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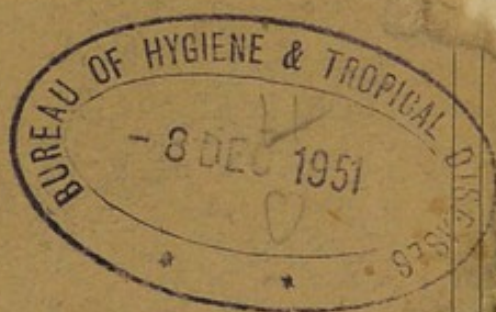
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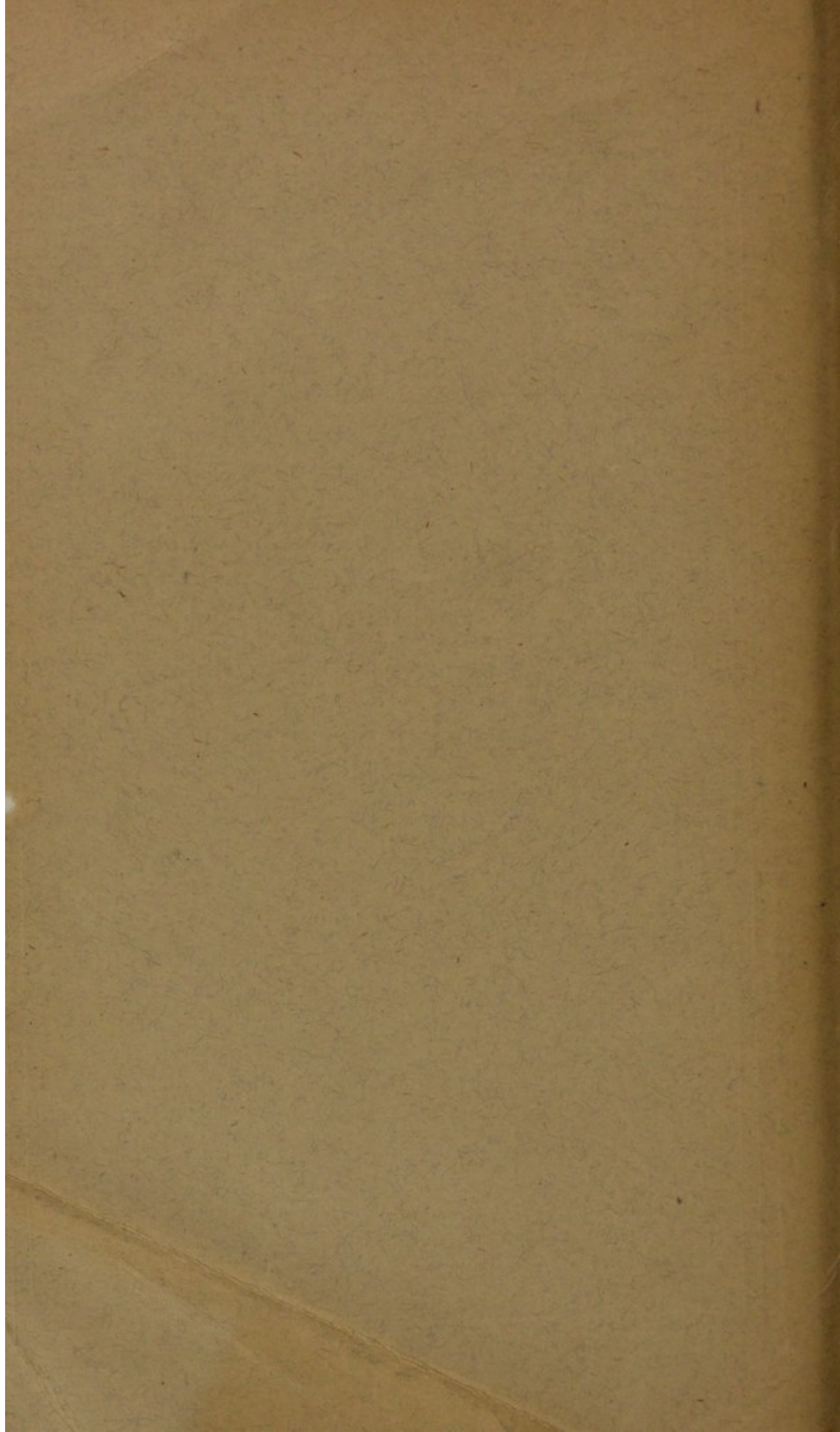
COUNTY BOROUGH OF CORK

REPORT OF THE
CITY
MEDICAL OFFICER

FOR THE YEAR

1950





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REPORT OF THE
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1950

J. C. SAUNDERS, M.D., D.P.H.,
City Medical Officer.

CORK
EAGLE PRINTING COMPANY, LTD., SOUTH MALL

1951

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Daniel J. Murphy

James C. Dineen

Robert F. Hunter

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Tuberculosis Nurse:

Miss L. Lyndon.

Maternity and Child Welfare Nurses :

Miss M. Gillespie

Miss H. Neville

Miss E. McSweeney

School Nurses :

Miss M. Lordan

Miss M. O'Sullivan

Miss C. Curran.

School Dental Nurses:

Miss M. Bowen.

Mrs. M. Shanahan.

Clerk and Inspector to Port Sanitary Authority :

J. P. Kieran

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SUMMARY OF STATISTICS.

Area (in Acres)	2,511
Population (Census of Population 1946)	75,595
Density of Population (persons to the acre)	30.1
Rateable Value	£243,152
Sum represented by a Penny Rate	£983
Number of Births	1,618
Birth Rate	21.4
Number of Deaths	1,041
Death Rate	13.8
Maternal Mortality Rate	0.5
Infantile Mortality	50
Zymotic Death Rate	0.4
Tuberculosis Death Rate	1.0

*To the Lord Mayor, Aldermen and Councillors,
of the County Borough of Cork.*

MY LORD MAYOR AND GENTLEMEN,

I submit herewith for your consideration my Annual Report for 1950. On the whole, the figures are satisfactory. The death rate was the third lowest recorded, infant mortality shows a satisfactory reduction from 68 to 50 per 1,000. The number of notifications of infectious disease was also very low, maternal mortality was maintained at the record low figure of 0.5 per 1,000 births while the tuberculosis death rate at 1 per 1,000 was the lowest so far recorded. All these matters are specifically referred to in the foreword as well as in the body of the report.

I desire to thank those who have contributed to this report—Dr. P. F. Fitzpatrick, Prof. W. J. O'Donovan, Prof. H. N. Walsh, Dr. C. G. Quigley (School Medical Officer), Mr. M. J. Riordan (Water Engineer), Mr. D. J. O'Sullivan (City Analyst), Mr. S. R. J. Cussen (Chief Veterinary Officer), Miss F. Corcoran who has been most helpful in the preparation of the report and in the correction of proofs and Miss M. O'Sullivan, on whom has devolved the responsibility of preparing the figures in the School Medical Section. I also wish to place on record my continued appreciation of the valuable weather reports contributed by Miss Dorothy West, Ballinacurra.

In conclusion I have to refer to the retirement of Miss L. Lyndon which took place during the year. Miss Lyndon was Tuberculosis Nurse from the inception of the municipal tuberculosis service and before that acted in a similar capacity for the Women's National Health Association. She has therefore served since the inception of the tuberculosis service in the city. Throughout this long period her work was characterised by a most unselfish zeal for the welfare of her patients, whom she helped in many ways apart from her official work. We wish her many years of well-earned rest in her retirement.

I have the honour to remain,

Your obedient servant,

J. C. SAUNDERS.

FOREWORD

VITAL STATISTICS

It is unnecessary to refer again to the figures for population as revealed by the census of 1946. This was fully covered in last year's report. The *birth rate* at 21.4 per 1,000, while not the lowest recorded, was rather low for this area and compares unfavourably with the figure for 1949, which was 25. According to modern trends, no doubt, 21.4 is a high figure for births and it is a factor which should be borne in mind when instituting comparisons of infant mortality for different areas for it has been shewn that a high birth-rate is a definite factor in high infant mortality rates.

The *death rate* at 13.8 was the third lowest recorded (it was 13.1 in 1939 and 13.2 in 1948) and represents a comparatively low figure, well below the average, for this locality. As usual, heart disease was the principle cause (334 deaths) with cancer next (100) followed by cerebral haemorrhage (72) and pulmonary tuberculosis (66). The latter, for the second time, occupies fourth place being usually either second or third. The number of deaths from this cause was the lowest ever recorded.

Infant Mortality shews a satisfactory reduction from 68 in 1949 to 50 for the current year. This is the second lowest figure recorded (it was 47 in 1948). Once more the great bulk of infant deaths comes under the heading of *gastro-enteritis* which on investigation has been found to be almost entirely due to bottle feeding. It is almost certainly true to say that if every mother who could do so, would nurse her baby our infant mortality figure would be in the neighbourhood of 30 per 1,000. There is, unfortunately, a pronounced reluctance on the part of modern mothers to put into effect this wise provision of nature. Enquiries made by us have revealed many instances in which they have refused point-blank to do so, a most regrettable fact to have to place on record. On the other hand one gains the impression that there have been cases in which the doctor or nurse too readily advised weaning when some difficulty was experienced with breast feeding. When one considers the enormous advantages accruing to the infant from breast feeding it is difficult to find words sufficiently strong to condemn this unnatural tendency. It cannot be sufficiently impressed on all persons concerned that breast-feeding is a natural right of the infant and it should be apparent to even the meanest intelligence that pregnancy is not terminated until the baby has been fully nursed at the breast. Until there has been a change of mind in this regard it is futile to expect any substantial reduction in our infant mortality figures.

It is, of course, not only in relation to *gastro-enteritis* that breast feeding is of such vital importance. In previous reports I have referred to figures collected in this area which showed in a striking manner that it extended to a wide range of other diseases as well. The investigation extended from 1943 to 1948 inclusive and covered a total of 514 infant deaths from all causes (broncho-pneumonia, whooping cough, marasmus, tuberculosis, convulsions, in fact the whole range of infant diseases). Of this total no less than 474 (92.2 per cent) were bottle fed. Of 207 deaths from *gastro-enteritis* 204 (98 per cent) were bottle fed. 84 per cent of the 101 deaths from broncho-pneumonia were in bottle fed babies. 90 per cent of the 43 babies who died from infectious disease were similarly

fed as were *all* of the 21 who died from convulsions. These figures are very striking but they suffer from the lack of adequate controls. Taking them by and large they leave little doubt in any reasonable persons' mind that there is something present in mother's milk which confers a very high degree of protection against disease to the human, infant but, as stated, they lack that element of confirmation without which they cannot be regarded as completely convincing. This confirmation, however is now available in the work of Dr. MARGARET ROBINSON.* Her important article analyses the results obtained in a study of over 3,000 infants attending a clinic between 1936 and 1943. In a reference of the present character it is impossible to do justice to the original article (which should be consulted by all interested in this subject). It is a most careful investigation and will well repay study. Her findings may be summarised as follows:

1. In bottle-fed infants the *morbidity* and *case-fatality* rates were twice as great as in the breast-fed infants, and the *mortality* rate was five to six times as great as in breast-fed babies.
2. If the total infections are considered, the mortality was six times as great in bottle-fed infants as it was in the breast-fed infants.
3. The percentage of breast-fed infants who became ill in their first 7 months of life was 17.9, compared with 40.7 per cent of the bottle-fed infants.
4. Of the 86 deaths from infection in the 3266 infants, 76 were of infants who had been entirely bottle-fed for some time before the onset of the fatal illness. Only 8 of these deaths were in infants who were being fully breast-fed at the onset of their fatal illness.
5. Thus the mortality from infections was 30.0 per 1000 in infants who were being bottle-fed and 3.3 per 1000 in infants who were being breast-fed, at the onset of their fatal illness.
6. In the bottle-fed infants the *number of illnesses* per infant increased as the size of the family increased. In breast-fed infants the *mortality* and *case-mortality* were not affected by the size of the family.
7. In bottle-fed infants the mortality and case mortality were affected by the increase in the size of the family. The *mortality* rose from 33.7 per 1,000 in first infants to 90.5 per 1,000 in infants in families of four to twelve children.
8. In the series there were 19 cases of chronic otorrhoea and only 1 of these infants was breast-fed. The remaining 18 cases were in infants who had been bottle-fed for over a month before the onset of otitis media.
9. No infant developed infection of a mastoid while being breast-fed. All the mastoid operations were done on infants who had been bottle-fed for some time before the onset of the infection that led to mastoiditis.

*The LANCET., April 7th, 1951 (788).

10. The risk of infection increases as the size of the family increases, and if the other members of the family have any chronic diseases of the respiratory tract.
11. Breast feeding reduces both the morbidity and mortality rates especially the latter.
12. Holt (1910) says that the Health Department, New York estimates that 85 per cent of all infant deaths occur in bottle-fed babies. In this investigation 88.3 per cent of all deaths from infection occurred in infants being bottle-fed at the onset of the fatal illness.

It is scarcely necessary to observe that this recent work has confirmed the findings of earlier workers in the same field. FRAZER and STALLYBRASS (1940) reporting on an outbreak of epidemic diarrhoea in Liverpool found that the fatality rate among artificially-fed babies under 3 months was 15 times greater than among breast-fed babies of the same age. Grulee and his colleagues (1935) carried out a large-scale investigation into the health of children attending the Infant Welfare Centres of Chicago, in which over 10,000 children were closely followed up for the first nine months of each infant life. Of these 48.5 per cent were wholly breast-fed, 43.0 per cent were partially breast-fed and 8.5 per cent were entirely artificially fed. The mortality among the *artificially fed* infants was 56 times greater than amongst the breast-fed. The difference in the death-rate between these classes of infants was largely due to deaths following respiratory infections, and to a less degree, gastro-intestinal and other infections. Thus while only four out of 9,749 breast-fed infants died of respiratory infections, eighty-two out of 1,707 artificially fed infants died from this cause.

It must be realised, of course, that there are many mothers who, under modern conditions, find themselves unable to nurse their babies though willing to do so. The underlying causes of this inability deserve careful investigation. The matter is too serious to be passed over as of little interest or importance, that is if we are really sincere in our efforts to reduce infant mortality. There is no use whatever in instituting grandiose schemes if this fundamental need is passed over. It cannot be stressed too much or too often that artificial feeding is the one outstanding factor in infant mortality. It is appropriate, perhaps, to conclude these observations by drawing attention to the injunction of CAMPBELL and CUNNINGHAM* :

"Anyone who advises the weaning of a baby on to a bottle—be he medical practitioner, chemist, nurse, or lay relative—should realise that he is transferring it from a group in which the mortality from diarrhoea and vomiting is negligible to one in which it is high"

At 0.5 the figure for *maternal mortality* remained as it had been in the previous year when, it was remarked, that it was very low. The general trend is shewn in Table 55, which goes back to 1924 (in which year the figure was 6.1). The great reduction in the risks of pregnancy may be almost entirely attributed to the introduction of penicillin and the sulphonamide drugs.

*The LANCET, Feb., 2nd, 1942.

Deaths from *Cancer*, so far as the limited figures available from this city are concerned, do not reveal any upward tendency. The number recorded for the current year was 100 and examination of Table 13 shows that this is substantially lower than the figures recorded in the three previous years. Furthermore, taken by and large, the table does not indicate any increase in the deaths from this condition. This observation, however, should be taken with due caution because the reliability of certification has very often to be called into question. Not infrequently enquiries made following a certification such as "heart failure" reveal the fact that the original cause of the heart failure was cancer of some organ.

INFECTIOUS DISEASE

The total number of notifications received showed a substantial reduction in comparison with that of the previous year—from 729 to 247. The principal reduction was in regard to *measles*, notifications of which fell from 320 to 62. Visitations of this disease are usually biennial but in this area, while epidemics display no regularity, their occurrence appears to be more triennial in character. The occurrence of measles epidemics illustrates an interesting factor in epidemiology—the occurrence of epidemics with the rise of a susceptible population. In this case it is the infant population. When the number of susceptible children rises to a sufficiently high figure the disease, when once introduced, spreads rapidly amongst them and those that contract it and recover then become insusceptible. When the proportion of insusceptibles reaches a sufficiently high proportion the epidemic wanes and dies out. With the birth of further children in the course of another year or two the position is reversed and once more the disease makes its appearance and so the process continues. Reference to table 24 reveals that there was an exceptionally heavy visitation in 1940-41 after which the disease dwindled to negligible proportions for two years, with a further recrudescence in 1944. Measles is, of course, a comparatively mild disease but it is important to remember that the complications can be serious and no precaution should be omitted in regard to the nursing of affected children.

This is the fourth successive year in which there has been no death from *diphtheria*. The number of cases notified (10) was slightly more than the corresponding figure for the previous year (7) which, in its turn was the lowest ever recorded. Table 15 is a somewhat interesting tabular record of the disease in this community extending, as it does, back to the year 1890 thus covering a period of over 60 years. There is little that can be said about this disease which has not been already said in these reports and elsewhere; particularly regarding the rôle of immunisation in producing the happy state of affairs which we now enjoy. It is regrettable, therefore to have to record that there has been no real increase in the number of children protected during the past year. The total number was 1,050 as against 909 in the previous year. It is much to be feared that, unless parents become more alive to their responsibilities, the disease will again become epidemic here. The general principle referred to above in connection with measles, applies here too. It is termed "herd immunity." If this herd immunity falls below a certain level the disease will almost certainly re-appear in epidemic proportions. Apart from actual contraction of the disease itself the only method of raising the level of herd immunity is active immunisation. Immunisation therefore protects not only the individual but the community as well.

It is necessary to refer once more to the requirements if diphtheria is to be completely eliminated from this area:—

1. All children born this and each succeeding year should be protected by the time they are one year old or by 15 months at the latest.
2. All children under 5 years, who have not been immunised should undergo treatment at once.
3. All children who have been immunised for more than 3 or 4 years should be subjected to a test and further treatment if necessary.

In common with all forms of artificial immunisation, immunisation against diphtheria is not absolutely permanent. For a time it increases to a maximum after which a gradual decline sets in, so that eventually a stage may be reached when the child is no longer protected. It is in order to meet this contingency that we recommend re-testing some years after the original injection. If it is necessary to give further treatment a single injection suffices to raise the level of protective substances in the blood very rapidly. When one recalls the alarming state of affairs which prevailed in this city not so many years ago the slight inconvenience involved in protective treatment seems a very small price to pay for the assurance which is forthcoming as a result. To date it will be noted that *over 29,000 children have been protected against diphtheria in Cork and we place on record that over the period of 22 years during which the treatment was carried out not one of these children died from diphtheria. During the same period 271 unprotected children died from the disease.*

No opportunity has been lost in drawing the attention of parents to the benefits of the scheme. Through notification and registration of births a list of all children born in the city has been drawn up and from this list all recorded deaths are abstracted so that when each child reaches the age of one year a special pamphlet is issued to the parents drawing their attention to the benefits of immunisation. In addition, the school nurses deliver pamphlets to children in the schools to bring home, while the Child Welfare nurses also constantly urge mothers to bring their babies for protection. No doubt these exertions bear a certain amount of fruit but it is to be feared that, for a relatively large proportion of parents, nothing short of a really severe epidemic will bring them to a sense of the danger to which their children are exposed.

Cerebro spinal fever caused 4 deaths during the year. It is to be noted that only one notification of the disease was received. Apart from gastro-enteritis *influenza* caused more deaths than any of the infectious diseases. 9 such deaths were recorded, the majority of which concerned elderly persons. 22 notifications of *whooping cough* were received in contrast with 80 in the previous year while one death was recorded (there were 4 in 1949). *Scarlet fever* was, as now usual, a mild disease, 34 cases were reported, there was no death.

