co-operative and helpful.

TABLE B 12

Description of vessels	Number of Vessels			Net registered tonnage		
	1962	1963	Increase	1962	1963	Increase
Coastwise including non-trading	6,858	6,979	121	5,028,974	5,233,813	204,839
Foreign-going	928	1,012	84	1,760,407	1,635,688	Decrease 124,719

Included in above table are arrivals at Bangor and Carrickfergus.

Ships launched by Harland and Wolff Ltd., at Belfast during 1963:—

"Lossiebank"	Single screw cargo	8,678 gross tons
"Roybank"	Single screw cargo	8,678 gross tons
"Rimfonn"	Single screw tanker	50,677 gross tons
"Methane Progress"	Single screw, liquid natural gas carrier	20,300 gross tons
"Weybank"	Single screw cargo	8,678 gross tons
Naval Tonnage		10,000 gross tons
"Santos Star"	New midship section	430 gross tons
Small Craft		269 gross tons
"Medic"	Machinery only	18,000 indicated horse power
"Borgsten"	Machinery only	22,900 indicated horse power

Among the vessels which underwent refit were the following:—

Liners	"Southern Cross", "Ocean Monarch".
Cargo Vessels:	"Onitsha", "Cedric", "Waiwera", "Port Melbourne", "Port Fairy", "Port Chalmers", "Santos Star" (lengthened), "Inverbank", "Salamanca".
Tankers:	"British Power", "Regent Eagle", "Regent Liverpool", "British Statesman".

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

Corporation of Belfast	92 per cent
Carrickfergus Urban District Council	1 per cent
Holywood Urban District Council	1 per cent
Bangor Borough Council	1 per cent
Newtownabbey Urban District Council	1½ per cent
Castlereagh Rural District Council	1½ per cent
Larne Rural District Council	1 per cent
North Down Rural District Council	1 per cent

I. Amount of Shipping entering the port during the year 1963:—

TABLE B 13

From	Number	Tonnage	Number inspected		Number recorded as defective	Ships on which defects have been remedied	Ships reported as having had infectious disease on board during the voyage
			By Medical Officer	By Port Public Health Inspector			
FOREIGN: Steamers / Motors	1,012	1,635,688	48	1,016	75	73	8
COASTWISE: Steamers / Motors	6,979	5,233,813	12	1,662	116	111	3
Total	7,991	6,869,501	60	2,678	191	184	11

Included in above table are arrivals at Bangor and Carrickfergus.

II. Character of trade of port:—

(*a*) *Passenger traffic (other than coastwise) during the year:—*

TABLE B 14

Passengers	Aliens		British		Total		Refused leave to land
	Forces	Civilian	Forces	Civilian	Forces	Civilian	
Inwards by ship	11	345	—	398	11	743	2 (stowaways)
Inwards by aircraft	20	571	384	3,218	404	3,789	
Total	31	916	384	3,616	415	4,532	2 (stowaways)
							Refused leave to embark
Outwards by ship	13	248	—	195	13	443	—
Outwards by aircraft	18	417	—	3,041	18	3,458	—
Total	31	665	—	3,236	31	3,901	—

(b) **Cargo Traffic:—**

Principal Imports:—Maize, wheat, barley, oats, flour, butter, fresh dried and canned fruits, meat and meat products, tea, sugar, fish, vegetables, eggs (frozen and powder), desiccated coconut, wines, ales, cordials, carobs, grain, offals, cattle, pig and poultry fodder, hides (cured), timber, wood-pulp, paper, flax, hemp, coir, rayon fibre, chemicals, fertilizers, oil, coke, coal, duralium, tinplate, steel, brass, copper, building materials, cement, vehicles, tar, asphalt, tobacco.

Principal Exports:—Eggs, grass-seed, poultry, fresh fish, shellfish, machinery, ropes, twine, linen, thread, tobacco, cigarettes, potatoes, apples, whiskey, live cattle, sheep, pigs, hides (wet), pork, steel and iron scrap.

(c) **Foreign ports from which ships arrived:—**

Abidjan 2; Abo 2; Adelaide 3; Agadir 2; Ajaccio 2; Algiers 1; Almeria 1; Alexandria 1; Alicante 1; Albany 3; Amsterdam 12; Antwerp 93; Archangel 8; Aruba 2; Baie Comeau 3; Baltimore 2; Bayonne 17; Baybulls 1; Bathurst 4; Barcelona 7; Bedi Bunder 3; Beira 11; Bergen 4; Benghazi 1; Blackcape 2; Bodo 1; Bombay 7; Bordeaux 6; Borgo 1; Borkenes 1; Boston (Mass.) 1; Bridgewater, N.S. 3; Bremen 13; Brisbane 2; Brussels 1; Buenos Aires 3; Burin 1; Casko 2; Cagliari 2; Cairns 1; Callao 2; Calcutta 1; Capelle 2; Capetown 23; Calicut 1; Cartagena 9; Catalina 1; Casablanca 18; Ceuta 1; Chittagong 3; Chatham 1; Chicago 1; Chimbote 1; Chalna 4; Charlottetown 1; Cienfuegos 1; Cochin 5; Cologne 2; Colombo 2; Concarneau 3; Cornerbrook 2; Copenhagen 9; Constanza 3; Cristobal 5; Curacao 3; Dakar 12; Dahouet 2; Dalhousie 2; Dar-es-Salaam 4; Detroit 1; Dieppe 1; Djibuti 1; Douareres 1; Douala 1; Dunkirk 10; Durban 4; Dunclair 1; Elvelandet 1; Esbjerg 4; Etel 3; Famagusta 8; Faroes 1; Frederiksund 2; Freetown 2; Freemantle 3; Genoa 4; Geraldton 2; Ghent 39; Gotenburg 4; Groningen 19; Gruven 2; Haifa 2; Halsa 1; Halifax, N.S. 3; Hallstavik 2; Hamburg 24; Hamina 8; Hango 2; Havana 1; Helsinki 2; Hennebone 1; Houston (Tex.) 1; Huelva 2; Ibiza 2; Ijmuiden 1; Isabella de Sagua 1; Javik 1; Jacksonville 1; Kakinada 1; Kalmar 1; Kotka 5; La Pallice 2; Las Palmas 2; Laurenco Marques 2; Leningrad 1; Le Treport 2; Lisbon 1; Limasol 5; Lorient 7; Luderitz Bay 1; Lubeck 1; Malta 1; Malaga 4; Malma 1; Manatali 1; Mantyluoto 4; Marsielles 1; Mariestadt 1; Marans 1; Melbourne 2; Mersin 1; Mombasa 6; Mortreal 22; Montevideo 2; Morombe 2; Moss 2; Murumgau 1; Naantal 1; Namsos 1; Nantes 1; Naples 1; Nanaimo ,B.C. 1; Nesskaupstapur 1; Newcastle, N.B. 2; New Orleans 2; Newport News 7; New York 3; Nordfjord 1; Norrtalje 1; Norrsundet 2; Norrkoping 2; Norfolk (Va.) 9; Odda 4; Oran 6; Oskarshamm 1; Oslo 11; Ostend 1; Palermo 1; Palma 1; Palmeira 1; Pasajes 2; Philadephia 5; Piraeus 2; Port Arthur 1; Port Alfred 4; Port Alberni 1; Port Churchill 1; Port Elizabeth 3; Port Lincoln 2; Port Perrie 3; Port Sudan 4; Port of Spain 2; Quebec 6; Rangoon 6; Randers 1; Raumo 1; Raufarhofn 2; Reykjavik 5; Riga 1; Roquetos 1; Rosario 1; Rotterdam 93; Rouen 60; Saldanha Bay 1; Salerno 2; San Antonio 1; Sandesjoen 1; San Sabastian 2; Sapele 1; Sao Francisco du Sul 1; Seydisfjord 1; Sheet Harbour 2; Sigluejordur 2; South Nelson 1; St. Brieux 1; St. Malo 2; St. John, N.B. 14; Stettin 2; Stockholm 1; Sydney 2; Takorapi 1; Tallin 9; Talara 1; Tanga 2; Terneuzen 1; Three Rivers 7; Thorshaven 1; Toledo 4; Toronto 3; Torrevieja 1; Trinadad 2; Trequier 2; Trondhiem 1; Tunis 1; Turku 1; Tuticorin 1; Uddevalla 3; Valkom 2; Valencia 11; Valparaiso 1; Vancouver 8; Vannes 1; Victoria 1; Vigo 1; Walvis Bay 9; Westville 1; Weymouth, N.S. 2; Wilmington 2; Wismar 4; Wormerveer 3; Zaandam 2; Zyghi 3.

The nationality of the ships which arrived at the port and were inspected was as follows:—

American 3; Belgian 11; British 1,565; Canadian 2; Danish 57; Dutch 643; Faroese 4; Finnish 2; French 22; German 143; Ghanaian 1; Greek 13; Icelandic 7; Indian 8; Israeli 1; Lebanese 3; Liberian 13; Nigerian 2; Norwegian 41; Panamanian 13; Polish 3; Republic of Ireland 43; Roumanian 2; Russian 15; Spanish 18; Swedish 32; Union of South Africa 7; Yugoslavian 2.

The Aliens Order 1953 (S. I. 1671/1953)

Under Articles 30 and 33 of the above Order, Dr. W. G. Swann, Dr. J. McA. Taggart, Dr. W. J. McLeod and Dr. A. L. Walby were appointed by the Ministry of Health and Local Government as Medical Inspectors for the Port of Belfast for the purposes of the Order.

Ships carrying aliens including those granted Temporary Shore Leave.	124 inwards; 74 outwards
Aircraft carrying Aliens	35 inwards; 25 outwards

III Water Supply

(a) and (b) for the port and shipping:—

The Port water supply is obtained from the Belfast City and District Water Commissioners' mains, which feed the Belfast Harbour Commissioners mains and hydrants on quaysides. Vessels are supplied from hydrants by the use of meter/standpipes and hoses under the control of the B.W.C. personnel.

(c) Water Boats:—

There are no water boats at the Port.

46 samples of drinking water were taken on board vessels and submitted to the Public Health Laboratory for bacteriological examination. 35 of these samples were found to be highly satisfactory and 11 samples unsatisfactory due to the presence of coliform organisms. In no case were organisms of faecal origin present. Where analysis revealed contamination, the ship's water tanks, pumps and systems were thoroughly flushed and chlorinated with effective results in every case.

IV. Public Health (Ships) Regulations (Northern Ireland) 1954:—

1. Arrangements for dealing with declaration of health forms:—

Declaration of Health forms as recommended by the Association of Sea and Air Port Health Authorities of the British Isles are in use at the port. Special instructions relative to the Port of Belfast are given on the fourth page and a supply of these forms is distributed to H.M. Customs Officers and the Belfast Harbour Commissioners for the use of the Pilotage service.

A Declaration of Health form signed by the master and countersigned by the ship's surgeon (where one is carried) is received from each ship arriving at the port from a foreign port. The Declaration of Health Form is received by the Customs Officer or the Port Public Health Inspector on the arrival of the ship. The answers to the questions contained in the Declaration are scrutinised and supplementary questions asked. In cases where the Customs Officer first boards the ship and the Declaration of Health is satisfactory, pratique is granted. If the Declaration of Health is not satisfactory, the circumstances are immediatly reported to the Port Medical Officer, who makes investigations before passengers or crew are allowed to land. Ships arriving at the port are required to display the appropriate quarantine signals as laid down in the regulations.

423 completed Declaration of Health Forms were received from vessels arriving at the Port from foreign ports other than "Excepted Ports".

2. Boarding of Ships on arrival:—

All ships arriving from a foreign port are boarded on arrival by an officer of H.M. Customs and an officer of the Port Sanitary Authority.

3. Notification to the Authority of inward ships requiring special attention (Wireless messages, land signal stations, information from pilots, Customs Officers, etc.):—

Arrangements for the transmission of wireless messages from inward bound ships requiring special attention under the Regulations have been made with the various shipping companies and agents in Belfast. Under the arrangements the shipping companies receive the wireless message required under Regulation 13 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. (Regulation 14 (1) and (2)).

No land signalling system is in operation.

Close co-operation exists between the Port Sanitary Authority and the Officers of H.M. Customs and notifications of ships requiring special attention are received from the latter.

4. Mooring stations designated under Regulations 22 to 30:—

With the concurrence of H.M. Customs and the Belfast Harbour Commissioners, the ordinary places of mooring, discharge or loading have been designated mooring stations in relation to inward ships from foreign ports.

5. Experience of working of Regulation 18: restriction on boarding or leaving ships:—

In carrying out the provisions of this Regulation during the year no difficulty arose and it was not necessary to require passengers to furnish names and destinations, etc., as there was no case of infectious disease on board any ship arriving at the port which required this procedure.

6. Arrangements made for:—

Regulation 5 (*c*) (*i*)*: Premises or waiting rooms for medical inspection—*

There are at present no premises set apart as a Customs examination hall, waiting rooms or rooms for medical inspection of passengers, as there are no direct passenger sailings between this port and foreign ports. Passengers who arrive by direct cargo ships from foreign ports are examined, if necessary, on board the particular ship.

Regulation 5 (*c*) (*ii*)*: Premises for temporary isolation of persons as required by the regulations:—*

None provided.

Regulations 5 (*c*) (*iii*)*: Cleansing, disinfecting or disinfestation of ships, persons or clothing:—*

After the removal of a case or cases of infectious disease, disinfection of the ships is carried out by the Port Public Health Inspectors. Clothing and other effects are removed to the Health Committee's Disinfecting Station, Laganbank Road, where they are subjected to steam pressure disinfection. The cleansing of persons is also carried out at this station at which suitable facilities have been provided for this purpose.

Regulation 5 (*d*)*: Arrangements for reception into hospital of persons as required by the regulations:—*

The N.I. Hospitals Authority make provision for the reception of cases of infectious diseases at the Northern Ireland Fever Hospital at Purdysburn. 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.

Regulations 5 (*e*)*: Ambulance transport:*—The port makes use of the facilities provided for ambulance transport in the City by the N.I. Hospitals Authority.

Regulations 5 (*f*)*: Supervision of contacts:*—When contacts of infectious disease are members of the crew they are kept under supervision by the Port Medical Officer. In the case of passengers or crew landing, their destinations are ascertained. Should they proceed to a place outside Belfast, the Medical Officer of the relevant district is notified. No notifications regarding contacts of infectious diseases were received from other Sea and Airport Health Authorities during the year.

7. Arrangements for Bacteriological or Pathological examination of rats for plague:—

Bacteriological and Pathological examination of rats for plague is carried out by arrangement with the Director of Laboratory Services, N.I. Hospitals Authority.

8. Arrangements for other bacteriological and pathological examinations:—

All other bacteriological and Pathological examinations are carried out by arrangement with the Director of Laboratory Services, N.I. Hospitals Authority.

9. Arrangements for the diagnosis and treatment of Venereal Diseases among sailors under international agreement:—

Upon the arrival of ships in the port, information is given to the master as to arrangements for the diagnosis and treatment of veneral disease amongst sailors. Pamphlets are left on board which give the location and time of V.D. Clinics. The pamphlets give warning of the danger of the disease. Every encouragement is given for attendance at the following clinics:—

The Royal Victoria Hospital

The Mater Infirmorum Hospital

When continuation of treatment at other ports is necessary, the sailor's Form V.44 is filled in by the Medical Officer in charge of the V.D. clinic, giving full particulars of the treatment received by

the sailor. The Belfast Harbour Commissioners have permitted the permanent display of posters issued by the Health Department containing similar warning and information regarding treatment centres in the dock side lavatories and urinals.

10. Arrangements for interment of the dead:—

All arrangements for the interment of the dead are attended to by the shipping companies.

Cases of notifiable and other communicable diseases landed from ships (including coastwise ships)

TABLE B 15

Disease	Cases during 1963		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Dysentery	—	1	1	3
Influenza	—	1	1	1
Pneumonia	—	1	1	1
Tonsillitis	—	1	1	2
Tuberculosis	1	—	1	—
Mumps	1	—	1	—

Cases of notifiable and other communicable diseases on ships but disposed of prior to arrival at the Port

TABLE B 16

Disease	Cases during 1963		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Influenza	—	31	2	10
Chicken-pox	—	2	1	2
Measles	3	—	2	1

No cases of cholera, plague, relapsing fever, small-pox, typhus fever or yellow fever occurred, and no plague infected rats were discovered during the year.

V. Measures against rodents

1. Steps taken for detection of rodent plague:—

In ships in port:—All ships arriving from ports where plague is endemic are boarded by the Port Public Health Inspector 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 ships are then inspected to ascertain the degree of 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.

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

All ships arriving from foreign ports are required to affix rat-guards to all moorings and maintain them so affixed during the time they are in port. It is also recommended that the gangway or other communication with the shore should be raised at least eighteen inches from the ground.

3. Methods of deratting in ships:—

(a) Eradication measures in a vessel are influenced by the extent and location of the infest tation. Where such is slight and confined, trapping and warfarin baiting will suffice. In other cases fumigation with hydrogen cyanide is resorted to. The latter is carried out by authorized contractors and in accordance with the provisions of the Hydrogen Cyanide (Fumigation of Ships) Regulations (Northern Ireland) 1952 and under the supervision of the Port Public Health Inspectors.

(b) Premises in the vicinity of docks, quays, etc:—Sheds, wharves, roads and open spaces in the Belfast Harbour Commissioners' Estate receive routine warfarin baiting. Occupiers of premises within the Estate readily accede to requests for provision of rodent repressive treatment at their premises, where necessary. When necessary a written notice under the Rats and Mice (Destruction) Act, 1919 is served on the occupiers of the premises concerned.

4. Measures taken for detection of rats in ships and on shore:—

(a) In ships:—Vessels arriving in the port are inspected by the Port Public Health Inspectors and Pests Officer to ascertain the presence of rodent infestation, the extent of same or any condition which would inhibit infestation.

(b) On shore:—Sheds, stores, other buildings and structures also timber stacks and open spaces receive continual inspection.

Inspections made by Pests Officer :—

Vessels	1,294
Dockside premises, sheds, stores, timber-stacks, building and fitting-out berths, lands, etc.	1,533

5. Rat proofing:—

(a) Extent to which docks, wharves, warehouses, etc., are ratproof:—

The quaysides of docks and basins in the port are mainly of solid granite construction with ferro-concrete or granite sett surfacing. In the case of jetties, wharves and quay extensions, some rat harbourage does exist in the under-jetty piling and frame work also in the stone facing of the river bank but the rat passage from one to the other is restricted by the sound construction of quayside surfacing. The use of concrete and/or granite setts laid on concrete in the construction of roads and shed floors ensures effective rat proofing in sheds and other dockside buildings.

(b) Action to extend ratproofing:—

(1) In ships:—Efforts are directed towards restricting free movement in vessels and preventing access to such attractive spaces as bilges for water, under ceilings, sheathing or casing for nesting and food stores. The use of tight fitting steel doors, sheet metal and expanded fine-mesh metal assures perfect protection.

(2) On Shore:—Dock-side premises receive inspection to ensure that they are maintained in sound condition against the entry and harbourage of rodents also that material favourable to harbourage and feeding is not permitted to accumulate. Most owners and occupiers of premises in the Port area are fully aware of the damage to merchandise caused by rodents and adopt all practicable measures to prevent their entry.

Number of rats destroyed during year.

(1) On ships:—

TABLE B 17

Species	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black.. ..	9	—	4	—	4	12	—	9	—	8	—	4	50
Brown ..	—	—	—	—	—	—	—	—	—	—	—	—	—

In addition to the above, 14 mice were destroyed.

(2) In docks, quays, wharves, warehouses etc.:—

TABLE B 18

Species	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black	1	—	—	—	1	—	1	—	—	—	—	—	3
Brown	3	4	2	3	5	2	1	3	2	4	—	3	32

In addition to the above, 20 mice were destroyed. The rats destroyed as recorded in above table were only those reported to the Port Public Health Inspectors and Pests Officer following enquiry from sweepers, storemen, pest eradicating operators, etc.

Measures of rat destruction on plague "infected" or "suspected" ships from plague-infectep ports which arrived at the port during the year:—

No plague infected or suspected ships arrived at the Port during the year.

Deratting Certificates and Deratting Exemption Certificates issued during the year

TABLE B 19

Net tonnage	Ships	Deratting certificates issued					De-ratting ex-emption certi-cates issued	Total certi-ficates issued
		After fumigation with			After trap-ping, poison-ing, etc.	Total		
		HCN	Sulphur	HCN and sulphur				
Up to 300 tons	31	—	—	—	—	—	31	31
From 301 tons to 1,000 tons	46	3	—	—	—	3	43	46
From 1,001 to 3,000 tons	6	—	—	—	—	—	6	6
From 3,001 to 10,000 tons	27	—	—	—	—	—	27	27
Over 10.000 tons	4	—	—	—	—		4	4
Totals	114	3	—	—	—	3	111	114

19 Vessels, where rodent infestation was slight, were serviced by trapping and baiting.

VI. Hygiene of crews' spaces:

Classification of nuisances:—

TABLE B 20

Nationality of ships	Inspected during 1963	Defects of original construction	Structural defects through wear and tear	Dirt, vermin, and other conditions prejudicial to health
British	1,565	6	222	203
Other nationalities	1,113	3	21	49

The defects found consisted of:—

TABLE B 21

Defects due to wear and tear of the following:	British	Others
Bilge limbers and suctions	4	—
Cupboards and tables	1	—
Chopping blocks	2	—
Coffee, tea and milk boilers	3	—
Decks	12	1
Deck-head and bulkhead insulation	11	1
Doors	7	—
Drinking water filters	4	—
Drinking water tanks	2	—
Drinking water systems (chlorination)	4	—
Flue pipes	9	—
Flushing valves	14	3
Galley stoves	23	2
Heating systems	1	—
Heating stoves	1	—
Hold ceilings and casings	1	—
Hot and cold water service pipes and fittings	6	1
Lockers	2	—
Portlights and windows	20	3
Refrigerators, domestic and cargo	10	2
Rat-proofing	2	1
Scupper pipes	10	1
Shower fittings	3	—
Soil discharges	6	2
Surroungs to sinks and wash basins	1	—
Sinks	3	—
Tiling	11	2
Urinal discharges and stalls	3	—
Ventilators	9	1
Ventilation systems	11	2
Waste discharges	10	2
Wash basins	5	—
W.C. joints	5	—
W.C. basins	4	—
W.C. seats	3	—
Wooden cargo pallets	5	—
Other conditions:		
Bilges required cleansing and painting	19	2
Dock-side nuisances (soil and waste discharge from ships)	19	11
Domestic refrigerators required cleansing and painting	2	—
Food lockers required cleansing and painting	2	—
Passenger accommodation required painting	10	2
Quarters, galleys, alleyways, messrooms, storerooms and washplaces:		
Required cleansing	11	2
Required painting	24	1
Refuse on deck	6	—
Rodent harbourage	1	—
Scuppers required cleansing	26	6
Sullage tanks required cleansing	16	—
Swill bins required	2	—
Tanks (drinking water) required cleansing and cement-washing	26	—
Vermin, bugs, cockroaches, flies, weevils, etc.	32	20
Water carafes required cleansing	2	—
W.C. compartments required cleansing	3	4
W.C. compartments required painting	2	1
Totals	431	73

Action taken following discovery of nuisances or other defects in vessel:—

Where the nuisance or defect has arisen from normal wear and tear, etc., verbal notice is given to the Master, if avilable, or to him through the Chief Officer, Chief Engineer, Chief Steward or Duty Officer, according to which Department in the vessel is concerned. Where the vessel is undergoing

refit, Master, Marine Superintendent, or Shipyard Manager is contacted, and where the Owners' sanction is required, the Shipping Agent. Where the nuisance or other condition arises from defect in original construction of the vessel, the Port Public Health Inspectors notify the Marine Survey Officer of H.M. Ministry of Transport and Civil Aviation. Similar notification is made where, in the course of inspection of provision stores, ships' provisions are found to be adversely affected either from surroundings or condition, or in cases where drinking water storage tanks are so positioned as to be subject to heat.

