



YEAR 1926.

TWENTY-FOURTH ANNUAL REPORT

ON THE

Health & Sanitary Condition

OF THE

City of Limerick.

MICHAEL S. McGRATH,

F.R.C.S., D.P.H.

Medical Superintendent Officer of Health.

C. H. DAVIS, THOMAS STREET, LIMERICK.



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OFFICERS

OF THE

PUBLIC HEALTH DEPARTMENT.

Medical Superintendent Officer of Health:

Michael S. McGrath, F.R.C.S., D.P.H.

City Surveyor and Executive Sanitary Officer:

Joseph J. Peacocke, B.A., B.E.

Solicitor:

John J. Dundon.

Analyst:

B. G. Fagan.

Medical Officers of Health:

Dr. Patrick F. Graham	...	No. 3 District
Dr. John Gleeson Holmes	...	No. 2 District
Dr. Thomas K. Mulcahy	...	No. 1 District

Veterinary Inspector (Sanitary):

P. A. Carroll, V.S.

Sanitary Sub-Officers:

Patrick J. Forrest, H.C.

Solomon Frost	...	No. 1 District
Benjamin Fitzgibbon	...	No. 2 District

Ex-Officio Inspector of Foods and Drugs:

Inspector of Bakeries:

Patrick J. Forrest, H.C.

Inspectors of Dairies, Cow Sheds and Milk Shops:

Solomon Frost, S.S.O.

Patrick J. Forrest, H.C.

MEMBERS

OF THE

PUBLIC HEALTH COMMITTEE.

THE RIGHT WORSHIPFUL COUNCILLOR PAUL A. O'BRIEN, MAYOR.

ABBEY AND CASTLE WARDS.

Alderman Patrick Donnellan
" John Ryan
Councillor Michael P. Colivet
" James Reidy
" Christopher Gilligan
" Alfred Ernest Goodwin
" John Joseph McNamara
" Joshua Fitzell
" Patrick Moore
" Patrick Joseph Cusack
" Patrick Doyle

CUSTOMHOUSE & MARKET WARDS.

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Councillor Eric Russel Shaw
" Michael John Keyes
" Thomas McNamara
" Patrick Bourke
" John O'Halloran
" John George O'Brien

DOCK WARD.

Alderman Patrick O'Flynn
" Robert W. deCourcy
Councillor James Casey
" Michael Gough
" Hugh Llewellyn Place
" John Waters Hall

GLENTWORTH & SHANNON WARDS.

Alderman Patrick Joseph Henihan
" Daniel Bourke
Councillor Patrick Walsh
" William Hickey
" Maurice Stanislaus Power
" Matthew J. Quillinan
" Patrick O'Callaghan
" John Cronin

IRISHTOWN WARD.

Alderman Joseph Thompson
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" John White
" John L. Cauty
" Martin Barry
" Daniel Flynn

TWENTY-FOURTH ANNUAL REPORT

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HEALTH AND SANITARY CONDITION

OF THE

CITY OF LIMERICK.

YEAR 1926.

18 THE CRESCENT,

LIMERICK, 20TH AUGUST, 1927.

MR. MAYOR AND MEMBERS OF THE CORPORATION,

I beg to submit my Annual Report for the year 1926 on the health of the population and on the sanitary condition of the City, and in doing so, I desire to say that there was no serious outbreak of the epidemic diseases during the twelve months under review. In that period there were eight cases of Enteric Fever, four of which proved fatal; twenty cases of scarlet fever, with a fatal termination in four cases, and forty-seven cases of Diphtheria, with four deaths. As waves of epidemic disease are liable to return at intervals it may be well to refer to the question of prevention as regards Diphtheria. In New York this disease is constantly in evidence, and the Health Authorities have adopted a system of inoculation with a serum, which has the effect of rendering immune all children in whose case it has been used. There is no compulsion, but the parents of thousands of school children have agreed to the process, and if any such epidemics should again manifest themselves amongst us, it would be well that the merits of this system should be widely known. It has been found by us, from experience, that when children who were in contact with cases of Diphtheria were inoculated they were made immune for the time being, not one of them having contracted the disease. An advantage of this system would be that in a household where the disease broke out there would be no necessity of removing the inoculated children, thus avoiding the danger of overcrowding the hospital, which must always be undesirable during epidemics.

In connection with epidemics it may be well to note that of late years the virulence of scarlet fever has decreased considerably, whereas measles, at one time thought lightly of, is now regarded as much the more serious of the two diseases. The reason for this is, that the complications following measles, chiefly in the form of broncho pneumonia, render it extremely serious, not alone from its high mortality, but as a precursor to tuberculosis, to attacks of which patients are in after years extremely liable. At present in the leading London Hospitals much more attention is being paid to measles than to scarlet fever. In 1926 there were 29 deaths from Measles in Limerick.

SUMMARY OF VITAL STATISTICS.