On the whole the incidence of the infectious diseases was very low and from this point of view the health of the community may be said to have been excellent. Diphtheria is no longer the scourge it was up to quite recent times, *typhoid fever* was again completely absent. 1948 was the fifth successive year in which no case occurred while, typhus has ceased to be even a memory. These three diseases, from a historical point of view have been the major pestilences of the city.

EPIDEMIC DIARRHOEA

This disease is now the dark spot on our epidemiological record. True, there was a welcome reduction in the number of recorded cases in comparison with the previous year (83 as against 147). The number of deaths due to the disease was 19 and, as in former years, *each one of these infants was bottle-fed*. More than half of the preventible deaths were due to diarrhoea. If these infants had been breast-fed it is reasonable to assume that our infant mortality rate would have been 38 instead of 50; with a still further reduction if children who died from other conditions had been similarly nourished. No words can exaggerate the baneful effects of artificial feeding, its ill effects extend over practically the whole range of diseases to which children are liable and far into later life as well. There is no reasonable doubt that the best start in life which a mother can give her child is to feed him in the natural and human way.

TUBERCULOSIS.

On basis of general world standards our figures for tuberculosis mortality still rank high, nevertheless it is a satisfaction to be able to state that those for the year under review are the lowest so far recorded. There were 66 deaths from pulmonary tuberculosis (as compared with 69 in 1949) and 11 from the non-pulmonary forms (14 in the previous year). The tuberculosis mortality rate worked out at 1.0 per 1,000. The corresponding rates for the other county boroughs (as recorded in the annual Summary of the Registrar General) were as follows:—Dublin 0.9; Limerick 1.0; Waterford 1.7; while that for the country as a whole was 0.8. These figures all represent reductions on the corresponding figures for the previous year except in the case of Waterford in which there was a sharp rise from 0.8 to 1.7. It is more than likely that this increase is artificial in character and that it is due to delayed registration of deaths which occurred in the previous year. There was a substantial increase in the number of *notifications* recorded in the year, 195 as compared with 163 in the previous year. This is the largest number of notifications received so far in any one year and is, no doubt, a reflection of the increased readiness of medical practitioners to avail of the clinic services and of the increased awareness of the public generally of the importance of early treatment.

Deaths from tuberculosis constituted 7.6 per cent. of the total deaths registered during the year. An examination of the mortality tables reveals not only a steadily dwindling number of deaths from tuberculosis but it also tells us that the ratio of these deaths to deaths from all causes, is also a decreasing one. In 1906 (the first year for which combined pulmonary and non-pulmonary figures are available) deaths from tuberculosis were no less than 25.3 per cent. of the total. Since then the ratio has been steadily diminishing. When one considers the fact that in the first decade of this century no less than a quarter of all the deaths were due to tuberculosis and that they now represent less than 10 per cent., one is impressed by the important part played in the reduction of the general death-rate by reduced deaths from tuberculosis.

Mortality, during the past year, fell most heavily in the 25-35 years group, in which there was a considerable excess of female deaths over males. Figures for any given year in this area are so small as to be without statistical significance, but spread over a sufficiently large number of years more importance may be attached to them. In the appropriate section in the body of the report there is such a table in which the deaths

for the past 26 years have been totalled and divided into age and sex groups (table 30). This embraces a total of 2,564 deaths, the largest proportion of which occurred in the age-group above referred to (25-35 years) and once more in this group there is a considerable excess of females over males. This group represents 24.4 per cent. of the total deaths. Flanking it on either side are two other groups which also exhibit high mortality rates. Into the 15-25 group fall 19.6 per cent. of the deaths and in 35-45 group there are 22.8 per cent. These three groups combined account for 66.9 per cent. of all the deaths. It will be seen therefore that mortality from tuberculosis falls most heavily on the most important age-groups in the community—on women during their reproductive period and on men when at the height of their earning power. The picture is, perhaps, not quite so drab as may appear at first sight. It is true that the maximum number of deaths occurs in the groups in question but then these groups are the largest in the population. Converting the figures into rates per 1,000 in each group alters the perspective considerably. By this method the death-rate (from tuberculosis) works out as follows: for the 15-25 group 1.40; for the 25-35 group 1.92; for the 35-45 group 2.08; for the 45-55 group 2.24 and for the 55-65 group 1.97. In effect, the mortality is divided more evenly over the age-groups than appears to be the case. (see Table 35)

During the past year a sum of £12,643 was paid out to beneficiaries under the Infectious Diseases (Maintenance) Regulations, 1948. (The corresponding figure for 1949 was £10,155 and for the last ten months of 1948 the figure was £5,456). In addition to this sum £1,219 were spent on extra nourishment, £1,146 on clothing and £167 on beds and bedding. The total amount disbursed during 1950 was therefore £15,175. In the original concept of affording financial assistance to tuberculosis patients isolation for the longest possible period was a *sine qua non*. It is necessary to stress this fact and to keep on repeating it until such time as we have sufficient beds at our disposal to accomodate *all* our open infectious cases. Otherwise such provisions do not make sense. It could indeed be argued that they do positive harm by keeping open cases circulating among the community much longer than would have otherwise been the case, with a consequential increase in the spread of infection from them. W. H. Frost was one of the first, as well as one of the most able protagonists of the idea of generous financial assistance to the tuberculous, but he left no doubt about his ideas on the question of collateral isolation as the following extracts from his Collected Papers indicate:

“The isolation of *known open* cases is placed first because it is the most direct method that we have for reducing the prevalence of tubercle bacilli in our environment; the measure which, applied to the smallest number of people, gives the maximum of protection to the community. It is also one of the measures at present often neglected or compromised by makeshift attempts at home isolation. But the broader reason for giving first place to the isolation of open cases is that if this is carried out thoroughly it leads up to all the other measures indicated. For it is in the household associates of the open case that the search for additional cases should begin, with the certainty of finding some that are in need of medical care; and, if prevention of tuberculosis is the aim, nowhere is generous financial aid more urgently needed or better justified than in the families of the tuberculous poor who bear the double risk of intimate exposure to the tubercle bacillus and poverty.

Thus the known open case is the logical center from which to develop protective measures of all kinds. And merely to carry out *thoroughly* this one item in the program, the institutional isolation of all known open cases, is no simple matter. It involves much more than diagnosing the cases and providing beds for them at public cost. It equally involves inducing the patients, not only to enter the institutions, but to remain there as long as may be necessary, and making it possible for them to do so. The medical and social organization which best meets all these needs in all discovered cases of open tuberculosis will, I think, be the organization best prepared to spread its activities more widely from this center.

"The conditions which limit the propagation of the tubercle bacillus are : (1) that in order to escape from its host it must cause a lesion which breaks through to the surface—in general an extensive lesion which severely damages the host—and (2) that it succeeds in producing such lesions in only a limited proportion of infected persons.

The combination of these two limiting conditions is the peculiarity of the tubercle bacillus which makes it more amenable to control by case isolation than are diseases such as diphtheria, scarlet fever, and measles. For notwithstanding that the tubercle bacillus infects nearly everybody sooner or later, most of the infections are "sterile", in the sense that although the bacilli multiply within the body they do not escape to reach other hosts. Only the relatively small proportion of infections which progress to the stage of open lesion are successful in spreading the infection to others, and it is only these sputum-positive cases that need to be isolated in order to prevent the spread of infection."

It will be seen that financial assistance without isolation is a one-sided arrangement tending of its very nature to defect the end for which it was introduced. It will be necessary, therefore, to press forward, with the greatest possible vigour, in our efforts to provide more beds. The mortality figures do not give any grounds for congratulation so far as our administrative measures are concerned. One cannot say that, so far, these have accelerated the decline in the disease. This decline has been gradual and it has been spread over a great number of years. The provision of maintenance allowances certainly has placed a new weapon in the hands of health authorities but can we say that, in existing circumstances, it is being used to the best advantage?

B.C.G. VACCINATION.

B. C. G. vaccination has now become an essential weapon in the armamentarium of many countries in the fight against tuberculosis. The vaccine had its origin in France in the year 1910 and is the outcome of the work of Calmette and Guérin (hence the synonym B. C. G.) .For thirteen years (over 230 generations) it was cultivated and sub-cultivated in a medium one of the ingredients of which (ox-bile) caused a progressive loss of virulence to animals. The strain became entirely non-virulent, and it entirely failed to cause the formation of tubercles whatever the route of infection. This is the basis of the present work on the prevention of tuberculosis by active immunisation which has achieved its highest development in Scandinavian countries. In Sweden in particular well over half-a-million persons have now been protected and so impressed

have the authorities been that it has now become compulsory for certain categories of the population who are considered to be especially vulnerable to tuberculosis. These include medical students, probationer nurses and the personnel of state-owned asylums. In Norway and Denmark also the use of the vaccine is widespread.

The method has now extended to other European countries and to Canada and U.S.A. For some years past investigations on behalf of this country were made by Medical Inspectors and Medical Officers in Denmark as a result of which the Minister for Health in 1949 set up the National B.C.G. Committee, an ad hoc body, for the purpose of encouraging and regulating its use. Up to this it has been the practice to limit the use of the vaccine to medical officers directly employed by the Committee but it is understood that when local tuberculosis officers have been trained its administration will become a routine procedure in all local tuberculosis services.

While B. C. G. cannot replace the ordinary tuberculosis services there is no doubt that it is a very valuable adjunct particularly for certain classes in the community. In an agricultural country like Ireland numbers of people are continuously moving from rural areas into the towns. The majority of these persons have lived previously in isolated dwellings and have never been exposed to infection by the tubercle bacillus, consequently they have never developed immunity to it. Thrown into a milieu in which they may be suddenly exposed to an overwhelming infection their powers of resistance are overcome and they may fall victims of the disease. In point of fact (and it is a matter of considerable interest) this is believed to be the reason why tuberculosis is more prevalent in agricultural countries than in industrial countries in which the flow from country to town has either ceased or long become stabilised. On the other hand, city born people have been exposed to infection in varying doses from childhood as a result of which the great majority of them develop an immunity. The tuberculin survey carried out by Irish Red Cross in 1944-46 was an interesting confirmation of this view for it shewed that between 75 and 85 per cent. of the children over 12 years were tuberculin positive, proving that they had already had their *primary infection*.

B. C. G. vaccination is, in effect, based on the conversion of a negative tuberculin reaction to a positive one. People who have never been exposed to infection yield a negative tuberculin reaction and they are at considerable risk of developing tuberculosis in clinical form until they have put the primary infection safely over them, when their reaction becomes positive. The object of B. C. G. vaccination is to administer a controlled primary infection. We already know from the carefully controlled work of Calmette and Guérin that the vaccine is absolutely avirulent and cannot cause tuberculosis. Nevertheless, its administration creates a condition of "allergy" by means of which the individual is able to resist subsequent infection by the tubercle bacillus. It is particularly valuable in protecting infants of tuberculous parents from the devastating effects of tuberculous meningitis and other manifestations of familial infection. As already indicated, it is for certain other classes of the community a most valuable protective against infection. It should, in fact, be administered to all persons who are tuberculin negative. We have every reason to believe that if B. C. G. vaccination were administered on a wide scale in this country there would be, in the course of time, a very material fall in the figures for morbidity and mortality from tuberculosis.

The functions of the National B. C. G. Committee include provisions for the direction and expansion of B. C. G. Vaccination in Ireland and for the training, appointment and supervision of vaccinators. At the time of writing the medical officers of the Committee have effected 33,900 vaccinations over the whole country, of which number 250 were carried out in Cork city. In connection with these cases 1,053 tuberculin tests were made of which 743 (73.4 per cent.) were positive. This proportion corresponds very closely with that reported in the Red Cross survey (referred to above). Of the 268 negative reactors no less than 267 were submitted to B. C. G. vaccination. The figures for the City area are, of course, very small and they represent but a beginning. With the establishment of a regular fixed service for the area it is to be hoped that there will be a considerable expansion.

The following note has been contributed by Dr. P. F. Fitzpatrick, Tuberculosis Officer.

During the year Miss Lyndon, who was Tuberculosis nurse since the establishment of the State, resigned. We take this opportunity of wishing her many happy years to enjoy her retirement.

The routine work carried out at the Clinic continues to increase and frequently taxes the energy and ingenuity of the staff to keep abreast of it. The Clinic attendances numbered 3,641. The number of patients for whom X-ray films were found necessary increased from 268 in 1949, to 756 in 1950, and the number of screen examinations was over 1,000. Nearly 200 more patients were afforded institutional treatment than in 1949. These figures represent patients each one of whom presents a problem to be dealt with by the staff.

It will be observed that the graphs of mortality rates showed a marked decline over the years for which figures are available. This is a matter for some satisfaction, indicating, as it does, a lessening of the mass of infection which is always present when cases of infectious diseases like tuberculosis are found in a community. Mortality figures may be taken to indicate in addition to this the success or otherwise of any measures undertaken to combat the disease.

Comparing the figures for Ireland and its chief Towns with those of many other countries there is little cause for satisfaction and the general position in regard to this disease continues to be most disquieting.

There are epidemiological reasons for saying that our racial immunity is not so high as it is in those countries where organised industry has been longer established and that because of this our people when they become infected are unable to stabilise or limit the spread of the disease with the same readiness. Even when this lack of inherent resistance is taken into consideration our figures soar out of all proportion when compared to some countries similarly constituted to ours where schemes for the control of tuberculous infection on a more extensive scale are in practice.

An interesting if depressing phase had made itself manifest in our clinic work over the past couple of years. Before 1948, we were accustomed at short notice to get beds in hospitals and in a reasonably short time Sanatorium beds when the occasion arose. Since then, however, a waiting list has grown up and at the time of writing we

have many patients waiting for Sanatoriums. This has occurred at a time when an additional hospital (Mallow) has been made available and when our mortality figure for this disease is the lowest ever recorded. The explanation for this is not that we are saving many more lives or that our patients are living longer although these two factors may play their part to a small extent. All cases of Tuberculosis may not be under medical care, indeed it is true to say that many sufferers are not aware that they are affected at all. These cases will not come to light unless they are looked for. Some will be found by a Doctor, who when a patient consults him, does not rest until an X-ray examination of the chest is carried out to exclude the possibility of lung infection. We believe that is happening now. There is, we believe, an awareness now regarding tuberculosis among the general body of medical practitioners which is being translated into a more frequent appeal to Radiology in an effort to uncover the cause of a patient's symptoms. This is reflected in the discovery of more cases, in much more clinic work, in a waiting list for treatment and shortage of hospital and Sanatorium beds.

This condition of affairs has come into existence by virtue of the routine practice of medicine and the number of cases found are dependant almost entirely on the circumstances of people seeking relief through doctors for their symptoms. It has long been recognised that Tuberculosis of the lungs is almost without exception asymptomatic in its early and eminently curable stage. Those affected must be sought after and found by assiduous search among people who believe themselves to be normally healthy. This is accomplished by mass X-ray surveys. Such surveys have been conducted in Cork County and Dublin and a considerable and early expansion of these activities is envisaged by the Department of Health. The figures which have come to light as a result of these surveys of healthy individuals are of very great interest. It has been found that ten out of every thousand examined suffered from tuberculosis of the lungs which was in need of institutional treatment. The incidence of tuberculosis discovered in this way is more than three times that of England and is many times more than that of the Scandinavian countries and Canada. With the extension of the X-ray facilities offered by the Dept. of Health must come the discovery of many new cases and the need for many more beds. It is an uneasy feeling that as a result of our case finding activities the bed shortage which is already causing much anxiety may become critical.

SCHOOL MEDICAL SERVICE.

It has been remarked that nowhere have the benefits of school medical inspection been more pronounced than in the promotion of personal cleanliness among school children. Before inspection, one standard text book states, about 50 per cent. of girls heads were verminous and the proportion of body vermin was also high. The proportion of verminous heads is now about 14 per cent. Since it is a considerable number of years since this was written it is probable that the proportion is now considerably lower. The school medical service is one not very frequently alluded to, nevertheless it plays an important part generally in the services whose object is the promotion of health and the conquest of disease. It occurred to me to check the above statement against the results of observations made over a number of years by our own school medical service

and to see what part it had played in promoting cleanliness among our school children. The figures are culled from reports of Dr. Annie Sullivan who was School Medical Officer from the inception of the scheme up to her retirement in 1949. Her comprehensive reports have yielded a deal of interesting information and it affords me pleasure now to express my appreciation of her work over the years in placing this service in its present satisfactory state. Her outstanding organising capacity and the enthusiasm which characterised her work are reflected in the service as it stands to-day.

Our interest at the moment is concerned with the part which this service has played in improving the standard of cleanliness. As will be inferred from what has been said above this is based on the amount of vermin infestation. The figures which follow represent total infestation, that is, girls and boys combined :

1927-18.8 per cent.	1935-7.6 per cent.	1943-3.9 per cent.
1928-17.5 ,,	1936-7.4 ,,	1944-4.2 ,,
1929-12.9 ,,	1937-6.8 ,,	1945-7.9 ,,
1930-11.0 ,,	1938-5.7 ,,	1946-4.8 ,,
1931-10.7 ,,	1939-3.8 ,,	1947-4.0 ,,
1932-5.2 ,,	1940-4.0 ,,	1948-8.9 ,,
1933-8.6 ,,	1941-4.2 ,,	1949-7.8 ,,
1934-7.1 ,,	1942-5.2 ,,	1950-4.7 ,,

This table certainly would seem to indicate that considerable improvement has taken place. It is interesting to note that the average figures for the three columns are respectively 11.47, 5.58 and 5.57. It is of interest also to note that infestation has always been much higher amongst girls than amongst boys. This has been entirely due to the longer hair of the former lending itself more readily to infestation and, in fact, it has been noted that there was a very great reduction in the case of girls when it became the fashion to cut the hair short. This improvement has, to a certain extent, been neutralised by the current fashion of permanent waving which, as a consequence of more infrequent washing has resulted in an increase of vermin infestation among older females. This was especially observed during the late war.

The application of medical knowledge to other aspects of school hygiene has been very noticeable in many directions. The rationale of the service is the detection of defects in an early and remediable stage and the application of the necessary curative measures. It is not generally appreciated that diseased *tonsils*, for example, if untreated, may lead to acute rheumatism which, in its turn, may cause serious crippling of the heart. Hence the importance attached to operative procedure in cases which do not yield to ordinary measures. *Eye defects* also. How many children in the past have laboured under the handicap of defective vision in the days before inspection ? Nowadays such defects are detected at a very early stage in the child's school career and the appropriate measures are applied. That is if the parents co-operate and insist on the children wearing their glasses. Unfortunately this co-operation is not always forthcoming. Similarly a proportion of children is always found which is handicapped as a result of *defective hearing*, often the result of some infection of the ear in the early days before school. Such children are often

put down as of defective intelligence because of their inability to learn, when the real cause is merely that they cannot hear what is being said to them. When their defect has been uncovered and the appropriate measures are adopted the improvement is often quite dramatic. *Heart disease* does not figure prominently among the defects of school life, nevertheless in the past 25 years 1 to 2 per cent. of our children have been found each year to be suffering from it. Sometimes the condition is far advanced, having reached this stage without anyone having been aware of it. Such children often suffer considerably anxiety as a result of the hurley-burley of ordinary school-life. They try to compete with their fellows and often the result is tragedy. Such children are picked out by school medical inspection and, if their defect cannot be cured, at least their lives may be made much more tolerable.