VII. Food Inspection:

(1) Action taken under the Public Health (Imported Food) Regulations (Northern Ireland) 1937-1948, the Preservatives in Food Regulations (Northern Ireland) 1962, the Milk (Preservatives) Regulations (Northern Ireland) 1962 and the Flour (Composition) Regulations (Northern Ireland) 1961.

The following samples were taken under the above Regulations and submitted to the Central Laboratory of the Northern Ireland Hospitals Authority for bacteriological examination: Desiccated coconut—75 samples, and to the Public Analyst for chemical analysis:—

Australian wheatflour 15; Bouillon meat cubes 1; Boneless ham 1; Canned pink salmon 1; Canned whole tomatoes 1; Cheese spread 1; Corned beef 1; Ground white pepper 1; Peeled tomatoes 1; Pear quarters 1; Preserved sweet mince 1; Ravioli in tomato sauce 1; Seeded raisins 1; Sliced peaches in syrup 1; Split yellow peas 1; Split lentils 1; Stoned dates 1; Sultanas 1; Table jelly 1; Tea (Indian) 1.

During the year cargoes of foodstuffs on board vessels and stored in dock-side sheds and warehouses were inspected regularly for the detection of unsound food also to ensure that the requirements of the Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948, relative to handling and storing of foodstuffs, were being complied with.

(2) Shellfish:—Information respecting any shellfish beds or layings within the area under the jurisdiction of the Port Sanitary Authority, stating whether they are, in the opinion of the Port Medical Officer, liable to pollution:—

There are no layings of shellfish within the area.

Report of any action under the Public Health (Shellfish) N.I. Regulations 1936 or the Food and Drugs Act (Northern Ireland) 1958:—None taken.

Under the Belfast Corporation Act 1930, it is an offence to gather shellfish within the area under the jurisdiction of the Belfast Port Sanitary Authority. Posters are exhibited in the vicinity of the Port area, warning the public against the gathering of shellfish.

Unsound food seized or surrendered

TABLE B 22

	Tons	Cwt.	Qrs.	Lbs.
Aerating powder	—	2	0	0
Bagged rice	—	2	1	12
Bicarbonate of soda	—	1	0	0
Breakfast cereals	—	10	0	3
Canned apricots in syrup	—	1	2	2
Canned apricots in water	—	14	2	4
Canned cooked ham	—	—	—	10½
Canned pears in water	8	0	3	6
Canned fruit salad in syrup	—	3	0	10
Canned pear quarters in syrup	—	1	0	15
Canned pineapple pieces in water	—	—	2	13
Canned peaches in water	2	0	1	18
Cheese	—	—	—	18
Chocolate biscuits	—	—	1	17
Desiccated coconut	1	14	3	4
Farina	1	8	0	0
Fondant	—	3	2	0
Fruit pies, cakes, swiss rolls	—	—	2	0
Green grapes	—	—	1	16
Mixed confectionery	—	—	2	19
Mushrooms	—	—	—	7
Onions	—	—	2	0
Orange essence	—	—	3	16
Potato powder	—	11	1	16
Sultanas	—	4	0	0
White bread improver	—	1	0	13

Smoke observation of ships' funnels:—

Number of observations (each of 30 minutes' duration) made during the year	100
Number observed discharging black smoke over two minutes in a continuous period of 30 minutes	6
Number of statutory notices served (following observations taken by the Senior Smoke Officer)	Nil

Verbal notice was given by the Port Public Health Inspectors to Masters, Chief Engineers and Ships' Managers regarding the volume of dark smoke being emitted on 15 occasions and in every case immediate remedy was affected. Opportunity is taken, especially when on visit to vessels using steam, either in heating or power systems, to contact Chief Engineers with a view to preventing emission of dark smoke from funnels while vessels are in Port.

Routine and other inspections, additional to those tabulated elsewhere in the Report:—

825 visits to cross-channel (passenger) vessels.

1,103 re-inspections regarding defects etc.

158 inspections regarding issue of Deratting and Deratting Exemption Certificates.

FACTORIES

The duties of the Local Authority under part one of the Factories Act (Northern Ireland) 1938 are defined in Section 8. The provisions relating to suitable and sufficient sanitary arrangements together with the Factories (Sanitary Accommodation) Regulations (N.I.) 1938 are enforced in all types of factories and non-power factories with respect to the following:—cleanliness of workrooms, overcrowding of workrooms, the securing and the maintenance of a reasonable temperature in workrooms and other parts of the factory where persons are employed; the adequate ventilation of workrooms and the provision for rendering harmless (so far as practicable) all fumes, dust and other impurities that may be considered injurious to the health of the persons employed and for the proper drainage of the floors in any workroom connected to a factory where any wet process is carried on. Under other Sections of the Act the Local Authority is responsible for such provisions as the approval of a pure and wholesome supply of water for drinking purposes; the conditions under which a basement bakehouse may or not be carried on, the issue or withdrawal of certificates of suitability in respect to basement bakehouses and the special conditions laid down for hygiene therein.

Under the "Home Work" sections of the Act it is also the responsibility of the Local Authority to prepare and maintain a register of all persons within their area engaged as outworkers. These are persons who receive (usually in their own home) from factories such articles as table linen, handkerchiefs, bed linen etc. for repairing, hemstitching and ornamenting. Local Authorities are required to ensure that this work is carried out under reasonably hygienic conditions. For that purpose the homes of outworkers are visited and where unsuitable conditions are found action is taken to prevent outwork being carried on until suitable conditions are provided or made available elsewhere. Again for the same purpose the register of outworkers is examined daily against the list of infectious diseases notified to the Department. Should any of the scheduled infectious diseases occur in an outworkers' premises the Medical Officer of Health has authority to prohibit the sending out of, or the removal of, any materials until he is satisfied that no injury to health will result.

The following tables give details of the work carried out during the year in connection with the Factories Acts (Northern Ireland) 1938 to 1959.

Number of factories (Power) on register	2,291
Number of factories (Non-Power) on register	179
Other premises	103

Inspections for purposes of provisions as to Health

TABLE B 23

Premises	Inspections	Notices issued	Occupiers prosecuted
Factories with mechanical power	4,337	164	4
Factories without mechanical power	130	9	2
*Other premises under the Act (including works of building and engineering construction, but not including outworkers' premises)	505	40	1
Totals	4,972	213	7

* Electrical Stations reckoned as factories.

Reciprocal notification takes place between the Chief Inspector of Factories and the Health Department on conditions found during inspections on which action is required by either Department. 40 such intimations were received from the Chief Inspector of Factories.

TABLE B 24

Defects	Instances	Remedied	Referred to Chief Factory Inspector	Prosecutions	Outstanding
Want of cleanliness (S.I)	37	35	—	2	9
Overcrowding (S.2)	1	1	—	—	—
Unreasonable temperature (S.3)	2	1	1	—	1
Inadequate ventilation (S.4)	4	4	—	—	2
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary conveniences (S.7):—					
Insufficient	19	20	—	3	4
Unsuitable or defective	416	461	—	2	31
Not separate for sexes	3	4	—	—	1
Other offences (excluding offences relating to homework which are reported in Table B.38	49	45	8	—	12
Breaches of special sanitary requirements for bakehouses (Sections 56 to 59)	3	3	—	—	—
Totals	534	574*	9	7	60

* Defects remedied include defects outstanding from previous year

Factory Out Workers (Homework)

TABLE B 25

Nature of Work	Inspections	Outwork in unwholesome premises (Section 115)			Outwork in infected premises (Sections 116/117)		
		Instances	Statutory notices served	Prosecutions	Instances	Orders made	Prosecutions
1. Making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel ..	23	2	2	—	—	—	—
2. Making-up, ornamenting, finishing and repairing of table linen, or other household linen (including in the term "linen" articles of cotton and linen mixtures)	393	1	1	—	2	2	—
3. Textile weaving and any process incidental thereto	6	—	—	—	—	—	—
4. Others	—	—	—	—	—	—	—
Totals	422	3	3	—	2	2	—

Outworkers premises within the city, notified during the year	534
Notices sent to factories employing outworkers	82
Notices for failing to keep or send lists of outworkers	4
Outworkers notified from other districts	7
Outworkers notified to districts outside the City	241

In addition to the provisions of the Factories Acts, factories are also subject to the provisions of the Public Health Acts in so far as public health nuisances are concerned. Consequently, during visits to factories, such things as damp conditions, structural defects, etc,. are actioned under the Public Health Acts. Details of such work are as follows:—

Inspections of factories and workplaces under the Public Health Acts (N.I.) 1878 to 1926 and the Belfast Corporation Acts, 1845 to 1961

Nuisances discovered	166
Statutory notices issued	48
Nuisances abated	165
Dangerous Structures, risk of fire, etc., reported to the City Surveyor	7
Special reports to the City Surveyor under the Planning Acts (N.I.) 1931 and 1944	26
Plans examined concerning new work and alterations	96

Details of plans for alteration of existing buildings or erection of new buildings to be used as factories, shops, etc.:—

Bakeries	7
Ballrooms	1
Bookmakers premises	7
Breadshops	1
Chemists	1
Clinic	1
Factories	5
Hairdressers	4
Hostels	1
Offices	9
Schools	12
Mixed Shops (non food)	35
Club halls	1
Warehouses	6
Church halls	1
Laundrettes	4

BAKEHOUSES

The regular inspection of bakehouses in the City was maintained during the year and except in a few cases the standard of hygiene was reasonably good. It was found necessary in two instances to institute legal proceedings against the occupiers of bakehouses under the Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948 for:—

(a) Failing to observe due cleanliness of the food rooms, benches, tables and machinery where food was being prepared and stored for sale for human consumption.

(b) Failing to keep in a good state of repair the walls and floors of rooms in which food for human consumption was prepared and stored.

During inspections particular attention was paid to the personal hygiene of the persons employed in the preparation and handling of food. On the whole the Inspectors receive good co-operation from

the trade, both from management and employees, particularly in the larger bakeries where some real progress is being made. It was found necessary to issue warnings in three instances to employees for not observing cleanliness with regard to their clothing and person. This resulted in an improvement in personal hygiene. There were four cases during the year of unsatisfactory conditions in regard to cleanliness of bread delivery vans and food containers. Stern warnings were given to the offenders which had the effect of ensuring better hygiene. Three bakeries closed down during the year and five new bakeries were established.

The following table gives a summary of the conditions found and the action taken:—

Bakehouses

TABLE B 26

Defects	Instances	Notices	Remedied	Out-standing
Want of cleanliness in food rooms	21	11	20	14
Rooms requiring re-decoration	45	30	33	12
Cleanliness of persons handling foodstuffs not observed	1	1	1	—
Unreasonable temperature (ventilation inadequate or not being maintained)	3	2	4	1
Inadequate provision for rendering fumes, etc., harmless	4	2	3	1
Inadequate provision for drainage of floors	—	—	1	—
Drain inlets within food rooms	10	4	7	6
Sanitary conveniences communicating directly with food rooms	1	1	1	—
Ceilings, walls, floors, doors, etc., in disrepair	19	9	21	9
Preparation or cooking rooms structurally defective	3	2	5	2
Suitable or sufficient washing facilities not provided	4	3	5	1
Suitable cloakroom accommodation not provided	3	2	2	2
Cleanliness of utensils, machinery, benches, etc., not observed	4	2	4	—
Suitable and sufficient lighting not provided or not maintained	2	1	3	1
Preparation rooms overcrowded	2	2	2	—
Other defects	15	12	15	6
Totals	137	84	127*	55

* Defects remedied include defects outstanding from the previous year.

In addition to the above 212 visits were made to bakeries in connection with the sampling of foodstuffs for submission to the Public Analyst.

The following foodstuffs were found to be unfit for human consumption and were destroyed under supervision:—

$11\frac{1}{2}$ gallons of buttermilk

6 lbs. of prunes

12 lbs. of jam

1 $^{5}/_{12}$th dozen eggs.

Bread Shops

During inspections attention is paid to the methods of storage and display, particularly of cream pastry. Managements are advised to use covered display cabinets and to eliminate as far as possible handling of the pastry. Anti-fly measures are aslo advised.

Bread shops on register at 1st January, 1963	321
Deletions	1
Additions (new premises)	46
Bread shops on register at 31st December, 1963	366
Inspections	888

TABLE B 27

Defects	Instances	Notices	Remedied	Outstanding
Want of cleanliness in food rooms	—	—	—	—
Want of cleanliness of persons handling foodstuffs	—	—	—	—
Unreasonable temperature (ventilation inadequate or not being maintained)	2	2	1	1
Drain inlets within food rooms	—	—	1	—
Ceilings, walls, floors, windows, doors, etc. in disrepair	2	1	2	1
Ceilings, walls, floors, windows, doors, etc. requiring cleansing	3	1	6	1
Suitable and sufficient washing facilities not provided	3	2	3	1
Cleanliness of utensils, benches, food containers, etc., not observed	4	4	4	—
Other defects	10	5	6	6
Totals	24	15	23*	10

* Defects remedied include defects outstanding from the previous year.

BETTING AND LOTTERIES ACT (Northern Ireland) 1957 (amended 1959)

The following summary relating to bookmakers' premises does not include inspections by Public Health Inspectors or particulars of the improvements carried out in such premises as the result of action taken under the provisions of the Public Health Acts (N.I.) 1878 to 1962 and the Belfast Corporation Acts 1845 to 1961, as these matters are included under the heading of "Non-Industrial Premises".

Bookmakers' premises operating in the City	113
Applications made to the Courts for certificates of suitability ..	116
Certificates of suitability granted	113
Certificates of suitability refused	Nil
Applications withdrawn	2
Objections on public health grounds	3

NON INDUSTRIAL PREMISES

It has been stated that non-industrial employment accounts for approximately one half of the working population and, apart from the limited provisions of the Factories Acts and the Shops Act, there is no specific law for safeguarding the welfare and health of the persons employed in office buildings, etc. Local Authorities, in making some provision for the health and well being of such a large body of the working public, have to rely on the very restricted provisions of the Public Health Acts of 1878 and 1890. This is effected by bringing non-industrial employment under the heading of "Workplaces" which by virtue of Section 11 of the Factories Act (N.I.) 1938 and Section 22 of the Public Health Acts (Amendment) Act 1890 can be regarded as buildings where persons are employed or intended to be employed in any trade or business which is not a factory or a shop as defined by the Factories Acts and Shops Act. The legislation used by Local Authorities in Northern Ireland to bring about limited improvements in the working conditions of persons employed in non-industrial premises may be summarised as follows:—

Sanitary Accommodation

Section 22 of the Public Health Acts (Amendment) Act, 1890 gives power to a local authority to require the "owner" or the "occupier" of a building where persons are employed or intended to be employed by notice in writing to provide suitable and sufficient sanitary accommodation for the use of such persons and, where members of both sexes are employed, to provide proper separate sanitary accommodation. On the face of it this provision regarding sanitary accommodation would seem to give a local authority all the powers necessary in this respect, but in practice there are shortcomings, as suitable and sufficient sanitary accommodation is not defined as it is in the Factories Acts. Consequently, different interpretations can be placed on what is suitable and what is sufficient and this causes irritation and confusion to owners and occupiers of business premises.

Cleanliness, ventilation and overcrowding:—

Under Section 107 of the Public Health (Ireland) Act, 1878, it is an offence for any workplace not to be kept in a cleanly state or not to be ventilated, or to be so overcrowded as to be a nuisance and injurious to the health of the persons employed therein. A local authority can by a written notice require abatement of the nuisance. Here again local authorities find great difficulty in enforcing these provisions in workplaces; for example, the provisions of "cleanliness", "ventilation" and "overcrowding" must in all cases be a nuisance and this can prove difficult in legal interpretation. The existing law is inadequate and difficult to enforce in a uniform manner and falls short of many requirements which cover factory workers under law that has been in existence for nearly thirty years. The existing law relating to "workplaces" does not cover the following specific requirements for the lighting and heating of workplaces; provision of washing facilities, and cloakroom accommodation; facilities for the taking of meals; provision of drinking water and first aid equipment and the fencing of dangerous parts of machinery used in modern offices. There is also the question of lifts and hoists in non-industrial premises and there are no regulations for the prevention of accidents. In large office buildings there are no legal requirements for means of escape from fire.

The following table gives particulars of conditions found in office buildings during the year:—

Non-Industrial Premises

TABLE B 28

Defects	Instances	Notices	Remedied	Out-standing
Overcrowded	1	1	3	—
Inadequately ventilated	3	2	2	1
Inadequately lighted	—	—	1	—
Inadequately heated	—	—	1	—
Dirty	7	2	9	2
Stairways and passages dirty	12	3	15	—
Requiring re-decoration	7	2	10	—
Not free from noxious fumes	3	3	4	—
In a damp state	7	5	6	5
In a defective condition	12	4	10	5
Unsuitable provisions for taking of meals	—	—	—	—
Unsuitable or no drinking water	—	—	1	—
Unsuitable or no washing facilities	3	3	3	1
Other defects	11	10	11	7
Sanitary Accommodation:				
Insufficient	3	3	4	2
Not separate for the sexes	3	3	3	—
Dirty state	16	9	12	4
No intervening ventilated spaces, screening, etc.	1	1	5	1
Defective conditions, etc.	82	10	63	38
Unsuitable urinals	—	—	—	—
Separate means of approach not provided	—	—	2	—
Other defects	—	—	4	—
Totals	171	61	169	66

PHARMACY AND POSIONS ACT (Northern Ireland) 1955

Poisons Regulations (Northern Ireland) 1956

The duties of the Department under the above-mentioned Act and Regulations are concerned with the sale of poisons included in part 2 of the Poisons Schedule in shops other than chemists and pharmacists. These poisons include a large variety of preparations, ranging from common household ammonia to agricultural and horticultural preparations containing percentages of arsenical and nicotine substances.

The Local Authority is empowered to register or to refuse registration of persons selling to the public any of the poisons in part 2 of the schedule and is required under the Act to maintain a Register of all persons so registered in their area.

The following is a summary of the work carried out during the year:—

Premises on register at 31st December, 1962	350
Deletions	45
Additions (new registrations)	8
Premises on register at 31st December, 1963	313
Inspections	371
Contraventions discovered	2

RAG FLOCK ACT, 1911 and RAG FLOCK REGULATIONS, 1912

The routine visits to factories and premises engaged in the upholstery trade where flock manufactured from rags is used for the purposes of the making up of bedding, cushions, upholstery, etc., were continued during the year and samples of the flock taken for analysis. One sample was found to be very much below the standard of cleanliness required by the Act and the Regulations. Legal proceedings were instituted resulting in the firm concerned being convicted and fined. The following is a summary of the work carried out during the year in connection with the above Act and Regulations:—

Premises where rag flock is used	38
Inspections of premises	47
Samples of rag flock submitted to Public Analyst	32
Samples not in compliance with the Regulations	2
Cautionary letters sent	Nil
Prosecutions instituted	1

SHOPS ACT (Northern Ireland) 1946

The following are details of the work carried out during the year under the Shops Act (N.I.) 1946:—

Shops on Department's register	7,274
Complete surveys made	2,372
Inspections	4,370
Contraventions discovered	167
Statutory notices served	110

TABLE B 29

Defects	Instances	Notices	Remedied	Outstanding
Suitable and sufficient means of ventilation not provided	—	—	—	—
Suitable and sufficient ventilation not maintained	—	—	—	—
Efficient means for securing a reasonable temperature not provided	3	2	3	—
Suitable temperature not maintained	2	1	2	—
Suitable and sufficient means of lighting not provided or maintained	—	—	1	—
Insufficient or unsuitable washing facilities	19	11	29	4
Unsuitable facilities for the taking of meals	1	1	1	—
Sanitary Accommodation:				
Insufficient	3	3	2	1
Not provided separately for the sexes	1	1	2	1
Ventilation inadequate	12	9	17	3
Lighting inadequate	3	2	3	—
Floors, walls, basins, seats, cisterns, etc., defective or dirty	124	78	136	15
Screening, doors, fasteners, etc., defective or not provided	5	2	4	3
Absence of an intervening ventilated space	—	—	1	—
Separate means of approach not provided	—	—	1	—
Totals	173	110	202*	27

*Defects remedied include outstanding defects from the previous year.

Inspection of Shops under the Public Health Acts (N.I.) 1878 to 1962

Public Health nuisances discovered	177
Statutory notices served	109
Nuisances abated	174
Contraventions not complied with at 31st December, 1963	24

Fabrics (Misdescription) Act, 1913 and the Fabrics (Misdescription) Regulations (N.I.) 1959

The purpose of this Act and the Regulations made thereunder is to give protection to the public with regard to the sale of household materials, or of any textile fabric, either in the piece or made up into clothing, to which is attributed the term "non-inflammable" or safety from fire either by markings or indications on the materials itself or by verbal representations at the time of sale, unless such fabric or clothing is in conformity with the prescribed standards of non-inflammability. The Fabrics (Misdescription) Regulations, are designed to ensure uniformity of testing and to bring standards up-to-date. They prescribe two standards; one to which fabrics must conform if they are described in terms suggesting they are non-inflammable and the other which is a lower (but nevertheless stringent) standard for which some degree of non-inflammability or flame proofing, is claimed. The methods of testing are detailed in British Standards 3120 (for fabrics claiming non-inflammability) and 3121 (for fabrics claiming low inflammability).

Although publicity has been given to the large number of accidents and the danger to children as the result of clothing catching fire, the general public does not seem to respond as it should and shopkeepers throughout the City state that, owing to the increased cost of non-inflammable fabrics over traditional fabrics, the sales of materials and clothing were so low as not to warrant the keeping of stocks. Several attempts were made during the year to secure samples without success.

FOOD AND DRUGS

This section discharges the important duty of the Health Committee in administering the legislation which safeguards the general public's food supply during preparation, storage and distribution. The Food and Drugs Inspectors' work involves sampling of food and drugs to ensure that the purchaser is sold a product which is of the nature, substance and quality demanded.

During the year codes of practice were issued by the Local Authorities Joint Advisory Committee on Food Standards. This Committee was set up in 1960 with the following terms of reference:—

(a) to recommend codes of practice on the composition of food as a preliminary and speedy step in advance of a food standard regulation and with the intention that a food standard regulation should follow;

(b) to recommend codes of practice on the composition of food in cases where standards cannot be defined with sufficient precision for the purpose of statutory regulation, or where the ingredients cannot be ascertained or assessed quantitatively or qualitatively by chemical analysis;

(c) to recommend codes of practice in appropriate cases where for any reason the Ministry of Agriculture decline to make a food standard regulation;

(d) to make recommendations as to good practice in the labelling, description and advertising of food if such matters are not dealt with by regulation under section 7 of the Food and Drugs Act 1955;

(e) to refer matters within the foregoing terms of reference to the Food Standards Committee if it is thought desirable that regulations should be made covering the composition of food under section 4 or the labelling or description of food under section 7 of the Food and Drugs Act, 1955.