	1926	1925	1924	1923	1922
Population	39,690	38,518	38,518	38,518	38,518
Area	2,386	2,386	2,386	2,386	2,386
Density	16.6	16.1	16.1	16.1	16.1
Births	1,096	1,060	1,092	1,032	1,068
Birth Rate	26.1	27.5	27.9	27.3	26.2
Deaths	742	577	577	663	745
Death Rate	18.7	15.0	14.7	17.2	19.3
Death Rate from principal Epidemic Diseases	3.1	—	0.5	2.7	1.2
Infantile Deaths under one year of age	151	97	98	135	109
Infantile Mortality Rate	3.8	2.5	2.5	3.2	2.8
Tuberculosis Rate	1.6	1.8	1.5	1.9	1.84
Excess of Births over Deaths	294	483	515	389	283
Deaths from all forms of Tuberculosis	66	70	59	74	71
Deaths from Cancer	31	—	—	—	—

SUMMARY OF BIRTHS AND DEATHS IN URBAN DISTRICTS.

Showing the Annual Birth and Death Rates per 1,000 of the population of the principal Urban Sanitary Districts of Ireland (per Registrar-General's Return).

Urban District	Births	Deaths from	
		All Causes	Zymotic Diseases
Belfast	28.1	15.8	1.5
Dublin (City)	26.7	15.3	1.3
Dublin Registration Area	21.5	17.3	2.4
Cork	26.1	18.7	2.1
Limerick	22.1	15.6	2.3
Waterford	23.5	12.1	0.6
Galway	26.2	11.4	0.9
Dundalk	26.2	18.4	2.2
Drumculla	23.5	24.7	1.4
Westford	20.0	11.9	0.7
Sligo	25.5	14.8	1.5
Kilkenney	24.0	13.1	2.7
Tradee	20.1	11.9	0.2
Clonmel	...	...	...

NOTIFICATIONS OF INFECTIOUS DISEASES.

Returns of the number of cases of Infectious Diseases notified under the "Infectious Diseases (Notification) Act, 1899," and the Tuberculosis Prevention (Ireland) Act, 1908," as furnished by the respective sanitary authorities, are set forth in the following table:—

TABLE 4.—Showing the number of cases of Infectious Diseases notified in the Dublin Registration Area (viz. 1.—the City of Dublin and the Urban Districts of Rathmines and Rathgar, Pembroke, Blackrock and Dun Laoghaire), and in the Cities of Cork, Limerick and Waterford, during the year, 1926 (52 weeks). A dash (—) denotes that the disease in question is not notifiable in the district.

Cities and Urban Districts	Population Census, 1926	Enteric Fever	Typhus	Typhoid	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria (including Membranous Group)	Erysipelas	Puerperal Fever	Diarrhoeal Diseases	Dysentery	Malaria	Optic Neuritis	Acute Primary Pneumonia and Acute Infectious Pneumonia	Cerebro Spinal Fever	Acute Poliomyelitis	Rheumatism	Varicella	Tuberculosis	Total
City of Dublin	316,471	28	1	1	—	—	614	—	475	79	8	—	—	—	2	230	—	—	—	—	764	2222
Rathmines & Rathgar Urban District	40,367	2	—	—	—	—	65	—	42	8	—	—	—	1	—	6	—	—	—	—	—	124
Pembroke Urban Dist.	33,365	7	—	—	—	53	16	23	11	4	—	—	—	—	—	3	—	—	—	—	1	118
Blackrock do	9,931	1	—	—	—	9	17	—	1	—	—	—	—	—	—	—	—	—	—	—	1	29
Dun Laoghaire do	18,992	—	—	—	—	—	26	—	10	2	—	—	—	—	—	—	—	—	—	—	—	39a
City of Cork	78,468	11	4	2	—	534	278	—	480	34	4	108	—	—	—	—	—	—	1	59	125	1643b
City of Limerick	39,690	8	—	3	—	—	20	—	47	1	—	—	—	—	—	—	—	—	—	—	—	80c
City of Waterford	26,646	1	—	—	—	—	25	—	18	1	—	—	—	—	—	—	—	—	—	—	5	49d

DEATHS.

The deaths which occurred in the city numbered 742, as compared with 577 for 1925, the same number for 1924, 663 for 1923, 745 for 1922. The death rate per 1,000 was 18.7, as compared with 15.0 for 1925, 14.7 for 1924, 17.2 for 1923, and 19.3 for 1922. The increase in the number of deaths last year is due to abnormal mortality among the very young and the very old. The number of deaths of children under one year of age was 151, and the number of deaths of persons 65 years and upwards was also 151. This accounts for over 300 out of the total deaths for the year under review.

BIRTH RATE.

The birth rate for the year was 26.1, as compared with 27.3 for 1925, 27.9 for 1924, 27.3 for 1923, and 26.2 per 1,000 for 1922. The birth rate in Limerick for 1926, although slightly lower than that for some previous years, continues to compare favourably with the rate for most other Irish centres.

TYPHUS FEVER.

The City was once more free from Typhus Fever last year.

TYPHOID FEVER.

Eight cases of Typhoid were notified during the year, with four fatal terminations.

SCARLATINA.

Twenty cases of Scarlatina were notified, three of which proved fatal. An efficient antitoxin has at last been found for this disease which not only reduces the duration of it, but inhibits the occurrence of complications. This treatment has already proved satisfactory.

CONSUMPTION.

The number of deaths from Tuberculosis Diseases was 66, as compared with 70 in 1925, 59 in 1924, and 74 for 1923. The figures showed a steady decline in the mortality from this disease up to 1924, as the total for 1918 was 124; for 1919, 113; for 1920, 95; and for 1921, 80, but here, as elsewhere, there has been an upward curve in the mortality for some time past.