Of the defects discovered during inspection, from the point of view of prevalence, *dental caries* overshadows all the others. It is merely a truism to remark that the condition of the teeth of the great majority of our children is simply shocking. Before the dental service was attached to the school medical service of this department the school medical officer, naturally, carried out all the dental inspections. With the appointment of school dentists part of this inspection has been taken over (and it is hoped to transfer it eventually in its entirety to the dental side). The present position, therefore, is that these inspections are carried out in part by the school doctor and in part by the school dentist (this must be kept in mind in reading the relevant part of the report, for it explains the two groups under which the results of inspection appear). This arrangement has made no difference so far as the actual findings are concerned for it will be noted that, of the 1,741 children inspected by the school medical officer, 75 per cent. were found to have defects needing treatment and that of the 1,515 children inspected by the school dentist 74 per cent. required treatment.

These figures are really a frightful commentary on our vaunted civilisation. This is not the place to discuss them except to remark that the majority of authorities believe that the state of affairs is related to our faulty dietetic habits, the use of over-refined foods and the excess of carbohydrate (particularly of sugar) in our diet. Others claim that it goes further back and that the foundation of a healthy set of teeth depends, in the first instance, upon the diet of the mother during pregnancy and her ability to nurse her baby afterwards. The most we can do now is to provide stop-gap measures in the way of dental treatment. With the staff at our disposal it is hopeless to attempt conservative treatment except in a small proportion of cases. In any event the decay is so advanced when first seen that extraction is the only resort. If one may use an analogy more applicable to another department, all we can do is to shore up the tottering edifice.

This is a very serious problem and, as I have indicated, for the time being we can only apply palliative measures. At the moment we have two whole-time dentists. I estimate that for our school population we require an absolute minimum of five but, with the present acute shortage of dentists, I see no prospect of achieving this aim for many years to come. Meanwhile we can but do our best and it is only right to pay tribute to the hard and unremitting work of the school dentists and their staff, who are carrying on under very difficult conditions.

The school medical section of this report, from the point of view of matter and general layout, may not, at first sight, be the most inspiring but if one could manage, as it were, to see behind the columns of figures and dry facts recorded there this section develops an interest all its own. Some people have this faculty and they see behind the records the human element and the human problems involved. They can see the school medical officer slowly and painstakingly examining healthy after healthy child and then coming across the defective one for whom something can be done. They can then see the machinery of prevention coming into action—the school nurse recording the facts, the parents being informed and advised, the follow-up visits, the reference to the family doctor or the school clinic, the operation where necessary and the final restoration to health (it is to be hoped). They may even picture the child being taken to hospital or clinic for operation, or to the tuberculosis officer or the orthopaedic surgeon for a further opinion (292 children had diseased tonsils removed in 1950 under the auspices of the school medical service ; 398 received glasses ; 363 were treated for other eye defects ; 180 received treatment for ear diseases and 2,981 received dental treatment). These were all children who might well have had no treatment at all were it not for the school medical service.

I wish to pay tribute now to Dr. C. G. Quigley who has been acting as School Medical Officer since May 1948. He is a most competent officer and under his guidance the service has been carried on in a manner which has afforded me complete satisfaction. I have much pleasure in including the following note from his pen.

EDUCATION AND HEALTH

By Dr. C. G. Quigley, Acting S.M.O.

The purpose of education is not merely to acquire a knowledge of certain subjects but to enable us to live well together. This implies a healthy state of mind and body. Since it is a fact that the health of its citizens is a nation's chief asset, it is of importance that we should be concerned from an early age with the principles for promoting and preserving health.

While it is true that the onus of providing children with the principles of health and hygiene should fall on their parents, we must accept the fact that there are many parents who do not appreciate the value of health and hygiene and, for this reason, their children are in great need of instruction in order that they may grow up to be healthy and useful citizens. It is our experience in Cork that parents often do not realize or appreciate the necessity of treating defects in their children. Defects, which are not grossly incapacitating, are often neglected until such time as treatment is of little value. The care of children's teeth is often overlooked despite repeated requests to attend for treatment. Children for whom glasses have been prescribed often fail to wear them. Children who suffer from squint often do not attend for treatment until such time as the sight in one eye has deteriorated or is completely lost. As mentioned later in this report 20.4% of children for whom glasses had been prescribed did not wear their glasses regularly or at all. This high percentage of defaulters continues to occur despite repeated requests to have

treatment carried out, home visits by nurses, etc. I feel that this lethargic attitude of parents is due to the fact that they do not fully realize the value of health and that what may appear to them to be a trivial defect may have more serious repercussions in later life. Since this is the case we should now take the long view and ensure that the children of to-day, who are the parents of to-morrow, are fully aware of the basic principles of health and hygiene. Thus they will be in a position, when they reach adult life, of appreciating to the full the value of health, and defects which would have been overlooked by their parents will receive prompt attention.

It is true that the social background and environmental conditions under which people live have an important effect on their attitude towards health and hygiene. In modern times great efforts have been made to improve the people's environmental conditions. Many families have been removed from tenements in slum areas to houses which provide the essentials for preserving and promoting health. This is indeed a great advance in the right direction but how can we expect people to appreciate fully the value of their new environmental conditions if they are not familiar with the basic principles of health?

It seems only logical that people must be taught the principles of health and hygiene, as experience has taught us that they do not acquire them. Some attempts have been made by propaganda methods to induce people to avail of the services which are provided for the diagnosis and treatment of certain diseases, but no concrete attempt has been made to educate the population towards a full and healthy life. We are aware of the benefits that accrue from a health education so every effort should be made to provide such an education. Education authorities in all countries agree that health and hygiene is an important subject in the school curriculum. There may be some difficulties in introducing these subjects into what is, at the present, a full school curriculum, but the provision of a health education, no matter how laborious a task (and this it should not be), will repay itself a hundred fold in the health and happiness of the citizens of any nation. Children must be taught that health is not synonymous with freedom from disease. It means correct living and this the child must be taught as it is not instinctive. We must realize that left to himself, even in this modern civilized era, the child will violate many of the basic principles of health and hygiene, much to the detriment of his own health as well as to the health of all those with whom he associates. Modern living has departed far from some of the basic principles of health. This may be due to the lack of a health education. Surely a child should start life with a sound education in the principles of health! In order to provide this education it is important that the school child's environment should be such as to be conducive to a standard of good living. The standard of cleanliness of the school and its environment should be equal to that of a good home. The school premises should provide all the necessary facilities for protecting and maintaining the health of the children. How can we expect the school child to learn and appreciate the principles of health if the premises in which he spends his early years do not possess the facilities for protecting and preserving health?

The School Medical Service is concerned with the care of the health of the school child. It provides facilities for the medical examination of school children at periodic intervals. Thus defects may be discovered in the early stages and treatment may be carried out at a time when it provides a maximum benefit. However, without the full co-operation of parents, teachers and education authorities, it cannot achieve its full purpose which should be to solve many of the problems of a very important epoch in the life of the child and thus ensure that, on leaving school, he is ready to live an abundant life. The late Sir George Newman said "It has now become increasingly evident that to deal, however adequately, only with children who suffer from some obvious physical or mental defect is, after all, to leave some of the most urgent questions of school health and hygiene untouched".

HYGIENE OF SCHOOLS

The standard of cleanliness in most schools is high. Cleanliness of some schools however, particularly the older buildings, should receive more attention as strict attention to cleanliness is a very valuable aid in the prevention and control of communicable diseases.

Cloakroom facilities are either absent or inadequate in many schools. Every school should be provided with adequate cloakroom accommodation, which should be well ventilated and adequately heated so that damp garments may be dried. The space between hangers should be such as to prevent garments overlapping. It is preferable that all hangers should be numbered and children instructed to hang their garments on their own individual number. Built-in presses or cupboards are sometimes used as Cloakrooms. These are entirely unsatisfactory as garments are usually heaped on top of each other.

Children should wash their hands before handling any food and after visiting the toilet. To ensure this, adequate washing facilities should be provided in every school. Drinking and washing facilities are very unsatisfactory in most schools. Wash-hand basins, where provided, are usually in a state of disrepair. Strict attention to their cleanliness is necessary and they should be set at a height suitable to the varying heights of the children. Liquid soap and paper towels should also be provided. A common drinking tap or drinking cup may be the means of spreading infection and should no longer be used. Drinking fountains should be installed in every school and maintained in good repair.

Suitable furniture in the classroom is also of importance. Un-suitable desks and seats predispose to fatigue and may also cause postural defects in the child. The older type of desks, which are still used in some schools, are unsatisfactory as they are not adjustable and therefore cannot be adjusted to the particular needs of the child. Also they are more cumbersome thus adding difficulty to the cleaning of the classroom floor.

Good lighting is present in most classrooms. There are very few exceptions. It is important, however, that there should be an even distribution of light and an absence of glare. In order to prevent

glare the surface of walls and ceilings should not be of a shiny nature. Walls and ceilings should have a matt surface to obviate glare and should be painted a light neutral colour as colour has an important bearing on the amount of light reflected. Blackboards should always have a dull finish and should be refaced whenever necessary as a shiny surface causes increased visual strain.

Water Supply

251 samples of water were submitted to bacteriological examination during the year. It will be noted from table 80 in the proper section that in every case the sample was free from coliform bacilli in 100 ml. Although, according to accepted standards, the supply has been of first-class quality over the whole of the 20 years covered by this table, 1950 was the first year in which this high standard was reached. It may be appropriate to re-state the nature and purpose of these examinations. For the great bulk of the information which follows I am indebted to the Monthly Bulletin of the Ministry of Health (Jan. 1951) in which a valuable and interesting account of the method appears.

The principal danger to be apprehended from the drinking of water is the contraction of the enteric diseases (typhoid and para-typhoid). While it has now become possible to recover the organisms of these diseases from sewage their detection in drinking water is extremely difficult. When they are present in faeces or sewage they are however greatly outnumbered by the normal excremental organisms such as *Bact. Coli*. These latter harmless organisms survive longer in water and are easily detected. It has therefore become the practice to examine water supplies for *B. Coli* and to regard this group of organisms as an *indicator* of the bacteriological quality of the water. If it is not found it can with reasonable safety be inferred that disease producing organisms are also absent. If the water contains large numbers of *Bact. Coli*, dangerous germs may also be present and the existence of recent faecal pollutions is proved.

It is not necessary to describe the technique employed in the detection of this group of organisms beyond mentioning that samples must be collected with a scrupulous regard to cleanliness and that specialised methods of culture and sub-culture are employed which yield an accurate picture of any contamination that may be present. Ideally, all waters intended for drinking should show no coliform bacteria in 100 ml., but the coliform test is so sensitive that such a result represents a high standard of bacterial purity. Many natural waters do, and all chlorinated supplies should, give this result, but the universal adoption of this standard would debar many small supplies which have for years been consumed with impunity. In general, however, the presence of more than minimal numbers of faecal coli indicates potential danger. The Ministry of Health Report (1939) suggests the following classification for piped water supplies, based on presumptive coliform results:

				Presumptive Coliform Count per 100 ml.
Class 1.	Highly satisfactory	....	....	Less than 1
Class 2.	Satisfactory	....	....	1-2
Class 3.	Suspicious	....	....	3-10
Class 4.	Unsatisfactory	....	....	more than 10

Throughout the year 50 per cent. of samples should fall into Class I; 80 per cent. should not fall below Class 2; and the remainder should not fall below Class 3. In chlorinated piped supplies the water ought to fall into Class 1.

The bacteriological examinations which have been made of the local water indicate that it falls into Class I of the above grouping and the table already referred to shews that this high standard has been maintained over the past 23 years.

Ice Cream

It would not have been altogether inappropriate to have headed this section with some legend such as : " Put Out More Flags " in allusion to the crop of gay pennants which makes its appearance at the doors of all sorts of premises during the warm summer months and which coincides with the appearance of large numbers of people consuming quantities of variously constituted materials which go by the name of " ice cream "—often only too euphemistically, it is to be feared. It would be well if we knew more about this commodity.

In my report for the year 1946 I went into the matter fairly closely, beginning with the concern which had been felt in England as the result of a serious outbreak of typhoid fever caused by ice-cream bought at a well-known watering place. I alluded further to the interesting facts brought to light concerning the varying nature of the ingredients used and the bloated profits associated with its sale. The suggested minimum standard for fat was $7\frac{1}{2}$ per cent. which was averred to be well within the reach of all parties concerned, particularly in consideration of the enormous profits which were to be made. In my 1947 report I again adverted to this subject and drew attention to the investigation which had been made in the Dairy Science Institute of University College, Cork by O'Neill and Grimes, into the quality of the ice-cream sold in Cork. The findings in this latter case, while of very great interest from the scientific point of view, were a cause of great concern to the public health. The general standard of purity, judged by the bacterial count, was very low and the average fat-content was equally so.

To-day we see how milk is being more and more diverted from the ordinary channels of consumption. It is being converted into chocolate crumb, milk powder, confectionery, ice-cream and similar products and it is now up to those responsible for the public health to see that the commodities which are supplanting liquid milk are up to decent nutritive and hygienic standards, and that the public is protected in the consumption of these commodities as it has been in others.

It is fairly common knowledge that at the moment the battle for standards is on, with the Public Health authorities on one side and on the other certain trade interests whose job is to whittle down these standards to the lowest possible minimum. During the past year a circular was issued to all parties concerned laying down proposals for the composition of ice-cream based on recommendations of the Institute for Industrial Research and Standards. The standards suggested are :

- (1) At least 10 per cent. by weight of milk fat.
- (2) At least 20 per cent. by weight of milk solids (including milk fat).
- (3) At least 10 per cent. by weight of sugar.

There should be no difficulty in attaining these standards. I have been informed by the chief chemist of one of the largest manufacturers of ice-cream that there would not be the least trouble in turning out ice-cream with 20 per cent. of milk fat provided they were allowed to use the necessary ingredients and that, in actual fact, they were making ice-cream of 25 per cent. fat for one of the shipping lines on the North Atlantic route. I understand that much use is being made of the fact that the British authorities have agreed to a fat content of 5 per cent. for ice-cream sold in Great Britain and that it has been urged that we should adopt a similar standard here. The suggestion is too naïve. It entirely fails to take account of the shortage of fats in England and rationing of commodities. It would indeed be deplorable if, in a country such as this, (reputedly proud of its agricultural tradition and of its output of milk and milk-products) should adopt such a standard and it is sincerely to be hoped that this kind of pressure will be firmly resisted. The proposed standard is by every test a moderate one well within the capacity of any reputable producer of ice-cream.

Quite an enormous number of so-called ice-cream machines have been sold up and down the country during the past two or three years. The function of these machines is to produce a product called "whipped" ice-cream. The so-called "whipping" is in effect the addition of air to the mix so that the final product is twice the bulk of the original and the customer is buying half air and half ice-cream. I personally have been informed by some of those who purchased these machines that they were assured before hand that "they would get their money back in a year". It is conceivable that they could provided they confined their output to formulae yielding 1 or 2 per cent. fat in the final product. It has been put forward on behalf of such persons that it is an impossibility for them to produce ice-cream with 10 per cent. milk fat. *This is not true.* I have examined the formulae issued by the manufacturers of the ice-cream powders to be used in such machines and they show the exact amount of cream to be added to the other ingredients to produce the necessary amount of fat in the final product. It is merely a matter of adding sufficient cream and there is no shortage of cream in this country. On the other hand, of course, if such people desire to recover the cost of these expensive pieces of machinery in the first year, well, that is an entirely different matter but it should not be allowed to stand in the way of fixing decent standards for a commodity now in universal consumption. If it is allowed to do so then the case for maintaining similar standards for milk and butter falls to the ground.

I have referred above to the investigation of O'Neill and Grimes in 1946. As a matter of interest, pending a decision of standards, a similar investigation was conducted by this Department during the past year, the main object of which was to ascertain the problems confronting us in the administration of the Food Hygiene Regulations, 1950 so far as they concerned the making and distribution of ice-cream. This investigation, as in the case of the previous one, was under two headings: (a) chemical composition and (b) bacteriological standards. The ascertainment of fat content and milk solids has been carried out by the City Analyst and the bacteriological examination by Prof. Grimes, who is deserving of the warmest commendation for his helpfulness and public spirit in this matter. To date 56 analyses have been carried out under the former heading and 39 bacteriological examinations were made. These investigations are proceeding. The findings are set-out in the ensuing tables.

ICE-CREAM CONTROL—TABLE A.

No.	ANALYSIS (Figures expressed as Percentage)			Remarks	No.	ANALYSIS (Figures expressed as Percentage)			Remarks
	Fat	Solids Not fat	Total Solids			Fat	Solids Not fat	Total Solids	
1	12.4	23.4	35.8	Whipped	29	5.8	23.4	29.2	
2	5.2	24.7	29.9	Block	30	2.5	23.5	26.0	Whipped
3	4.5	20.5	25.0	Block	31	6.9	22.4	29.3	Whipped
4	4.3	19.2	23.5	Whipped	32	5.7	19.9	25.6	Whipped
5	2.6	19.7	22.3	Whipped	33	2.9	21.2	24.1	
6	10.2	22.5	32.7		34	2.3	19.3	21.6	Whipped
7	3.1	18.4	21.5	Whipped	35	2.4	22.2	24.6	
8	10.6	20.2	30.8		36	6.3	18.2	24.5	
9	3.4	21.2	24.6		37	2.4	23.2	25.7	
10	3.4	20.0	23.4	Whipped	38	2.3	17.7	20.0	
11	4.2	24.4	28.6		39	11.2	25.1	36.3	
12	3.4	21.8	25.2		40	3.5	21.5	25.0	Whipped
13	2.0	23.4	25.4	Whipped	41	3.3	25.7	29.0	
14	4.5	21.5	26.0	Whipped	42	3.0	25.8	28.8	
15	3.4	22.9	26.3		43	3.0	22.5	25.5	
16	2.2	24.7	26.9	Whipped	44	2.3	21.8	24.1	
17	5.7	22.9	28.6		45	3.6	18.8	22.4	
18	4.9	28.3	33.2		46	0.3	27.2	27.5	Whipped
19	0.3	23.9	24.2	Whipped	47	2.6	21.2	23.8	
20	1.3	23.4	24.7	C.W. Mix	48	9.0	22.2	31.2	
21	2.8	27.5	30.3	Whipped	49	3.0	21.0	24.0	
22	1.9	19.9	21.8	Whipped	50	1.9	22.2	24.0	Whipped
23	4.6	28.3	32.9		51	2.6	18.2	20.8	Whipped
24	8.4	28.1	36.5		52	2.4	28.7	31.1	
25	8.8	32.0	40.8	Whipped	53	3.4	20.5	23.5	
26	7.6	33.8	41.4		54	6.8	16.7	23.5	
27	1.1	22.7	23.8	Whipped	55	1.1	25.9	27.0	
28	2.2	20.9	23.1	Whipped	56	9.0	22.1	31.0	

Ice-Cream Table A Commentary

1. The general all-round low standard for fat content. Only 4 of the 56 samples examined come up to the proposed standard of 10 per cent. (7 if one includes 3 samples yielding 9 per cent each). This represents 8 per cent. of the samples examined.
2. 37 (approximately 63 per cent. of the total) had less than 5 per cent. of milk fat.
3. 22 of the samples were "whipped" ice-cream. Excluding 3 of these (Nos. 1, 25 and 31 which yielded reasonable levels of milk fat) the average proportion of milk fat in all this group was only 2.5 per cent.
4. This is a very bad showing and lends confirmation to the view that the vendors are concerned only with quick returns and exorbitant profits.
5. In two instances the fat content was below 1 per cent. It should be illegal to describe any such commodity as ice-cream. The title is wholly misleading. Such products should be termed "water ice" or "ice-custard".