These codes of practice embody the agreements negotiated by the Association of Public Analysts and the various trades concerned. Examples are:—

Code of Practice No. 1—Flour Confectionery

Where the word "chocolate" or an abbreviation or a synonym thereof is used in the description of Flour Confectionery, the product must contain not less than 3 per cent. of dry non-fat cocoa solids in the moist crumb.

Code of Practice No. 2—Labelling of Brandy

The only spirit which should be imported, manufactured or sold in Great Britain under the unqualified description "brandy" is the distillate of the fermented juice of fresh grapes without the admixture of any other spirits. Recommendations are made as to the labelling of spirit distilled from fruits other than grapes.

Code of Practice No. 3—Crab Meat Content in Norwegian Canned Crab Products

In calculating the crab meat content, 15 per cent. of protein shall be regarded as equivalent to 100 per cent. crab meat.

During the year the Food Inspectors purchased 1,098 samples of food and drugs. These samples covered a wide variety of foods in everyday use. As in previous years, butchers' products again featured substantially in the number of adulterations found, there being 31 meat products in a total of 37 adulterated samples. The reasons being the use of preservatives where not premitted and the excessive use of preservatives where permitted. Fines totalling £125 10s. 0d. were imposed for these meat products, i.e., minced steak, steakettes, sausages and sausage meat. Two samples of ice-cream were found to be deficient in fat content and a sample of bread and butter was found to be bread and margarine. Legal proceedings were instituted in each instance.

The following table shows the number of samples procured and examined in the past five years and the percentage of adulterated samples.

TABLE B 30

Year	Number taken			Number adulterated			Percentage adulterated		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
1959	1,401	5	1,406	23	1	24	1.64	20.00	1.71
1960	1,410	4	1,414	23	—	23	1.63	—	1.63
1961	1,273	12	1,285	38	3	41	2.99	25.00	3.19
1962	1,130	7	1,137	48	—	48	4.25	—	4.25
1963	1,092	6	1,098	36	1	37	3.30	16.67	3.37

Samples of food and drugs analysed by the Public Analyst

TABLE B 31

Article	Number	Article	Number
Almonds, ground	2	Ham, pressed	1
Angelica	1	Honey	7
Arrowroot	1	Ice-cream	81
Balsam of glycerine, lemon and honey	1	Jam	7
Barley	2	Jelly, table	2
Beef, corned	1	Juice, fruit	4
Beef, minced	45	Ketchup, tomato	3
Beverage, food	1	Lard	3
Brandy	5	Lemons (Informal)	1
Brawn	1	Lentils	3
Bread and butter	6	Linctus, adult cough	1
Browning	1	Linctus, codeine	1
Butter	15	Linctus, Gee's	2
Butter, country	1	Loaf, minced beef	1
Buttermilk	11	Lollipops, iced	10
Cakes, artificial cream	2	Macaroni	1
Cakes, fish	2	Margarine	10
Cakes, fresh cream	2	Marmalade	2
Catchup, tomato	1	Marzipan	1
Catsup, tomato (Informal)	1	Marzipan, almond	1
Cheese, Cheshire	1	Meat, luncheon	1
Cheese, lemon	2	Milk, condensed full cream	1
Cherries, chocolate covered in brandy	1	Milk, condensed full cream unsweetened	4
Cherries, glace	1	Milk, condensed, skimmed, sweetened	1
Chicken, minced	1	Milk, condensed, machine-skimmed	1
Chocolate, drinking	1	Milk, condensed, machine-skimmed sweetened	1
Chutney, tomato	2	Milk, full cream evaporated	1
Cider	2	Mincemeat, sweet	2
Cinnamon, ground	2	Mix, batter	1
Cocoa	1	Mix, ready ice-cream	1
Coconut, desiccated	1	Mix, tea cakes	1
Coffee, instant	4	Mixture, cake	2
Colouring, food	1	Mixture, cough	2
Concentrate, cherry ginger	1	Mixture, dried fruit	3
Condiment, non-brewed	9	Mixture, influenza	1
Confectionery	6	Mustard	4
Cordials	2	Nitre, sweet spirits of	1
Cornflour	4	Nutmegs, ground	1
Covering, chocolate cake	1	Oil, almond	1
Cream, double	5	Oil, castor	1
Cream, salad	4	Oil, camphorated	1
Cream, single	3	Oil, cod liver	1
Cream, sterilized	1	Oil, cooking	1
Cream, synthetic	1	Oil, corn	3
Cream, zinc and castor oil	1	Oil, olive	1
Crystals, lemon foam	1	Ointment, boracic	1
Crystals, milk shake	1	Ointment, chilblain	1
Crystals, raspberry jelly	1	Ointment, zinc	1
Curd, lemon	4	Onions, sliced	1
Curry, beef	1	Oranges (Informal)	1
Doughnuts, cream	1	Paprika	1
Dressing, French	1	Paraffin, liquid	3
Dripping	2	Paste, chicken	1
Ducks, savoury	1	Paste, chicken and ham	2
Eclairs, chocolate	1	Paste, chicken meat	1
Eggs, Scotch	1	Paste, lobster	1
Essence, chocory and coffee	3	Paste, meat	1
Farola	3	Peaches and cream	1
Fat, cooking	5	Peas, processed	1
Figs, syrup of	1	Peas, marrowfat processed	1
Flour	4	Pectin, fruit	3
Flour, self-raising	3	Peel, mixed cut	1
Food, full cream milk	1	Pepper, white	5
Fruit, dried	1	Peroxide, hydrogen	1
Gelatine	2	Piccalilli	1
Germ, natural wheat	1	Pickle, branston	1
Gin	4	Pickle, sweet mustard	1
Ginger, crystallised	2	Pickle, tomato	3
Grapefruit (Informal)	1	Pies, meat	2
Gum, bubble	1		
Gum, chewing	1		

TABLE B 31 *(continued)*

Article	Number	Article	Number
Pies, pork	1	Spread, salmon	1
Pies, steak and kidney	1	Spread, salmon with butter	1
Powder, antacid	1	Squares, fruit	3
Powder, baking	4	Steak, minced	115
Powder, curry	5	Steak, stewed with gravey	1
Powder, custard	1	Steakettes	1
Pudding, black	1	Stuffing, parsley and thyme	1
Quinine, ammoniated tincture of	1	Stuffing, sage and onion	1
Relish, Yorkshire	2	Suet, beef	3
Rice	4	Suet, shredded beef	1
Rissoles	1	Sugar, Slimmer's	1
Rock, cough	1	Sweetmilk	197
Roll, meat (Informal)	1	Sweetmince	1
Rolls, sausage	3	Swiss rolls, chocolate covered	1
Roll, stuffed pork	1	Syrup, blackcurrent	2
Rum	6	Syrup, bronchial catarrh	1
Salami	2	Syrup, milkshake	1
Sal Volatile	1	Syrup of Irish Moss	1
Salt, Epsom	1	Syrup, raspberry	1
Salt, garlic	1	Syrup, rose hip	1
Sandwich, artificial cream coconut	1	Tablets, saccharin	2
Sandwich, chocolate	2	Tablets, slimming	1
Sauce	3	Tablets, vitamin	1
Sauce, bread with onion	2	Tapioca	1
Sausages and sausage meat	215	Tartar, cream of	2
Seasoning	1	Tea	8
Semolina	4	Tomatoes, peeled plum	1
Sherry, cream	1	Vanodine (Informal)	1
Soda, bicarbonate of	6	Veal, jellied	1
Soft drinks	15	Vinegar, French wine	1
Soup and soup mix	8	Vinegar, malt	4
Spaghetti	2	Vodka	1
Spice, mixed	1	Wheat embryo	1
Sponge, dairy cream	2	Whiskey	9
Spread, cheese	1	Wine, tonic	1
Spread, cheese and butter	1	Total	1,098

Legal proceedings in respect of adulterated foods

TABLE B 32

Sample	Number	Adulterations	Prosecutions	Convictions	Fines	Costs
Beef minced	45	7	7	7	£28 0 0	£14 9 10
Bread and butter	6	1	1	1	£3 0 0	£2 4 8
Ice-cream	81	2	2	1	£10 0 0	£4 10 9
Sausages and Sausage meat	215	15	15	15	£50 10 0	£33 1 11
Steak minced	115	8	8	8	£41 0 0	£18 19 4
Steakettes	1	1	1	1	£6 0 0	£2 11 10

Cases of adulteration in which no legal proceedings were instituted, but the owners of the food sold were cautioned by letter:—Flour 1; Sweet Spirits of Nitre 1; Tomato Catsup 1.

Particulars of samples specially reported by the Public Analyst during the year:—

Beef Sausages. Nine samples of beef sausages contained sulphur dioxide as a preservative in amounts ranging from 550 to 1,080 parts per million while two samples, which were not declared, contained respectively 280 and 300 parts per million. Beef sausages may contain not more than 450 parts per million of sulphur dioxide, when declared (Preservatives in Food Regulations (N.I.) 1962).

Bread and Butter. One sample described as bread and butter was found to have been spread with margarine instead of butter. (Food Standards (Butter and Margarine) Regulations (N.I.) 1960).

Buttermilk. One sample of buttermilk, slightly low in solids-not-fat, was returned as inferior.

Cream Doughnuts. One sample of cream doughnuts, was returned as inferior because of the nature of the "cream" filling it contained.

Custard Pie. One informal sample of custard pie contained pieces of charred or partially charred dough and was returned as inferior.

Flour. Two samples of Australian wheat flour and two samples of flour were deficient in content of Creta Praeparata (chalk) to an extent ranging from 27.6 per cent to 57.4 per cent and one sample contained an excess of 28.2 per cent. (Flour (Composition) Regulations (N.I.) 1961).

Ice-cream. Two samples of ice-cream were deficient in fat, containing respectively 3.5 per cent. and 4.3 per cent. as against the 5.0 per cent. minimum. (Ice-cream Regulations (N.I.) 1961). Two samples of ice-cream, slightly low in fat content, were returned as inferior.

Meat Roll. One informal sample of meat roll, in which was embedded a small fragment of bovine skin with brown hair attached, was returned as inferior.

Minced Beef. Seven samples of minced beef contained amounts of sulphur dioxide ranging from 120 to 1,050 parts per million. One of these samples contained 44 per cent. of cereal filler. Two samples of minced beef, showing a trace of sulphur dioxide were returned as inferior. (Preservatives in Food Regulations (N.I.) 1962).

Minced Steak. Eight samples of minced steak contained amounts of sulphur dioxide ranging from 100 to 1,300 parts per million. Two samples of minced steak, showing a trace of sulphur dioxide, were returned as inferior. (Preservatives in Food Regulations (N.I.) 1962).

Sausage Meat. Three samples of sausage meat contained respectively 620, 680 and 870 parts per million of sulphur dioxide as a preservative. Sausage meat may contain a maximum of 450 parts per million of sulphur dioxide, when declared. One sample labelled sausage meat, but having the composition of minced beef, contained 300 parts of sulphur dioxide. (Preservatives in Food Regulations (N.I.) 1962).

Steakettes. One sample of steakettes contained 8 per cent starchy filler and 460 parts of sulphur dioxide. (Preservatives in Food Regulations (N.I.) 1962).

Sweet Spirits of Nitre. One sample of sweet spirits of nitre contained only 0.6 per cent. of Ethyl Nitrite against a minimum of 1.25 per cent. (British Pharmacopoeia, 1948).

Tomato Catsup. One informal sample of tomato catsup contained benzoic acid amounting to 500 parts per million in the form of sodium benzoate contrary to The Preservatives in Food Regulations (N.I.), 1962. The labelling of this product was also unsatisfactory and no list of ingredients was included. (Labelling of Food Regulations (N.I.) 1961).

Milk Control

The Milk Regulations (Northern Ireland) 1963 came into operation on the first day of April, 1963. These Regulations consolidate the Milk Regulations (Northern Ireland) 1951 and the four amending Regulations which have been made since that date. The opportunity has been taken to bring certain aspects of the Regulations into line with present-day dairying practices. The Regulations introduce more strigent conditions for the handling of Farm Bottled Milk. They also introduce a Certificate of Superior Hygiene Quality, to be granted to certain producers who consistently produce milk of a hygienic standard higher than the Statutory minimum.

The following Tables indicate the comprehensive control exercised over milk sold within the city.

Number of licensed producers of milk in City	4
Milch cows on licensed producers premises (average)	65
Dairies where milk is pasteurised	4
Gallons of milk pasteurised per day (average)	44,000
Wholesale distributors of milk	27
Retail distributors of pasteurised milk	1,291
Retail distributors of Farm Bottled milk	32
Inspections of dairies, cowsheds and milkshops	1,377
Samples of sweetmilk taken for chemical analysis under Food and Drugs Act	197
Samples of sweetmilk taken for bacteriological examination	995
Samples of sweetmilk taken for biological examination	193

Particulars of sweetmilk samples procured for chemical analysis during the five years 1959-1963

TABLE B 33

Year	Number	Adulterated	Percentage adulterated
1959	159	—	—
1960	196	2	1.02
1961	186	8	4.30
1962	212	1	0.47
1963	197	—	—

Average monthly composition of milk samples submitted and examined by the Public Analyst

TABLE B 34

Month	Number	Total solids per cent	Fat per cent	Solids not fat per cent
January	—	—	—	—
February	46	12.34	3.64	8.70
March	4	12.40	3.70	8.70
April	22	12.20	3.52	8.68
May	29	12.53	3.93	8.60
June	3	12.00	3.30	8.70
July	13	12.32	3.58	8.74
August	—	—	—	—
September	1	12.60	3.80	8.80
October	25	12.70	3.98	8.72
November	33	12.75	4.04	8.71
December	21	12.47	3.82	8.65

Bacteriological and biological examination of milk

The Milk Regulations (Northern Ireland) 1963 specify the following bacteriological standards for farm bottled and pasteurised milk:—

(a) milk sold by the holder of a farm bottling licence shall not contain more than 50,000 bacteria per millilitre;

(b) milk sold by the holder of a Milk Licence, when submitted to a Methylene Blue reduction test, shall not be discoloured in less than three hours;

(c) pasteurised milk shall contain no coliform bacteria in one-tenth of a millilitre and shall, when submitted to the phosphatase test, have a reading of not more than ten microgrammes para-nitrophenol per millilitre.

A total of 1,188 samples of sweetmilk were collected by the Food and Drugs Inspectors from milk roundsmen, shops, vending machines, dairies and schools and submitted to the Central Laboratory for testing. 897 of these samples were of pasteurised milk, the remainder being Grade A and farm bottled milk, 193 of which were sent for biological examination.

When unsatisfactory results were reported, letters were sent to the distributors concerned and the Ministry of Agriculture were notified in those instances where adverse reports were returned of Grade A milk. (This designation is no longer used and a new one "Farm Bottled", was introduced by the Milk Regulations (N.I.) 1963).

The Department's Inspectors were called in to help trace the cause of a prolonged series of adverse results of samples of milk supplied to a Hospital by a City dairy. New dairying plant had been installed but after much sampling and testing it was considered that a new mains supply to the bottle-washing machinery was at fault. Changes were made and the trouble was eliminated.

Particulars of Bacteriological and Biological examination of milk

TABLE B 35

Test	Grade	Samples examined	Satisfactory		Unsatisfactory	
			Number	Percentage	Number	Percentage
Plate count	Farm bottled Pasteurised	98 —	91	92.86	7	7.14
Coliform	Farm bottled Pasteurised	98 897	89 848	90.82 94.54	9 49	9.18 5.46
Phosphatase	Pasteurised	897	897	100.00	—	—
Biological Coliform	Farm bottled Farm bottled	193 193	193 176	— 91.19	— 17	— 8.81

Bacteriological examination of milk supplied to schools

TABLE B 36

Test	Grade	Samples	Satisfactory		Unsatisfactory	
			Number	Percentage	Number	Percentage
Colifrom	Pasteurised	163	158	96.93	5	3.07
Phosphatase	Pasteurised	163	163	100.000	—	—

Mineral Waters

227 samples of mineral waters submitted for bacteriological examination during the year were all found to be satisfactory. 15 samples purchased for chemical analysis were found to be genuine.

Frozen Confectionery

Routine samples of frozen confectionery were taken for bacteriological examination during the year. Several adverse reports, when investigated by the Food Inspectors, were found to be due to faults in the manufacturers plant. In each case measures were taken to prevent a recurrence. Investigations at a manufacturer's premises, following the receipt of a considerable number of adverse results, revealed an impure air supply to the machine used for inflating the paper containers. Remedial action was taken.

TABLE B 37

The following table shows the number of satisfactory and unsatisfactory samples:—

Number examined	Number satisfactory	Number unsatisfactory (coliform organisms present)	Number unsatisfactory (coliform organisms of faecal origin present)
301	234	67	27

Bacteriological examination of imported eggs and egg powder

Samples taken for examination: Frozen Eggs 49

Dried Eggs 8

In one sample of Liquid Frozen Egg, salmonella organisms of the s. hessarek type were isolated. Salmonella typhimurium were isolated in a sample of Egg Powder. After investigation, 20 lbs. of the Egg Powder and 40 lbs. of Cake Mix containing the Egg Powder were seized and a Magistrate's Order obtained for the destruction of same.

Desiccated Coconut

The Food Inspectors procured 44 samples of desiccated coconut from bakeries throughout the City. No pathogenic organisms were found in any of the samples.

Merchandise Marks Acts 1887 *to* 1963

Merchandise Marks (Imported Goods) Orders, Made under Section 2 of the Merchandise Marks Act, 1926

The above Orders require the labelling of certain imported foodstuffs with clear indications of countries of origin. 33 contraventions were dealt with informally and successfully during the year. The Merchandise Marks (Imported Goods) (Raw Cucumbers) Order, 1963 came into operation on 30th October, 1963, requiring an indication of origin to be applied to imported raw cucumbers other than gherkins.

Citrus Fruits

Several samples of citrus fruits were submitted to the Public Analyst to ascertain if they complied with the Colouring Matter in Foods Regulations (N.I.) 1961, which permits the addition of colouring matter to these fruits. All the samples submitted were found to be in compliance.

The control of food unfit for human consumption

The following Tables show the volume of foodstuffs unfit for human consumption examined by the Food Inspectors. Two fires during the year accounted for a large amount of foodstuffs which had to be destroyed. One occurred in retail confectionery premises and the other in a wholesale store occupied by bakery sundriesmen. The number of canned hams found to be unfit for human consumption continued to increase, there being over 19 tons during 1963 compared with 15 tons in 1962.

The Meat (Staining and Sterilization) Regulations (N.I.) 1963 came into force during the year. These regulations require all butchers meat and imported meat which is unfit for human consumption to be sterilized and all knacker meat to be stained or sterilized before entering the chain of distribution. Provision is made for manufacturing chemists, zoos, menageries, mink farms, trout farms and processors to obtain such meat unstained and unsterilized if it is transported in locked containers or vehicles. Supplies of meat to hospitals, medical or veterinary schools or similar institutions for instructional or diagnostic purposes are unaffected by the regulations.

Unsound foodstuffs surrendered by traders after inspection and destroyed or disposed of otherwise than for the food of man

TABLE B 38 (a)

Articles	Tins, jars, packets, cartons, bottles	Articles	Tins, jars, packets, cartons, bottles
Asparagus	45	Jellies	32
Baby Food	545	Macaroni	41
Baking Powder	8	Marmalade	146
Barley	2	Mayonnaise	25
Beans	5,003	Meat	5,545
Beetr ot	272	Milk	1,022
Biscuits, wafers, cones	276	Miscellaneous	4,565
Cake, mix	58	Paste	25
Carrots	325	Peas	3,371
Cereal	119	Pickles	97
Cheese spread	10	Potato crisps	4
Cheese	192	Puddings	929
Coffee	23	Rice	1,851
Condiments	4	Salad cream	81
Confectionery	1,073	Salt	19
Cordials	7	Sandwich spread	182
Corn	138	Soup	9,612
Cornflour	6	Soup mix	180
Cream	137	Spaghetti	501
Dried eggs	4	Stew	79
Fish	1,418	Syrup	2
Food beverage	1	Tea (instant)	1
Fruit	15,620	Tomatoes	3,814
Fruit juice	2,404	Tomato juice	552
Ham	833	Treacle	1
Jam	207	Vegetables	346
		Vegetable juice	39

TABLE B 38 (b)

Articles	Tons	Cwts.	Qrs.	Lbs.	Articles	Tons	Cwts.	Qrs.	Lbs.
Beans	—	5	—	21½	Ham	19	8	—	9
Butter	—	1	3	19½	Lentils	—	1	—	—
Cakes	—	—	—	22	Margarine	—	8	—	2½
Carrots	—	4	3	24	Meat	2	6	1	21
Cheese	—	16	3	24	Nuts	—	2	1	—
Coconut	—	—	3	17	Peas	1	18	—	19
Confectionery	1	6	1	9	Rice	—	—	2	26½
Cooking fat	1	14	—	26	Salt	—	2	—	—
Dried fruit	—	9	—	14	Suet	—	—	—	23
Fish	—	5	2	9½	Sugar	—	13	—	—
Flour	5	12	—	25	Tea	—	9	—	7
Fruit	8	6	1	7½	Tomatoes	—	6	2	6
Fruit pulp	—	—	1	13	Tomato Puree	—	—	2	12
					Walnuts	—	—	3	27

6,463 Certificates were issued during the year in connection with unfit foods surrendered and destroyed.

Unsound food seized and destroyed in pursuance of Magistrates' Orders

TABLE B 39 (a)

Articles		Articles	
Corned beef	1 tin	Milk chocolate	9 bars
Fruit	2 tins	Rice	1 tin
Meat paste	1 jar		

8 Fowl, 1 Loaf, 1 cream pastry, 1 custard tart, 1 bottle of orange crush, 2 sausage rolls, 1 meat roll, portion of lamb's liver, quantity of apples.

TABLE B 39 (b)

Articles	Cwts.	Qrs.	Lbs.	Articles	Cwts.	Qrs.	Lbs.
Bacon ribs	—	—	1	Ham	—	—	6
Butter	—	—	1	Potatoes	1	—	—
Confectionery	—	—	4	Sausages	1	—	21

Foreign Matter in Food

Abscess in portion of lamb's liver
Bacon ribs with offensive odour
*Butter with offensive odour and taste (2 instances)
*Dust and foreign matter in confectionery
*Fragments of glass in bottle of orange squash
*Foreign matter in sausage roll
Hairs in a cream pastry
Insect in tin of pineapple cubes
Insects in farola
Insect in sponge cake
Insect in tin of soup
*Maggots in bar of chocolate
Maggots in ham roll
Maggot in a sliced loaf
Maggots on portion of ham
*Mould on meat paste
Mould on Shepherds' pie
Mould on custard pastry
Moth in tin of creamed rice.

* Denotes legal proceedings taken.