A more hopeful note prevails in the pronouncements of distinguished medical men as regards the problem of successfully tackling Tuberculosis. This problem is no longer regarded as insoluble, as it was some 50 years ago. It is now recognised as an essential fact that the vital point in the stamping out of the disease is the question of prevention. Such matters as housing, feeding, fresh air, sunlight, and exercise must be taken into consideration. In addition, a course of treatment by inoculation as a preventative is now in use, and gives fair promise of success, experiments on these lines having shown that infants predisposed to Tuberculosis responded to this line of treatment satisfactorily. It is a matter of common experience that diseases which lower the vitality and impair the texture of organs, especially the lungs, favour the attack of tubercle. Measles, whooping cough, influenza, pleurisy, bronchitis, and affections arising from inhalation of irritative gases and spicular dust may be especially enumerated. Many of these diseases are the outcome of overcrowding and insanitary surroundings, and this inevitably brings up the question of proper housing accommodation, which lies at the root of the problem presented by tuberculosis. It is undeniable that sputum can contaminate dust of dwellings, streets, lanes, vehicles, and public places, inhaled and ingested from air and with food is the most frequent cause of consumption. It is, in fact, a fifth disease. The condition of Limerick from this point of view is only too well known to you, and until there is a great improvement in the sanitary surroundings of the mass of the inhabitants all fifth diseases will be in evidence in our midst.

Dust is a deadly source of consumption, and other diseases. You are all familiar with the dust clouds which almost blind one in the streets, after a spell of dry weather, but very few seem to realise the harm done by this dust in carrying disease germs, with which it is impregnated, into the lungs and other organs of those who inhale or ingest it. In up-to-date cities the dust is never collected and carried away in a dry state, but is well watered before being removed, thus securing the removal in the most cleanly and harmless manner.

The same should apply to workshops, and even to private houses. All floors should be plentifully moistened before being swept, as nothing can be more dangerous than impregnating the atmosphere, which people are compelled to breathe, with germ-laden dust.

As regards local efforts in the treatment of this disease, the position at present is this:—Insured persons and their dependants can secure the special service of a doctor, who recommends suitable cures for treatment at a sanatorium, and in the case of uninsured persons suffering from the disease, the dispensary doctor can send them to the City Home, whence, if found suitable, they also are sent on to the sanatorium. Since the end of 1926 a special scheme for the treatment of tuberculosis has been adopted by the Public Health Committee. This will be dealt with in my next report.

A good deal is now being heard of the spallinger treatment of tuberculosis, and the measure of its efficacy is engaging the close attention of the medical profession in this and other countries. Here in Ireland excellent work is being done in the surgical treatment of tuberculosis in children up to twelve years of age at Cappagh, Finglas, Co. Dublin, and some cases already sent from the city have shown considerable improvement. The cost per head is 28s. a week, and until the special treatment given at Cappagh can be more generally availed of throughout the country, children of the stated age suffering from surgical tuberculosis should certainly be sent to Cappagh.

Sufficient attention does not seem to be paid to the isolation of advanced cases of tuberculosis and it would be a good thing if, when a medical board consisting of, say, three doctors, pronounced a case hopeless, isolation should be made compulsory. In this way the further spread of infection in families would be put a stop to, and the spread of the disease considerably checked. The removal of the slums lies at the root of this problem, and until proper housing accommodation can be provided, no complete or lasting solution can reasonably be hoped for. This subject is fully dealt with under the head of Housing in this report.

Attention is again directed to the number of deaths caused by consumption in the City of Limerick since 1900. They are as follows:—

Year	Number of Deaths	
	From Phthisis	Other Forms
1900	119	—
1901	131	—
1902	144	—
1903	220	—
1904	409	—
1905	402	—
1906	424	27
1907	403	37
1908	388	90
1909	79	35
1910	87	22
1911	75	14
1912	80	11
1913	85	17
1914	81	24
1915	90	20
1916	85	14
1917	94	18
1918	96	31
1919	94	19
1920	79	16
1921	62	18
1922	71	—
1923	74	—
1924	59	—
1925	70	—
1926	66	—
Totals	2564	—

INFANT MORTALITY.

The number of deaths of children under one year of age was 151, or 54 more than the total for 1925.

MATERNITY AND CHILD WELFARE.

Since January, 1921, there has been in operation in connection with the Bedford Row Hospital a Maternity and Child Welfare Centre. It is worked under a committee, of which Miss Doyle is the Hon. Secretary. The Committee consists of four members of the Limerick Corporation, and also representatives from the following societies:—Ladies' and Gentlemen's Societies of St. Vincent de Paul, St. Vincent de Paul Nursing Association, and the Limerick Nursing Association.

The Corporation has given its sanction to that scheme, and half the sum expended in working it is received from the National grant. Mothers, with their children, up to five years of age, attend every Wednesday at the Hospital and receive advice and treatment. Virol and Glaxo are provided for suitable cases. There are, in addition, two trained nurses employed by the committee to visit the homes of the children who need their services.