6. Attention is drawn to the fact that in one case of "whipped" ice-cream (sample No. 1) the fat content was over 12 per cent. In a second case (Sample No. 25), it was 8.8 per cent. and in a third case (No. 31) it was 6.9 per cent. There is, therefore, no justification for stating that whipped ice-cream cannot be made up to a fat content of 10 per cent. (unless the right to exorbitant profits can be termed such).
7. Poor showing in regard to fat content is by no means confined to whipped ice-cream. Taking bulk or "block" ice-cream (the balance of the samples examined, 34 in number) only 5 came up to or near the requisite standard (No. 6 with 10.2 per cent, No. 8 with 10.6 per cent, No. 39 with 11.2 per cent, No. 48 with 9.4 per cent., and No. 56 with 9 per cent); that is, 14 per cent, of the group.
8. Excluding these 5 samples, we are left with a residue of 29 in which the average fat content is as low as 3.8 per cent.

ICE-CREAM CONTROL—TABLE B.

No.	Colonies at 37° C (Per C. C.)	Coliform Organisms	Remarks :	No.	Colonies at 37° C (Per C.C.)	Coliform Organisms	Remarks :
1	840,000			21	0		
2	650,000			22	3,200,000	Present	
3	87,000			23	200,000	Present	
4	1,080,000	Present		24	30,000	Present	
5	146,000			25	1,050,000		
6	1,700,000	Present		26	122,000		
7	7,600,000	Present		27	2,100,000	Present	
8	2,500			28	4,800,000		
9	150,000			29	4,000		
10	5,100			30	2,00000	Present	
11	27,000			31	10,000		
12	1,900			32	740,000	Present	
13	11,000	Present		33	200,000		
14	3,400			34	350,000		
15	34,000			45	310,000		
16	29,000			36	20,000		
17	180,000			37	100		
18	2,400			38	316,000		
19	1,600,000			39	14,600,000		
20	48,000						

Ice-Cream—Table B.—Commentary

The findings set out in this table call for little comment, it may be said that they speak for themselves. There are however, a few points to which it may be well to direct attention. The first of these is that the average bacterial count per sample examined works out at over 2,000,000 organisms per c.c. The standard aimed at is not more than 100,000 per c.c. so that one has a good idea of the kind of ice-cream which is being produced and the conditions under which it is made. If anyone still doubts the need for stringent controls in the manufacture of this commodity these figures should dispose of the question once and for all. At the same time it is well to direct attention to the fact that it is quite possible to produce an ice-cream with a bacterial count well below the maximum standard. This has been evident in many cases as will be seen from the table. There is therefore no excuse for the very bad results which are apparent in the other cases. It is evident that when registration comes into force it will be necessary to refuse such to a very large proportion of makers.

Section I.—Vital Statistics.

1.—Population.

Figures in this report and the computations arising from them, are based on the Census of Population (taken on 12th May, 1946) which indicated that the population of this city was 75,595. The corresponding figure in the Census of 1936 was 80,765. The number of females in the population has been estimated to be 41,060 as against 34,535 males, the ratio of females per 1,000 males being 1,188, which is an increase of 78 on the figure for 1936.

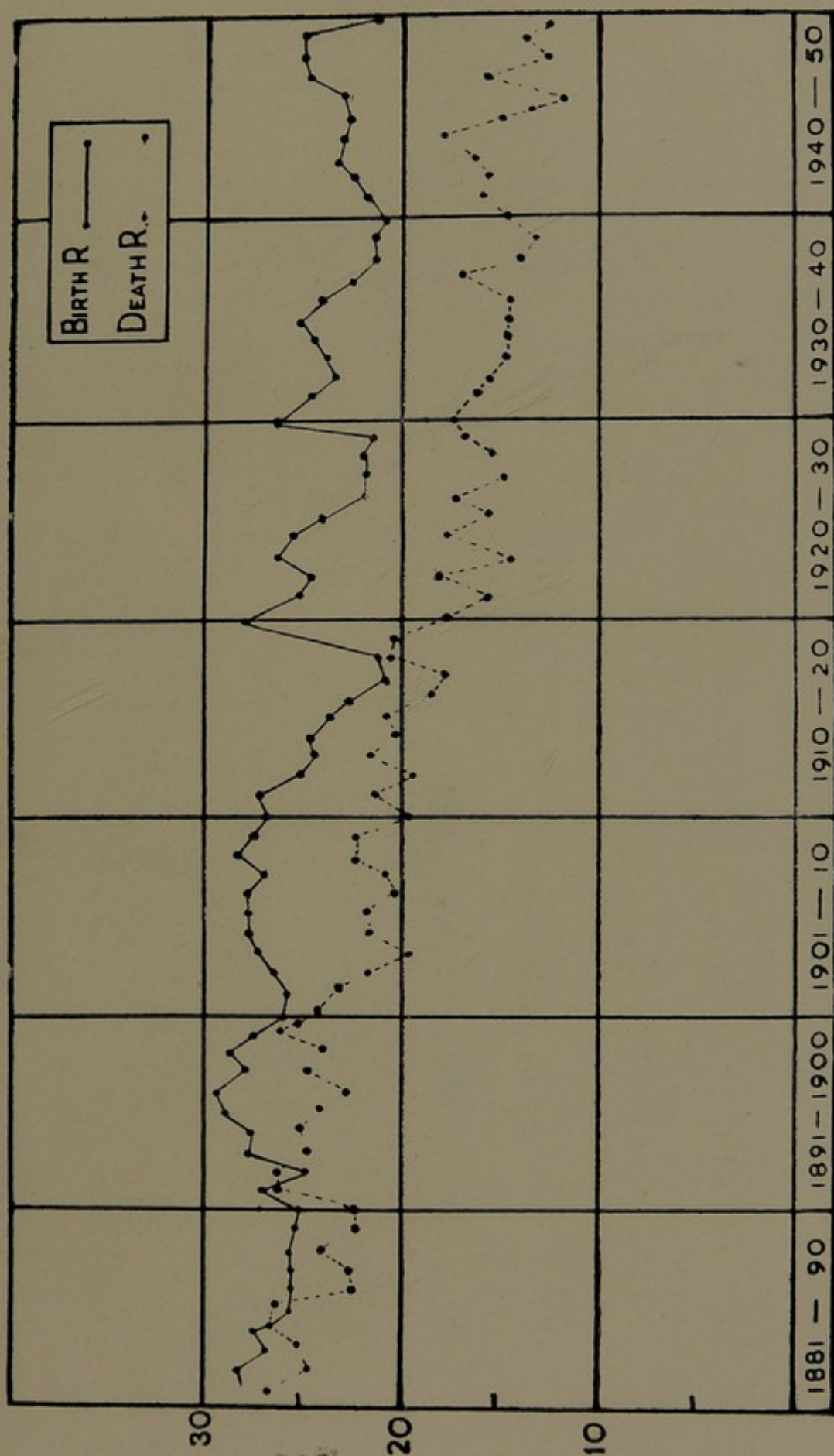
The general trend of the population, as revealed by the 1946 Census, in relation to the Census of 1936 was fully discussed in last years report as well as in previous reports. The analysis of the current figures is shewn in table 1. This detailed grouping was carried out by the Central Statistics Office and kindly supplied to us by the Director General, Dr. R. C. Geary. The population declined by approximately 6 per cent.

Table 1.—CORK CITY. Population classified by age-groups for each sex as enumerated in the Census of Population, 1941, and in the Census of 1946 :—

AGE GROUPS	MALES			FEMALES			PERSONS		
	1936	1946	Increase or Decrease	1936	1946	Increase or Decrease	1936	1946	Increase or Decrease
Under 1 year	820	903	+ 83	888	786	- 102	1,708	1,689	- 19
1 year ...	809	734	- 75	814	705	- 109	1,623	1,439	- 184
2 years ...	770	730	- 40	768	686	- 82	1,538	1,416	- 122
3 „ ...	798	666	- 132	811	681	- 130	1,609	1,347	- 262
4 „ ...	785	700	- 85	794	706	- 88	1,579	1,406	- 173
5-9 „ ...	3,721	3,499	- 222	3,653	3,443	- 210	7,374	6,942	- 432
10-14 „ ...	3,872	3,494	- 378	3,574	3,582	+ 8	7,446	7,076	- 370
15-19 „ ...	3,352	3,208	- 144	3,717	3,516	- 201	7,069	6,724	- 345
20-24 „ ...	3,434	2,960	- 474	4,159	3,579	- 580	7,593	6,539	- 1054
25-29 „ ...	3,122	2,296	- 826	3,763	3,314	- 449	6,885	5,610	- 1275
30-34 „ ...	2,723	2,254	- 469	2,977	2,965	- 12	5,700	5,219	- 481
35-39 „ ...	2,567	2,217	- 350	2,898	2,821	- 77	5,465	5,038	- 427
40-44 „ ...	2,138	1,939	- 199	2,360	2,387	+ 27	4,498	4,326	- 172
45-49 „ ...	1,973	1,888	- 85	2,340	2,483	+ 143	4,313	4,371	+ 58
50-54 „ ...	1,907	1,504	- 403	2,168	1,886	- 282	4,075	3,390	- 685
55-59 „ ...	1,725	1,469	- 256	1,852	1,950	+ 98	3,577	3,419	- 158
60-64 „ ...	1,408	1,271	- 137	1,649	1,668	+ 19	3,057	2,939	- 118
65-69 „ ...	1,142	1,169	+ 27	1,210	1,480	+ 270	2,352	2,649	+ 297
70-74 „ ...	688	889	+ 201	1,132	1,220	+ 88	1,820	2,109	+ 289
75-79 „ ...	372	529	+ 157	615	747	+ 132	987	1,276	+ 289
80-84 „ ...	113	156	+ 43	237	325	+ 88	350	481	+ 131
85-89 „ ...	37	50	+ 13	74	106	+ 32	111	156	+ 45
90-94 „ ...	9	9	—	24	18	- 6	33	27	- 6
95-99 „ ...	1	1	—	2	6	+ 4	3	7	+ 4
100 and over	—	—	—	—	—	—	—	—	—
TOTAL ...	38,286	34,535	- 3,751	42,479	41,060	- 1,419	80,765	75,595	- 5,170

Four centenarians were recorded in the Register of Population made in 1941.

FIG 1-BIRTH AND DEATH RATES FROM 1881 TO PRESENT YEAR



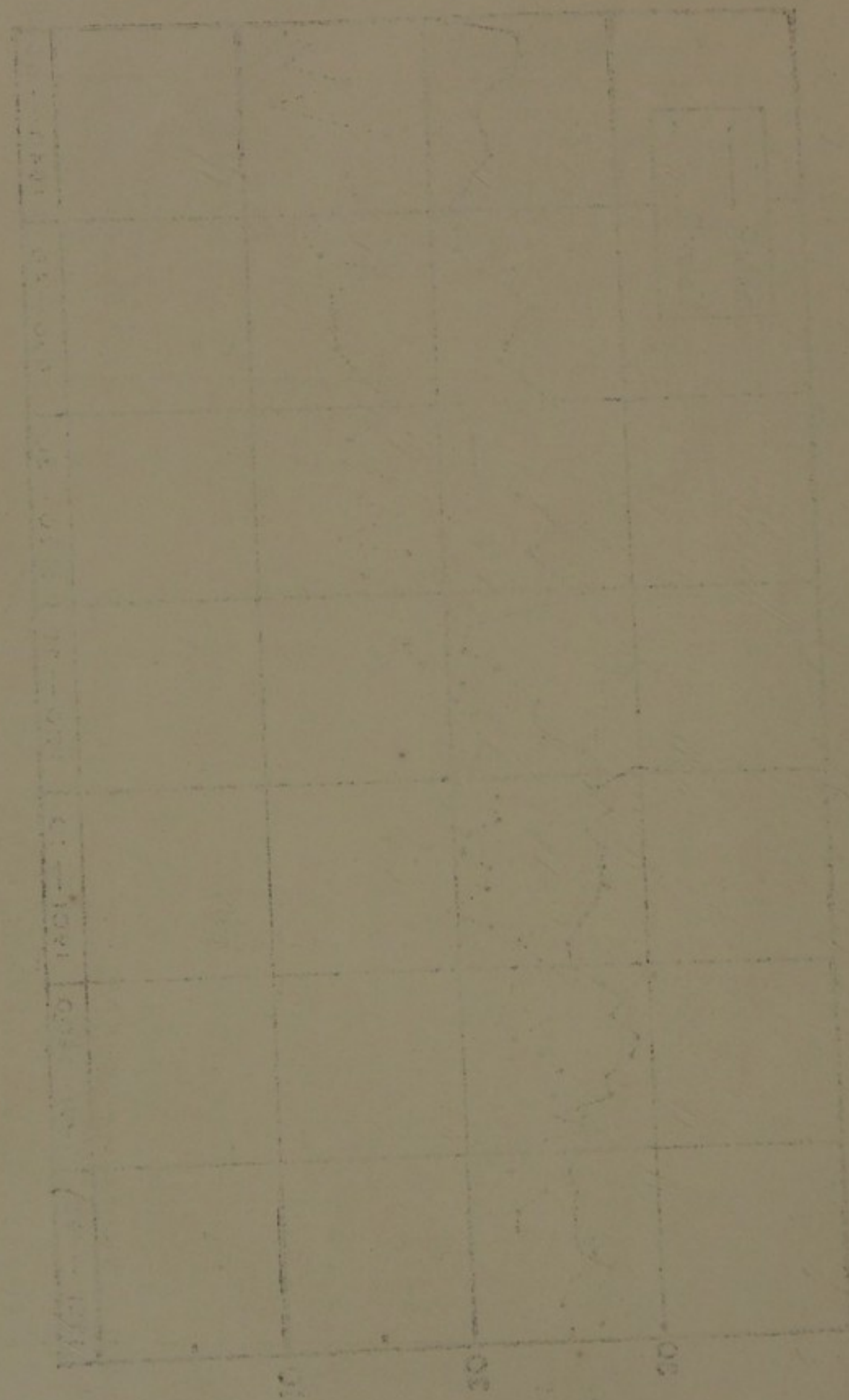


Table 2.—Population, Area, Valuation and Density of Population of the four County Boroughs, as shewn at the Census, 1946 (based on Table 9, Census of Population, 1946) :—

County Borough	POPULATION							Persons per 100 Acres	Area (Acres)	Valuation
	1936	1946			Increase or Decrease (per cent.)					
	Persons	Persons	Males	Females	Persons	Males	Females			
					%	%	%			£
Dublin	472,912	506,051	290,923	275,128	+ 7.0	+ 4.0	+ 9.7	2310.1	21,960	2,246,870
Cork	80,765	75,595	34,535	41,060	- 6.4	- 9.8	- 3.3	3010.6	2,511	237,430
Limerick	41,061	42,970	19,845	23,125	+ 4.6	+ 1.4	+ 7.6	2077.9	2,068	104,521
Waterford	27,968	28,269	12,954	15,315	+ 1.1	- 2.1	+ 3.9	1435.0	1,970	85,493

Table 3.—CORK CITY. Age-groups and Conjugal Conditions (From Census of Population, 1946) :—

AGES	MALES				FEMALES			
	Married	Widowed	Single	Total	Married	Widowed	Single	Total
0-14	—	—	—	10,726	—	—	—	10,589
15-19	11	—	3,197	3,208	55	—	3,461	3,516
20-24	249	3	2,708	2,960	631	4	2,944	3,579
25-29	679	6	1,611	2,296	1,393	17	1,904	3,314
30-34	1,253	12	989	2,254	1,758	49	1,158	2,965
35-39	1,484	33	700	2,217	1,707	90	1,024	2,821
40-44	1,373	46	520	1,939	1,504	136	747	2,387
45-49	1,267	94	427	1,888	1,453	279	751	2,483
50-54	1,094	84	326	1,504	1,078	297	511	1,886
55-59	970	156	343	1,469	937	486	527	1,950
60-64	807	166	298	1,271	701	509	458	1,668
65-69	682	213	274	1,169	500	575	405	1,480
70-74	459	241	189	889	299	593	328	1,220
75-79	224	202	103	529	117	420	210	747
80-84	56	69	31	156	27	203	95	325
85-89	15	25	10	50	4	72	30	106
90-94	2	6	1	9	1	11	6	18
95-99	—	1	—	1	—	6	—	6
100 and over	—	—	—	—	—	—	—	—
0-14	—	—	—	10,726	—	—	—	10,589
15-44	5,049	100	9,725	14,874	7,048	296	11,238	18,582
45 and over	5,676	1,257	2,002	8,935	5,117	3,451	3,321	11,889
Grand Total				34,535				41,060

The fluctuations in the population figure is shewn in the following table which indicates the totals in the various census years and in years in which the Registration of Population was taken (1941 and 1943).

1881	.....	.....	80,124
1891	.....	.....	75,345
1901	.....	.....	76,122
1911	.....	.....	76,673
1926	.....	.....	78,464
1936	.....	.....	80,765
1941	.....	.....	76,834
1943	.....	.....	75,484
1946	.....	.....	75,595

The figures shewn in the tables which now follow are abstracted from the Census of Population, 1946. They are of some interest as demonstrating the increase of population in Dublin and Limerick *vis-a-vis* the decline in Cork as well as other factors which have a bearing on public health.

Table 4.—Annual Average Rates, per 1,000 of Population 1936-1946, of Marriages, Births and Deaths, registered in the four County Boroughs (based on Table 12, Census of Population, 1946) :—

County Borough	Annual Average Rates per 1,000 Population				
	Marri- ages	Births	Deaths	Natural Increase	Decrease or increase in popula- tion
Dublin	7.5	23.1	13.6	9.5	+ 7.0
Cork	9.5	23.4	16.2	7.2	— 6.4
Limerick	9.4	24.6	14.1	10.5	+ 4.6
Waterford	5.7	23.8	15.1	8.7	+ 1.1

Table 5.—Populations in the different Dispensary Districts as enumerated in the Census, 1946 :—

District	General Location	Persons
No. 1	North East	13,120
„ 2	North (part of)	9,721
„ 3	North (part of)	8,955
„ 4	North West	8,193
„ 5	Centre	6,706
„ 6	South West	10,514
„ 7	South East	18,386
	Total	75,595

2.—Births.

According to the Annual Summary of the Registrar General 1,618 births were *registered* in Cork during the past year (this figure is subject to correction). The number of births *notified* to the Local Authority (in accordance with the provisions of the Notification of Births Acts) was 1,599. In addition to the latter figure 29 still-births were notified, bringing the total of *notified* births to 1,628. On the basis of the Registrar General's figure the birth-rate for the year was 21.4. The general trend of the birth-rate is seen in the following table.

1881-90	...	26.2	1941	...	21.8	1947	...	23.9
1891-1900	...	27.2	1942	...	22.2	1948	...	24.5
1901-10	...	26.0	1943	...	23.2	1949	.....	25.0
1911-20	...	24.7	1944	...	24.7	1950	.....	21.4
1921-30	.....	23.5	1945	...	22.4			
1931-40	...	22.6	1946	...	24.0			

Examination of the *notifications* as to place of birth shewed that 855 took place in the mothers' homes the balance having occurred in various institutions and private hospitals.

Table 6.—Proportion of Children born in Parents homes (Particulars obtained from Notification Forms).

Year	Total Notifications	No. Born at Home	Proportion to Total Notified Births
1944	1,754	1,041	59.3 per cent.
1945	1,710	875	51.1 „
1946	1,797	968	54.3 „
1947	1,850	1,021	55.1 „
1948	1,823	1,130	61.5 „
1949	1,670	930	52.8 „
1950	1,628	855	52.4 „

Table 7.—Birth Rates for Cork City and Éire from 1881.