ICE-CREAM

Foods and Drugs Act (N.I.) 1958

Ice-Cream (Composition, Heat Treatment Labelling, etc.) Regulations (N.I.) 1961 *and* 1963

The Ice-Cream (Composition, Heat Treatment Labelling, etc.) (Amendment) Regulations (N.I.) 1963 amend the 1961 Regulations to allow the addition of sugar to sterilized or pasteurised mixtures used in the manufacture of ice-cream.

874 samples of ice-cream were submitted to the Central Laboratory for bacteriological examination during the year. This figure included a number of samples of soft ice-cream which, when examined, were found to be unsatisfactory. Samples classified in Grades 3 and 4 were considered unsatisfactory.

On receipt of unsatisfactory results, a visit was made to the premises concerned and advise was given regarding cleanliness and sterilization of equipment. Serial sampling at the various stages of manufacture was carried out. Adverse samples manufactured outside the City were notified to the appropriate Health Authority.

There was an increase in the number of mobile soft ice-cream vehicles operating within the City. The ice-cream is manufactured on the vans from a liquid pre-mix in speed freeze units. These vans do not come within the category of premises and are therefore not required to be registered.

81 samples of ice-cream were purchased for the purpose of chemical analysis. Two were found to be deficient in fat content: legal proceedings were instituted.

Particulars of premises registered for the manufacture and sale of ice-cream

TABLE B 40

Particulars	Manufacture	Manufacture and sale	Sale only	Vending machines	Storage	Total
Premises registered at 1st January, 1963	1	37	1,011	1	2	1,052
Deletions	1	2	208	—	—	211
Registrations	2	—	94	—	—	96
Premises on register at 31st December, 1963	2	35	897	1	2	937

Inspections	1,794
Summonses for selling ice-cream in unregistered premises	2
Samples submitted for bacteriological examination	874
Samples submitted for chemical analysis	81
Cautionary letters sent	52
Orders made by the Health Committee refusing or cancelling registration	5

Particulars of ice-cream samples taken during the year for chemical analysis

TABLE B 41

Complied with standards		Did not comply with standards			
		Fat		Total Solids	
Number	%	Number	%	Number	%
79	97.53	2	2.47	—	—

The Ice-Cream (Heat Treatment, etc.) Regulations (N.I.) 1961

Methylene Blue Test (874 samples)

TABLE B 42

Grade	Number	Percentage
1	735	84.10
2	63	7.20
3	27	3.08
4	49	5.62

Conditions discovered on inspection of ice-cream premises

TABLE B 43

Conditions	Instances	Remedied	In progress	Outstanding
Suitable and sufficient personal washing facilities not provided	1	1	—	—
Supply of soap and clean towels not provided	1	1	—	—
Wash-hand basin not provided for personal washing facilities	1	1	—	—
Ceilings, walls, doors, windows, etc., required cleansing and redecoration	1	1	—	—
Ceilings, walls, doors, windows, etc., in disrepair	1	1	—	—
Other defects	1	1	—	1
Sanitary accommodation:				
Floors, basins, seats, walls, etc., defective	1	1	—	—
Totals	7	7*	—	1

*Defects remedied include outstanding defects from previous year.

Food Hygiene

The Slaughterhouses (Hygiene) Regulations (N.I.) 1963 came into operation in December, 1963. The regulations are designed to secure observance of sanitary and cleanly conditions in the operation of slaughterhouses and the handling of meat. They impose requirements as to equipment, cleanliness, management and personal hygiene upon persons engaged in the meat trade. The Marketing of Poultry Regulations (N.I.) 1963 also came into force in December, 1963. The regulations repeat most of the provisions of the Marketing of Poultry Regulations (N.I.) 1958 (as amended). Certain changes of a technical nature have, however, been made to meet developments in the poultry industry. Health authorities are responsible for hygiene and inspection of dead birds in poultry packing stations, while the Ministry of Agriculture's Officers enforce requirements regarding equipment, grading, packing and marking of poultry cases.

During the year a total of 23,170 visits were made to premises engaged in the handling of food to ensure that they were structurally suitable and the hygienic standards were being maintained. There was an increase in the number of new catering premises opened during the year. Extensive alterations were carried out to several existing cafes. The development of Supermarkets and centralisation of pre-packing of foods has considerably reduced the number of premises where food preparation takes place.

It is now 16 years since there was an outbreak of food poisoning associated with food premises in the City. This record justifies the vigilance exercised in the control of foodstuffs.

Details of plans showing proposed alterations to food premises

92 plans were submitted to the Department for observations during the year.

The premises involved were classified as follows:—

Bottling stores	1
Butchers' shops	6
Canteens	1
Club premises	3
Coffee bars	7
Fish and chip shops	8
Fruit and vegetable shops	2
Grocers	5
Hotels	8
Licensed premises	31
Multiple stores	6
Provision shops	1
Restaurants	10
School meals dining centres	1
Supermarkets	2
	92

The tables which follow give particulars of the inspections carried out, conditions found and action taken in the various type of food premises in the City.

Inspection of food premises

Inspections by trade or business (excluding bakehouses and bread shops)

TABLE B 44

Trade or Business	Inspections	Trade or Business	Inspections
Bacon curing stores	44	Markets	611
Bottling stores	38	Meat factories	92
Butchers	1,999	Milk bars	2
Chemists	33	Milk retailers	1,377
Cold stores	10	Mineral water factories	142
Confectioners	3,141	Pastry	85
Fish	398	Pet food manufacturers	76
Fish and chips	707	Pet food shops	6
Food manufacturers	113	Poultry	695
Fruiterers	1,840	Provisions	1,664
Grocers	5,181	Public houses	1,293
Hawker's carts	59	Restaurants	875
Ice-cream	1,794	School meals kitchens	14
Industrial canteens	63	Supermarkets	165
		Wholesale stores	667
Total	23,184		

Butchers' premises

Premises registered at 1st January, 1963	386
Deletions	26
Registrations	33
Premises registered at 31st December, 1963	393
Inspections	1,999

Shops Act (N.I.) 1946, Belfast Corporation Act, 1930 and Bye-Laws relating to Butchers' premises: Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948

Defective conditions discovered on inspection of butchers' premises.

TABLE B 45

Conditions	Instances	Remedied	In progress	Out-standing
Walls, ceilings, floors, doors, etc., in disrepair	11	5	4	2
Walls, ceilings, floors, doors, etc., required cleansing or re-decorating	2	2	—	—
Lighting and ventilation not provided or insufficient	2	2	—	—
Cleanliness of equipment and utensils not observed	1	1	—	—
Sink: wastepipe untrapped or connected direct to drain	1	5	—	3
Sink: hot and cold water not provided or insufficient	—	6	—	—
Sink not provided for washing and cleansing utensils	1	1	—	—
Refuse bin accommodation unsatisfactory	1	1	1	—
Suitable and sufficient personal washing facilities not provided	8	8	7	4
Supply of soap and clean towels not provided	6	6	—	—
Fixtures and fittings in a state of disrepair	3	2	—	1
Wash-hand basin not provided for personal washing facilities	6	6	—	—
No proper preparation room provided	1	—	—	1
Yard surface defective	—	1	1	—
Cooking ranges not provided with canopy or inaccessible for cleansing	1	1	—	—
Drain inlets within a food room	—	1	—	—
Other defects	8	10	—	1
Sanitary accommodation:				
Floors, walls, basins seats, etc., dirty or defective	5	8	—	—
Flush to water-closet basin defective or inadequate	1	1	—	—
Lighting and ventilation not provided or insufficient	—	1	—	—
Totals	58	68*	13	12

* Defects remedied include outstanding defects from the previous year.

Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948, and Shops Act (N.I.) 1946

Defective conditions discovered in food premises (excluding butchers, ice-cream, fish and chip shops, restaurants, cafes, snack bars, canteens and licensed premises

TABLE B 46

Conditions	Instances	Remedied	In progress	Out-standing
Ceilings, walls, doors, windows, floors, etc., in disrepair	32	34	—	—
Ceilings, walls, doors, windows, floors, etc., required cleansing and redecorating	25	24	5	5
Lighting and ventilation not provided or insufficient	9	14	—	3
Sink: hot and cold water not provided or insufficient	5	7	7	7
Sink: wastepipe untrapped or connected direct to drain	—	2	—	3
Sink not provided for washing and cleansing utensils	4	3	—	1
Drain inlets within a food room	3	3	1	1
Failure to prevent risk of contamination of food	6	6	—	—
Yards, having surfaces, etc., dirty or defective	9	8	—	1
Fixtures and fittings in a state of disrepair	1	—	—	1
No proper preparation room provided	1	1	—	—
Refuse bin accommodation unsatisfactory	1	1	—	2
Proper refuse bins not provided	2	1	—	2
Sanitary conveniences within or communicating direct with food rooms	3	5	—	1
Cleanliness of equipment and utensils not observed	4	3	—	1
Equipment worn or defective, required repair or renewal	1	—	—	1
Suitable and sufficient personal washing facilities not provided	18	14	3	2
Supply of soap and clean towels not provided	6	6	—	—
Wash hand basin not provided for personal washing facilities	5	2	1	2
Other defects	51	55	3	7
Sanitary accommodation:				
Not provided for each sex or insufficient	8	4	4	2
Floors, basins, walls, seats, etc., dirty or defective	27	28	2	4
Flush to water-closet basin defective or inadequate	12	12	—	1
Screens, doors, fasteners, etc., defective or not provided	—	1	—	—
Totals	233	234*	26	47

* Defects remedied include outstanding defects from previous year.

Defective conditions discovered in restaurants, cafes, snack-bars and industrial canteens

TABLE B 47

Conditions	Instances	Remedied	In progress	Out-standing
Suitable and sufficient personal washing facilities not provided	1	1	—	—
Kitchens: walls, ceilings, floors, etc., in disrepair and required cleansing	5	3	1	1
Preparation rooms: walls, ceilings, floors, etc., in disrepair and required cleansing	1	1	—	—
Lighting and ventilation not provided or insufficient	1	1	—	—
No proper preparation room provided	1	—	—	1
Sink: hot and cold water not provided or insufficient	—	1	—	—
Other defects	7	5	1	1
Sanitary accommodation:				
Not provided or insufficient for males	—	1	—	—
Not provided or insufficient for females	—	1	—	—
Totals	16	14*	2	3

* Defects remedied include outstanding defects from previous year.

Defective conditions discovered in licensed premises and bottling stores

TABLE B 48

Conditions	Instances	Remedied	In progress	Outstanding
Sanitary conveniences communicating direct with food rooms	8	12	—	3
Suitable and suficient personal washing facilities not provided	13	29	—	—
Supply of soap and clean towels not provided	25	25	—	—
Wash-hand basin not provided for personal washing facilities	10	7	—	3
Drain inlets within food rooms	8	6	2	4
Refuse bin accommodation unsatisfactory	2	1	—	1
Preparation rooms: walls, floors, ceilings, windows, etc., in disrepair	5	5	—	2
Preparation rooms: walls, floors, ceilings, windows, etc., required cleansing	8	8	—	—
Bars and parlours: walls, floors, ceilings, windows, etc., in disrepair	1	2	—	3
Bars and parlours: walls, floors, ceilings, windows, etc., required cleansing	1	2	1	1
Beer cellars and bottling stores: walls, floors, ceilings, windows, etc., in disrepair	15	20	2	5
Beer cellars and bottling stores: walls, floors, ceilings, windows, etc., required cleansing	16	15	2	3
Lighting and ventilation not provided or insufficient	3	6	1	2
Fixtures and fittings in a state of disrepair	1	1	—	—
Storage of food inadequate or unsatisfactory accommodation	1	—	—	1
Cleanliness of equipment and utensils not observed	1	1	—	—
Equipment worn or defective	1	1	—	—
Bottle washing facilities insufficient or not provided	3	10	—	2
Sink: hot and cold water not provided or insufficient	4	11	5	7
Sink: wastepipe untrapped or connected direct to drain	—	3	1	2
Sink not provided for washing and cleansing utensils	1	1	—	—
Failure to prevent risk of contamination of food	3	3	—	—
Yard surface defective	1	—	—	1
Other defects	10	8	1	3
Sanitary accommodation:				
Not in compliance or not provided	—	2	—	2
Floors, basins, seats, walls, etc., dirty or defective	11	14	2	3
Flush to water-closet basin defective or inadequate	1	1	—	—
Urinals defective, dirty or inadequate	3	3	—	2
Urinals: absence of or insufficient flush thereto	4	8	—	—
Light and ventilation not provided or insufficient	—	2	—	—
Totals	160	207*	17	50

* Defects remedied include outstanding defects from previous year.

Belfast Corporation (General Powers) Act (Northern Ireland), 1948, Section 25

Registration and Inspection of Premises used for the business of a Vendor of Fried Fish and Fried Potatoes

Registered at 1st January, 1963	204
Registered during the year	33
Registrations cancelled	27
Registered at 31st December, 1963	210
Inspections	707

Conditions discovered on inspection of fish and chip shops

TABLE B 49

Conditions	Instances	Remedied	In progress	Outstanding
Ceilings, walls, doors, windows, floors, etc., required cleansing and redecorating	13	10	2	1
Ceilings, walls, doors, windows, floors, etc., in disrepair	5	3	1	1
No provision to prevent solid matter entering drains	2	2	—	—
No proper potato store provided	1	—	1	—
Storage of food—inadequate or unsatisfactory accommodation	1	1	—	—
Equipment worn or defective; required repair or renewal	1	—	1	—
Sink: hot and cold water not provided or insufficient	1	1	—	—
Failure to prevent risk of contamination of food	1	1	—	—
Suitable and sufficient personal washing facilities not provided	10	9	1	—
Supply of soap and clean towles not provided	2	2	—	—
Yards, having surfaces, etc., dirty or defective	1	1	—	—
Other defects	7	4	—	3
Totals	45	34	6	5

Summary of legislation under which action was taken to bring food premises into compliance

Notices issued under the various Acts and Regulations where breaches were discovered by Food and Drugs Inspectors during the year:—

TABLE B 50

Type of Business	Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948	Shops Act (N.I.) 1946	Public Health (Ireland) Acts 1878-1962	Belfast Corporation Acts 1845 to 1956	Bye-Laws	Totals
Bacon curing premises	2	2	2	—	—	6
Butchers	10	3	13	—	1	27
Cafes, restaurants, etc.	4	—	6	—	—	10
Confectioners	3	2	20	—	2	27
Fish	—	—	3	—	—	3
Fish and chip shops	8	—	5	—	—	13
Food manufacturers	3	1	—	—	—	4
Fruit	5	1	3	—	3	12
Grocers	29	12	27	2	6	76
Ice cream premises	8	—	1	—	—	9
Licensed premises	21	6	14	—	1	42
Pastry shops	1	1	2	—	—	4
Provisions	1	—	3	—	1	5
Wholesale stores	4	1	—	—	—	5
	99	29	99	2	14	243

PESTS CONTROL

Rodents

Rodent infestation generally and rat infestation in particular has declined in severity and it is significant that no major infestation was reported during the year. Much importance is attached to the work of systematic surveys of lands and buildings where rodents are likely to be found. In this way, infestation is detected and remedied, before it has time to develop to serious proportions. Surveys continue to reveal that sites which were subject to recurring infestations are still trouble free since they were disinfected and rat proofing measures carried out some years ago. This improvement is largely due to the value of block control applied by the staff to remedy, or to see remedied, all infestations found, however slight.

The possibility of food contamination by rats and mice always exists where they are present. Routine surveys were carried out at food factories, flour and grain mills, wholesale food premises, warehouses, retail food shops, catering establishments, etc. as preventative measures. Continuous

attention to defective drains and sewers, together with the remedying of defects found and the systematic treatment of lands, buildings and sewers, have done much to remove the health dangers from rodents and the risk of food contamination.

The outer fringes of the City were subject generally to slight rat infestation, mostly by rats living in their natural environment in banks of streams, ditches, etc. They are attracted to nearby premises, particularly gardens of dwellings, in search of food, often provided unintentionally by persons throwing out food for birds. Development of land for new housing estates causes disturbance of rats from their customary habits and results in their visiting building sites and nearby occupied dwellings in search of food and living quarters. Minor infestations occur from time to time on these estates. Complaints of this nature are investigated. Some of them may relate to a stray rat being seen in gardens, etc., and much time is spent by the rodent control staff in dealing with this type of complaint. Occupiers generally have become accustomed to availing themselves of the services of the Department and request assistance at the first sign of rodents on or near their premises.

During the year the rodent control staff systematically surveyed 11,212 sites. In the investigation fo complaints, a further 17,841 visits were made comprising operational visits and re-examination of buildings and lands. Of the 11,212 sites surveyed, 563 (about 5%) were found to be infested, details of which are shown in the statistical data. Of the 563 infestations of lands and buildings, 332 have been or were at the end of the year being dealt with by the Department's Pests Officers.

Statistical details:—

Surveys of lands and premises	29,053
Lands and premises found infested	563
Rat Infestation:—	
1. Food premises	56
2. Non-food premises	318
Mouse Infestation:—	
1. Food premises	68
2. Non-food premises	121
Premises treated by the Department	332
Poison campaigns carried out for occupiers who undertook to pay costs:	
1. For rats	240
2. For mice	92
School buildings and meals kitchens treated for the Education Department	20
Poison campaigns carried out in school buildings and meals kitchens:	24
1. For rats	20
2. For mice	4
Premises cleared of rats	279
Premises where the clearing process was not complete at the end of the year	53
Premises test baited	9,035
Premises wherein the occupier undertook to eliminate rats and mice on statutory or verbal notice under the Rats and Mice (Destruction) Act 1919	209
1. For rats	114
2. For mice	95
Premises having no evidence of rats or mice at the time of survey but with Rodent Destruction firms on contract	142
Premises where rat proofing and other work was done to prevent re-infestation	28
Notices issued under the Rats and Mice (Destruction) Act 1919	52
Rat destruction campaigns at Corporation tipping grounds	13

It is essential to an efficient rat destruction campaign that surface and sewer rodent control be closely co-ordinated. The work of rat destruction is accordingly organised by the Health Department with full co-operation and assistance from the City Surveyor's Department. The reduction in the number of rat destruction campaigns this year in the Corporation's sewerage system was due to the adverse weather conditions during the months of February and March. Due to the small number of takes in baited sewer manholes, no treatment was carried out in nine of the sewer areas. There are 6,074 sewer manholes involved in the area of the sewerage system which is subject to treatment.

Number of rat destructions carried out in the sewerage system	161
Number of sewer manholes treated	5,467
Number of pre-baits laid	14,325
Number of pre-baits taken	7,801
Number of poison baits laid	3,881
Number of poison baits taken	3,654

Mosquito Control

The annual routine work of mosquito control began on 24th April and continued until 10th October, 1963. Preliminary surveys of potential breeding areas were made prior to commencement of control measures. These consist of insecticidal fogging produced from waste transformer oil supplied free of charge by the Electricity Department, to which D.D.T. is added, and spraying with a larvicidal solution. The areas subjected to treatment were:—fields and ditches at Holywood Road; swampy land at Short Bros. and Harland, Ltd., Sydenham; Lester's dam and marsh land of the Lagan valley (Malone area); The Bog Meadows; slob-land at Duncrue Street; ditches, etc., adjoining Grand Parade and Orby Road and at Belfast Castle, Antrim Road; ditches at Inverary Avenue, at rear of Kirkliston Drive and at Greencastle and adjoining the U.T.A. railway (Shore Road); swampy ground at "Killeen", Fortwilliam Park, a pond at Stranmillis Training College and the drained pond at the water works, Antrim Road. Garden pests at Annadale Embankment, Cairnburn Road, Flora Street, Station Road and Westland Road were inspected and water containers in which mosquito larvae were found were treated with a larvicide.

Success generally was achieved in the destruction of mosquito larvae. It is now more difficult to check the effectiveness of fogging operations in the Bog Meadows' area due to the M.1 road, which has cut off access to sections of this area. The few complaints received from the residents in this district indicated that effective control had been achieved. During the season very few complaints were received but some annoyance was caused by midges. This was mitigated by insecticidal fogging of the shrubbery and hedges in the immediate vicinity of areas adjoining the Antrim and Holywood Roads.

During the season the following inspections were made, treatments carried out and materials used:—

Surveys of mosquito areas	173
Treatments with larvicide	153
Miles run by vehicle	656
Gallons of waste transformer oil used	880
Gallons of larvicide used	46
Gallons of paraffin used	34
Gallons of petrol used by vehicle and Tifa Machine	112

Other Insect Pests

During the year complaints regarding various kinds of insects such as bed-bugs, cockroaches, fleas, flies, Pharoah's ants, spider beetles, steamflies, etc., were investigated and complainants advised on the best method of dealing with their problem. Spider beetles are often thought by occupiers to

be bed-bugs and sometimes, because of this, they are the cause of considerable mental annoyance. Treatment in special circumstances, on request from Public Health Inspectors, Health and Welfare Visitors, was applied where considered necessary. The Corporation's refuse dumps were treated for flies. Due mainly to the lack of proper controlled tipping, three of the refuse dumps became heavily infested with flies during the months of August and September, involving a greater control effort with the application of insecticide. During the year it was necessary to treat 47 dwellings for bed-bugs and 152 premises and meals kitchens for cockroaches and steamflies.

Inspections of premises on complaint, etc.			3,147
Premises found to be infested			425
(a) Bed-bugs	47		
(b) Cockroaches and steamflies	142		
(c) Fleas	58		
(d) Flies	101		
(e) Other insects	77		
Premises treated with insecticide			559
Stables and cattle yards—treatments			285
Rag-stores—treatments			85
Corporation tipping grounds—treatments			64
Visits to food shops, etc.			552

The Hydrogen Cynadide (Fumigation) Act, 1938

The Hydrogen Cyanide (Fumigation of Buildings) Regulations (Northern Ireland) 1952

Notifications of intention to fumigate buildings with hydrogen cyanide to destroy mill pests	1

Methyl Bromide Fumigations

Number of notifications of fumigation of tobacco leaf with methyl bromide	10

These fumigations were done at a tobacco factory in a chamber adapted specially for this purpose and constructed and operated in a manner approved by the Ministry of Home Affairs for cyanide fumigations.

The Lister-Todd Insecticidal Fog Applicator

In addition to mosquito control and the application of insecticides, the T.I.F.A. machine was used for testing of drains and sewers which could not be tested by the hand operated machine and in cases where the smoke test revealed no defects, due to the impossibility of baiting the necessary pressure of smoke for a satisfactory test.

Sewer and drain tests by Tifa Machine on complaint of rats	40

Disinfection

The Disinfection Station is situated at the Laganbank Road with male and female attendants. After removal to hospital of patients suffering from certain infectious diseases or after the recovery of nursed-at-home patients, a disinfecting service is provided for infected premises and bedding. Small income accrues to the Department from the disinfection of articles which are intended for export and for which the importing country requires a certificate of disinfection.

Articles disinfected by:—

(a) steam	2,495
(b) formalin	360
Infected articles destroyed on request	203
Public library books withdrawn from circulation	198
Private library books withdrawn from circulation and disinfected	14
Persons bathed and disinfected	55
Visits to premises where infectious disease occurred	980
Premises disinfected	327
Mileage of vehicles in the disinfection of premises, bedding, etc., and the delivery and collection of home nursing equipment	5,648

Cleansing Clinic

A Cleansing Clinic is provided at Laganbank Road for the cleansing of verminous persons and for the treatment of scabies.