Since the scheme came into operation useful work has been accomplished, but there is a wide field for the activities of the Centre, as the number of deaths in 1926 was 151. This shows a very large increase on the total for 1925. The toll of infant life is much too heavy, and must, to a great extent, be accounted for by the great difficulty of giving proper nursing to the sick infants in the wretched hovels in which most of them are at present compelled to live. A word may here be said in praise of the excellent work for fourteen years by the late Mrs. O'Brien, South Hill, who provided pure milk at cheap rates for the poor of the city, giving a quart of milk each day to deserving mothers. This work is still being carried on by the committee, 60 gallons of milk being provided daily at threepence a quart. There can scarcely be any doubt that few of the children who benefit by this arrangement would get any milk were it not so thoughtfully provided for them.

A recent development in our medical treatment of children has been the provision of Ultra Violet Rays and Artificial Sunlight for the various forms of Tuberculosis, Rickets and other infantile diseases of malnutrition.

MUNICIPAL DINNERS.

The provision daily of Municipal Dinners for the poor, at two pence each, has been an important factor for the past two years in dealing with those who are badly in need of a good meal, which, in the case of a young mother, reacts favourably on the proper nutrition of her child. The Corporation finds part of the necessary finances and the remainder is made up by voluntary subscriptions of money or food given by generous citizens. Flag days and other appeals to the public are also made by the Municipal Dinners Committee, composed of Ladies who devote a great deal of their time to this most charitable and useful work.

MIDWIVES.

Under the jurisdiction of the Corporation there are 36 midwives certified to practise, and no complaints have been made with regard to any of them, nor have any cases of Puerperal Fever been recorded during the year.

CLEAN MILK.

Two facts are now universally recognised as having a direct and most important bearing upon public health. The first is that milk is the only food for babies, and one of the best foods for grown up people; and the second is that milk is the most dangerous of all foods, because it is the most easily contaminated. From this it is clear that the most stringent measures are necessary if the milk supply of a city like Limerick is to be clean and wholesome. Prosecutions have been instituted for adulterating it with water or depriving it of its fat, and the law has been invoked to insure the cleanliness of the milk supply. In great London dairies pasteurization of milk at 145 °F. for 30 minutes has been found on scientific investigation to completely destroy all dangerous bacteria, while at the same time it does not deprive the milk of its nutritive qualities. Another matter that requires careful attention in the distribution of milk is the cleanliness of all milk vessels. Hitherto the usual method adopted for this purpose has been to scald those vessels, but that has been found ineffective. A specially constructed outfit for cleansing the vessel by means of a steam generator is now on the market, and can be had locally. The advantage of this system is that when the temperature is brought up to 140 °F. for twenty-five minutes efficient sterilization is secured. Elsewhere in Ireland advantage is taken of the most modern methods of dealing with all branches of agriculture adopted by other countries, and a beginning has been made in Limerick in the matter of pasteurising the milk and sterilising the vessels in which it is distributed. It would be well that the good example of these suppliers should be followed by all others in the City and districts.

CANCER.

31 deaths from Cancer occurred in the city in 1926, 32 in 1925, as against 51 in 1924, 36 in 1923, and 27 in 1922. Now, that improved methods of treatment of the disease are available, it is well that it should be known and acted upon that the only hope of overcoming this scourge lies in early detection and treatment, followed by thorough disinfection of the house and clothing of the affected person. In the case of an abnormal growth or ulceration or bleeding, medical advice should

instantly be sought, as this disease, when taken in time, is quite amenable to treatment and ultimate cure. In addition to surgical treatment, Radium and X-Rays have been used with good results. The latest development in the successful treatment of cancer was announced at the Toronto Academy of Medicine by Dr. W. Blair Bell, of Liverpool, who stated that he had successfully treated cases, most of them regarded as hopeless, by means of lead injections. A word of warning is imperative in this matter. Despite the fact that non-medical men who profess to be able to cure cancer in the country cannot point to even a single cure, many foolish persons are induced to submit to treatment by those ignorant persons, to whose so-called remedies many deaths are constantly being traced.

DENSITY.

By this term is meant the number of persons living on each acre. In Limerick the density is 16.6 persons, and this is very small, taking the City as a whole.

Limerick County thorough, comprising an area of 2,386 acres, was divided into eight wards, for which have been submitted five electoral divisions, for the purpose of Municipal Representation in the Council, and into three Dispensary Districts for the Registration of Births and Deaths, etc.

The following particulars have been kindly supplied by the Director of Statistics Department of Industry and Commerce, Dublin :—

DIVISIONS OF POPULATION.

Under the Local Government (Ireland) Act, 1919, the population of the City has been divided as follows :—

Area	Wards comprised in Electoral Division	Population	Total
No 1 Electoral Division ...	{ Abbey Ward { Castle Ward	5331 5180	10511
No 2 Electoral Division ...	{ Custom House Ward { Market Ward	3190 3061	6251
No 3 Electoral Division ...	{ Irish Town Ward	5974	5974
No 4 Electoral Division ...	{ Dock Ward	8900	8900
No 5 Electoral Division ...	{ Glenworth Ward { Shaanon Ward	4588 3224	7812

TABLE II. HOUSES AND POPULATION BY REGISTRARS' DISTRICTS.