Year	Cork	Éire	Year	Cork	Éire
1881	27.7	24.0	1916	22.6	21.1
1882	28.2	23.8	1917	20.2	20.0
1883	27.0	23.4	1918	20.8	19.9
1884	27.4	23.5	1919	23.8	19.9
1885	25.6	23.1	1920	28.3	21.6
1886	25.4	22.7			
1887	25.5	22.5	1921	24.6	19.7
1888	25.7	22.1	1922	24.2	19.5
1889	25.2	22.0	1923	26.2	20.5
1890	25.0	21.6	1924	25.5	21.0
			1925	23.8	20.8
1891	26.9	22.3	1926	21.5	20.6
1892	24.6	21.7	1927	21.7	20.3
1893	27.8	22.1	1928	21.7	20.1
1894	27.4	22.1	1929	20.9	19.8
1895	28.9	22.3	1930	25.4	19.9
1896	29.2	22.7			
1897	27.5	22.5	1931	24.4	19.4
1898	28.7	22.3	1932	23.0	19.0
1899	27.3	22.1	1933	23.7	19.3
1900	25.8	21.8	1934	24.4	19.5
			1935	24.8	19.6
1901	25.6	21.8	1936	23.7	19.6
1902	26.2	22.2	1937	22.3	19.1
1903	27.1	22.1	1938	21.1	19.4
1904	27.4	22.7	1939	21.1	19.1
1905	27.6	22.6	1940	20.7	19.1
1906	27.5	22.8			
1907	25.6	22.4	1941	21.8	18.9
1908	27.3	22.7	1942	22.2	22.0
1909	26.3	22.9	1943	23.2	21.8
1910	25.8	22.8	1944	24.7	22.2
			1945	22.4	22.4
1911	26.0	22.8	1946	24.0	22.6
1912	24.8	22.7	1947	23.9	23.2
1913	24.2	22.6	1948	24.5	22.0
1914	24.3	22.3	1949	25.0	21.4*
1915	23.2	22.0	1950	21.4	21.0*

* From *Annual Summary* of Register General.

The number of illegitimate births notified during the year was 17 representing 1.0 per cent. of the total *notified* births. The corresponding figure for the previous year was 15 being 0.8 per cent. of the total registered births.

3.—Deaths.

1,041 deaths have been assigned to this area in the *Annual Summary* of the Registrar General for 1950. This is equivalent to a crude death rate of 13.8 per 1,000 of the population. The figures for 1949 were 1,055 deaths and the rate 14.0 per 1,000. There is some discrepancy between our figures collected locally (shewn in Table 9) and those of the Registrar General. This discrepancy has persisted in successive years and has been previously alluded to. According to our records the number of deaths was 1,004 (compared with 1,048 in the previous year). The difference, it is to be assumed, is explained by the occurrence of deaths in other places of persons normally resident in Cork, of which deaths we would be unaware. Actually the difference between ours

and those of the Registrar General is not of statistical significance. The information to be obtained from our age-grouping is slightly more detailed than that of the Registrar General.

Table 9, which is based on Abstract V. of the Registrar-General's Annual Report, is an analysis of the causes of death during the year. It differs from Abstract V. in this respect that the age-groups are more extended and that the causes of death have been sub-divided in some instances. For example, under the headings "other forms of tuberculosis" and "other defined diseases" the various causes of death are more fully set out. This table is compiled from the weekly returns collected by us from the local Registrars and the totals do not correspond with those of the Registrar-General in his *Summary*, which are not fully corrected. The number of deaths in this table amounts to 1,004 (as compared with 1,041 in the *Summary*) so that the error is but slight and probably due to deaths in other places which have been allocated by the Registrar-General to this area. Once again I have to acknowledge the assistance received from the Registrar-General in the compilation of these figures.

Table 8.—Crude Death Rates per 1,000 living for Cork City, Éire and England and Wales, from 1881.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	26.8	17.1	18.9	1916	18.2	16.5	14.3
1882	24.7	16.9	19.6	1917	17.4	16.9	14.2
1883	24.9	18.6	19.6	1918	20.4	17.5	17.3
1884	26.7	17.4	19.7	1919	20.2	17.9	14.0
1885	26.2	18.0	19.2	1920	17.5	14.7	12.4
1886	22.1	17.4	19.5	1921	15.4	14.3	12.1
1887	22.4	17.9	19.1				
1888	24.1	17.4	18.1	1922	18.0	14.7	12.8
1889	22.3	16.9	18.2	1923	14.0	14.0	11.6
1890	22.2	17.6	19.5	1924	17.8	15.0	12.2
				1925	15.5	14.7	12.2
1891	26.9	17.6	20.2	1926	17.3	14.0	11.6
1892	26.4	18.7	19.0	1927	14.7	14.8	12.3
1893	24.5	17.3	19.2	1928	15.2	14.2	11.7
1894	24.9	17.7	16.6	1929	16.9	14.6	13.4
1895	23.9	17.7	18.7	1930	17.3	14.1	11.4
1896	22.6	15.9	17.1	1931	16.4	14.5	12.3
1897	24.7	17.8	17.4				
1898	23.7	17.7	17.5	1932	15.7	14.4	12.0
1899	26.3	17.0	18.2	1933	14.9	13.6	12.3
1900	24.2	19.1	18.2	1934	14.7	12.9	11.8
				1935	14.8	13.9	11.7
1901	23.0	17.1	16.9	1936	14.7	14.3	12.1
1902	21.5	17.0	16.3	1937	17.4	15.3	12.4
1903	19.4	17.0	15.5	1938	14.1	13.6	11.6
1904	21.6	17.6	16.3	1939	13.1	14.2	12.1
1905	21.7	16.4	15.3	1940	14.6	14.1	14.0
1906	20.2	16.2	15.5				
1907	20.6	17.0	15.1	1941	16.1	14.6	12.9
1908	22.2	17.1	14.8	1942	15.9	14.0	11.6
1909	22.1	16.8	14.6	1943	16.5	14.7	12.1
1910	19.3	16.6	13.5	1944	18.1	15.4	12.7
				1945	14.9	14.4	11.4
1911	21.2	16.3	14.6	1946	13.7	13.9	11.5
1912	19.1	16.2	13.4	1947	16.9	14.9	12.3
1913	21.5	16.8	13.8	1948	13.2	12.1	11.0
1914	20.2	16.1	14.0	1949	14.0	12.7*	
1915	20.7	17.5	15.7	1950	13.8	12.6*	

*Subject to Correction

Table 9.—Analysis of Causes of Death at different age-periods during the year 1950

Causes of Death	SEX TOTAL	Sex		Un. 1 yr.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up
		M.	F.											
Whooping Cough	1	—	1	—	1	—	—	—	—	—	—	—	—	—
Influenza	9	1	8	—	1	—	1	1	—	—	1	4	1	—
Encephalitis	1	1	—	—	—	—	—	—	—	—	—	1	—	—
C.S. Fever	4	1	3	3	1	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	66	41	25	—	—	—	7	15	13	9	17	5	—	—
Other Tuberculosis :														
(a) Meningitis	7	5	2	1	5	1	—	—	—	—	—	—	—	—
(b) Bones and Joints	2	—	2	—	—	1	—	—	—	—	1	—	—	—
(c) Abdominal	2	1	1	—	1	1	—	—	—	—	—	—	—	—
Cancer	100	60	40	—	—	—	—	2	5	11	25	39	18	—
Hemiplegia :														
(a) Haemorrhage	72	30	42	—	—	—	—	2	—	3	17	30	18	2
(b) Thrombosis	27	5	22	—	—	—	—	—	3	1	6	12	4	1
Heart Disease	335	150	185	—	—	—	4	4	8	23	51	129	91	23
Arterio-Sclerosis	27	10	17	—	—	—	—	—	—	1	5	8	10	3
Bronchitis	53	30	23	—	—	1	—	—	1	4	19	17	9	2
Broncho-Pneumonia	25	12	13	9	3	—	—	—	2	—	1	3	6	1
Lobar Pneumonia	22	8	14	7	—	1	1	1	1	2	2	3	4	—
Other Respiratory Diseases	18	11	7	—	1	—	—	—	1	5	6	2	3	—
Peptic Ulcer	7	4	3	—	—	—	—	—	1	1	2	2	1	—
Gastro-Enteritis	19	11	8	19	—	—	—	—	—	—	—	—	—	—
Appendicitis	2	1	1	—	—	1	—	—	—	—	—	1	—	—
Cirrhosis of Liver	1	1	—	—	—	—	—	—	—	—	—	1	—	—
Nephritis	15	5	10	—	—	1	—	—	1	2	3	6	2	—
Puerperal Causes	1	—	1	—	—	—	—	1	—	—	—	—	—	—
Prematurity, etc.	28	21	7	28	—	—	—	—	—	—	—	—	—	—
Suicide	3	3	—	—	—	—	1	1	—	—	1	—	—	—
Other Violence	21	13	8	—	1	3	1	—	1	2	1	5	7	—
Other Causes :														
(a) Senile Decay	43	10	33	—	—	—	—	—	—	—	1	7	22	13
(b) Genito-Urinary	14	14	—	—	—	—	—	—	—	—	2	7	5	—
(c) Blood Diseases	9	5	4	—	—	—	—	—	1	2	2	4	—	—
(d) C.N. System	9	6	3	1	—	—	—	1	—	1	—	4	2	—
(e) Rheumatism	7	—	7	—	—	—	—	—	—	—	4	2	1	—
(f) Hypertension	7	1	6	—	—	—	—	—	1	1	3	1	1	—
(g) Marasmus	2	—	2	2	—	—	—	—	—	—	—	—	—	—
(h) Convulsions	4	1	3	3	1	—	—	—	—	—	—	—	—	—
(i) Gangrene	3	2	1	—	—	—	—	—	—	—	1	1	1	—
(j) Meningitis	3	3	—	—	1	—	—	—	1	—	1	—	—	—
(k) Hernia	3	—	3	—	—	—	—	—	—	—	1	1	1	—
(l) Goitre	3	—	3	—	—	—	—	—	1	—	1	1	—	—
(m) Intra-Cranial Haemorrhage	4	1	3	4	—	—	—	—	—	—	—	—	—	—
(n) Miscellaneous	25	12	13	4	1	1	1	1	—	3	7	4	2	1
TOTALS	1,004	480	524	81	17	11	16	30	42	71	180	301	209	46

The figures in this table are computed from returns of weekly deaths by the District Registrars, they have not been corrected for *inward transfers* and accordingly do not correspond with the returns of the Registrar General.

The principal causes of death (in order of importance) were as follows :—

1. Heart Disease	..	...	334	(346)
2. Cancer	...	...	100	(117)
3. Cerebral Haemorrhage	...	...	72	(73)
4. Pulmonary Tuberculosis	...	...	66	(69)
5. Bronchitis	...	...	53	(54)
6. Senile Decay	...	...	43	(38)
7. Prematurity, etc.	...	...	28	(49)
8. Broncho-pneumonia	...	...	25	(16)
9. Violence	...	...	24	(18)
10. Lobar Pneumonia	...	...	22	(14)
11. Gastro-Enteritis	...	...	19	(43)
12. Nephritis	...	...	15	(21)

The figures in brackets denote the corresponding numbers last year.

Cardiac Disease. As usual this condition accounts for the great bulk of the deaths. Stress has been laid on deaths from heart disease and allusion made to the fact that the majority of them are found to be recorded in the later age-groups which gives rise to the supposition that they represent a degenerative condition rather than an infective one. This feature has been reproduced this year as shewn in the following table.

Table 10.—Analysis of deaths from heart disease from 1931.

Year	Under 5 years	5/15 years	15/25 years	25/35 years	35/45 years	45/55 years	55/65 years	65/75 years	75 yrs and up	Total
1931	—	6	3	5	18	31	66	87	34	250
1932	—	6	2	9	17	39	50	99	36	258
1933	—	2	4	5	15	31	58	83	42	240
1934	1	3	4	5	20	17	66	103	39	258
1935	2	3	1	7	11	29	63	93	36	245
1936	4	3	3	7	6	32	64	98	48	265
1937	—	5	6	9	16	24	72	112	64	308
1938	1	2	2	2	12	35	67	106	76	304
1939	—	1	4	2	12	27	63	108	61	278
1940	2	—	5	4	12	21	66	109	74	293
1941	—	3	2	6	12	22	82	108	71	306
1942	1	1	1	5	11	25	74	131	60	317
1943	—	1	7	4	16	28	81	133	79	349
1944	1	1	3	5	13	35	63	155	114	390
1945	—	3	6	4	12	24	62	123	83	317
1946	1	1	7	8	14	18	65	115	81	330
1947	—	1	3	5	13	31	71	146	92	362
1948	—	2	2	2	6	27	74	111	87	311
1949	1	5	2	5	9	27	61	111	125	346
1950	—	—	4	5	8	23	51	129	114	334

Table 11.—Trend of mortality from the three principal causes of death in Cork City from 1931.

Year	Condition		
	Heart Disease	Cancer	Pulmonary Tuberculosis
1931	250	124	103
1932	258	98	111
1933	240	114	106
1934	258	111	107
1935	245	133	115
1936	265	121	85
1937	308	117	96
1938	304	106	99
1939	278	143	86
1940	293	114	96
1941	306	125	88
1942	317	149	106
1943	349	120	107
1944	390	123	118
1945	317	116	86
1946	330	92	79
1947	362	120	126
1948	311	130	81
1949	346	117	69
1950	334	100	66

Cancer. The number of deaths attributed to this disease recorded by us was 100 as compared with 117 in the previous year. The corresponding figures of the Registrar-General are 93 (uncorrected) and 104. The discrepancy observable here, no doubt, is due to a difference in classification, all forms of malignant disease being classed by us under this heading. For comparative purposes the Registrar-General's are the more correct figures. On the basis of 100 deaths the rate was 1.3 per 1,000 of the population.

Phthisis Death Rate. The deaths from pulmonary tuberculosis numbered 66 equivalent to a rate of 0.87 per 1,000 of the population. The corresponding figures for last year were 69 and 0.9 per 1,000 respectively.

Infant Mortality. The number of deaths of children under one year of age was 81 which is equivalent to a rate of 50 per 1,000 live births. In the previous year the number of deaths was 131 and the rate 68 per 1,000. The contributory factors are discussed in Section IV.

Maternal Mortality. There was 1 death from causes under this heading during the year. The maternal mortality rate was 0.5.

Infectious Disease Death Rate. The number of deaths from the principal infectious diseases was 34 equivalent to 0.4 per 1,000 of the population. Of the deaths so recorded 19 were due to gastro-enteritis, 9 to influenza, 1 to whooping cough, 1 to encephalitis, and 4 to cerebro-spinal fever.

Table 13.

Summary of Births and Deaths Registered during the Years 1878 to 1949, inclusive, in the Cork Urban Sanitary District with the number of Deaths from some of the principal causes.

YEAR	POPULATION	Rate per 1,000 persons represented by		NUMBER REGISTERED																							
				DEATHS.																							
				BIRTHS	DEATHS		BIRTHS	TOTAL NUMBER	Under 1 year of age	At 65 years & upwards	NUMBER CAUSED BY											Tubercu- lous Disease	Cancer	Violence	Inquest Cases	No. in Public Institutions	Number of Uncertified
					All Causes	Principal Zymo- tic Diseases					Smallpox	Measles	Scarlet Fever	Typhus	Whooping Cough	Diphtheria	Enteric Fever	Diarrhoea	Influenza	Pneumonia	Pulmonary							Other forms
BIRTHS	All Causes	Principal Zymo- tic Diseases	BIRTHS	TOTAL NUMBER	Under 1 year of age	At 65 years & upwards	Smallpox	Measles	Scarlet Fever	Typhus	Whooping Cough	Diphtheria	Enteric Fever	Diarrhoea	Influenza	Pneumonia	Pulmonary	Other forms	Cancer	Violence	Inquest Cases	No. in Public Institutions	Number of Uncertified				
1878...		31.7	27.0	—	2,546	2,464	350	681	...	61	1	...	59	1	...	75	...	...	...	...	23	87	863	...
1879...		33.5	29.0	3.8	2,707	2,689	319	711	...	49	65	...	19	2	...	48	...	...	...	...	30	113	977	...
1880...		28.5	30.8	5.9	2,620	2,837	376	624	...	73	204	...	47	13	...	86	...	...	289	...	23	99	1026	...	
1881...	80,124	27.7	26.8	4.1	2,167	2,101	271	611	...	36	30	88	61	4	4	87	...	237	...	...	14	82	673	...	
1882...		28.2	24.7	2.3	2,212	1,935	282	490	...	20	8	54	25	5	4	55	...	274	...	...	11	77	574	...	
1883...		27.0	24.9	2.0	2,161	1,993	236	572	...	35	8	46	5	10	11	38	...	271	...	...	9	50	646	...	
1884...		27.4	26.7	2.8	2,199	2,139	253	553	...	41	27	37	45	6	13	51	...	292	...	...	12	50	671	...	
1885...		25.6	26.2	2.3	2,054	2,098	247	614	...	6	48	21	55	5	9	35	...	287	...	...	7	36	587	...	
1886...		25.4	22.1	2.1	2,037	1,769	225	430	...	12	30	17	5	8	42	50	...	263	...	...	11	40	525	...	
1887...		25.5	22.4	1.8	2,042	1,792	252	490	...	34	1	12	6	2	20	67	...	236	...	...	15	43	490	...	
1888...		25.7	24.1	3.5	2,058	1,934	288	501	...	146	6	21	49	18	9	30	...	231	...	...	7	32	499	...	
1889...		25.2	22.3	1.9	2,023	1,786	253	497	...	1	10	5	88	7	9	32	...	278	...	...	8	34	433	...	
1890...		25.0	22.2	1.0	2,005	1,778	214	571	...	1	5	7	14	8	12	29	...	295	...	...	20	43	479	...	
1891...	75,345	26.9	26.9	1.4	2,024	2,025	281	630	...	—	4	5	29	11	17	34	...	295	...	...	15	35	557	...	
1892...		24.6	26.4	1.9	1,978	1,988	297	560	...	40	...	23	42	3	17	17	...	203	...	...	17	65	682	...	
1893...		27.8	24.5	1.3	2,092	1,844	268	517	...	6	2	7	14	3	14	51	...	314	...	...	15	58	596	...	
1894...		27.4	24.9	1.8	2,062	1,874	310	517	...	51	15	2	16	4	13	32	...	296	...	...	31	63	609	...	
1895...		28.9	23.9	1.6	2,179	1,798	287	494	...	1	3	8	65	2	16	28	...	261	...	...	24	68	657	...	
1896...		29.2	22.6	1.2	2,144	1,706	229	477	...	2	2	7	18	1	24	40	...	299	...	...	14	66	619	...	
1897...		27.5	24.7	2.7	2,073	1,858	316	452	...	75	1	3	59	10	9	47	...	260	...	...	22	64	680	...	
1898...		28.7	23.7	1.9	2,160	1,787	285	493	...	3	1	11	25	4	13	86	...	283	...	...	14	75	640	...	
1899...		27.3	26.3	2.8	2,060	1,980	276	525	...	34	1	6	33	5	8	121	...	320	...	...	9	79	749	...	
1900...		25.8	24.2	1.4	1,944	1,821	235	496	...	9	22	4	1	2	5	59	...	281	...	...	7	51	597	...	
1901...	76,122	25.6	23.0	1.9	1,942	1,745	272	440	...	3	17	2	35	11	5	73	...	289	...	...	13	54	558	...	
1902...		26.2	21.5	1.3	2,031	1,667	258	430	...	21	3	...	30	4	5	34	...	287	...	...	25	65	564	...	
1903...		27.1	19.4	1.3	2,066	1,476	232	336	...	2	4	...	44	4	5	37	...	279	...	...	19	46	518	...	
1904...		27.4	21.6	1.0	2,089	1,642	249	408	...	8	1	1	27	6	8	27	...	352	...	...	39	75	563	...	
1905...		27.6	21.7	1.0	2,099	1,650	276	468	...	14	...	2	...	7	8	47	...	103	294	...	18	50	605	...			
1906...		27.5	20.2	1.7	2,094	1,535	279	406	4	14	11	5	92	...	65	261	81	62	20	54	593	...		
1907...		25.6	20.6	1.5	1,946	1,570	254	427	2	6	52	5	4	48	...	77	278	84	77	14	53	609	84		
1908...		27.3	22.3	1.9	2,084	1,700	281	472	...	13	6	13	9	16	79	...	62	245	93	59	12	53	651	83			
1909...		26.3	22.1	2.3	2,000	1,680	251	457	...	3	15	5	72	11	15	54	...	106	264	78	62	13	75	673	91		
1910...		25.8	19.3	0.9	1,955	1,469	189	489	2	3	7	11	13	34	...	71	233	75	73	25	50	630	77		
1911...	76,673	26.0	21.2	1.9	1,992	1,622	277	377	...	17	2	...	28	10	5	78	...	91	252	73	64	28	61	627	81		
1912...		24.8	19.1	0.7	1,903	1,464	204	412	...	6	5	...	11	6	6	18	...	69	231	71	66	16	56	560	58		
1913...		24.2	21.5	1.9	1,853	1,645	253	424	...	16	4	2	...	3	6	114	...	110	202	79	95	14	57	643	60		
1914...		24.3	19.9	2.1	1,897	1,551	226	367	...	9	9	1	64	13	4	67	...	85	231	79	74	15	48	581	60		
1915...		23.1	20.7	1.5	1,778	1,584	235	418	...	14	12	...	22	14	5	49	...	152	211	72	66	13	50	590	79		
1916...		22.6	18.2	1.0	1,732	1,394	182	387	...	6	6	1	11	9	6	35	...	97	189	69	66	14	31	564	51		
1917...		20.2	17.5	0.8	1,552	1,340	169	395	1	1	14	3	3	34	...	74	202	78	62	24	40	51	60		
1918...		20.8	20.5	2.2	1,599	1,570	189	326	...	88	1	1	27	6	8	40	...	247	187	75	61	20	29	596	43		
1919...		23.8	20.2	1.1	1,825	1,551	183	414	...	1	2	3	7	32	1	40	...	248	156	58	69	19	26	564	50		
1920...		28.3	17.5	1.9	2,169	1,341	173	355	...	2	5	...	40	60	13	22	...	69	159	46	86	30	32	574	59		
1921...		24.6	15.4	1.4	1,887	1,181	144	313	1	1	56	4	1	...	40	125	34	75	71	82	482	59		
1922...		24.2	18.0	1.06	1,853	1,383	173	392	...	38	42	2	37	128	176	39	70	39	28	571	67	
1923...		26.2	14.0	0.7	2,007	1,071	133	332	1	...	23	1	24	4	...	55	130	32	84	28	38	446	42	
1924...		25.5	17.8	1.4	1,990	1,386	175	396	81	12	2	10	...	25	146	164	32	94	18	29	568	40
1925...		23.8	15.5	0.8	1,827	1,185	136	397	2	2	6	5	45	...	8	60	134	31	92	25	38	457	32
1926...	78,490	21.5	17.3	2.4	1,687	1,359	220	361	...	75	6	1	32	18	2	53	...	13	116	126	46	82	25	27	501	37	
1927...		21.7	14.7	0.5	1,101	1,152	148	343	...	1	6	9	2	24	...	17	63	129	35	78	28	27	449	52	
1928...		21.7	15.0	0.8	1,767	1,179	135	398	4	8	22	2	28	...	17	80	109	29	101	27	34	459	34
1929...		20.9	16.7	1.4	1,816	1,308	156	404	...	15	3	1	30	33	1	25	...	12	81	141	17	92	26	44	552	42	
1930...		25.4	16.1	1.8	1,998	1,264	155	399	...	22	8	5	64	...	37	...	5	88	117	25	96	22	36	584	25
1931...		24.4	16.2	0.5	1,921	1,275	138	388	...	...	...	...	...	5	24	1	34	...	34	96	124	46	107	