Persons deloused	104
Treatments for scabies	296
(a) First treatment	126
(b) Subsequent treatment	170
Articles disinfected and disinfested	1,535
Premises disinfested	42

Table B 51 shows the number of persons treated for scabies at the Cleansing Clinic over the past five years:—

TABLE B 51

Year	First treatment	Subsequent treatment	Total
1959	85	96	181
1960	123	125	248
1961	324	340	664
1962	156	131	287
1963	126	170	296

The following table gives particulars of cases issued during the calendar year 1963 and the fines and costs imposed by the Resident Magistrates.

TABLE B 52

Act	Offences	Summonses	Orders	Fines	Costs
				£ s. d.	£ s. d.
Belfast Corporation Acts 1845 to 1946	Failed to provide Bin	2	—	2 0 0	0 11 0
	Repaired a drain without giving notice	1	—	5 0 0	0 5 6
	Failed to cleanse and/or repair drains	29	—	—	—
	Vendor of fried fish or fried potatoes—Bye-Laws: Failed to maintain in good order and repair the walls of preparation room	1	—	3 0 0	0 5 6
Factories Acts (Northern Ireland) 1938 to 1959	Failed to provide a suitable sanitary convenience	1	—	2 0 0	0 12 0
	Failed to provide a suitable sanitary convenience — continuing offence	1	—	20 0 0	0 7 0
	Failed to keep in a clean state the inside walls of workroom attached to factory	1	—	5 0 0	0 5 6
Public Health (Ireland) Act, 1878: Housing (Ireland) Act 1919	Contravention of By Laws in respect of houses occupied by workers and let in lodgings or occupied by members of more than one family	2	—	0 10 0	0 5 6
Public Health (Ireland) Acts: 1878 to 1962	Failed to abate public health nuisances	2,212	263	375 11 0	126 18 6
	Disobedience of Magistrates' orders to abate public health nuisances	54	—	283 7 6	14 11 6
	Waterclosets not provided with sufficient water for flushing purposes	125	—	291 5 0	34 12 0
	Waterclosets not provided with sufficient water for flushing purposes: continuing offences	8	—	17 15 0	2 4 0
	Obstructed an authorised officer in the execution of his duties	1	—	4 0 0	0 7 0
	Failed to provide sufficient sanitary accommodation	1	—	2 0 0	0 5 6
	Failed to produce a veterinary certificate stating the reason for slaughter of an animal	1	—	5 0 0	0 7 0
Rag Flock Act, 1911 Rag Flock (Ireland) Regulations, 1912	Did have in possession flock for the purpose of making articles of upholstery which said flock did not conform to the required standard of cleanliness	1	—	3 0 0	0 5 6
Preservatives in Food Regulations (Northern Ireland) 1962	Sold food containing prohibited preservative	17	—	63 0 0	32 19 3
	Sold food containing preservative in excess of amount allowed	12	—	44 0 0	25 13 10
	Sold food containing preservatives and failed to label same as such	2	—	3 0 0	2 11 4
	Did have food containing added preservative, the said food being in course of delivery pursuant to a sale other than a retail sale	1	—	0 10 0	2 4 0

TABLE B 52 (contd.)

Act	Offences	Summonses	Orders	Fines	Costs
				£ s. d.	£ s. d.
Public Health (Prevention of contamination of Food) Regulations (Northern Ireland) 1948	Food prepared or stored in a room which communicated directly with a sanitary convenience	1	—	2 0 0	0 5 6
	Food prepared or stored in a room in which there was an outlet for ventilation of a drain	2	—	4 0 0	0 11 0
	Failed to keep in proper state of repair walls, floor and window in food preparation room	1	—	3 0 0	0 5 6
	Did use room as living room in which food was stored	3	—	9 0 0	0 19 6
	Failed to provide adequate washing facilities for the use of persons employed in preparation of food for sale	1	—	—	—
	Failed to observe due cleanliness of rooms where food was deposited for sale	3	—	11 0 0	0 16 6
	Failed to take all reasonable precautions to prevent contamin- of food by animals, dust and dirt	2	—	1 0 0	0 7 0
	Failed to secure the cleanliness of vehicle used in conveyance of food for sale	2	—	4 0 0	0 12 6
	Failed to secure the cleanliness of person employed on vehicle used in conveyance of food for sale	2	—	7 0 0	0 12 6
	Failed to secure the cleanliness of cover enveloping food deposited on vehicle used in conveyance of food for sale	1	—	2 0 0	0 5 6
Food and Drugs Act (Northern Ireland) 1958	Sold or exposed for sale food unfit for human consumption	16	—	42 0 0	10 17 0
	Adulteration of foodstuffs	5	—	15 0 0	5 12 9
	Failed to register premises for sale of ice-cream	2	—	2 0 0	0 11 0
Food Standards (Butter and margarine) Regulations (Northern Ireland) 1960. Regulation 6	Sold food as butter which was certified by the public analyst to be margarine	1	—	3 0 0	2 4 8
Ice Cream (Composition, Heat Treatment, Labelling, etc.), Regulations (Northern Ireland) 1961	Sold ice cream which was certified by the Public Analyst to be deficient in fat	2	—	10 0 0	4 10 9
	Manufactured ice-cream intended for sale for human consumption without using a recording thermometer to record the temperature to or at which the mixture is raised, kept or reduced	2	—	8 0 0	0 11 0

Conclusion

Since assuming office on the 10th August I have had every assistance from the Medical Officer of Health, the Administrative Officer and his clerical staff, for which I am most grateful. I am indebted to the Inspectorate for their loyal support and hard work.

I am also thankful for the help and co-operation received from many officers in other Corporation Departments and wish to state that I am anxious and willing to reciprocate in any way possible.

WILLIAM JENKINS, M.R.S.H., M.A.P.H.I.,
Chief Public Health Inspector.

RAINFALL IN INCHES

TABLE B 53

Month	1955	1956	1957	1958	1959	1960	1961	1962	1963
January	3.05	4.19	4.85	4.78	2.52	3.75	4.40	3.67	1.81
February	3.87	1.31	2.52	6.49	1.40	2.53	4.03	2.06	2.91
March	1.27	1.77	3.78	2.19	2.89	2.55	1.40	2.02	3.61
April	3.03	1.50	2.04	2.07	2.72	2.93	4.46	2.23	2.54
May	3.15	1.85	2.95	3.88	1.94	2.19	3.90	2.24	3.37
June	5.26	3.27	1.20	7.83	2.64	2.55	2.04	1.59	4.34
July	1.64	3.77	4.39	4.79	4.36	5.31	1.88	2.25	3.01
August	1.18	6.69	3.93	4.66	0.87	7.28	3.12	5.32	3.75
September	4.79	4.19	5.93	5.46	1.53	2.83	4.34	6.08	2.46
October	2.83	3.15	4.55	2.09	3.28	5.38	4.28	2.24	4.76
November	3.31	2.12	2.10	2.35	3.43	5.04	2.76	4.16	7.38
December	6.69	6.10	5.53	6.13	6.07	2.36	3.53	4.00	0.86
	40.07	39.91	43.77	52.72	33.65	44.70	40.14	37.86	40.80

Total Slaughter

The total number of animals (280,634) slaughtered at the Belfast Municipal Abattoir in 1963 represents the highest kill in its history to date. Compared with 1962, cattle show an increase of 4,846; sheep and lambs an increase of 2,981; pigs a decrease of 776 and goats an increase of 676.

Number and description of animals slaughtered monthly

TABLE C 1

	Cows	Heifers	Steers	Bulls	Calves	Sheep and lambs	Pigs	Goats
January	234	222	5,841	21	119	17,926	604	32
February	117	104	4,544	27	98	10,963	484	78
March	122	148	4,266	7	112	9,586	566	190
April	135	173	5,176	6	80	12,336	500	136
May	129	127	4,482	13	66	15,767	309	80
June	108	104	3,920	4	45	16,996	359	65
July	84	99	4,607	—	38	18,330	318	28
August	119	96	4,685	—	84	19,313	415	6
September	190	103	4,866	10	80	21,926	395	94
October	201	127	5,525	2	117	23,199	370	131
November	122	81	5,479	2	104	23,802	373	150
December	99	104	5,442	2	73	21,296	363	57
Totals	1,660	1,488	58,833	94	1,016	211,440	5,056	1,047
	63,091							
	Grand Total 280,634							

Condemnations

The total number of carcases wholly condemned in 1963 was 692 as compared with 1962's total of 672, an increase of 20. This represents a percentage of 0.25 of the total slaughter, the highest loss being in pigs with 2.89% (Table C2).

Total seizures from all causes

TABLE C 2

Class	1962	1963	Percentage of total kill
Cattle	92	85	0.13
Sheep and lambs	423	418	0.20
Pigs	152	146	2.89
Goats	5	43	0.15
Totals	672	692	0.25

As far as individual disease conditions are concerned the greatest losses were due to generalised oedema, followed by pyaemia, decomposition, fever, septic pneumonia and abscesses, as will be evident from Table C3. Pyaemia and abscesses, both localised and multiple, are currently the reasons of much loss in pigmeat, giving the industry cause for grave concern. Total and partial seizures in all species amounted to 45,966 lbs. or approximately 20½ tons of carcase meat.

Reasons for total seizure

TABLE C 3

Cause	Cattle	Sheep	Pigs	Goats	Total
Abscesses	—	4	18	—	22
Anaemia	1	3	—	—	4
Arthritis	1	—	2	—	3
Carcinonia	2	—	—	—	2
Dropsical	2	6	—	—	8
Decomposition	2	43	2	1	48
Enteritis	1	—	—	—	1
Fever	3	18	11	—	32
Fibrositis	1	—	—	—	1
Gangrene	—	4	—	—	4
Gastiritis	1	—	—	—	1
Generalised C. Bovis	2	—	—	—	2
Immaturity	19	—	—	—	19
Injuries, Multiple	3	7	7	1	18
Joint Ill	6	—	—	—	6
Jaundice	—	1	1	—	2
Lymphadenitis	—	1	—	—	1
Navel Ill	1	—	—	—	1
Neoplasms	1	1	1	—	3
Oedema	14	293	9	38	354
Odour, objectionable	—	1	—	—	1
Pyaemia	6	3	49	—	58
Pigmentation	—	—	3	—	3
Septicaemia	3	2	14	1	20
Septic mastitis	1	1	—	2	4
Septic metritis	8	5	4	—	17
Septic arthritis	1	—	3	—	4
Septic peritonitis	—	5	5	—	10
Septic pleurisy	—	4	2	—	6
Septic pneumonia	1	15	12	—	28
Septic pericarditis	1	—	—	—	1
Septic nephritis	1	—	2	—	3
Swine erysipelas	—	—	1	—	1
Toxaemia	—	1	—	—	1
Tuberculosis	3	—	—	—	3
Totals	85	418	146	43	692

In addition to the above, 9,601 lbs. of "injured" beef; 5,172 lbs. beef other causes (tuberculosis etc.); 14,071 lbs. mutton; 25 lbs. veal; 15,360 lbs. pork and 43 lbs. goat were seized as being unsound and unfit for human food.

It will be evident from Tables C3 and C4 that **Tuberculosis** has now become a rarity in the Abattoir. Although in 1955 some 80% of all carcase meat condemnations in cattle were due to this scourge, the condition is now rarely encountered, this happy situation being the result of the Ministry of Agriculture's Attested Herds Scheme (Northern Ireland having been declared an Attested Area in October, 1961).

In 1963 the overall incidence of tuberculosis in cattle slaughtered in Belfast was 0.21%, which may be compared with other centres in the Province in the following Table C4.

Tuberculosis in Meat Inspection Cattle, 1963

TABLE C 4

Abattoir	Total Kill	No. Affected	Per-centage
Ballymena Export	13,604	349	2.57
Newry	4,754	20	0.42
Downpatrick	4,213	12	0.28
Belfast	63,091	134	0.21
Dungannon	8,981	9	0.10
Larne	3,830	4	0.10
Bangor	3,976	4	0.10
Strabane	2,149	2	0.09
Enniskillen	5,629	4	0.07
Coleraine	4,193	3	0.07
Londonderry	8,327	5	0.06
Ballymena	10,520	5	0.05
Lurgan	13,923	6	0.04
Banbridge	2,943	1	0.03
Dunloy	3,143	1	0.03
Lisburn 5/1	910	Nil	—
Lisburn 5/2	72	Nil	—
Newtownards	4,467	Nil	—
Totals	158,725	559	0.35

In pigs the extent of tuberculosis was 0.65% in pigs slaughtered in the Municipal Abattoir, the average for the Province (Local Authority Abattoirs only) being 0.69%. This condition in pigs was not encountered at 13 of the abattoirs making records, only 5 reporting the disease during 1963.

By-Law Meat Inspection

A considerable amount of carcase meat, offal and tinned food is still being presented for examination. Condemnations are listed in Table C5.

Condemnations associated with By-Law Meat Inspection

TABLE C 5

Beef:	812 sides, 1,327 quarters, 618 cuts, examined; 824 lbs. seized.
Mutton:	1,818 carcases, 110 cuts examined; 99 lbs. seized.
Pork:	207 carcases examined; 42 carcases and 814 lbs. seized.
Fowl:	2 examined; 2 seized.

Fascioliasis or Liver Fluke

No significant reduction in the incidence of Liver Fluke infestation can be recorded for 1963, during which some 400 tons of cattle and sheep liver were condemned in Northern Ireland because of this menace; of this Belfast contributed about 94½ tons. The position of Belfast re incidence may be compared with other abattoirs in Table C6. Liver Fluke, besides being the cause of much loss of edible liver, is also responsible for loss of condition, milk, wool and even progeny as well as death, in its acute and subacute forms.

Liver Fluke in Meat Inspection Cattle, 1963

TABLE C 6

Abattoir	Total kill	Affected with fluke	Percentage
Enniskillen	5,629	5,119	90.9
Lurgan	13,923	11,272	81.0
Strabane	2,149	1,716	79.9
Larne	3,830	3,036	79.3
Dungannon	8,981	6,997	77.9
Downpatrick	4,213	3,154	74.9
Ballymena Export	13,604	9,689	71.2
Coleraine	4,193	2,863	68.3
Dunloy	3,143	2,056	65.4
Belfast	63,091	38,420	60.9
Londonderry	8,327	4,911	59.0
Bangor	3,976	1,902	47.8
Ballymena	10,520	4,200	39.9
Newry	4,754	1,672	35.2
Newtownards	4,467	1,419	31.8
Lisburn 5/2	72	21	29.2
Banbridge	2,943	675	22.9
Lisburn 5/1	910	207	22.7
Totals	158,725	99,329	62.6

Bovine Cysticercosis

This disease is showing a gradual increase, not only at Belfast Abattoir but also in Northern Ireland as a whole, a situation which can only be viewed with alarm. The percentage of cases detected at Belfast Abattoir during 1963 was 4.0%, the average for the Province being 2.8% compared with 2.5% in 1962.

Besides being of great importance from a public health point of view in that, if infected meat is eaten raw or improperly cooked, it gives rise to taeniasis in human beings, the disease is also important economically, resulting in an average loss of £15-20 to the meat trade for each carcase which is subjected to refrigeration.

C. Bovis was detected in a generalised form in 2 instances in Belfast during 1963.

The incidence of Bovine cysticercosis in Northern Ireland is given in Table C7.

Bovine Cysticercosis in Meat Inspection Cattle, 1963

TABLE C 7

Abattoir	Total kill	Cases of C. Bovis	Percentage
Enniskillen	5,629	563	10.0
Newry	4,754	273	5.7
Belfast	63,091	2,505	4,0
Bangor	3,976	133	3.3
Ballymena Export	13,604	365	2.7
Downpatrick	4,213	109	2.6
Coleraine	4,193	88	2.1
Strabane	2,149	42	2.0
Larne	3,830	47	1.2
Dungannon	8,981	80	0.9
Londonderry	8,327	68	0.8
Banbridge	2,943	24	0.8
Lurgan	13,923	75	0.5
Newtownards	4,467	17	0.4
Dunloy	3,143	13	0.4
Ballymena	10,520	43	0.4
Lisburn 5/1	910	1	0.1
Lisburn 5/2	72	—	—
Totals	158,725	4,446	2.8

Transport of edible meat and offal

New legislation whereby meat and offal for human consumption will be transported in hygienic closed vehicles is still awaited. That open platform vehicles should currently be used for this important function while material unfit for human consumption is transported in sealed containers with adequate safeguards to the public health is, to say the least, a strange state of affairs.

Meat (Staining and Sterilisation) Regulations (N.I.) 1963

July, 1963, saw the introduction of this legislation which requires all butchers' meat and imported meat unfit for human consumption to be sterilised before removal from an abattoir, except where it is to be consigned to processing plants, laboratories for diagnostic purposes and certain other institutions. In the latter case the unfit material must be consigned in a closed and locked container or vehicle bearing a notice of adequate size and conspicuously visible stating distinctly and legibly that the meat is not for human consumption. Because of a breakdown in the Douglas processing plant in the Municipal Abattoir, unfit material is currently being sent to an outside processing plant under adequate public health safeguards and this procedure is working very satisfactorily.

Slaughterhouses (Hygiene) Regulations (N.I.) 1963

These regulations, which came into force on 1st December, 1963, are designed to secure the observance of sanitary and cleanly conditions in connection with the operation of slaughterhouses and the handling of meat therein. They impose, upon occupiers of slaughterhouses and others, requirements as to equipment, cleanliness, management and personal hygiene. These are the first detailed hygiene regulations specifically for abattoirs to be introduced in Northern Ireland by the Ministry of Health, having been in force in Great Britain since 1958. There is no doubt that their implementation has meant a higher standard of abattoir hygiene.

Agricultural Produce (Meat Shipping) Regulations (N.I.)

The Ministry of Agriculture intend early in 1964 to introduce legislation to deal with standards of hygiene, construction, etc., for premises from which meat is exported out of Northern Ireland. The preliminary draft of these regulations indicates that an extremely high standard will be required. While it is confidently expected that the Municipal Abattoir will be able to achieve this standard, it is certain that only in the proposed new meat plant at Duncrue Street will the requirements of a modern meat industry be fully met. Under this legislation and the Slaughterhouses (Hygiene) Regulations arrangements have been made for the provision of adequate electric sterilisers for knives, etc., and wash-hand basins with roller towels throughout the Municipal Abattoir.

Veterinary Laboratory

Adequate meat inspection to ensure that meat is completely fit and wholesome for human consumption can only be guaranteed with the provision of the necessary bacteriological and biochemical techniques. Modern livestock production involves on occasions the use of feed additives such as antibiotics, hormones, etc. The increasing use of pesticides and herbicides in intensive agricultural systems frequently results in many of these substances being deposited as residues in the flesh of meat animals. The detection of such substances, some of which may possibly be injurious to human health, is yet another function of an abattoir laboratory. It is hoped that these and other important procedures will shortly be carried out in the Municipal Abattoir.

J. F. GRACEY, M.R.C.V.S., D.V.S.M., B.Agr., Ph.D.
City Veterinarian.

REPORT OF SENIOR MEDICAL OFFICER, MATERNITY AND CHILD HEALTH DIVISION, FOR THE YEAR 1963

Notification of Births Act

The total number of births notified as occurring in the area during the year was 11,229. Of these 5,799 were males and 5,430 were females. There were 230 still births.

TABLE D 1

Births occurring in	
Hospitals	8,660
Private nursing homes	229
Other Institutions	96
Home	1,851
Home (Hosp. district cases)	393
Total	11,229

Infant Mortality

During the year, 259 children died under the age of 12 months giving an infant mortality rate of 29. The rate for the previous year was also 29.

Neonatal and Perinatal Mortality

Deaths occurring during the first month of life numbered 168 giving a neonatal mortality rate for the year of 19. The rate for the previous year was 20. The perinatal rate, i.e. stillbirths and deaths during the first week per 1,000 total births (live and still), was 36 against 41 for the previous year.

Maternal Mortality

The number of women who died from pregnancy, childbirth and the puerperal state during the year was 3 giving a maternal mortality rate of 0.33 per 1,000 live births. The rate for the previous year was 0.46. Table D13 shows the Maternal Mortality per 1,000 live births analysed according to the cause of death.

Health Visiting

56 Health Visitors were employed at the end of the year. While the visitation and supervision of the health of infants and young children constituted the main part of their work, a greater proportion of their time was spent on after-care duties. All undertook the visitation of tuberculous and chest cases in co-operation with the Central Chest Clinic. Six Health Visitors continued, part-time, the after-care of mental cases. They visited the mental hospital and worked with the Psychiatric Social Workers. One Health Visitor continued, full-time, her work with a group practice, undertaking all the Health Visiting duties in connection with the practice.

An increasing number of Health Visitors carried out liaison work with general practitioners, and the contacts have been found most helpful in resolving many varied problems. The close liaison work with the hospitals, now in progress over twelve years, continued to expand, and one Health Visitor's time was allocated entirely to diabetic work.

The Health Visitors assist the Welfare Department in the administration of the Home Help Scheme as far as expectant mothers and mothers of young children are concerned, and intimate contact is maintained with that Department on various aspects of district work. They again had the opportunity of attending Refresher Courses and Conferences, and certain Health Visitors continued to give lectures in connection with training schemes for students, and all continued to assist in research projects.

Visits paid during the year were as follows:—

(1) To expectant mothers: First visits, 1,870; Re-visits, 2,848; Total 4,718.

(2) To children under one year of age: First visits, 8,805; Re-visits, 53,857; Total 62,662.

(3) To children between 1 and 5 years: 80,148.

(4) To Tuberculosis cases, 8,246.

Ante-Natal Clinics

As the great majority of expectant mothers attending the Ante-Natal Clinics make arrangements through the clinics for their confinement in hospital the Clinic Medical Officer maintains close contact with the hospitals. At the Royal Maternity Hospital she also assists at one of the Ante-Natal sessions, and is a member of the Honorary Medical Staff.

Specimens of blood are taken for Group, Rh factor, Wasserman, etc., and arrangements are in operation whereby private medical practitioners can refer their cases to the clinics for these tests. Some medical practitioners also refer abnormal cases for a second opinion.

Instruction in Analgesia and in relaxation has been continued in combination with a special series of Mothercraft talks. These are open to all ante-natal cases irrespective of whether they are attending for ante-natal supervision or not.

Clinics and Attendances

TABLE D 2

	1st Visit	Re-Visits
Mount Street, morning (closed October, 1963)	34	351
do. afternoon	81	584
Susan Street, Church Hall	51	501
Mountcollyer Street	45	460
Spier's Place, Shankill Road	88	713
Ariel Street	76	523
Cupar Street	180	1,122
	555	4,254

2,564 Blood Tests were carried out during the year.

Child Health Centres

As the hall in which we held our Clinic at Greencastle ceased to be available the weekly session there had to be discontinued.

The number of sessions provided at the end of the year was thus reduced to 36 per week—15 in buildings owned by the Health Authority and 21 in others rented on a sessional basis.

As there is no alternative accommodation available in some areas a number of sessions continue to be held in very unsuitable premises.

The educational aspect of the work was kept well to the fore and special stress was again placed on the prevention of accidents.

The members of the Voluntary Workers' Association continued their help in the weighing of the babies and arranging social functions for the mothers, and our thanks are again due to them for this valuable assistance in our work.