Dispensary	Houses				Population	
	Total	In-habited	Uninhabited	Persons	Males	Females
Limerick No. I.	2165	2138	27	12695	6064	6631
Limerick No. II.	1420	1376	44	10580	5131	5449
Limerick No. III.	2532	1516	26	16173	7850	8323

TENEMENTS.

There is much overcrowding in the houses, and the census of 1926 showed that 4,469 persons then lived in 1,463 single rooms, 782 of which were occupied by more than two persons on the average each. The following tables will be of interest as regards congestion :—

Year	Occupiers (or Heads of Families) Occupying Small Houses.				Total of Total of			
	Part of a room	One room	Two rooms	Three rooms	Four rooms	5 rooms	6 rooms	7 rooms

1926	21	1453	2193	1116	1315	3656	4772	6087
------	----	------	------	------	------	------	------	------

Number of Persons in each Tenement	No. of such Tenements	Total No. of Persons
------------------------------------	-----------------------	----------------------

1	337	337
2	344	688
3	274	822
4	207	828
5	147	735
6	78	468
7	41	287
8	19	152
9	10	90
10	4	40
11	2	22
12 or more	...	...
Totals	1463	4469

No. of 1 Room Tenements Occupied by more than two persons

Year	No. of rooms	No. of Occupiers	No. of Persons per room
1926	782	3444	4.40

CENSUS, 1926. LIMERICK COUNTY BOROUGH.

Persons in Private Families ... 34570
Persons in Boarding Houses, Hotels, &c. and Institutions ... 4878

Total ... 39448

Table VI. Number of Persons in Private Families, living under the undermentioned Housing Conditions on 18th April, 1926.

Rooms Occupied	SIZE OF FAMILY											Total
	1	2	3	4	5	6	7	8	9	10	11 and over	
1	337	688	822	828	735	468	287	152	90	40	22	4469
2	214	782	1113	1408	1465	1272	1113	736	621	250	77	9153
3	51	338	531	628	775	774	714	568	441	344	432	5418
4	36	346	600	716	976	954	980	720	631	370	231	6754
5	20	192	225	512	513	582	469	432	255	250	99	3627
6	12	94	168	272	255	300	231	248	169	80	55	1983
7	6	56	96	164	165	150	168	80	136	70	66	1185
8	5	38	84	140	155	136	77	80	45	20	66	865
9	3	16	45	52	75	72	35	24	18	20	22	429
10	1	12	27	56	75	34	35	40	36	10	...	316
11 and over	...	...	4	30	54	65	30	70	48	9	40	33
Total	685	2566	3744	4820	5250	4722	4179	3138	2421	1490	803	765

An Improvement Scheme was made by the Council in 1896 in respect of the unhealthy areas at Nicholas Street and John Street, and these districts were cleared, roadways and pathways formed, and sewers laid down at a cost of £8,096. The Nicholas Street area was sold to the Thomson Dwellings Company for £1,000, and on it they have built 58 cottages which were let at rents from 3/6 to 4/- weekly. Present rent 5/5 each per week.

In the year 1911 the Council built 17 houses on the John Street area and 6 at Miller's Row, under a loan of £4,700. The weekly rents of these houses are 3/6, 3/6, and 4/- per week for three, four and five-roomed cottages, respectively. Present rent—15 at 4/4, 4 at 5/5, 3 at 5/9, and one at 6/7 per week each.

During the year 1914, 66 houses were completed and occupied, viz.:—48 at Prospect and 18 at Carryowen, a loan of £16,180 having been got from the Treasury for their erection. These cottages are four and five-roomed and let at 4/- and 4/6 weekly. Present rent—38 at 5/9, 25 at 6/3 and 3 at 8/- per week each.

The Council erected 64 houses during the years 1923 and 1924, viz.:—6 at Church Street, 4 at Nicholas Street, 5 at Mary Street and 7 at St. Lelia Street, let at a rent of 11/- each per week; 8 at Mulgrave Street, rent, 12/- per week; 34 at Cassidy's Lane, Carryowen, at 11/-, and 4 at 11/6 per week; 2 at Clare Street, at 11/-, one 1 at 11/6 per week; 3 at John Street, at 11/- per week.

CLEANSING OF THE CITY.

The concreting of the principal thoroughfares has been the first step in bringing Limerick up to the level of well managed modern cities as regards the effective cleaning of the streets. One result of this praiseworthy step is that the men of the cleansing staff who were formerly occupied in the main streets can now devote their attention to the back streets, lanes and alleys of the city. There are many things that might be done to improve the cleanliness and sanitary condition of the streets, for instance, the clearing and cleaning of all sewer grates and gutters, so as to prevent flooding of the channels and crossings after heavy rains, the occasional flushing of channel courses in the congested areas, so as to sweep away human excrement which cannot be properly removed by the brush. This flushing would tend to purify the air by removing the smell of the excrement and urine so often to be found in these areas. Chloride of lime or some other disinfectant should also be used in such cases.

The provision of proper sanitary accommodation is a matter of the utmost urgency. The absence of this in the poorer districts makes necessary the provision of some means for removing this ugly evil. The pail system was first tried and did not prove to be a success, as, when the pails were worn out they were not replaced. Next came the night cars, but partly for reasons of economy and partly because they were not used to the extent to which they had a right to be, they have been discontinued. Until the practice of removing night soil regularly is universal it will be utterly impossible to have a healthy city, because the germs of many diseases, particularly typhoid fever and consumption, exist in human excrement, and when the latter is allowed to dry on the streets and lanes the propagation of disease by means of these germs goes on to an alarming extent.