Table 12.—Showing the number of deaths from the principal epidemic diseases during the past ten years.

Year	Typhus Fever	Typhoid Fever	Scarlatina	Puerperal Fever	Diphtheria	Measles	Diarrhoea	Whooping Cough
1941	—	—	—	—	5	6	36	—
1942	—	—	—	—	21	—	52	2
1943	—	—	—	1	17	—	52	4
1944	—	—	—	2	5	6	65	28
1945	—	—	—	—	3	—	50	—
1946	—	—	—	—	2	4	18	—
1947	—	—	—	—	—	—	32	5
1948	—	—	1	—	—	—	19	5
1949	—	—	—	—	—	4	43	4
1950	—	—	—	—	—	—	19	1

* Infection in this case was incurred outside the City area.

Uncertified Deaths. No uncertified death was recorded during the year.

Deaths from Violence. In the 24 recorded instances the cause of death was as follows :—

Falls	.....	.....	12
Motor Vehicles	.....	.....	3
Drowning	.....	.....	2
Burns	.....	.....	2
Suicide	.....	.....	3
Miscellaneous	.....	.....	2

The number of deaths attributed to motor car accidents in previous years is as follows :—

1934	.....	4	1942	.....	4
1935	.....	7	1943	.....	3
1936	.....	6	1944	.....	1
1937	.....	6	1945	.....	0
1938	.....	2	1946	.....	6
1939	.....	2	1947	.....	6
1940	.....	3	1948	.....	4
1941	.....	3	1949	.....	1
1950	.....	3			

Table 14.—INFANT DEATH RATE.

Year	Births	Deaths under 1 year	Deaths per 1000 Births	Year	Births	Deaths under 1 year	Deaths per 1000 Births
1881	2167	271	124	1916	1732	182	105
1882	2212	283	127	1917	1552	169	108
1883	2161	236	109	1918	1559	189	118
1884	2199	253	110	1919	1825	183	100
1885	2054	247	120	1920	2169	173	79
1886	2037	225	110	1921	1887	144	76
1887	2042	252	123	1922	1853	173	93
1888	2058	288	139	1923	2007	133	66
1889	2023	253	125	1924	1990	175	87
1890	2005	214	106	1925	1827	136	74
1891	2024	281	138	1926	1687	220	130
1892	1978	297	150	1927	1701	148	87
1893	2092	268	132	1928	1764	135	76
1894	2063	310	150	1929	1816	156	85
1895	2179	287	131	1930	1998	155	77
1896	2144	229	106	1931	1921	138	71
1897	2073	316	152	1932	1819	168	89
1898	2160	285	131	1933	1852	165	89
1899	2060	276	133	1934	1922	139	72
1900	1944	235	120	1935	1945	162	83
1901	1942	272	139	1936	1921	154	80
1902	2031	258	127	1937	1818	187	103
1903	2066	232	112	1938	1708	129	76
1904	2089	249	118	1939	1711	125	73
1905	2099	276	131	1940	1670	153	92
1906	2094	279	133	1941	1680	142	85
1907	1946	254	139	1942	1706	171	100
1908	2084	281	134	1943	1781	197	113
1909	2000	251	125	1944	1721	188	108
1910	1965	189	96	1945	1690	156	89
1911	1992	277	139	1946	1756	109	62
1912	1903	204	106	1947	1824	160	87
1913	1853	253	136	1948	1848	87	47
1914	1897	226	119	1949	1885	131	68
1915	1778	235	132	1950	1599	81	50

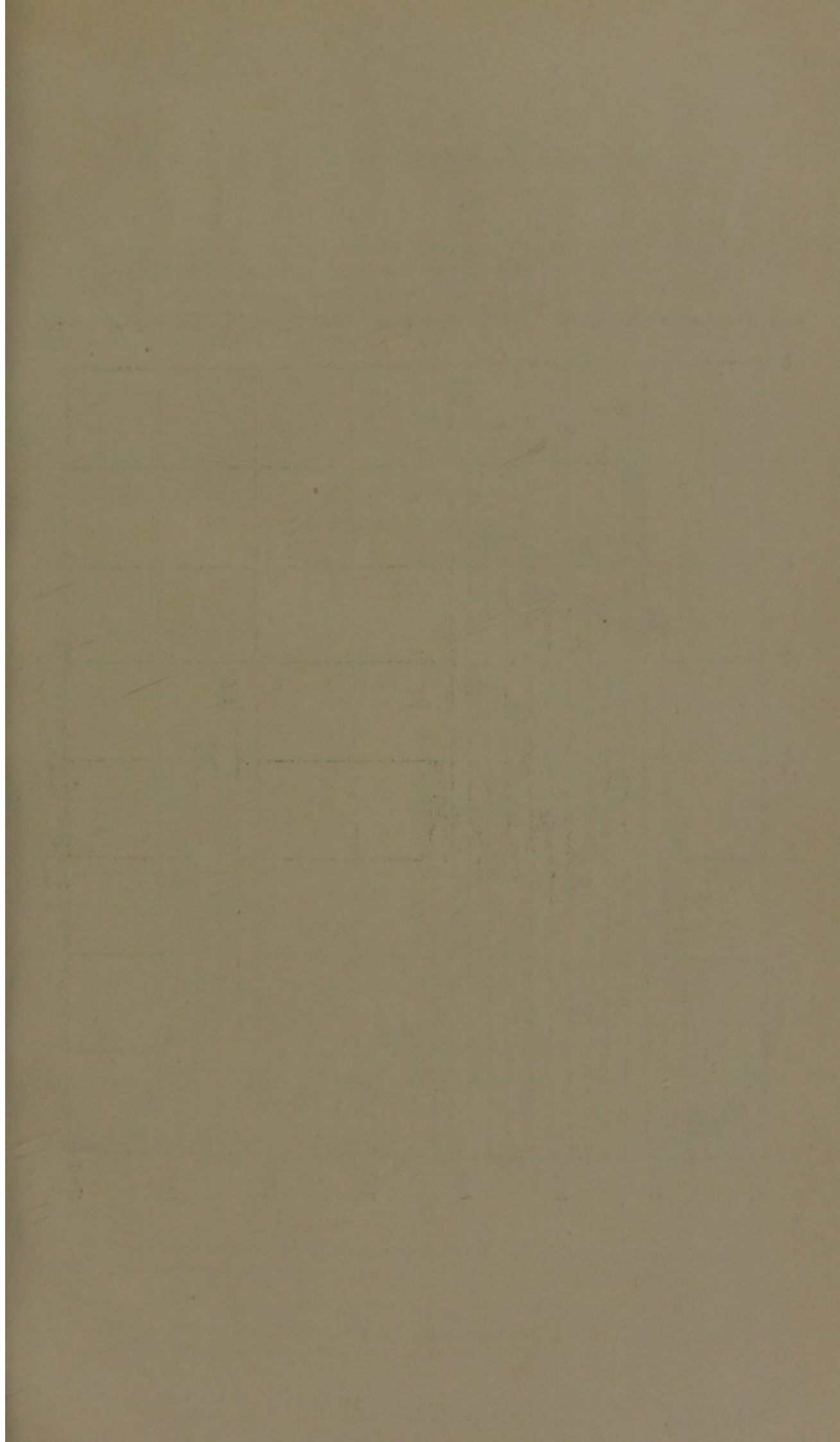
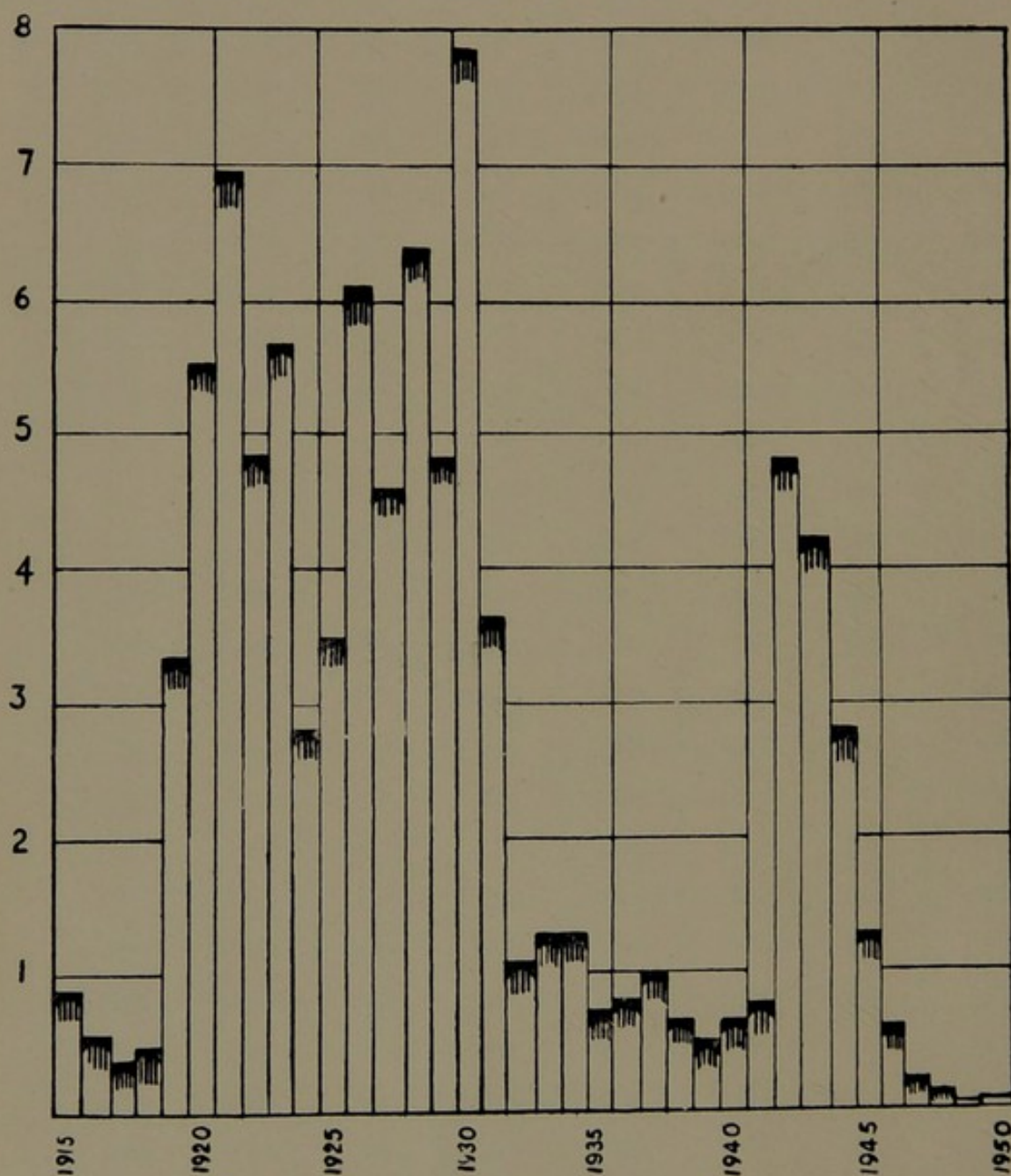


FIG. 111.—DIPHTHERIA INCIDENCE (PER 1000 POPULATION) FROM 1915



Section. II.—Infectious Diseases

The various enactments, referred to in previous reports, covering the notification of infectious disease have been repealed by the Public Health Act 1947 and have been replaced by the Infectious Diseases Regulations, 1948, the second schedule of which specifies the following diseases to be infectious diseases :

Acute Anterior Poliomyelitis	Paratyphoid A.
Anthrax	Paratyphoid B.
Brucellosis (undulant fever)	Pemphigus Neonatorum
Cerebro-Spinal Fever	Plague
Cholera	Psittacosis
Diphtheria	Puerperal Pyrexia
Dysentery	Puerperal Sepsis
Encephalitis Lethargica	Rubella
Epidemic Diarrhoea and Enteritis	Scabies
Erysipelas	Scarlet Fever
Gonorrhoea	Smallpox
Haemorrhagic Jaundice	Soft Chancre
(Weil's Disease)	Streptococcal Sore Throat
Impetigo Contagiosa	Syphilis
Infective Hepatitis	Tinea Capitis
Infective Mononucleosis	Tuberculosis
Influenza	Trachoma
Influenzal Pneumonia	Typhoid
Malaria	Typhus
Measles	Whooping Cough
Ophthalmia Neonatorum	Yellow Fever

Primary Pneumonia was removed from the Schedule of Infectious Diseases by the Infectious Diseases Amendment Regulations, 1949.

General.

Notifications of infectious disease received during the year amounted to 247 (the corresponding figure for the previous year being 729).

The principal reduction was under the heading of measles, notifications of which fell from 320 to 62. Whooping cough (80 to 22) and diarrhoea (147 to 83) also showed substantial deductions.

Deaths from infectious disease numbered 34. They occurred under the following headings :

Disease	1950	1949
Gastro-enteritis	19	43
Measles	—	4
Whooping Cough	1	4
Influenza	9	6
Encephalitis	1	2
C. S. Fever	4	—

DIPHTHERIA.

This is the fourth successive year in which there has been no death from diphtheria. Reference to Table 15 (which covers a period of exactly 60 years) shews that never before 1947 was such a happy state of affairs achieved. There was not a single year before this period in which there was not one or more deaths from diphtheria recorded. The worst period appears to have been from 1919 to 1934. At this time the disease took on a greatly increased severity. 60 deaths occurred in 1920, 56 in 1921 and 42 in 1922. There were 59 in 1930 after which the disease appeared to gradually decline in intensity until 1942 and 1943 when there was a very sharp increase, but after these years the incidence diminished very rapidly. The number of cases in 1949 (seven) was the lowest of the period for which we have reliable records. It will be noted that there were analogous figures in 1895 and 1896 and again in 1902 ; but I have had occasion to point out in previous reports that figures for these earlier years are far from accurate. It was the period before notification was reliable and when true diphtheria was frequently termed croup and the two diseases were very liable to be confused. This table is a valuable record of the history of this disease so far as Cork City is concerned.

In a large proportion of cases the reports received transpired not to be diphtheria. The age distribution of these was as follows :—

0-2 years	...	...	4 cases
2-4 „	...	...	9 „
4-6 „	...	...	9 „
6-8 „	...	...	11 „
8-10 „	...	...	5 „
10-15 „	...	...	23 „
15-20 „	...	...	8 „
Over 20 „	...	...	24 „
Total	...	...	93

Table 15.—Incidence and Case Fatality, of Diphtheria from 1890.