Centres and Attendances

TABLE D 3

		Under 1 year	Over 1 year
Highfield	(Monday)	1,415	626
York Street	,,	1,839	655
Ariel Street	,,	2,365	911
Bloomfield	,,	3,720	1,306
Cupar Street	,,	3,123	1,620
Donegall Road	,,	2,698	795
Knock	,,	1,922	374
Glenard	(Tuesday)	2,938	977
Havelock Place	,,	3,216	900
Donegall Road	,,	2,380	685
Cupar Street	,,	1,860	639
Mount Street	,,	3,003	954
Ariel Street	,,	2,464	183
Avoca Street	(Wednesday)	1,790	525
Cupar Street	,,	2,373	1,007
Ligoniel	,,	3,008	1,706
Seaview	,,	3,781	1,128
Windsor	,,	2,348	811
Mount Street	,,	2,731	942
Palmerston Road	,,	1,301	629
Susan Street	,,	2,577	1,177
Avoca Street	(Thursday)	2,296	629
Kimberley Street	,,	3,274	1,168
Greencastle (closed May, 1963)	,,	870	248
Mountcollyer	,,	2,242	583
Spier's Place	,,	2,025	268
Stranmillis	,,	2,538	758
Susan Street	,,	2,869	908
Mount Street	,,	3,624	1,295
Malone	(Friday)	1,215	774
Ariel Street	,,	3,270	747
Cupar Street	,,	1,953	818
Joanmount	,,	2,334	1,249
Spier's Place	,,	2,371	582
Strandtown	,,	3,639	966
Mount Street	,,	2,061	866
Ballymurphy	,,	2,174	901
Total Attendances		91,607	31,310

Mother and Baby Homes

(Ante and Post-Natal Hostels)

TABLE D 4

Name and address of Home or Hostel	NUMBER OF BEDS						Average length of stay	
	Ante-natal	Post-natal	Labour	Isolation	Maternity (excluding labour and isolation)	Cots	Ante-natal	Post-natal
(a) Hopedene	3	11	—	—	—	11	6-8 weeks	6-9 weeks
(b) Thorndale	9	4	2	1	25	16	6-7 weeks	10 weeks

The total number of City cases admitted during the year was 27.

These hostels are in receipt of a grant from the Health Committee.

Residential Nurseries

TABLE D 5

Name and address of Nursery	Whether long stay or short stay	Number of beds provided at the end of year				
		Aged 0-9 mths.	10 mth.-2 years	Aged 2-5	Girls over 5	Boys over 5
Glendhu Hostel Holywood Road (A voluntary Hostel in receipt of a grant from the Health Committee).	Short Stay	12	8	5–10	5	5

60 children resident in Belfast were admitted to the Hostel during the year.

Communicable Diseases

TABLE D 6

	(1) Ophthalmia Neonatorum		(2) Pemphigus Neonatorum		(3) Puerperal fever		(4) Puerperal pyrexia	
	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements
Number of cases notified during year	—	—	—	—	—	—	2	27
Number of cases visited by officers of the Local Authority	—	—	—	—	—	—	2	25
Number of cases—Home Nursing provided	—	—	—	—	—	—	1	—
Number of cases removed to hospitals	—	—	—	—	—	—	1	—

Midwives

TABLE D 7

	Domiciliary midwives	No. in inst. other than Hospitals	Midwives in hospitals	Midwives in nursing homes	Total
Total number of Midwives practising at the end of the year in the area of the Local Supervising Authority	40	18	204	8	270

Number of cases in which medical aid was summoned by a midwife during the year under Section 34 of the Nurses and Midwives Act, (Northern Ireland), 1959.

Nil

Domiciliary Midwives

25 midwives were employed on a salaried and 13 on a fee-per-case basis. Progress continues to be slow in recruiting sufficient midwives to enable the service to be placed entirely on a whole-time salaried basis. Two hostels are in operation, one in Springfield Road and the other in Templemore Avenue. Both hostels provide for a number of resident pupil midwives. A self contained flat is incorporated in the Child Health Clinic at Ballymurphy for 2 midwives. The Health Committee also contributes a proportion of the expenditure of two hostels for the training of pupil midwives in conjunction with the Belfast City and Royal Maternity Hospitals.

Allowances to cover uniform, laundry and travelling are granted, the uniform being that laid down by the joint Nursing and Midwives Council. Equipment is issued on loan, and all drugs, dressings, etc., in use are supplied to the midwives. Special cots, etc., for the care of premature babies are available. The trend however is for these babies to be admitted to the special nurseries attached to the two large maternity hospitals in the City. Refresher courses are arranged from time to time.

The midwives attended a total of 2,287 domiciliary cases during the year.

Number of midwives suspended from practice during the year in order to prevent the spread of infection—nil.

Maternity Medical Services

General Medical Practitioners agreeing to provide maternity medical services in domiciliary cases are enrolled on a panel maintained in the department and are paid on a fee-per-case basis. Both the doctor and the midwife are paid by the Health Committee.

The following is a summary of the work carried out under the scheme by Medical Practitioners during the year:—

TABLE D 8

Domiciliary confinements at which General Practitioner attended	3,330
Women confined at home who were examined ante-natally	3,385
Ante-natal examinations made of women confined at home	29,067
Women referred to institutions for confinement who were examined ante-natally	1,393
Ante-natal examinations made of women confined in institutions	9,265
Final pelvic examinations made of women confined at home	2,937
Final pelvic examinations made of women confined in institutions	762
Cases of abortion attended	675
Anaesthetics given by second practitioner	24

Registration of Nursing Homes

TABLE D 9

	Number of Homes	Number of beds provided for:—		
		Maternity	Dual purposes	Total
Homes first registered during the year	—	—	—	—
Homes on the register at the end of the year	7	42	33	75

Action during 1963:

Number of applications for registration refused	—
Number of exemptions granted	—
Number of exemptions withdrawn	—
Number of registrations cancelled	—
Number of appeals by aggrieved persons to a Court of Summary Jurisdiction	—
Number of cases in which fines were imposed	—
Number of inspections	45
Number of registered homes not inspected	—

The inspections during the year were made by the Clinic Medical Officer, the Superintendent Nursing Officer, and the Area Superintendent Health Visitors.

Deaths and Death Rates per 1,000 births of Infants under one year associated with prematurity and, in the post-natal period, associated with diarrhoea and enteritis, pneumonia, broncho-pneumonia, and bronchitis

TABLE D 10

	1954		1955		1956		1957		1958		1959		1960		1961		1962		1963	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Prematurity	74	8.91	78	9.62	53	6.45	91	10.8	85	10.3	90	10.8	73	8.36	97	11.0	83	9.61	85	9.62
Diarrhoea and enteritis	24	2.89	29	3.58	8	0.97	10	1.2	13	1.6	12	1.4	7	0.8	12	1.36	10	1.16	5	0.57
Pneumonia, broncho-pneumonia and bronchitis	49	5.90	35	4.32	28	3.41	26	3.1	45	5.4	34	4.1	21	2.41	34	3.86	22	2.55	31	3.51

TABLE D 11

Infant Mortality and Rates per 1,000 births by causes and sex

Causes of death	Under 1 month				1-11 months			Total under 1year	
	Males	Females	Total	Rate	Males	Females	Total	No.	Rate
Tuberculosis of respiratory system	—	—	—	—	—	—	—	—	—
Tuberculosis, other forms	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—
Scarlet fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—
Syphilis and its sequelae	—	—	—	—	—	—	—	—	—
Typhoid	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—
Whooping cough	—	—	—	—	—	—	—	—	—
Meningoccocal infections	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—
Other infectious and parasitic diseases	—	—	—	—	2	—	2	2	0.23
Malignant neoplasms including neoplasms of lymphatic and haematopoietic tissues:									
(a) cancer	—	—	—	—	—	—	—	—	—
(b) Hodgkins disease and Leukaemia	—	—	—	—	—	—	—	—	—
Benign and unspecified neoplasms	—	—	—	—	—	—	—	—	—
Diabetes	—	—	—	—	—	1	1	1	0.11
Vascular lesions affecting central nervous system	—	—	—	—	1	—	1	1	0.11
Non-meningococcal meningitis	1	2	3	0.34	—	—	—	3	0.34
Other diseases of heart	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—	—	—
Pneumonia (excluding new born)	—	—	—	—	19	11	30	30	3.39
Bronchitis	—	—	—	—	—	1	1	1	0.11
Intestinal obstruction and hernia	1	—	1	0.11	—	—	—	1	0.11
Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the new born	—	—	—	—	2	3	5	5	0.57
Cirrhosis of liver	—	—	—	—	—	—	—	—	—
Nephritis and nephrosis	—	—	—	—	—	—	—	—	—
Congenital malformations	17	14	31	3.51	0.11	10	21	52	5.88
Birth injury, post natal asphyxia and atelectasis									
(a) with prematurity	19	16	35	3.96	—	—	—	35	3.96
(b) without prematurity	14	12	26	2.94	—	1	1	27	3.05
Infections of new born									
(a) with prematurity	1	1	2	0.23	—	—	—	2	0.23
(b) without prematurity	4	3	7	0.79	—	—	—	7	0.79
Other diseases peculiar to early infancy									
(a) with prematurity	29	19	48	5.43	—	—	—	48	5.43
(b) without prematurity	9	4	13	1.47	—	—	—	13	1.47
All other diseases	2	—	2	0.23	12	14	26	28	3.17
Accidents	—	—	—	—	1	1	2	2	0.23
Unknown causes	—	—	—	—	—	1	1	1	0.11
Homicide and operations of war	—	—	—	—	—	—	—	—	—

TABLE D 12

Infant Mortality (By Age Groups)

Sex	Under 1 day	1-6 days	1-3 weeks	1 month	2 months	3-5 months	6-11 months	Total	Deaths of Illegitimate children
Males	49	39	9	10	5	26	7	145	1
Females	41	21	9	10	9	15	9	114	2
Total	90	60	18	20	14	41	16	259	3

Maternal Mortality Rate per 1,000 live births according to cause of death

TABLE D 13

Cause of death	No. of deaths	Rate per 1,000 total births
1. Post-partum shock	1	0.11
2. Pulmonary Embolism	1	0.11
3. Rupture of aneurysm of inter-communicating artery at 28 weeks gestation	1	0.11

Infant and Neo-Natal Mortality Rates, 1885—1962

TABLE D 14

Year	Rate per 1,000 births		Year	Rate per 1,000 births	
	Infant	Neo-Natal		Infant	Neo-Natal
1885	170	—	1951	44	24
1890	162	—	1952	47	25
1895	169	—	1953	45	21
1900	152	—	1954	39	24
1905	136	—	1955	37	21
1910	143	—	1956	29	18
1915	137	—	1957	32	22
1920	132	—	1958	30	19
1925	104	—	1959	33	22
1930	78	—	1960	28	20
1935	112	—	1961	33	23
1940	122	40	1962	29	20
1945	84	40	1963	29	19
1950	49	25			

— indicates information not available

Home Nursing Service

The Home Nursing Staff consists of 1 Superintendent, 1 First Assistant Superintendent, 1 Second Assistant Superintendent and 47 Queen's Nurses, 3 State Registered Nurses and 2 State enrolled Nurses.

There were 18 nurses in training during the year. 6 were Departmental candidates and 12 were County Candidates. The training remains at a high standard and several of the candidates obtained credits in various subjects at the examination.

The total number of visits paid was 217,309 compared with 200,237 in 1962.

Sick room requisites such as Dunlopillo mattresses, air cushions, bed-rests, rubber sheeting, bed-pans, etc., are sent out to patients on loan when required through the Medical Comforts depot.

During the year the use of sterile packs for the Nurses' Bags was introduced; also incontinent pads for the nursing of patients.

The Marie Curie Fund was utilised for obtaining extra facilities for cancer patients—bedding, clothing, extra nourishment, night sitters, etc.

TABLE D 15

Home Nursing Service
Statistics of Work Done, 1963

A.	Number of Cases:—		
	(i) Brought forward from 1962		2,242
	(ii) New cases taken on during 1963		3,979
	Analysis of new cases:—		
	Tuberculosis	65	
	Cancer	198	
	Diabetes	50	
	Gynaecological	29	
	Pneumonia	21	
	Surgical	740	
	General medical	2,876	
	(iii) Removed during 1963		2,914
	Cause of removal:—		
	Convalescent	1,524	
	Died	409	
	To hospital	619	
	Other causes	362	
	Remaining on books at end of 1963		3,307
B.	Analysis of visits to all cases in 1963:—		
	Tuberculosis	4,552	
	Cancer	12,271	
	Diabetes	18,161	
	Gynaecological	464	
	Pneumonia	293	
	Surgical	29,000	
	General medical	152,568	
	Total visits	217,309	

After-Care

The Committee's scheme for dietetic assistance includes domiciliary as well as ex-hospital cases. Assistance is given for a period of six weeks during which time the National Assistance Board, to whom each case is referred, arranges for its continuance from central funds if necessary. The total number of cases dealt with was 798. Women over 60 and men over 65 excluded from the scheme are the entire responsibility of the National Assistance Board. Tuberculosis patients are supplied with one pint of milk daily on the recommendation of chest physicians. During the year 968 persons received milk under this scheme. Cases are reviewed periodically by the chest physician who recommends the continuation or cessation of supplies.

During the year 1,296 new issues of medical comforts were made and 974 persons returned loaned equipment. The number holding equipment at the end of the year was 1,074.

Chiropody

A scheme for providing chiropody treatment for the aged, handicapped persons, and expectant and nursing mothers was introduced in 1961. At the beginning one session was held weekly, but with the rapid growth of the work it was found necessary to increase the number of sessions, and also provide for domiciliary visits. At the end of 1963, 36 sessions were being held weekly.

A total of 2,404 persons received treatment; and the number of treatments carried out was 9,134, 8,192 at clinics and 942 in patients' homes.

In conclusion I would like to express to the members of the Staff my sincere appreciation of the excellent manner in which they discharged their duties throughout the year.

H. A. WARNOCK, M.D., B.Sc., D.P.H.,

Senior Medical Officer
Maternity and Child Health Division.

Belfast Grant-Aided Schools

The various types of grant-aided schools in the City and the number of pupils attending them are shown in Table E1. Compared with 1962 the voluntary primary schools were reduced by one, with the closing of St. Comgall's Boys' School; the voluntary secondary schools were increased by one with the opening of St. Augustine's Boys' Secondary School. The special schools increased from 9 to 10 with the opening of Greenwood House Diagnostic Unit. At the end of the year the total number of grant-aided schools, 193, was one more than at the end of 1962; the school population was 80,847 compared with 81,366 in 1962.

All pupils at these schools are examined by the School Health Service under the provisions of Section 42 of the Education Act (N.I.), 1947, as amended, excepting three who conduct their own schemes of medical and dental inspections and treatment under Section 42 (6).

Staff

Our medical officer staff remained at full strength throughout 1963, and the Northern Ireland Hospitals Authority continued to provide specialist services by secondment on a sessional basis. A paediatrician worked part time in our clinics and special schools and an orthopaedic surgeon at Fleming Fulton School. Ophthalmic specialists were also seconded for sessions in the school clinics, but the number of sessions available was considerably less than the number required to keep waiting lists from growing. Plans are in hand to improve this situation in 1964.

Speech therapy sessions are also provided by the Hospitals Authority, but in 1963 they were able to meet only about half of their commitment of 11 sessions per week. Our permanent staff of speech therapists was also three below strength throughout the year.

Several changes in the staff of physiotherapists and occupational therapists occurred, so that staffing in these departments was also a little below strength for most of the year.

The staff of health visitors remained complete throughout the year.

School Medical Inspections

The School Health Service (Amendment) Regulations (N.I.), 1963, came into force half way through the year; these Regulations follow similar legislation in England, and modification of the present system of medical inspections at stated age groups is now permissiable. We hope to begin experiments in 1964 with different types of inspection.

Table E2 enumerates the various medical inspections carried out in 1963. The total of 36,636 shows an increase of 2,530 over the previous year's figure; about half of this increase consists of routine inspections and about half of re-examinations. The number of children referred by their teachers for special examination, 825, was about the same as in previous years.

All of the 4,135 handicapped pupils at special schools or on home tuition were examined during the year, some of them several times; these examinations are not included in Table E2, nor are the findings included in the various tables of defects, but particulars of the children's handicaps are given in Tables E14 to E21.

Table E12 shows that 15,945 children were re-examined during the year for 20,153 defects noted at previous examinations; 3,627 of these defects were found to need further treatment, 4,958 were removed from the re-examination list as cured, and the remaining 11,568 were listed for further observation.

Table E11 shows a summary of the action found necessary by the examining doctor at routine medical inspections, and Table E3 shows the numbers of parents who were present at these inspections. The purpose of Table E11 is to distinguish between defects noted at medical inspections which are already receiving all necessary attention and those defects requiring some action to be initiated by the school doctor. In the latter category the totals were 3,934 at primary and 2,012 at secondary schools.

Heights and Weights

Table E4 gives estimates of the height and weight of boys and girls examined during 1963. For height and weight at each year of age are given the mean with its standard error and the standard deviation and co-efficient of variation. The median and first and ninth deciles are also given. The

tables showing mean heights and weights at primary and secondary schools separately have been abandoned this year; the reorganisation of schools has now reached a stage where there are too few young children at secondary and too few older children at primary schools for reasonable comparisons to be made. We are studying the trends in Belfast children's growth over the years and comparing them with similar studies in London, Sheffield, and elsewhere; this will be the subject of a separate publication later.

Defects discovered at Routine Medical Inspections

Table E5 shows the results of inquiry at routine medical inspections about smallpox vaccination and search for the scar of successful vaccination; about 26% of those examined showed no evidence of vaccination.

Table E6 shows the doctor's assessment of the nutritional state of the childern examined. As usual few children were classed as badly nourished.

Table E7 summarises the defects found at routine medical inspections in 1963. Compared with 1962 small increases in the numbers defective per thousand children examined are found in defects of ear, nose and throat, cervical glands, heart and circulation, lungs, and development, while small decreases are found in orthopaedic and nervous system defects.

Defective vision this year was noted in 298 per thousand children examined; this is a large increase compared with 276 in 1962 and 272 in 1961, and is very similar to the 1960 figure of 299. In 234 children examined the visual acuity could not be assessed for a variety of reasons including immaturity, eye disease, and occlusion of an eye under treatment for squint; these children will be kept under observation until the visual acuity can be measured and any necessary treatment given. Table E8 (a) and E8 (c) show the acuity in each eye of all the 19,223 children in whom it could be accurately assessed; of these children 1,629 wore glasses, and their acuity with glasses is shown in Tables E8 (b) and (d). Visual acuity of 6/24 or less in the better eye is a serious handicap, and children whose vision cannot be improved by glasses to a higher acuity than 6/24 are classed as partially sighted. Tables E8 (a) and (c) show 204 primary and 313 secondary schoolchildren to have vision of 6/24 or less in each eye; these figures are the sums of the sixteen squares to the lower right hand side of each table. Similarly, Tables E8 (b) and (d) show that when glasses are worn all but 14 primary and 10 secondary children improve to better than 6/24 in at least one eye.

Table E9 shows the results of colour vision testing in 5,513 children, including all of Group IV and some of Group III; 3.5% of the boys and 0.2% of the girls examined had major defects of colour vision, and a further 4.8% of the boys and 2.0% of the girls had less important defects.

Tuberculin Tests and B.C.G. Vaccinations

Table E10 shows the results of tuberculin testing by the Heaf multiple-puncture method at routine medical inspections. Part (a) of the table is confined to children not previously vaccinated with B.C.G. and gives a measure of the naturally acquired positive reactions to tuberculin in Belfast children. Our aim is to vaccinate the children at about 10 years of age, just before the time when they run increased risks of infection by the tubercle bacillus. The 1,005 nine-year-olds offered the test in 1963 are children who were nearing their tenth birthday; the few eight-year-olds and younger were tested for clinical reasons, usually to rule out tuberculosis as the cause of symptoms; those over 10 years were children who had avoided vaccination when they were younger.

Of these 3,972 unvaccinated children tested 12.1% gave positive reactions. The corresponding percentages in the previous six years were 16.6, 15.4, 12.9, 12.5, 11.7 and 14.3. After a steady decline to 11.7% in 1961 the rise to 14.3% positive in 1962 was disturbing, and it is hoped that this year's lower percentage of 12.1 is a resumption of the downward trend in accidentally acquired positive tuberculin reactions.

Part (b) of the table shows the results of retesting 1,479 children previously vaccinated with B.C.G. These vaccinations were up to about ten years old, and yet 98% of the children were found still to have positive reactions, which indicates that the duration of immunity given by B.C.G. is probably long. Revaccination is offered to those few children whose reaction has reverted to negative.

During 1963 our doctors vaccinated 3,612 children with B.C.G. Returns are made to us of Belfast residents of any age given B.C.G. vaccination by other authorities; these amounted to 1,985 for the year.

The number of refusals of tuberculin testing and B.C.G. vaccination continues to be disappointing, and this year, as Table E10 (a) shows, nearly one third of those approached failed to co-operate. The

parents of a few of these children make it quite clear at once that they do not wish their child to be tested, but most sign the consent form and then fail to co-operate at some later stage in the procedure. Our health visitors spend a great deal of time and effort in trying to explain the matter to parents and children.

The student health visitors of the Royal College of Nursing recently collaborated with us in a small survey to look for reasons why some parents fail to have their children vaccinated against tuberculosis, The last seventy children whose parents had agreed to the vaccination but had defaulted were interviewed and a detailed questionnaire was completed. A control group of seventy children of the same age and sex attending the same schools was similarly questioned with due precautions that the interviewer was unaware until the end of the interview whether she was dealing with a defaulter or a control. The items investigated included the size, sex, and age distribution of the family; the number of children who were stillborn or had died since birth; the age of the mother, her past and present employment, and whether she had help available to care for her children in her absence; the father's occupation and whether he was working, unemployed, ill or otherwise not available at the time of the B.C.G. appointment; the children's record of immunisation against smallpox, diphtheria, whooping-cough, tetanus, and poliomyelitis; the distance between home and clinic, the number of buses used, and the cost of the journey. None of these factors appeared to have a bearing on the problem of failure to have the children protected by B.C.G. But we also investigated whether the mother understood what B.C.G. is for and her reason for not keeping the appointment. It was clear that nearly a quarter of the mothers in each group did not know the purpose of B.C.G. vaccination in spite of our explanations, both verbal and written, and in spite of having signed a consent form with a written explanation attached. Since about equal numbers of mothers of defaulters and of vaccinated children did not know its purpose, this does not seem a likely reason for failure to have the vaccination done. The reasons given for failure to attend were many and various, including three times "I do not approve of B.C.G." from mothers who had signed the form requesting that it should be done. However, nearly one third of the mothers of defaulters appeared genuinely to believe that their children had been done, and it seems likely that they had mistaken the preliminary skin test for the vaccination.

Handicapped Pupils

Section 30 of the Education Act (N.I.), 1947, the latest version of which is found in the Education (Amendment) Act (N.I.), 1956, directs that all handicapped children over the age of two years shall be found and given suitable special educational treatment; the Handicapped Pupils and Special Schools Regulations (N.I.), 1957, define ten different categories of educational handicap.

Table E14 shows the numbers of educational handicaps affecting Belfast boys and girls at 31st December, 1963. Tables E15 to E21 relate to a count on the same date, but the picture is constantly changing with the arrival of newly handicapped children and the discharge of others owing to successful treatment or advancing age.