The continuation of the concreting of laneways is of great assistance in securing improved sanitary conditions, and I am glad to find that the Public Health Committee carried out my suggestion that a number of the iron carts used for the removal of mud and refuse be set aside for the purpose of having one of them placed in each of the several laneways in which at present, even with the bins in use, there is always a residue of night soil on the ground when the bins have been filled. These carts have been in use for some time past and the people are gradually coming to recognise the necessity for making full use of them in order to secure healthy conditions around their homes.

The following return shows the number of loads of mud and manure removed off the streets and lanes of the city, and also the number of loads of water put out on the streets in dry weather during the past four years:—

Description	1926	1925	1924	1923	1922
Manure	3912	3236	4997	5551	5289
Mud	25735	24225	24140	23634	20999
Water	2873	1710	1372	2278	1194
Total No. of Loads	32520	29171	30509	31463	27482

FOOD AND DRUGS ACTS.

There were submitted to the City Analyst, 319 specimens of food for analysis, which were sent by High Constable Forrest. Of the specimens of milk 25 were adulterated or defective; 5 of the specimens of butter contained excess of water, and 2 of whiskey were under proof.

Table VII. Statement showing the number of Inhabited Buildings giving particulars of the number of families in each house, and also the number of uninhabited private dwellings in Limerick County Boro.—

	Uninhabited Private dwellings	Inhabited		Inhabited Houses having the following number of Families in each house											
		Private dwellings	Other than Private dwellings	Total	1	2	3	4	5	6	7	8	9	10	11
Limerick No. 1 D.	27	2688	50	2138	1929	114	33	25	13	7	10	5	1	...	1
Limerick No. 2 D.	44	1113	263	1376	4044	141	69	44	25	26	21	3	1	...	2
Limerick No. 3 D.	26	2221	235	2566	2136	276	86	37	18	7	2	...	3	1	...
TOTAL	97	5532	548	6080	5109	531	188	106	56	40	33	8	5	1	3

HOUSING OF THE WORKING CLASSES.

From the point of view of Public Health, on which it is my duty to lay stress, the great drawback in the social life of Limerick is the presence to such a great extent of slum areas in every district of the city. No doubt this is more pronounced in some localities than in others, but in the least affected districts the conditions are such that what are supposed to be the homes are nothing better than hovels. The best proof of the danger of existing conditions is to be found in the fact that, especially in the bad seasons when unemployment is general, the high mortality amongst the very young and very old, already referred to, can be traced to the weak physical condition of the inhabitants, directly due to these unhealthy surroundings. In my opinion the public health of the city will never be satisfactory until the slums are wiped out and at least 3,000 habitable houses provided for the inhabitants. A good deal has been done in England, and with excellent results in the matter of substituting decent dwellings for atomable slums. It has been found for instance that the death rate from Tuberculosis has dropped from 267 to 96 per 100,000 of the population, and the same thing applies to other diseases due to dirt, with the result that the general death rate in England is considered lower than in Ireland. One of the great national problems in the Free State which must be tackled as soon as possible is the provision of proper housing accommodation in cities and towns, as it is impossible to have a healthy population under existing conditions.

Some progress has been made by the Corporation in the work of providing proper housing accommodation. The Corporation has erected 197 houses, and the Thomson Dwellings Company 38. Last year 64 houses were built by the Limerick County Borough Housing Order of 1922. The Government gave a grant of £29,528 for this scheme, and the Council supplied £3,691, proceeds of a Special Housing Rate, and £11,073 borrowed from the bank. These houses are let at 11/6, 11/6, and 12/- per week. At the lowest calculation close on 3,000 houses would be needed to meet the requirements of the situation in the City. Overcrowding is at its worst in the Customhouse and Irishtown Wards, though it is bad enough in many other Wards—and unsanitary areas covering at least 40 acres on which so-called houses are crowded at a density of from 40 to 90 houses per acre, should all be cleared away. This may seem a drastic measure, but the removal of the slums is the only real remedy for the evil of overcrowding, and the most potent weapon in the fight against tuberculosis in Limerick, as it has proved to be elsewhere. The following is a summary of what has been done by the Corporation in an effort to solve the housing problem in the City.

In the year 1887 a sum of £2,400 was borrowed from the Treasury for building 34 cottages at Sir Harry's Mall and Athlunkard Street. These houses were completed in 1889, and 15 of them were let at 3/- and 9 at 3/6 each per week. Present rents—15 at 4/- and 9 at 4/8 per week each.

Another loan of £1,000 was obtained in 1891 for 7 houses, which were built in Mary Street and Gaol Lane; the cottages in Mary Street were let at 3/6, and those in Gaol Lane at 3/- each per week. Present rents—3 at 4/- and 4 at 4/8 per week each.