Year	Cases	Rate per 1000 Population	Deaths	Fatality Rate
1890	20	0.26	8	40.0
1891	37	0.49	11	30.0
1892	11	0.14	3	27.3
1893	18	0.23	3	16.6
1894	14	0.18	4	28.6
1895	6	0.07	2	33.3
1896	7	0.09	1	14.3
1897	21	0.27	10	47.6
1898	18	0.23	4	22.2
1899	18	0.23	5	27.8
1900	23	0.30	2	0.8
1901	26	0.34	11	42.3
1902	8	0.10	4	50.0
1903	17	0.22	4	17.5
1904	29	0.38	6	20.6
1905	18	0.23	6	33.3
1906	37	0.48	11	29.7
1907	37	0.48	5	13.5
1908	40	0.56	9	22.5
1909	66	0.86	11	16.6
1910	51	0.65	11	19.3
1911	70	0.91	10	14.3
1912	52	0.67	6	11.5
1913	24	0.31	3	12.5
1914	54	0.70	13	24.1
1915	68	0.88	14	20.6
1916	43	0.55	9	20.9
1917	26	0.33	3	11.5
1918	34	0.43	6	17.6
1919	262	3.37	32	12.2
1920	428	5.50	60	14.0
1921	541	6.93	56	10.4
1922	379	4.86	42	11.1
1923	440	5.68	23	5.2
1924	217	2.85	12	5.4
1925	265	3.50	6	2.2
1926	469	6.10	18	3.7
1927	344	4.55	9	2.5
1928	385	6.37	19	4.7
1929	369	4.81	32	8.4
1930	627	7.86	59	10.0
1931	288	3.66	24	8.6
1932	85	1.08	17	20.0
1933	109	1.32	14	12.8
1934	109	1.32	25	22.1
1935	56	0.71	7	12.5
1936	25	0.31	8	32.0
1937	80	0.99	17	21.2
1938	54	0.66	7	12.8
1939	41	0.50	3	7.4
1940	52	0.67	5	9.6
1941	62	0.80	5	8.1
1942	372	4.84	21	5.6
1943	326	4.25	17	5.2
1944	172	2.27	5	2.9
1945	95	1.24	3	3.1
1946	46	0.61	2	4.3
1947	18	0.25	—	—
1948	10	0.10	—	—
1949	7	0.09	—	—
1950	10	0.10	—	—

Note:—The Infectious Disease (Notification) Act 1889, was adopted on 7th February, 1890.

DIPHTHERIA IMMUNISATION.

The total number of children who completed the full course of treatment during the year was 1,126, of whom 76 were children who were negative to the primary Schick test.

Table 16.—Attendance of new cases at Diphtheria Prevention Clinic.

Year	Primary Schick Negative	Completed Full Course	Total	Not Completed Course
1929	—	1,802	1,802	—
1930	154	2,857	3,011	505*
1931	324	1,777	2,101	436
1932	91	422	513	208
1933	159	592	751	61
1934	826	1,716	2,542	432
1935	173	1,118	1,291	8
1936	458	1,741	2,199	22
1937	185	960	1,125	212
1938	106	708	814	205
1939	87	355	442	69
1940	87	552	639	90
1941	109	576	685	60
1942	387	3,795	4,162	891
1943	306	1,081	1,387	321
1944	80	654	734	99
1945	106	622	728	145
1946	67	454	521	103
1947	154	633	787	103
1948	198	724	922	178
1949	51	909	960	212
1950	76	1050	1,126	393
Totals	4,144	25,098	29,242	4,753

* Includes figures for both 1929 and 1930.

The figures for primary Schick tests in this table do not represent the *total* number of such tests performed but merely the number that proved *negative*. They are stated here for the purpose of estimating the number of children who have passed through our hands and who may be regarded as presumably immune. The total number of primary tests performed during the year is set out in the following table.

Table 17.—Primary Schick Tests performed during the year.

Age Group	Number of Cases	Positive	Negative	Proportion Positive
0-5 years	—	—	—	—
5-10 ..	23	1	22	4.3 %
10 and over	55	1	54	1.8 %
Totals ...	78	2	76	2.5 %

Table 18.—Primary Schick Tests. Analysis showing proportion positive in each year.

Year	Number Tested	Positive	Negative	Proportion Positive
1929-30	1170	916	254	78.2 per cent.
1931	598	274	324	45.8 "
1932	301	210	91	69.7 "
1933	435	276	159	63.4 "
1934	1474	648	826	44.0 "
1935	309	136	173	44.0 "
1936	628	168	458	26.8 "
1937	266	101	165	38.0 "
1938	152	46	106	30.2 "
1939	110	23	87	20.9 "
1940	131	34	87	25.9 "
1941	146	37	109	25.3 "
1942	686	319	367	46.5 "
1943	306	107	199	34.9 "
1944	108	28	80	25.9 "
1945	181	75	106	41.4 "
1946	86	19	67	22.1 "
1947	659	505	154	76.8 "
1948	673	475	198	70.5 "
1949	68	17	51	25.0 "
1950	78	2	76	2.5 "

Apart from record purposes this table is of little value as, obviously, the proportion of *positive* reactions will depend almost entirely on the age constitution of the groups of children tested and as this factor will fluctuate widely from year to year, so also will the results vary from one year to another. In this respect the next table is more informative as the results in the different years have been analysed in accordance with the age groups of the children.

Table 19.—Primary Schick Tests. Proportion positive in the age-groups :—

Period	Proportion POSITIVE (expressed as percentages)			
	0-5 years	5-10 years	10 and over	Whole Group
1929/30	—	—	—	78.2
1931	—	—	—	45.8
1932	88.4	60.1	37.7	69.6
1933	79.7	63.3	28.9	63.4
1934	65.8	44.2	27.5	44.0
1935	66.6	49.5	30.3	44.0
1936	66.6	41.5	15.5	25.2
1937	—	43.8	33.0	37.9
1938	—	25.0	35.7	30.2
1939	50.0	28.6	18.4	20.9
1940	25.0	20.4	32.9	25.9
1941	—	30.9	22.2	25.3
1942	25.0	45.2	47.6	46.5
1943	83.0	28.0	34.8	34.9
1944	—	12.0	29.2	25.9
1945	55.5	30.7	42.4	41.4
1946	50.0	28.5	19.0	22.1
1947	91.9	28.5	5.4	76.8
1948	90.0	29.7	3.6	70.5
1949	33.3	45.8	12.2	25.0
1950	—	4.3	1.8	2.5

The total number of cases dealt with, (according to age-groups) is shewn in the following figures.

(1) Treatment Incomplete—

0 - 1	.....	68
1 - 2	.....	81
2 - 3	.....	45
3 - 4	.....	36
4 - 5	.....	39
5 - 10	.....	122
10 and over	.....	2
	—	393

(2) Treatment Complete—

0 - 1	.....	347
1 - 2	.....	292
2 - 3	.....	117
3 - 4	.....	88
4 - 5	.....	65
5-10 years	.....	140
10 and over	.....	1
	—	1,050

Total New Cases Treated	...	1,443
No. of Primary Schick Negatives	...	76
Old cases tested and treated	...	336
		—
Total		1,855

Table 20.—Secondary Schick Tests.

Year	Total	Negative	Positive	Proportion Negative
1930	805	752	53	94.6 per cent.
1931	1166	991	175	85.2 "
1932	913	858	55	92.8 "
1933	893	801	92	89.0 "
1934	1105	1058	47	95.7 "
1935	1405	1388	17	98.8 "
1936	1272	1259	13	98.9 "
1937	732	722	10	98.6 "
1938	581	498	83	85.7 "
1939	215	205	10	95.3 "
1940	353	350	3	99.1 "
1941	488	464	24	95.0 "
1942	2,409	2,248	161	93.3 "
1943	1,232	1,178	54	97.2 "
1944	398	378	20	94.9 "
1945	484	479	5	98.9 "
1946	295	292	3	98.9 "
1947	364	360	4	98.9 "
1948	647	644	3	99.5 "
1949	627	—	—	100 "
1950	725	720	5	99.3 "
Totals ...	17,109	16,272	837	95.9 per cent.

In addition to alum-precipitated toxoid (A.P.T.) and toxoid anti-toxin floccules (T.A.F.), aluminium phosphate toxoid (P.T.A.P.) was used. This was found to be a satisfactory antigen.

SWAB EXAMINATIONS.

The following figures indicate the number of swabs examined in connection with the control of diphtheria since 1928.

Year	No. Examined	Year	No. Examined
1928	980	1939	714
1929	1,353	1940	747
1930	2,872	1941	711
1931	1,936	1942	3,509
1932	1,022	1943	3,237
1933	878	1944	1,546
1934	1,203	1945	1,363
1935	924	1946	856
1936	633	1947	520
1937	1,092	1948	499
1938	1,124	1949	406
	1950	450	

EPIDEMIC DIARRHOEA

83 notifications were recorded during the year. This figure is a decrease of 65 over that for the previous year. It represents a morbidity rate of 1.0 per 1,000. The deaths numbered 19, yielding a fatality rate of 23.1 per cent. of cases notified and a mortality rate of 0.25 per 1,000 population. The main factors in the causation of this disease, one of the most serious in childhood, have been referred to repeatedly in these reports and need not be laboured again. The principal exciting cause is, of course, the substitution of bottle-feeding for breast-feeding and the subsidiary causes (arising from this) are unhygienic milk production and distribution, unsuitable methods of feeding, ignorance or carelessness in the preparation of feeds, insanitary surroundings and over-crowding. The dangers arising from these secondary causes can be entirely eliminated by the adoption of breast feeding. The results obtained by distributing the figures into months and quarters (according to date of occurrence) is shewn in the sub-joined tables :—

Month	Cases	Deaths	Month	Cases	Deaths
Jan.	4	..... 3	July	5	2
Feb.	4	..... 4	Aug.	6	1
March	6	..... 2	Sept.	12	1
April	4	..... 4	Oct.	14	—
May	11	..... —	Nov.	8	—
June	3	..... 2	Dec.	7	—

The distribution according to *quarters* was as follows

	Cases	Deaths
1st Quarter	14	..... 9
2nd "	18	..... 6
3rd "	23	..... 4
4th "	29 —

Many cases of gastro-enteritis are indeed not true cases of epidemic disease but arise from dietetic indiscretions on the part of those responsible for the feeding of the infant. Cow's milk, once more, has been associated in marked degree with the incidence of the disease.

It has already been stated that 83 notifications were received but of these we failed to trace 19 in the investigations which followed. This has been a constant feature, as alluded to in previous reports, and is due to the mother tendering wrong particulars to the notifying doctor. This is the method adopted by such mothers to secure the attention of the doctor of their choice. Subtracting this number we were left with a residue of 63 cases traced and investigated. Of this 63 one was breast-fed. These figures speak for themselves. In conjunction with the corresponding figures for each year since 1935 they are analysed in the next table.

Year	Number of Cases according to Manner of Feeding			Cases Untraced	Total
	Breast	Cow's Milk	Dried Milk		
1935	18	128	6	26	178
1936	7	198	5	16	261
1937	18	204	8	51	246
1938	14	108	5	15	142
1939	9	148	13	27	197
1940	13	202	9	62	286
1941	4	173	6	35	218
1942	11	168	24	24	227
1943	10	90	18	30	148
1944	5	128	17	29	179
1945	4	84	11	13	112
1946	2	56	4	7	69
1947	4	73	17	16	110
1948	2	45	7	10	64
1949	—	87	16	44	147
1950	1	48	15	19	83
Totals ...	122	1940	181	424	2667

During the period covered by this table 2,242 cases have been investigated and in 95 per cent. *artificial feeding* was the method employed. It is to be noted that these figures do not pretend to complete accuracy and since we do not know the actual number of children at risk in each year we cannot postulate the relative danger of each method of feeding but taken together, the evidence is clear enough that any child subjected to artificial feeding is greatly imperilled thereby and further it can be stated that when artificial feeding is adopted the danger is very much greater when cow's milk is employed. This, no doubt, is due to faulty methods in preparing feeds and unhygienic conditions generally in the homes. There seems to be much greater risk from cow's milk than from dried milk. Considering the better nutritive value of the former this is unfortunate, but taking facts as we find them we are forced to the conclusion that, in the hands of the average mother, ordinary cow's milk is a highly dangerous article.

In Table 21 are shewn the numbers of cases and deaths from diarrhoea which have occurred in the City since 1907, the year in which the disease was first made notifiable here.

Table 21.—Epidemic Diarrhoea. Return of Cases notified and Deaths registered, together with the Mortality, Morbidity and Case-fatality Rates arising therefrom.

Year	No. of Cases	Rate per 1000 Population (Morbidity)	DEATHS		
			Number Recorded	Mortality Rate	Case Fatality Rate*
1907	413	5.42	48	0.63	11.1
1908	524	6.85	79	1.03	15.0
1909	514	6.72	54	0.71	10.3
1910	159	2.07	34	0.44	21.3
1911	352	4.56	78	1.01	22.1
1912	71	0.92	18	0.23	25.3
1913	320	4.13	114	1.48	35.6
1914	188	2.43	67	0.86	35.6
1915	177	2.29	49	0.63	27.6
1916	139	1.79	35	0.45	25.1
1917	83	1.07	34	0.43	40.9
1918	121	1.55	40	0.51	33.0
1919	85	1.09	40	0.51	47.0
1920	54	0.69	22	0.28	40.7
1921	105	1.35	1	0.01	0.94
1922	19	0.24	—	—	—
1923	35	0.44	24	0.30	68.5
1924	30	0.38	10	0.12	33.3
1925	142	1.81	45	0.58	31.6
1926	108	1.37	53	0.67	49.1
1927	76	0.96	24	0.30	31.5
1928	79	1.00	28	0.35	35.4
1929	78	0.98	25	0.31	32.0
1930	59	0.74	37	0.46	62.7
1931	85	1.06	34	0.42	40.0
1932	178	2.22	46	0.57	27.8
1933	189	2.35	45	0.56	23.8
1934	80	0.99	36	0.44	45.0
1935	178	2.21	56	0.69	31.4
1936	261	3.23	41	0.50	15.7
1937	246	3.04	52	0.64	21.1
1938	142	1.76	33	0.41	23.2
1939	197	2.44	39	0.48	19.8
1940	286	3.54	52	0.64	18.4
1941	218	2.85	36	0.46	16.5
1942	227	2.95	52	0.68	22.9
1943	148	2.00	52	0.68	35.1
1944	179	2.37	65	0.61	36.3
1945	114	1.45	50	0.50	43.8
1946	71	0.94	19	0.25	26.7
1947	111	1.45	32	0.42	28.6
1948	64	0.85	19	0.25	28.1
1949	147	1.94	43	0.56	22.5
1950	83	1.09	19	0.25	22.8

* The *fatality rates* in this table must be read with extreme caution, the fluctuation from year to year is so extreme that it is apparent that notification must have been very defective in the years with abnormally high rates. It is obvious, nevertheless, that this is a most fatal disease of early childhood and the figures lend point to the remarks which have been made above in regard to the prime contributory cause.

TYPHOID FEVER.

For the fifth successive year no case of this disease was recorded.

Table 22.—Incidence and Case Fatality of Enteric Fever in Cork City from 1881.

<i>Period</i>	<i>Cases</i> (annual averages 1881-1910)	<i>Incidence</i> (annual averages 1881-1910)	<i>Deaths</i> (annual averages 1881-1910)	<i>Fatality</i> <i>Rates</i> (annual averages 1881-1910)
1881-1890	73.5	0.97	13.3	18.1
1891-1900	82.6	1.08	12.6	17.9
1901-1910	54.3	0.69	8.4	15.0
1911	32	0.41	5	15.6
1912	26	0.33	6	23.0
1913	29	0.38	6	20.7
1914	50	0.64	4	8.0
1915	32	0.41	5	15.6
1916	42	0.54	6	14.3
1917	43	0.55	3	6.9
1918	42	0.54	8	19.0
1919	12	0.15	1	8.3
1920	244	3.13	13	5.3
1921	21	0.26	4	19.0
1922	6	0.07	2	33.3
1923	7	0.09	1	14.2
1924	11	0.14	2	18.1
1925	27	0.34	5	18.5
1926	11	0.14	2	18.2
1927	10	0.12	2	20.0
1928	17	0.21	2	11.7
1929	6	0.08	1	16.6
1930	—	—	—	—
1931	1 (a)	0.01	1	100.0
1932	1 (a)	0.01	1	100.0
1933	2 (a)	0.02	—	(b)
1934	1	0.01	—	—
1935	3	0.03	—	—
1936	2	0.02	—	—
1937	1	0.01	—	—
1938	3 (a)	0.03	1	33.3
1939	7	0.08	—	—
1940	2	0.02	—	—
1941	12	0.15	—	—
1942	—	—	—	—
1943	—	—	—	—
1944	3	0.03	—	—
1945	3	0.03	—	—
1946	—	—	—	—
1947	—	—	—	—
1948	—	—	—	—
1949	—	—	—	—
1950	—	—	—	—

(a) Infection in all these cases was incurred outside the City.

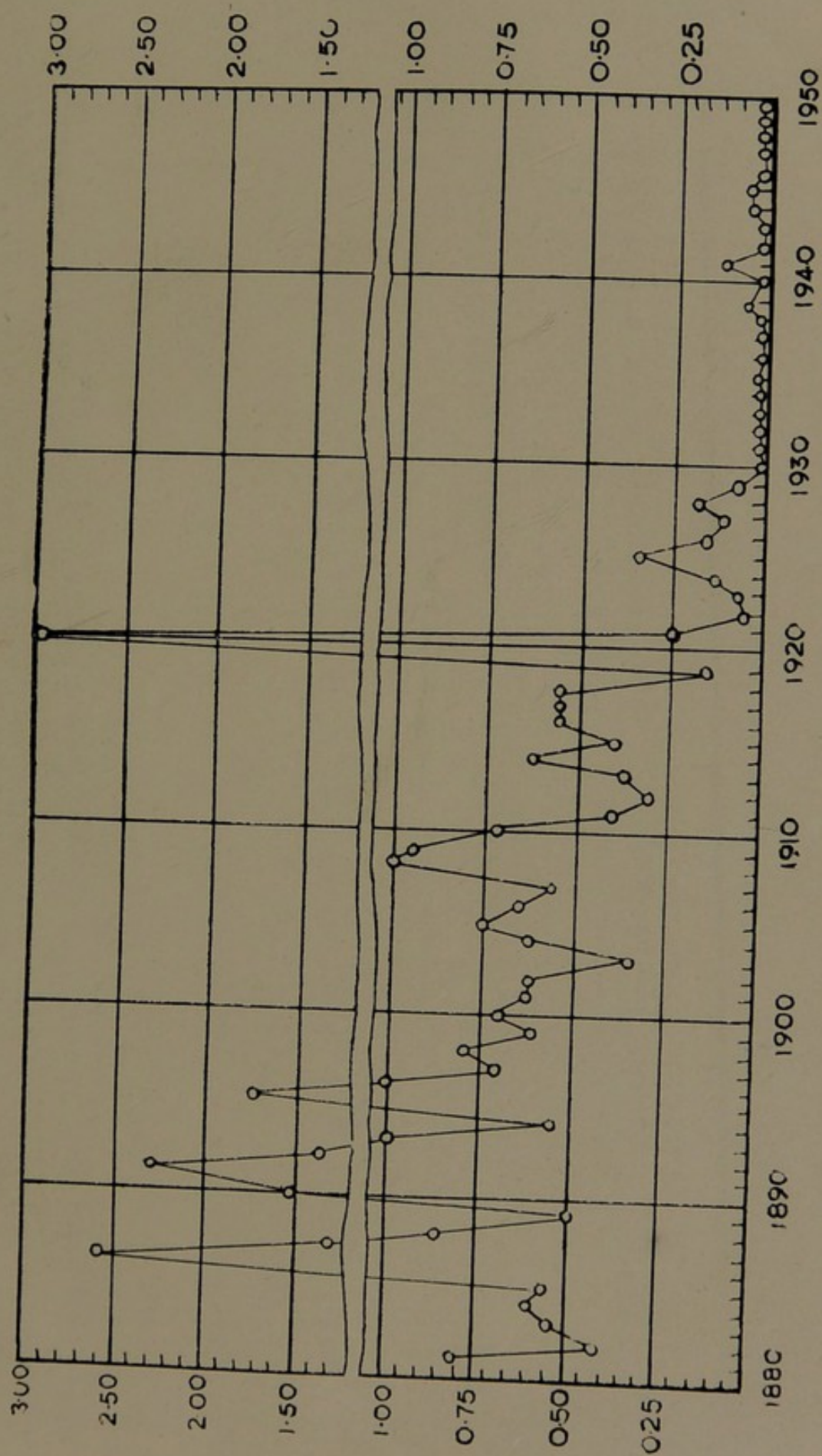
(b) Two deaths were recorded in Cork Mental Hospital (Co. Area) of inmates who formerly resided in the City.