The Maternity and Child Health Division deals with handicapped children until two years of age when we add them to our list and investigate their need for special educational treatment which often must begin well before statutory school age.

The fact that many children have several handicaps each of which if it existed alone would necessitate special educational treatment makes it necessary to reckon in terms of handicaps as well as of children; thus Table E16 shows that 4,807 handicaps were distributed among 4,135 children, and indicates the type of school where the problems are being dealt with. Table E15 shows the numbers of children having one handicap, and Tables E16 and E17 show how the multiple handicaps were combined.

Tables E19 and E20 show the main defects suffered by each child at Malcolm Sinclair and Fleming Fulton Schools. Most of these children have serious and permanent handicaps which make it necessary for them to spend the greater part of their school career in the special school. At Cedar Lodge School the children's ailments are usually less severe and often of a temporary nature so that the average length of stay in the school is two or three years. This is the old Graymount Open-Air School which was renamed after it had been almost entirely rebuilt by the end of 1963. Table E21 gives the defects of the 61 children admitted during the year.

Work on the conversion of the old Greenwood House School into a diagnostic unit was completed in the summer of 1963 and the unit opened in the autumn term with ten children at first, the numbers gradually increasing to 16. The children are admitted to this small nursery-type school for close observation of their problems by skilled staff over a period. Most of the children have a degree of mental retardation which cannot be assessed accurately because of difficult behaviour, deafness, or other complications. It is not intended to keep children for very long periods at the Greenwood

House unit, but to assess their capabilities so that they may be placed in the most suitable school if found to be educable. The children who, after a reasonable trial, prove to be ineducable at school are notified under Section 53 of the Education Act to the Special Care Service of the Northern Ireland Hospitals Authority, who then assume responsibility for training and further supervision throughout life. Residential accommodation for a few children is available at Greenwood House, but it is not proposed to use this until the unit has been running for some time.

The two special classes for the partially deaf at Harding Memorial and Fane Street Schools were carried on throughout 1963 with ten pupils in each. Plans are in hand for a third class to begin in 1964.

Youth Employment

The Youth Employment Service Act (N.I.), 1961 established the Youth Employment Service "for the purposes of assisting persons for whose benefit this Act is passed to select, obtain and retain employment suitable to their age and capacity and of assisting employers to obtain suitable employees from among such persons". We have established close links with the local youth employment officers several of whom were known to us as members of the Youth Advisory Service previously administered by the Belfast Education Committee. We send to the youth employment officers reports on school leavers who have any disability likely to affect their choice of a career; 211 reports were sent in 1963.

On 1st May, 1962 Bye-Laws Regulating the Employment of Children were made by the Belfast Education Authority under Section 1 of the Education (Amendment) Act (N.I.), 1960. These Bye-Laws laid down various new rules concerning the conditions and times of employment of children under the upper limit of compulsory school age. Section 1 (b) of the Bye-laws required "a certificate from the School Medical Officer of the Belfast Health Authority to the effect that the employment of the child will not be prejudicial to his health and physical development and will not render him unfit to obtain the proper benefit of the education provided for him". This certificate is valid only for six months and only for the class of employment referred to in the certificate. The Bye-laws came into force on 1st April, 1963, and between then and the end of the year 913 children were examined; of these 903 were given certificates of fitness and ten children were found to be unfit for employment.

School Clinics

The new clinic for West Belfast at Cupar Street had a very busy year; the building and equipment continue to give satisfaction and have been maintained in excellent condition by all concerned. We still have many visitors to see the clinic, and lectures, films, demonstrations, courses, and conferences were held on many occasions during the year. All medical students, student nurses, student health visitors, student district nurses are shown the clinic and receive lectures on the working of the local authority's health services. Our health education programme also includes the showing of films and talks by health visitors, doctors, and dentists at schools and in the clinics. A three day course on the ascertainment of deafness was held in Cupar Street Clinic in June, mainly for the student health visitors of the Royal College of Nursing; lectures and demonstrations were attended by many other health visitors, and practice sessions, under supervision, with children of all ages from six months to ten years were organised.

The new clinic at Lincoln Avenue to serve the north of the City and to replace the old premises at 4 Crumlin Road is at present being built and should be ready for occupation about the end of 1964.

A. L. WALBY, M.B., D.P.H.,
Senior Medical Officer,
School Health Division.

Belfast Grant-Aided Schools

TABLE E 1

Type of School		Number	Pupils
	Nursery Schools and Classes	10	390
Primary‡	County Primary Schools	67	27,819
	Voluntary Primary Schools under Roman Catholic Management	63	18,427
	Special Schools	10	969
Secondary‡	County Secondary Schools	18	13,984
	Voluntary Secondary Schools †(Participating)	22	17,343
	Voluntary Secondary Schools †(Non-participating)‡‡	3	1,915

‡ These groups of schools are considered separately where possible in the following tables.

‡‡ These schools conduct their own schemes of medical and dental inspection and treatment under the provision of Section 42 (6) of the Education (Amendment) Act (N.I.), 1956.

† Includes preparatory school in most cases.

School Medical Inspections

TABLE E 2

Type of School	Sex	Routine Examinations						Nursery School examinations	Special examinations	Re-examinations	Totals
		Age Groups					Totals				
		Entrants	II	III	IV	V					
Primary Schools	Boys	3,525	946	2,189	207	—	6,867	235	343	5,001	12,446
	Girls	3,359	791	2,130	196	—	6,476	174	208	4,463	11,321
Secondary Schools	Boys	189	108	494	2,265	3	3,059	—	156	3,243	6,458
	Girls	160	143	620	2,130	2	3,055	—	118	3,238	6,411
Totals	Both	7,233	1,988	5,433	4,798	5	19,457	409	825	15,945	36,636

Attendance of Parents at Routine Medical Inspections

TABLE E 3

Age Group	Primary		Secondary	
	Boys	Girls	Boys	Girls
Entrants	2,351 (66.7%)	2,298 (68.4%)	85 (45.0%)	70 (43.7%)
II	384 (40.6%)	395 (49.9%)	15 (13.9%)	30 (21.0%)
III	688 (31.4%)	820 (38.5%)	22 (4.5%)	57 (9.2%)
IV	10 (4.8%)	22 (11.2%)	54 (2.4%)	97 (4.6%)
V	— —	— —	— —	— —
Totals	3,433 (50.0%)	3,535 (54.6%)	176 (5.8%)	254 (8.3%)
	6,968 (52.2%)		430 (7.0%)	
	7,398 (38.0%)			

Estimates of Height (ins.) Weight (lbs.) of Boys according to age from Routine Medical Inspections, Year 1963

TABLE E 4 (a)

Estimates, etc.		Age Group in years											
		4–	5–	6–	7–	8–	9–	10–	11–	12–	13–	14–	15–
Number of boys measured		647	2,211	856	120	48	886	1,621	483	579	1,137	1,204	131
		Height											
Mean	in.	41.3	43.0	44.5	46.3	50.2	53.0	54.0	54.6	58.9	60.7	62.3	64.9
Standard error of mean	in.	0.08	0.05	0.08	0.28	0.35	0.09	0.08	0.14	0.15	0.09	0.11	0.32
Standard deviation	in.	2.16	2.41	2.45	3.09	2.41	2.78	3.27	3.05	3.55	3.23	3.71	3.69
First decile	in.	39.3	40.6	42.6	43.3	47.9	50.2	51.2	51.4	55.2	56.9	58.2	61.4
Median	in.	42.0	43.6	45.3	47.3	50.7	53.6	54.6	55.4	59.5	61.1	63.1	65.4
Ninth decile	in.	44.9	46.7	48.2	50.4	54.0	57.0	58.2	59.0	63.7	66.1	67.8	69.8
Co-efficient of variation	%	5.23	5.60	5.51	6.67	4.80	5.24	6.05	5.59	6.03	5.32	5.96	5.69
		Weight											
Mean	lb.	39.4	42.2	45.6	48.3	59.1	66.6	70.0	73.4	88.9	97.5	105.5	117.2
Standard error of mean	lb.	0.19	0.11	0.19	0.62	1.21	0.37	0.29	0.61	0.71	0.53	0.58	1.28
Standard deviation	lb.	4.85	5.27	5.56	6.76	8.37	10.89	11.85	13.32	17.07	17.97	20.31	14.72
First decile	lb.	34.3	36.0	40.0	41.4	49.3	56.1	57.8	59.7	70.2	76.9	84.0	90.0
Median	lb.	40.3	42.5	45.3	48.3	56.6	64.7	69.1	72.2	86.3	95.0	103.3	116.9
Ninth decile	lb.	46.7	49.4	54.2	56.9	67.1	80.1	84.5	91.1	112.2	122.2	133.2	144.5
Co-efficient of variation	%	12.31	12.49	12.19	14.00	14.16	16.35	16.93	18.15	19.20	18.44	19.25	12.56

Estimates of Height (ins.) and Weight (lbs.) of Girls according to age from Routine Medical Inspections, Year 1963

TABLE E 4 (b)

Estimates, etc.		Age Groups in Years											
		4–	5–	6–	7–	8–	9–	10–	11-	12–	13–	14–	15–
Number of girls measured		549	2,090	880	117	56	761	1,535	599	616	1,170	1,127	29
		Height											
Mean	in.	41.1	42.8	44.2	45.9	49.9	52.9	53.9	55.3	59.3	60.7	61.8	62.1
Standard error of mean	in.	0.10	0.05	0.08	0.21	0.43	0.11	0.07	0.13	0.14	0.08	0.10	0.51
Standard deviation	in.	2.26	2.33	2.27	2.29	3.20	3.02	2.73	3.23	3.40	2.89	3.24	2.74
First decile	in.	38.9	40.5	42.1	43.5	46.6	49.9	51.1	52.0	55.7	57.6	59.1	59.9
Median	in.	42.0	43.4	44.7	46.4	51.1	53.5	54.5	55.7	59.9	61.5	62.6	62.9
Ninth decile	in.	44.6	46.3	47.9	49.5	54.0	57.2	58.0	60.1	64.3	64.9	65.9	66.5
Co-efficient of variation	%	5.50	5.45	5.14	4.99	6.41	5.71	5.07	5.84	5.73	4.76	5.24	4.41
		Weight											
Mean	lb.	38.5	41.0	43.8	47.8	59.7	66.3	69.4	76.5	93.3	101.8	107.5	109.6
Standard error of mean	lb.	0.21	0.12	0.21	0.62	1.40	0.45	0.32	0.67	0.77	0.57	0.53	3.16
Standard deviation	lb.	4.93	5.38	6.15	6.64	10.51	12.42	12.67	16.45	19.25	19.46	17.77	17.02
First decile	lb.	33.0	35.2	37.3	40.9	46.6	54.3	56.4	59.7	70.9	78.8	86.4	91.9
Median	lb.	38.8	41.8	43.0	47.6	60.0	64.5	68.5	72.9	91.2	100.3	102.7	107.5
Ninth decile	lb.	44.4	48.4	51.0	56.7	72.7	82.8	85.2	98.7	118.9	126.8	130.7	134.1
Co-efficient of variation	%	12.80	13.12	14.04	13.90	17.60	18.74	18.26	21.50	20.63	19.12	16.53	15.52

Vaccination

TABLE E 5

Type of School	Sex	Entrants		II		III		IV		V		Totals	
		No. examined	Number unsatisfactory	No. examined	Number unsatisfactory	No. examined	Number unsatisfactory	No. examined	Number unsatisfactory	No. examined	Number unsatisfactory	No. examined	Number unsatisfactory
Primary	Boys	3,525	923 (26.2%)	946	262 (27.7%)	2,189	622 (28.4%)	207	45 (21.7%)	—	— —	6,867	1,852 (27.0%)
	Girls	3,359	952 (28.3%)	791	238 (30.1%)	2,130	663 (31.1%)	196	48 (24.5%)	—	— —	6,476	1,901 (29.4%)
	Both	6,884	1,875 (27.2%)	1,737	500 (28.8%)	4,319	1,285 (29.7%)	403	93 (23.1%)	—	— —	13,343	3,753 (28.1%)
Secondary	Boys	189	49 (25.9%)	108	24 (22.2%)	494	86 (17.4%)	2,265	462 (20.4%)	3	3(100%)	3,059	624 (20.4%)
	Girls	160	31 (19.4%)	143	33 (23.1%)	620	115 (18.6%)	2,130	487 (22.9%)	2	— —	3,055	666 (21.8%)
	Both	349	80 (22.9%)	251	57 (22.7%)	1,114	201 (18.0%)	4,395	949 (21.6%)	5	3 (60.0%)	6,114	1,290 (21.1%)
Totals	Both	7,233	1,955 (27.0%)	1,988	557 (28.0%)	5,433	1,486 (27.3%)	4,798	1,042 (21.7%)	5	3 (60.0%)	19,457	5,043 (25.9%)

TABLE E 6

Age Group	Type of School	NORMAL (A)		SUB-NORMAL (B)		BAD (C)	
		Boys	Girls	Boys	Girls	Boys	Girls
Entrants	Primary	3,175 (90.1%)	2,980 (88.7%)	321 (9.1%)	327 (9.7%)	29 (0.8%)	52 (1.6%)
	Secondary	177 (93.6%)	147 (91.9%)	10 (5.3%)	9 (5.6%)	2 (1.1%)	4 (2.5%)
II	Primary	875 (92.5%)	736 (93.0%)	68 (7.2%)	53 (6.7%)	3 (0.3%)	2 (0.3%)
	Secondary	103 (95.4%)	142 (99.3%)	4 (3.7%)	1 (0.7%)	1 (0.9%)	— —
III	Primary	2,022 (92.4%)	1,985 (93.2%)	165 (7.5%)	141 (6.6%)	2 (0.1%)	4 (0.2%)
	Secondary	467 (94.5%)	593 (95.6%)	27 (5.5%)	24 (3.9%)	— —	3 (0.5%)
IV	Primary	194 (93.7%)	189 (96.4%)	12 (5.8%)	7 (3.6%)	1 (0.5%)	— —
	Secondary	2,149 (94.9%)	2,086 (97.94%)	113 (5.0%)	43 (2.02%)	3 (0.1%)	1 (0.04%)
V	Primary	— —	— —	— —	— —	— —	— —
	Secondary	3 (100.0%)	2 (100.0%)	— —	— —	— —	— —
Totals	Primary	6,266 (91.2%)	5,890 (90.9%)	566 (8.3%)	528 (8.2%)	35 (0.5%)	58 (0.9%)
	Secondary	2,899 (94.8%)	2,970 (97.2%)	154 (5.0%)	77 (2.5%)	6 (0.2%)	8 (0.3%)

Defects Discovered at Routine Medical Inspection

TABLE E 7

Defect	Type of school	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000
Skin	Primary	128	9.6	220	16.5	348	26.1
	Secondary	87	14.2	117	19.1	204	33.3
	Total	215	11.1	337	17.3	552	28.4
Eyes (a) vision	Primary	1,172	87.8	2,610	195.6	3,782	283.4
	Secondary	682	111.5	1,327	217.0	2,009	328.5
	Total	1,854	95.2	3,937	202.4	5,791	297.6
(b) squint	Primary	152	11.4	466	34.9	618	46.3
	Secondary	26	4.3	129	21.1	155	25.4
	Total	178	9.1	595	30.6	773	39.7
(c) other	Primary	49	3.7	67	5.02	116	8.7
	Secondary	32	5.2	23	3.8	55	9.0
	Total	81	4.2	90	4.6	171	8.8
Ears (a) hearing	Primary	183	13.7	97	7.3	280	21.0
	Secondary	83	13.6	28	4.6	111	18.2
	Total	266	13.7	125	6.4	391	20.1
(b) otitis media	Primary	39	2.9	101	7.6	140	10.5
	Secondary	14	2.3	22	3.6	36	5.9
	Total	53	2.7	123	6.3	176	9.0
(c) other	Primary	78	5.8	79	5.9	157	11.7
	Secondary	17	2.8	16	2.6	33	5.4
	Total	95	4.9	95	4.9	190	9.8
Nose and Throat	Primary	258	19.3	1,404	105.2	1,662	124.5
	Secondary	63	10.3	235	38.4	298	48.7
	Total	321	16.5	1,639	84.2	1,960	100.7
Speech	Primary	77	5.8	189	14.1	266	19.9
	Secondary	16	2.6	35	5.7	51	8.3
	Total	93	4.8	224	11.5	317	16.3
Cervical glands	Primary	10	0.7	132	9.9	142	10.6
	Secondary	5	0.8	12	2.0	17	2.8
	Total	15	0.8	144	7.4	159	8.2
Heart and circulation	Primary	81	6.1	259	19.4	340	25.5
	Secondary	38	6.2	80	13.1	118	19.3
	Total	119	6.1	339	17.4	458	23.5
Lungs (a)	Primary	207	15.5	328	24.6	535	40.1
	Secondary	41	6.7	102	16.7	143	23.4
	Total	248	12.7	430	22.1	678	34.8
(b) pulmonary tuberculosis	Primary	6	0.4	10	0.7	16	1.1
	Secondary	—	—	6	1.0	6	1.0
	Total	6	0.3	16	0.8	22	1.1
Development	Primary	74	5.5	212	15.9	286	21.4
	Secondary	36	5.9	75	12.3	111	18.2
	Total	110	5.6	287	14.8	397	20.4
Orthopaedic (a) posture	Primary	41	3.1	30	2.2	71	5.3
	Secondary	34	5.5	17	2.8	51	8.3
	Total	75	3.9	47	2.4	122	6.3
(b) feet	Primary	153	11.5	157	11.7	310	23.2
	Secondary	117	19.1	116	19.0	233	38.1
	Total	270	13.9	273	14.0	543	27.9
(c) other	Primary	35	2.6	67	5.0	102	7.6
	Secondary	16	2.6	48	7.9	64	10.5
	Total	51	2.6	115	5.9	166	8.5

TABLE E 7 (*continued*)

Defect	Type of school	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000
Nervous system (a) epilepsy	Primary	5	0.4	25	1.8	30	2.2
	Secondary	5	0.8	19	3.1	24	3.9
	Total	10	0.5	44	2.3	54	2.8
(b) other	Primary	8	0.6	17	1.3	25	1.9
	Secondary	5	0.8	5	0.8	10	1.6
	Total	13	0.7	22	1.1	35	1.8
Psychological (a) development	Primary	29	2.2	185	13.8	214	16.0
	Secondary	3	0.5	15	2.4	18	2.9
	Total	32	1.6	200	10.3	232	11.9
(b) stability	Primary	52	3.9	63	4.7	115	8.6
	Secondary	8	1.3	16	2.6	24	3.9
	Total	60	3.0	79	4.1	139	7.1
Tuberculosis—non-pulmonary	Primary	—	—	3	0.2	3	0.2
	Secondary	1	0.1	6	1.0	7	1.1
	Total	1	0.1	9	0.4	10	0.5
Other defects	Primary	169	12.7	216	16.2	385	28.9
	Secondary	56	9.2	95	15.5	151	24.7
	Total	225	11.6	311	15.9	536	27.5

The numbers of children examined were:—Primary 13,343, Secondary 6,114, Total 19,457.

The visual acuity could not be accurately assessed in 224 primary and 10 secondary schoolchildren; for "Eyes (a) vision", therefore, the numbers examined were: Primary 13,119; Secondary 6,104; Total 19,223.

Visual Acuity

TABLE E 8

(a) Primary schoolchildren without glasses

		Left eye								Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
Right eye	6/6	9,748	469	116	71	36	30	20	17	10,507
	6/9	391	868	113	30	16	13	5	6	1,442
	6/12	83	85	226	49	23	9	2	3	480
	6/18	36	38	64	106	31	13	1	2	291
	6/24	24	19	13	25	59	16	2	—	158
	6/36	25	18	10	14	21	53	7	1	149
	6/60	19	2	5	3	—	8	22	—	59
	<6/60	14	2	1	1	1	1	1	12	33
Left eye	Totals	10,340	1,501	548	299	187	143	60	41	13,119

(b) Primary schoolchildren with glasses

		Left eye								Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
Right eye	6/6	339	70	31	17	8	10	5	3	483
	6/9	55	88	30	12	6	6	—	—	197
	6/12	30	30	35	7	3	5	—	—	110
	6/18	9	11	8	18	2	—	—	—	48
	6/24	6	5	5	3	4	1	—	1	25
	6/36	6	5	1	—	1	3	—	—	16
	6/60	2	1	—	1	1	1	—	1	7
	<6/60	2	—	1	—	—	—	—	1	4
Left eye	Totals	449	210	111	58	25	26	5	6	890

TABLE E 8 (*continued*)

(c) Secondary schoolchildren without glasses

		Left eye								Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
Right eye	6/6	4,216	202	58	43	23	29	12	6	4,589
	6/9	209	265	55	21	5	8	5	—	568
	6/12	69	73	103	43	11	5	1	1	306
	6/18	30	21	26	68	24	12	2	—	183
	6/24	30	9	11	25	53	13	2	1	144
	6/36	22	6	9	12	16	73	13	4	155
	6/60	6	1	3	3	6	19	64	3	105
	<6/60	8	—	—	—	—	4	9	33	54
Left eye	Totals	4,590	577	265	215	138	163	108	48	6,104

(d) Secondary schoolchildren with glasses

		Left eye								Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
Right eye	6/6	312	57	22	12	3	2	—	—	408
	6/9	50	88	33	5	2	1	—	—	179
	6/12	20	27	26	11	1	—	—	—	85
	6/18	11	5	10	10	—	—	1	—	37
	6/24	3	5	1	2	4	1	—	—	16
	6/36	3	1	—	2	1	3	1	—	11
	6/60	1	—	—	—	—	—	—	—	1
	<6/60	2	—	—	—	—	—	—	—	2
Left eye	Totals	402	183	92	42	11	7	2	—	739

Colour Vision

TABLE E 9

Colour Vision	Type of school	Boys	Girls	Total
Normal	Primary	346 (87.1)%	283 (95.3%)	629 (90.6%)
Defective—safe		33 (8.3%)	14 (4.7%)	47 (6.8%)
Defective—unsafe		18 (4.6%)	— —	18 (2.6%)
Total		397 (100.0%)	297 (100.0%)	694 (100.0%)
Normal	Secondary	2,302 (92.4%)	2,284 (98.1%)	4,586 (95.2%)
Defective—safe		107 (4.3%)	39 (1.7%)	146 (3.0%)
Defective—unsafe		82 (3.3%)	5 (0.2%)	87 (1.8%)
Total		2,491 (100.0%)	2,328 (100.0%)	4,819 (100.0%)
Normal	All Schools	2,648 (91.7%)	2,567 (97.8%)	5,215 (94.6%)
Defective—safe		140 (4.8%)	53 (2.0%)	193 (3.5%)
Defective—unsafe		100 (3.5%)	5 (0.2%)	105 (1.9%)
Total		2,888 (100.0%)	2,625 (100.0%)	5,513 (100.0%)

Tuberculin Tests

(Unvaccinated Children)

TABLE E 10 (a)

Age	Number of children available	Offered* tuberculin test	Refused	Tested	Negative	Positive
4	1,196	—	— —	—	— —	— —
5	4,301	—	— —	—	— —	— —
6	1,736	1	— —	1	1 (100.0%)	— —
7	237	2	1 (50.0%)	1	1 (100.0%)	— —
8	104	36	7 (19.4%)	29	24 (82.8%)	5 (17.2%)
9	1,647	1,005	299 (29.7%)	706	646 (91.5%)	60 (8.5%)
10	3,156	2,001	504 (25.2%)	1,497	1,328 (88.7%)	169 (11.3%)
11	1,082	636	172 (27.0%)	464	401 (86.4%)	63 (13.6%)
12	1,195	502	226 (45.0%)	276	232 (84.0%)	44 (16.0%)
13	2,307	875	306 (35.0%)	569	509 (89.4%)	60 (10.6%)
14	2,331	731	321 (43.9%)	410	340 (82.9%)	70 (17.1%)
15	160	41	22 (53.6%)	19	11 (57.8%)	8 (42.2%)
16	1	—	— —	—	— —	— —
17	2	—	— —	—	— —	— —
18	2	1	1 (100.0%)	—	— —	— —
Totals	19,457	5,831	1,859 (31.9%)	3,972	3,493 (87.9%)	479 (12.1%)

* From 10 years onwards the difference between this figure and the number available is accounted for largely by children known to have had B.C.G. vaccination, but includes some who had skin disease or other ailments making tuberculin testing undesirable. At routine medical inspections the younger children are not usually offered tuberculin test unless they are tuberculosis contacts, or their parents request it, or they are nearing 10 years of age.