The site and buildings of the old Newgate Brewery were acquired from the Harbour Commissioners in 1895 at the nominal rent of 1/- per year, and a third loan was sought for and obtained by the Corporation of £2,000 for converting the old stores into 13 two-story dwellings, which were completed during the Majority of our present esteemed Town Clerk, and named "Nolan's Cottages" after him by the Council. The rent of each house is 4/- per week, and the upper floor is allowed to be sub-let at 2/9 per week. Present rent 6/- each per week.

The subjoined table shows the number of analyses made during the year 1926, and the four preceding years:—

Description	1926		1925		1924		1923		1922	
	Specimens Analysed	Adulterated or Defective	Specimens Analysed	Adulterated or Defective	Specimens Analysed	Adulterated or Defective	Specimens Analysed	Adulterated or Defective	Specimens Analysed	Adulterated or Defective
Milk	55	7	278	25	348	21	315	15	302	9
Butter	14	...	12	5	18	5	6	2	2	...
Whiskey	...	...	...	...	8	...	...	...	...	...
Cheese	...	...	11	2	...	...	...	...	6	...
Skim Milk	2	1	...	...	6	...	...	...	...	...
Margarine	...	...	...	...	12	...	4	...	3	...
Castor Oil	...	...	...	...	...	...	3	...	1	...
Pepper	...	...	...	...	...	...	3	...	...	...
Baking Powder	...	...	...	...	...	...	3	...	...	...
Custard Powder	...	...	...	...	...	...	3	...	...	...
Olive Oil	...	...	...	...	...	...	...	...	1	...
Tea	...	...	6	...	6	...	6	...	3	...
Ice Cream	...	...	6	...	6	...	...	...	...	...
Coffee	...	...	...	...	...	...	...	...	...	...
Tartaric Acid	...	...	...	...	...	...	...	...	1	...
Ipsemanahawine	...	...	...	...	...	...	...	...	1	...
Epsom Salts	...	...	...	...	3	...	...	...	3	...
Vinegar	...	...	4	...	...	...	9	2	...	...
Sugar	...	...	...	...	...	...	6	...	...	...
Cocoa	...	...	...	...	...	...	...	...	...	...
Drugs	...	...	1	...	...	...	...	...	...	...
Flour	...	...	...	...	...	...	...	...	...	...
Black Pudding	...	...	...	...	6	...	...	...	...	...
Sausage	...	...	...	...	...	...	...	...	...	...
Corn Flour	...	...	...	...	6	...	...	...	...	...
Condensed Milk	...	...	...	...	...	...	...	...	3	...
Totals	71	11	319	32	417	27	388	19	336	30

RECORD OF SANITARY WORK.

The record of sanitary work performed in the City for the year ended 31st December, 1926, and the four previous years is shown below:—

	YEARS.				
	1926	1925	1924	1923	1922
WORK DONE.					
Orders or Notices to abate Nuisances, make Connecting Drains or perform other Sanitary work served	360	416	453	413	313
Prosecutions for neglect of Orders or Notices	38	73	76	101	113
Convictions	31	73	54	114	73
Fines imposed by order of Justices	£11 18 6	£23 17 6	£22 14 0	£35 2 0	£17 3 0
Samples of Food and Drugs submitted for analysis	71	319	417	338	336
Prosecutions for Sale of Unwholesome or Adulterated Food	6	23	29	29	30
Convictions obtained	6	22	28	28	28
Fines imposed in respect of Unwholesome or Adulterated Food	£9 11 6	£37 15 0	£26 18 6	£25 8 6	£26 18 6
Unwholesome Food seized and destroyed (lbs.)	336	145	406	—	—
Houses, yards, and premises inspected by S.S. Officers	4366	5364	4638	5069	3718
Houses, rooms, or premises linewashed	328	494	737	1108	153
Dwellings disinfected	77	73	52	88	144
Disinfecting Chamber used by persons	—	—	—	—	—
Articles of Clothing disinfected therein	—	—	—	—	—
Clothing and Bedding destroyed to value of	—	—	—	—	—
Orders or Notices complied with	247	284	275	191	135
Reports sent to Medical Officers of Health	233	258	274	181	314
Reports received from Medical Officers of Health	165	195	274	150	226
Drains constructed	12	6	8	8	6
Water Closets constructed	25	20	5	13	2

DISINFECTION.

There were 77 houses disinfected after infectious diseases, or for other causes. As usual, the disinfectant was Formaldehyde, either in its gaseous form or in solution. No matter in which form the disinfection is carried out, if it is not accompanied or followed by the most thorough cleansing, by ordinary domestic means, such as scrubbing with soap and water, of every surface, corner and crevice of a room, and boiling of any wearing apparel that will stand it, the process cannot be looked upon as complete.

The Steam Disinfection Apparatus at the City Home should be used more frequently by the public, and it would be well if it were generally known that bedding, etc., should be thoroughly disinfected when any death occurs, even when the disease, which has proved fatal, was not infectious.

The use of the Disinfecting Chamber should be encouraged, and the small charge made for its use in the case of those who can pay for it, should not deter anyone from adopting this important precaution.

WATER SUPPLY.

The water supply from Clareville was sufficient except on 74 days in May, June, July, August and September, when it was found necessary to fall back on Rheboque, the filter beds at which worked satisfactorily, and with the result that no unfiltered water has been supplied to the City during the year, but the pressure in the higher districts was undoubtedly weak, and complaints of shortage of water in those places have been frequent.