(Vaccinated Children)

TABLE E 10 (b)

Age	Offered tuberculin test	Refused	Tested	Negative	Positive
7	4	1 (25.0%)	3	— —	3 (100.0%)
8	28	1 (3.6%)	27	— —	27 (100.0%)
9	467	90 (19.3%)	377	5 (1.3%)	372 (98.7%)
10	764	140 (18.3%)	624	14 (2.2%)	610 (97.8%)
11	191	51 (26.7%)	140	7 (5.0%)	133 (95.0%)
12	210	78 (37.1%)	132	— —	132 (100.0%)
13	158	59 (37.3%)	99	— —	99 (100.0%)
14	99	26 (26.3%)	73	3 (4.1%)	70 (95.9%)
15	6	2 (33.3%)	4	— —	4 (100.0%)
Totals	1,927	448 (23.2%)	1,479	29 (2.0%)	1,450 (98.0%)

TABLE E 11

Action to be Taken as a Result of Routine Medical Inspection

Primary Schools

Age Group	Home visits		To Family Doctor		To School Clinic		To Eye Specialist		To E.N.T. Specialist		To Hospital		To Physio-therapist		To Speech Therapist		To Audio-metrist		Other action	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Entrants	83	90	62	49	181	179	161	223	3	3	26	14	61	31	19	12	28	13	60	60
II	36	33	15	11	68	57	114	98	3	2	2	6	17	13	7	4	15	11	18	14
III	114	117	32	42	226	202	316	324	9	13	23	20	48	63	35	10	25	17	62	63
IV	31	21	2	11	33	28	52	52	2	1	3	2	3	9	—	1	3	1	9	7
V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	264	261	111	113	508	466	643	697	17	19	54	42	129	116	61	27	71	42	149	144
	525		224		974		1,340		36		96		245		88		113		293	

Secondary Schools

Age Group	Home visits		To Family Doctor		To School Clinic		To Eye Specialist		To E.N.T. Specialist		To Hospital		To Physio-therapist		To Speech Therapist		To Audio-metrist		Other action	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Entrants	2	1	—	3	11	3	14	6	—	—	—	—	2	1	1	—	4	3	1	2
II	—	1	1	3	4	3	7	11	—	—	—	—	4	1	1	—	5	1	3	10
III	10	8	14	14	21	28	52	64	1	2	2	—	16	11	5	1	7	6	20	47
IV	92	102	42	73	142	206	290	334	6	4	9	14	16	59	6	4	19	19	73	63
V	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	104	112	57	93	178	240	364	415	7	6	11	14	38	72	13	5	35	29	97	122
	216		150		418		779		13		25		110		18		64		219	

TABLE E 12 **Re-examinations**

Defects for which re-examined	Primary Schools			Secondary Schools			Primary and Secondary Schools		
	For treatment	For observation	Cured	For treatment	For observation	Cured	For treatment	For observation	Cured
Skin	45	105	102	13	121	89	58	226	191
Eyes (a) vision	1,338	2,841	855	877	3,187	414	2,215	6,028	1,269
(b) squint	41	303	11	13	186	3	54	489	14
(c) other	41	26	32	12	26	7	53	52	39
Ears (a) hearing	220	299	223	89	104	70	309	403	293
(b) otitis media	18	37	33	8	15	15	26	52	48
(c) other	19	42	30	8	12	11	27	54	41
Nose and throat	191	1,018	919	44	274	279	235	1,292	1,198
Speech	99	300	165	14	74	61	113	374	226
Cervical glands	11	76	19	2	11	5	13	87	24
Heart and circulation	60	241	119	15	97	72	75	338	191
Lungs (a)	63	228	240	18	185	108	81	413	348
(b) pulmonary tuberculosis	—	12	2	—	10	4	—	22	6
Development	54	177	90	16	133	45	70	310	135
Orthopaedic (a) posture	9	46	25	14	29	48	23	75	73
(b) feet	38	141	160	38	156	179	76	297	339
(c) other	10	78	32	6	32	49	16	110	81
Nervous system (a) epilepsy	5	35	4	1	16	1	6	51	5
(b) other	9	24	9	2	18	5	11	42	14
Psychological (a) development	42	398	62	4	95	50	46	493	112
(b) stability	8	45	17	5	18	13	13	63	30
Tuberculosis—non-pulmonary	—	—	—	—	4	1	—	4	1
Other defects	75	152	178	32	141	102	107	293	280
Totals	2,396	6,624	3,327	1,231	4,944	1,631	3,627	11,568	4,958
	12,347			7,806			*20,153		

* 20,153 defects in 15,945 children (primary 9,464 and secondary 6,481)

Clinic Examinations

TABLE E 13

Reason for examination	Number of examinations	Per cent
Skin	1,398	7.1
Eyes (a) vision	419	2.1
(b) squint	61	0.3
(c) other	173	0.9
Ears (a) hearing	1,238	6.3
(b) otitis media	249	1.3
(c) other	243	1.2
Nose and throat	638	3.3
Speech	137	0.7
Cervical glands	17	0.1
Heart and circulation	376	1.9
Lungs (a)	653	3.3
(b) pulmonary tuberculosis	10	0.1
Development	117	0.6
Orthopaedic (a) posture	21	0.1
(b) feet	143	0.7
(c) other	134	0.7
Nervous system (a) epilepsy	52	0.3
(b) other	60	0.3
Psychological (a) development	590	3.0
(b) stability	278	1.4
Tuberculosis non-pulmonary	4	0.02
Other defects	1,911	9.8
B. C. G. vaccination	3,612	18.5
Tuberculin skin test	2,662	13.6
Pre-anaesthetic examination	4,368	22.3
Total	19,564	100.0

TABLE E 14 **Handicapped Pupils**

Handicap	At special day school		At special residential school		At normal school		At no school		At home tuition		Totals	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Blind	5	6	1	2	—	—	1	1	—	—	7	9
Partially sighted	16	15	4	2	34	18	4	1	—	—	58	36
Deaf	4	7	3	1	2	2	—	—	—	—	9	10
Partially deaf	22	18	8	5	157	100	2	2	—	—	189	125
Delicate	66	52	2	2	64	47	2	—	11	4	145	105
Educationally subnormal	332	221	33	11	1,073	642	19	17	4	4	1,461	895
Epileptic	25	15	2	—	71	53	2	3	4	3	104	74
Maladjusted	55	19	14	5	110	58	1	—	3	4	183	86
Physically handicapped	72	66	9	11	105	103	17	3	11	13	214	196
Speech defect	56	25	2	1	582	232	1	1	1	—	642	259
Total handicaps	653	444	78	40	2,198	1,255	49	28	34	28	3,012	1,795
	1,097		118		3,453		77		62		4,807	
Total pupils	466	340	55	32	1,999	1,137	38	19	26	23	2,584	1,551
	806		87		3,136		57		49		4,135	

4,807 handicaps in 4,135 pupils (2,584 boys, 1,551 girls). Of these 524 children have 2 handicaps, 65 have 3 handicaps, and 6 have 4 handicaps.

TABLE E 15 **Single Handicaps**

Number of children affected	Handicap
14	Blind
69	Partially sighted
17	Deaf
220	Partially deaf
190	Delicate
1,803	Educationally sub-normal
102	Epileptic
62	Maladjusted
321	Physically handicapped
742	Speech defect
3,540	Total

Dual Handicaps

TABLE E 16

Handicap	Blind	Partially sighted	Deaf	Partially deaf	Delicate	E.S.N.	Epileptic	Maladjusted	Phyiscally handicapped	Speech Defect
Speech defect	—	—	—	4	1	105	1	1	9	121
Physically handicapped	—	4	2	2	2	42	2	3	66	
Maladjusted	—	—	—	—	3	169	3	179		
Epileptic	—	—	—	1	—	49	56			
E. S. N.	1	15	—	67	35	483				
Delicate	—	—	—	3	44					
Partially deaf	—	—	—	77						
Deaf	—	—	2							
Partially sighted	—	19								
Blind	1									

Showing the distribution of 1,048 handicaps among the 524 children who have two handicaps

Multiple Handicaps

TABLE E 17

Number of children affected	Categories of handicaps coinciding		
	First	Second	Third
1	P. sighted	P. deaf	E.S.N.
1	P. sighted	Delicate	E.S.N.
1	P. sighted	E.S.N.	Epileptic
1	P. sighted	E.S.N.	P. handicapped
1	P. sighted	E.S.N.	Speech defect
4	P. deaf	Delicate	E.S.N.
3	P. deaf	E.S.N.	Maladjusted
2	P. deaf	E.S.N.	P. handicapped
5	P. deaf	E.S.N.	Speech defect
1	Delicate	E.S.N.	Epileptic
4	Delicate	E.S.N.	Maladjusted
3	Delicate	E.S.N.	Speech defect
1	Delicate	Epileptic	P. handicapped
4	E.S.N.	Epileptic	Maladjusted
5	E.S.N.	Epileptic	P. handicapped
4	E.S.N.	Epileptic	Speech defect
2	E.S.N.	Maladjusted	P. handicapped
13	E.S.N.	Maladjusted	Speech defect
9	E.S.N.	P. handicapped	Speech defect
65	Total with triple handicaps		

	First	Second	Third	Fourth
1	Blind	P. deaf	E.S.N.	Epileptic
1	P. sighted	E.S.N.	Epileptic	P. handicapped
1	P. deaf	E.S.N.	Maladjusted	P. handicapped
1	Delicate	E.S.N.	Maladjusted	Speech defect
1	Delicate	E.S.N.	Epileptic	Speech defect
1	E.S.N.	Epileptic	P. handicapped	Speech defect
6	Total with quadruple handicaps			

Intelligence Quotients of E. S. N. Pupils

TABLE E 18

I.Q.	<45	45–	50–	55–	60–	65–	70–	75–	80–	90–	100–	110–	120+	Totals
Boys	23	17	31	42	62	83	140	170	448	280	123	31	11	1,461
Girls	16	10	24	32	52	98	111	140	250	125	31	4	2	895
Both	39	27	55	74	114	181	251	310	698	405	154	35	13	2,356

Malcolm Sinclair School

TABLE E 19

Reasons for admission	Boys	Girls	Total
Cerebral palsy	11	8	19
Perthes disease	1	1	2
Poliomyelitis	1	—	1
Spina bifida	1	1	2
Transverse myelitis	—	1	1
Total	14	11	25

Fleming Fulton School

TABLE E 20

Reasons for admission	Boys	Girls	Total
Cerebral palsy	26	24	50
Christmas disease	1	—	1
Congenital deformities	—	1	1
Fragilatas ossium	—	2	2
Hydrocephalus	1	2	3
Kernicterus	1	—	1
Muscular dystrophy	3	2	5
Poliomyelitis	3	2	5
Spina bifida	3	—	3
Total	38	33	71

Cedar Lodge School

TABLE E 21

Reasons for admission	Boys	Girls	Total
Asthma	13	3	16
Bronchiectasis	1	1	2
Bronchitis	8	2	10
Burns	—	1	1
Debility	1	1	2
Developmental defect	1	2	3
Empyema and pneumonia	—	2	2
Epilepsy	—	1	1
Heart disease (congenitial)	2	4	6
Heart disease (rheumatic)	2	1	3
Hodgkin's disease	—	1	1
Late effects of primary tuberculosous complex	2	3	5
Maladjustment	3	1	4
Muscular dystrophy	1	—	1
Orthopaedic defect	1	—	1
Poliomyelitis	1	—	1
Renal disease	—	1	1
Spastic paraplegia	—	1	1
Number admitted during 1963	36	25	61
Number discharged during 1963	14	23	37
Average duration of stay in months	38	34	36
Total on roll at 31st December, 1963	93	77	170

TABLE E 22

Ultra-violet Light Treatments	3,905	
Physiotherapy:		
Children treated	1,028	
Total attendances	11,005	
Cases discharged	383	
Waiting list	10	
Speech Therapy:		
Total attendances	6,221	
Audiometry:		
Children sweep tested at school	6,331	
Children failing sweep test	570	(9.0%)
Children failing individual test	452	(7.1%)
Other children individually tested	1,674	
Children referred to specialist	69	
Cleanliness:		
Children inspected	135,562	
Children found to have nits	5,839	(4.4%)
Children found to have vermin	2,187	(1.6%)
Children cleansed at clinics	3,854	
B. C. G. Vaccinations:		
Vaccinations at School Clinics	3,612	
Vaccinations by other authorities	1,985	
Children tuberculin tested at school	3,972	
Children showing positive reaction	479	(12.1%)
Children showing negative reaction	3,493	(87.9%)
Vaccinated children retested—positive	1,450	(98.0%)
Vaccinated children retested—negative	29	(2.0%)
Nurses' Home Visits	9,846	
Nurses' School Visits (other than routine inspections)	1,450	
Medical Officers' Visits	151	
Eye Specialist:		
Children refracted	4,823	
Children given post-mydriatic examintaion	2,915	
Children examined for other eye conditions	655	
Children referred for orthoptic treatment	119	
Medical Specialist:		
Children examined at school clinics	132	
Children examined at special schools	107	
General Anaesthetics	4,368	
Education Act Sections 32 and 53:		
Children reported to N.I. Hospitals Authority (Section 32 'A')	8	
Children reported to Welfare Authority (Section 32 'B')	53	
Children reported to N.I. Hospitals Authority (Section 53)	32	
Youth Employment:		
Children examined under Employment Bye-Laws	913	
Children found unfit for employment	10	
Reports to Youth Employment Service on school-leavers	211	

Dental Inspection in Schools

Dental inspection was again provided in all schools participating in the Health Authority's scheme and, additionally, special schools for handicapped children were provided with twice annual dental inspection. Altogether a total of 72,785 children or 92.2% of the school roll were examined, an operation involving 594 visits by dental staff to schools. The defective rate at 68.6% continues to move slowly in the desired direction and it is hoped that before long, the pace of decline in the defective rate may be accelerated as a result of the measures which the School Health Service has taken to bring about a greater awareness of the importance of preventive measures in combating caries. A total of 92.3% of those children found defective consented to avail themselves of dental care and, of this total, 29.7% requested dental care from the Health Authority. This figure represents a decline of 0.5% as compared with 1962.

Attendances at Clinics

All children requesting dental care from the Health Authority were afforded the opportunity to attend clinics, of which total 10,070, or 73.6% of those consenting, actually attended for care. Return visits for check inspections totalled 10,141.

Treatments

Study of Table F2 indicates that the dental staff has benefited from the recent series of Refresher Courses in Children's Dentistry, which have been held at the Cupar Street Clinic. Treatments are now being provided which a few years ago were referred elsewhere and this cannot but reflect favourably on the status of the School Dental Service.

During the year the number of general anaesthetics administered showed a further decline of the order of 9.8% as compared with 2.8% in 1962, while the extraction rate per child of 0.8 remained unaltered. Conservation, as in previous years, continued to play a major role in clinic activities and the filling rate at 2.7 remained as in 1962.

The orthodontic section consolidated rather than expanded it's services in 1963. Experience comes slowly in this highly specialised work and it is sound policy not to overstrain resources at this early stage of the Service's existence. The four dental officers who attended the prolonged course of study in orthodontics at the Queen's University School of Dentistry have now completed the course and have, as a result, acquired a sound foundation upon which to base future activities. While the basis of the orthodontic service at the time of it's initiation was largely vested in one Specialist Orthodontist providing part time services, together with the four officers attending the course mentioned, it would be entirely wrong to exclude from participation any other of the department's dental officers, who felt so inclined. It is hoped therefore that the experience already available in the clinics will be made use of by those dental officers who wish to extend their interest.

Maternity and Child Health

Table F1 and F2 indicate that there was some decline in activity in the Maternity Section. This has arisen through persuasion of patients in this category to seek dental care from their own General Dental Practitioners.

The Pre-school section has, however, shown a substantial increase in activity as compared with 1962. A total of 606 pre-school children were inspected (an increase of 111.4% over the 1962 totals) of which number 409 or 67.4% were found dentally defective. Dental care was provided for a total of 370 individuals. While the present rate of expansion in the provision of dental care for the pre-school child might be regarded as satisfactory, if maintained, there is every indication that this will not be the case. The remarks expressed in my 1962 report, that a redoubling of effort was required to disseminate advice to mothers on the measures necessary to maintain dental health and of the necessity to seek regular periodic dental care, apply with even greater emphasis in this report.

Caries or tooth decay begins at a very early age in the pre-school child and the survey of caries prevalence in Belfast children, undertaken by the dental section of the School Health Division, has shown that at age three only 32.8% of children were completely free from caries, while the average child had 3.4 teeth involved in caries. This dental condition deteriorates rapidly between the ages of three and five, at which latter age 10.3% were free from the disease and the average child had 4.8 teeth involved in caries. The survey has additionally shown that dental care in the pre-school child is negligible.

It must be abundantly clear that unless a system of regular dental care and advice for this category of patient can be established, there can be little-if any-hope of bringing caries under effective control. There are limitations in regard to what the service can achieve at the present time, owing to the absence of treatment clinics in residential areas, nevertheless energies must be directed towards achieving maximum results in the preventive sphere and the direction of parents to seek dental care for their children at either a school health clinic or general dental practitioner. Only by a concerted effort on the part of medical and dental staff and parents and children can the foundations of healthy deciduous and permanent dentitions be established.

Dental Health Education

During 1963 the tempo of dental health education was accelerated through the co-operation of both the medical and dental sections. The main effort was concentrated in West Belfast, where many schools had previously shown a defective rate in excess of 80%. Film shows, subsequently followed by illustrated talks given by health visitors, have played a substantial part in this campaign and this has been supported by brief talks by dental officers on school inspection duties. Beneficial results are already in evidence as a result of this campaign and the department is not without hope that, with the extension of dental health education to all areas of the City, subsequent annual reports will show a more hopeful trend in the control of the incidence of caries in children.

General Remarks

The opening of the new clinic at Lincoln Avenue early in 1965, is eagerly awaited and there can be little doubt that it will make a very substantial contribution towards meeting the dental needs of North Belfast, which have for many years been met, if somewhat inadequately, by the inconveniently located Mountcollyer Street Clinic.

Spectacular achievements by way of an increase in the number of children treated at clinics, have not been in evidence in 1963. A 1% drop from the 1962 figures in the number of school children treated, is compensated by a 99% increase in the number of pre-school children treated, making an overall increase of 0.6% over 1962.

While, in the sphere of treatment, the year 1963 has proved comparable with 1962, in other respects the service has been subjected to some strain. The campaign in dental health education, which has shown such promise, and the completion of the survey in caries prevalence in City schools, are achievements from which the service can derive considerable satisfaction.

Concluding remarks must justifiably be directed to medical, dental and administrative staff in appreciation of the co-operation which has been so much in evidence during the course of the year. A special word of appreciation is extended to all school principals and teachers, for their interest and the facilities provided in the implementation of the dental health campaign.

S. R. SHEANE, L.D.S.,

Chief Dental Officer.

TABLE F 1

Dental Inspection

School Health					Maternity and Child Health	
Participating schools		*Special	*Nursery	Non participating	Maternity	Pre-school
Total on school rolls	78,932	969	390	1,915	—	—
Total inspected	72,785	1,415	290	1,800	31	606
Age groups 5 to 7	18,279	—	—	—	—	—
Other age groups	54,506	—	—	—	—	—
Total defective	49,939	920	112	806	31	409
Defective percentage	68.6	65.0	38.6	44.7	100	67.4
Consenting to treatment	46,107	825	94	—	24	394
By Health Authority	13,692	404	37	—	23	393
By own dentist	32,415	421	57	—	1	1
Appointments issued	13,692	404	37	—	23	393
Inspection sessions	593½	14	5	—	—	—
Clinic inspections	10,141	—	—	—	9	243

TABLE F 2

Participating schools		*Special	*Nursery	Maternity	Pre-school	Totals
Extractions:						
Temporary teeth	5,724	108	23	—	487	6,211
Permanent teeth	2,203	126	1	34	—	2,237
Total	7,927	234	24	34	487	8,448
Anaesthetics:						
General	3,791	107	16	9	245	4,045
Local	2,750	22	5	7	7	2,764
Total	6,541	129	21	16	252	6,809
Fillings:						
Temporary teeth	7,601	48	40	—	544	8,145
Permanent teeth	19,917	642	22	67	—	19,984
Total	27,518	690	62	67	544	28,129
Root canal therapy	30	—	—	—	—	30
Crowns	7	1	—	—	—	8
Inlays	—	—	—	—	—	—
Gingevectomy	—	—	—	—	—	—
Scaling and polishing	834	40	4	9	37	880
Dressings	1,518	29	4	14	54	1,586
Other operations	709	22	2	11	26	746
X-ray films	610	14	1	—	—	625
Patients provided dentures	30	6	—	—5	—	35
Total treatments	45,724	1,165	118	156	1,400	47,280
Individuals treated	10,070	289	35	24	370	10,464
Treatment courses	7,263	181	17	8	199	7,470
Treatment visits	25,683	1,165	135	121	1,232	27,036
Treatment sessions	5,274½	—	—	†—	†—	5,274½

† Maternity and pre-school sessions incorporated in school health sessions pending development.

* Extract from participating school totals.

TABLE F 3

Orthodontic section	
Patients inspected	424
,, treatment required	422
,, appliance provided	189
,, treatment suspended	5
,, treatment completed	77
Total appliances provided	234
,, attendances	2,260
,, treatment sessions	268

TABLE F 4

Clinic accommodation	
Static Clinics:	
North Belfast	Mountcollyer Street Ariel Street
South Belfast	Academy Street
East Belfast	Cherryville Street
West Belfast	Cupar Street
Mobile clinics	Nil

TABLE F 5

Staff complement	
Chief Dental Officer	1
Clinic Dental Officers	4
Dental Officers (full time)	8
Dental Officers (part time)	5
Total (expressed as full time equivalent)	14.5
Anaesthetists	6

Professional staff was fully supported by Dental Chair-side Assistants acting in both surgical and administrative capacities.

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John K. Rankin, Belfast