A good deal of uneasiness has prevailed as to the prospects of the City's Water Supply being adversely affected by the diverting of the waters of the Shannon above O'Brien's Bridge in connection with the Shannon Electrification Scheme. The City Surveyor, acting on the instructions of the Corporation, has taken up the question with the Department of Industry and Commerce and an assurance has been given that the water supply will be in no way curtailed. This is a matter of the most vital importance to the City, and it is to be hoped that a supply which will be even an improvement on that at present available will be secured.

BATHS AND WASH HOUSES.

The complete absence of Baths and Wash Houses for the working classes and their families is one of the greatest stumbling blocks to sanitary reforms in Limerick, and ought, here as elsewhere, to be included in any large scheme for the provision of workmen's dwellings. In the meantime, if it were at all possible, it is most desirable that Wash Houses should be erected, so as to encourage habits of personal cleanliness, and avoid the numerous fatalities that arise out of drying clothes at home.

PUBLIC CONVENIENCES.

I desire again to bring under the notice of the Corporation that Limerick is very badly equipped in the matter of Public Conveniences. Eight of them are in existence, but many more are necessary, and I would suggest as a beginning that two should be erected in the small park at the back of the Custom House—one for men and one for women, the absence of any convenience in the City for the latter being the subject of frequent complaint. Another convenience for their use should be put in the People's Park, the great advantage of having these structures in the parks being that the presence of caretakers would be a safeguard against any abuses. More frequent cleansing of the existing conveniences is most desirable. There should certainly be in the City at least one underground convenience, such as are to be found in all up-to-date cities. A good site for one of these could be found in the triangular space at the top of William Street.

The cost of erection would not be great, now that concrete is available for such purpose, and it is to be hoped steps will be taken for their erection without delay; thus bringing Limerick up to the level of other cities, especially as regards the providing of these conveniences for women.

BAKEHOUSES.

There are 24 Bakehouses in the City, all of which are in good sanitary condition, and the men working in them all in good health. While no fault can be found with the bakehouses or the men working in them, it is a matter for regret that almost the entire output of the bakeries is what has been well described as the tasteless white pap of the devalued loaf, which, according to leading specialists, probably creates a tendency to cancer. If people would only eat more brown bread they would be better able to resist disease and secure in a great measure the strength and vitality for which their forefathers were so famous.

SLAUGHTER HOUSES.

I have frequently drawn attention to the necessity for the erection of a public abattoir for the City, as the antiquated methods employed in slaughter houses form a constant menace to public health. Under British rule an expensive Private Bill was necessary for securing compulsory powers for the use of an abattoir, but now that we have our own legislature it is earnestly to be hoped that the Ministry for Local Government will introduce a Bill providing for the erection of public abattoirs in cities like Limerick, and also for the compulsory slaughter of beasts at those places, thus getting rid of the grave menace to public health arising from the existing system of private slaughter houses. Other advantages of an abattoir would be that all animals slaughtered there would be inspected and examined by a Veterinary Surgeon and the meat stamped, as in other countries. The V. S. best fitted for this purpose would be the man appointed by the Department of Lands and Agriculture for examining cattle leaving our ports. Until these steps can be taken it should certainly be made compulsory to have all the slaughter houses of the city thoroughly cleansed every day, and, still more important, that the manure from them be removed daily which is not done at present.

DAIRIES AND COWSHEDS.

In the last report presented by Mr. P. A. Carroll, M.R.C.V.S., Inspector under the Dairies and Cowsheds Order, he stated that he visited and inspected all the cowsheds and cattle under his supervision, and found all the cattle healthy and the cowsheds kept clean.

OFFENSIVE TRADES.

The trades carried out in the City which may be considered as offensive comprise.—Tripe dressers, 9; gut scrapers, 5; tallow melters, 2; knackers' yards, 2; marine stores, 7. Properly speaking, all such trades should be carried on outside the City, as their presence in congested districts is certainly not in accordance with modern ideas of preserving public health. The keeping of pigs in such congested areas is also directly at variance with the same ideas, as it adds to the dangers involved in the overcrowding of these areas.

AMBULANCE CALLS.

The Ambulance, which is in charge of the Fire Brigade Staff, rendered assistance on 669 occasions during the year. The calls for the past four years are shown in the following table:—

Calls	1926	1925	1924	1923
For Ambulance	728	571	605	467
For Fires	33	18	32	25
For Chimney Fires	38	39	32	24
Totals	799	628	669	515

RAINFALL.

The rainfall for the year 1926 was as follows:—January, 5.02; February, 2.96; March, 1.38; April, 2.49; May, 2.62; June, 3.07; July, 3.58; August, 3.00; September, 1.83; October, 2.90; November, 2.48; December, 1.17.—Total, 34.50.

In conclusion, I desire once more to return my sincere thanks to the members of the Public Health Committee for the manner in which they have acted on many suggestions made by me in reports submitted to them during the term under review. I also thank the Medical Practitioners of the City, the City Surveyor and his Assistants, and the Officials of the Committee for their courteous co-operation with me in performing my duties as Public Health Officer.

I am, Mr. Mayor, and Gentlemen,

Your obedient servant,

M. S. McGRATH.