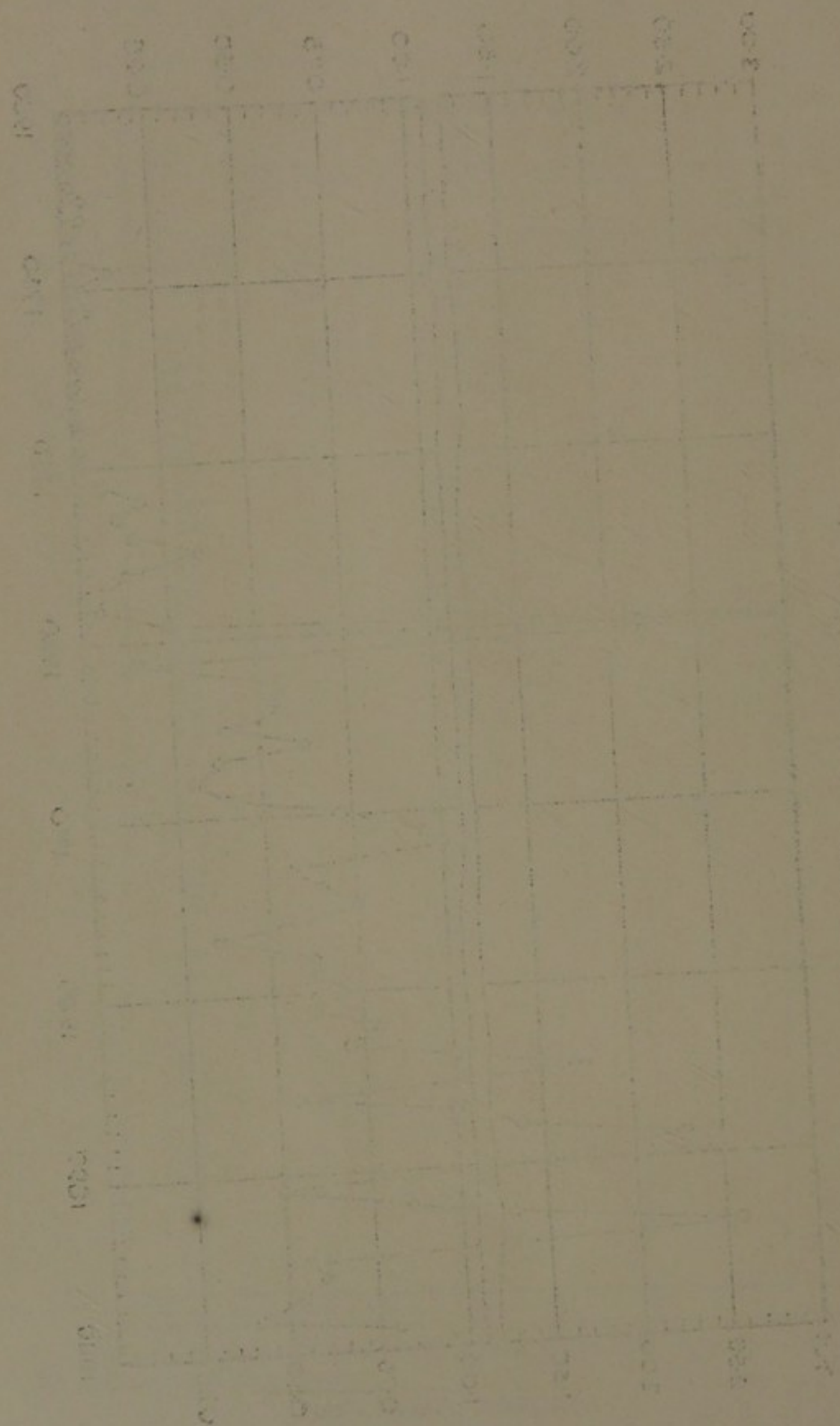
Details for each individual year from 1881 to 1910 appear in Reports for 1948 and previous years.

SCARLET FEVER.

34 cases were reported. There was no death.

FIG. IV—ENTERIC FEVER. (INCIDENCE PER 1000 POPULATION) FROM 1880





TYPHUS.

For the twenty-first successive year there has been no case. As a matter of interest the table relative to this disease, first published in 1935, is reproduced in this report.

Table 23.—Incidence and Case Fatality of Typhus Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	1406	17.42	88	6.2
1882	683	8.57	54	7.9
1883	844	10.66	46	5.4
1884	456	5.65	37	8.1
1885	159	2.03	21	3.2
1886	83	1.06	17	18.0
1887	67	0.86	12	17.9
1888	72	0.93	21	27.7
1889	48	0.63	5	10.4
1890	54	0.71	7	12.9
1891	24	0.30	5	20.8
1892	162	2.28	23	14.1
1893	92	1.20	7	7.6
1894	25	0.33	2	8.0
1895	29	0.38	8	31.0
1896	22	0.29	7	31.8
1897	30	0.39	3	10.0
1898	61	0.80	11	18.0
1899	9	0.10	6	66.6
1900	28	0.36	4	14.3
1901	13	0.17	2	15.38
1902	6	0.07	—	—
1903	7	0.09	—	—
1904	11	0.14	1	9.1
1905	9	0.11	2	22.2
1906	6	0.07	4	66.6
1907	10	0.13	6	60.0
1908	23	0.30	6	26.1
1909	18	0.24	5	27.7
1910	8	0.10	3	37.5
1911	10	0.13	—	—
1912	1	0.01	—	—
1913	5	0.06	2	40.0
1914	1	0.01	1	100.0
1915	—	—	—	—
1916	1	0.01	1	100.0
1917	3	0.04	1	33.3
1918	1	0.01	1	100.0
1919	15	0.19	3	20.0
1920	2	0.03	—	—
1921	1	0.01	1	100.0
1922	—	—	—	—
1923	1	0.01	1	100.0*
1924	1	0.01	—	—
1925	—	—	—	—
1926	3	0.04	1	33.3
1927	4	0.05	—	—
1928	1	0.01	—	—
1929	1	0.01	1	100.0

There has been no case since 1929.

Table 24.—Yearly Summary of Infectious Diseases.
(The figures from 1881 to 1920 represent decennial averages).

Year	Small Pox	Typhus	Enteric Fever	Simple Contd. Fever	Scarlatina	Puerperal Fever	Membranous Croup	Diphtheria	Erysipelas	Measles	Diarrhoea	Chicken Pox	Cerebro-Spinal Meningitis	Poliomyelitis	Pneumonia	
															Acute Primary	Acute Influenza
1881-1890	0.1	387	74	130	91	0.5	0.3	5	18	109	—	—	—	—	—	—
1891-1900	0.2	48	83	30	108	4	4	17	46	13	—	—	—	—	—	—
1901-1910	0.5	11	54	34	87	5	5	31	37	471	161	—	—	—	—	—
1911-1920	—	4	55	10	105	5	11	106	28	194	159	—	—	—	—	—
1921	—	—	21	1	14	4	8	541	17	2	105	28	—	—	—	—
1922	—	—	6	—	29	1	5	379	14	324	19	29	—	—	—	—
1923	—	1	7	1	44	1	4	440	45	10	35	30	—	—	—	—
1924	—	1	12	—	41	3	3	217	30	5	30	54	—	—	—	—
1925	—	—	27	—	81	4	9	265	35	94	142	117	—	—	—	5
1926	—	4	11	2	278	4	11	469	34	534	108	59	—	—	—	—
1927	—	4	10	1	205	14	11	344	25	7	76	76	1	1	—	—
1928	—	1	17	—	208	7	15	385	24	6	79	64	1	—	—	12
1929	—	1	6	—	216	6	4	369	24	226	78	80	—	—	—	7
1930	—	—	—	1	238	6	5	588	38	241	59	72	—	—	—	3
1931	—	—	1	—	98	1	1	288	19	3	85	71	1	—	49	41
1932	—	—	1	—	80	9	1	85	13	242	178	99	—	—	28	7
1933	—	—	2	—	181	9	—	109	24	49	189	79	—	—	3	2
1934	—	—	1	—	118	10	—	109	28	126	80	158	—	—	2	1
1935	—	—	3	—	52	11	1	56	24	300	178	53	—	—	5	2
1936	—	—	2	—	437	12	1	24	18	233	261	69	3	—	14	14
1937	—	—	1	—	454	6	—	79	26	88	246	218	5	1	21	45
1938	—	—	3	—	228	1	—	54	18	12	142	83	14	—	19	3
1939	—	—	7	—	158	4	—	41	31	3	197	28	1	—	14	1
1940	—	—	2	—	143	1	—	52	23	1613	286	52	2	1	27	1
1941	—	—	12	—	42	1	—	62	29	94	218	254	2	—	21	1
1942	—	—	—	—	50	—	—	372	38	1	227	65	2	—	32	2
1943	—	—	—	—	76	2	—	326	45	6	148	47	3	—	35	2
1944	—	—	3	—	85	—	—	172	57	370	179	*	5	3	37	—
1945	—	—	3	—	33	—	—	95	20	7	114	—	7	1	8	—
1946	—	—	—	—	41	2	—	46	26	396	71	—	1	6	34	—
1947	—	—	—	—	63	1	—	18	19	41	111	—	—	1	64	—
1948	—	—	—	—	86	—	—	10	27	25	64	—	—	1	40	—
1949	—	—	—	—	45	—	—	7	15	340	147	—	2	1	24	—
1950	—	—	—	—	34	—	—	10	25	62	83	—	1	4	*	—

* No longer notifiable.

Detailed figures for each year from 1881 to 1920 appear in Reports for 1948 and the previous years.

OTHER INFECTIOUS DISEASES.

Notifications in regard to other infectious diseases during the year were as follows :—

Whooping Cough	22	(80)
Dysentery	2	(0)
Streptococcal Sore Throat	1	(0)
Undulant Fever	1	(0)

Figures in brackets indicate corresponding notifications in the previous year.

Table 25.—Particulars of Articles Disinfected during the year.

	Bed Ticks	Mat- tresses	Articles of Bedding	Articles of Wearing Apparel	Miscel- laneous Articles	Total No. of Articles
January ...	1	10	168	15	53	247
February ...	—	12	177	45	35	269
March ...	—	13	254	65	52	384
April ...	—	16	212	43	75	346
May ...	—	9	242	27	45	323
June ...	—	7	167	1	43	218
July ...	—	5	173	4	33	215
August ...	—	23	256	3	22	304
September ...	2	12	154	5	25	198
October ...	—	15	151	4	7	177
November ...	1	16	104	15	32	168
December ...	2	10	70	57	2	141
	6	148	2,128	284	424	2,990

The number of rooms disinfected during the year was 155. This service is now almost entirely confined to the control of tuberculosis.

VACCINATION.

Table 26.—The figures appended herewith, which are taken from the Annual Summaries of the Registrar General, relate to the number of persons vaccinated in each locality concerned.

Year	CORK			DUBLIN			LIMERICK			WATERFORD		
	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion
1936	1,921	1,833	95%	11,582	3,903	34%	975	622	64%	661	54	8%
1937	1,706	1,898	110%	11,652	3,199	27%	1,006	672	67%	696	71	10%
1938	1,761	1,532	87%	11,534	4,076	35%	1,030	579	55%	626	27	4%
1939	1,632	1,591	97%	11,384	3,051	27%	1,073	596	55%	614	16	3%
1940	1,670	1,050	63%	11,064	2,700	24%	984	601	61%	677	43	6%
1941	1,753	1,138	65%	11,305	3,412	30%	1,007	558	55%	613	30	5%
1942	1,706	1,065	62%	12,528	3,517	28%	1,115	763	68%	807	47	6%
1943	1,781	1,233	69%	12,673	2,005	15%	1,075	748	69%	737	58	7%
1944	1,712	1,272	74%	12,074	1,525	12%	1,002	856	85%	644	34	5%
1945	1,690	1,238	73%	12,508	1,170	9%	1,051	893	85%	676	25	4%
1946	1,756	343	19%	13,159	350	2%	1,055	487	37%	718	5	0.7%
1947	1,824	188	10%	13,643	241	1%	1,208	625	50%	673	—	—

Information as to vaccination is no longer available in the *Annual Summary*. Since the repeal of the Vaccination Acts by the Health Act, 1947 vaccination has fallen to negligible proportions. The actual figures for the past two years are as follows : 1948—53 ; 1949—72 ; 1950—94.

Section III.—Tuberculosis

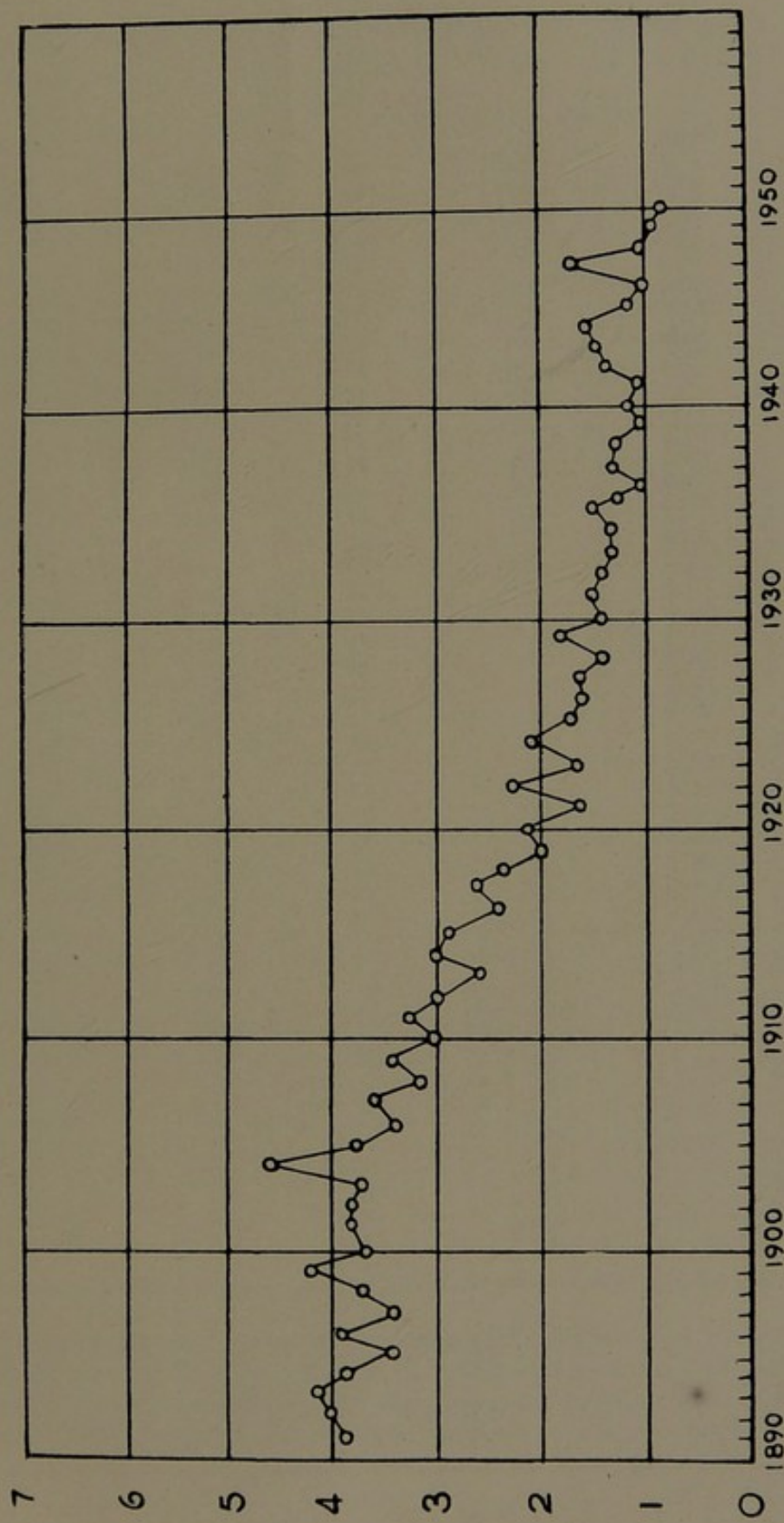
The tuberculosis death-rate for the year was 1.0 per 1,000 which is the lowest figure so far achieved. The number of deaths represented by this figure is 77 (in comparison with 83 in the previous year). The tables which follow give us a statistical picture of the disease. The principal ones are three in number (27 to 29). The first of them (table 27) deals with deaths from the *pulmonary* form of the disease only and it is necessary to stress that the figures in the third column (rates per 1,000) do not represent the tuberculosis death rate. They represent the *phthisis* death rate. (The tuberculosis death-rate is set out in table 28). It may well be asked what is the point in recording figures which do not constitute a recognised statistical rate. The principal justification is that these figures represent a definite *trend* in this area and since they go very much further back than those in table 27 they are of value.

Table 27.—Deaths and Death Rates *Pulmonary* Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1891	295	3.93	1921	125	1.64
1892	303	4.04	1922	176	2.30
1893	314	4.18	1923	130	1.64
1894	296	3.94	1924	164	2.09
1895	261	3.48	1925	134	1.71
1896	299	3.98	1926	126	1.60
1897	260	3.46	1927	129	1.60
1898	283	3.77	1928	109	1.39
1899	320	4.26	1929	141	1.79
1900	281	3.74	1930	114	1.45
1901	289	3.80	1931	124	1.56
1902	287	3.79	1932	111	1.40
1903	279	3.67	1933	106	1.35
1904	352	4.63	1934	104	1.34
1905	294	3.86	1935	115	1.46
1906	261	3.43	1936	85	1.06
1907	278	3.65	1937	96	1.20
1908	245	3.22	1938	99	1.21
1909	264	3.47	1939	86	1.06
1910	233	3.06	1940	96	1.17
1911	252	3.29	1941	86	1.12
1912	231	3.01	1942	106	1.38
1913	202	2.62	1943	107	1.38
1914	231	3.01	1944	118	1.56
1915	211	2.88	1945	86	1.13
1916	189	2.46	1946	79	1.04
1917	202	2.63	1947	126	1.67
1918	187	2.43	1948	81	1.07
1919	156	2.04	1949	69	0.90
1920	159	2.07	1950	66	0.87

In table 28 the combined figures for pulmonary and non-pulmonary deaths are set out. The combined rate represents the figure generally utilised for comparative purposes.

FIG. V.—PULMONARY TUBERCULOSIS. DEATH RATES FROM 1891 TO PRESENT YEAR



1870

1871

1872

1873

1874

1875

1876

1877

1878

Table 28.—Combined Deaths and Death rates from *Pulmonary and Non-Pulmonary Tuberculosis*.

Year	Pulmonary Deaths	Non-pulmonary Deaths	Total	Rate per 1,000 pop.
1906	261	81	342	4.49
1907	278	84	362	4.74
1908	245	93	338	4.42
1909	264	78	342	4.47
1910	233	75	308	4.01
1911	252	73	325	4.23
1912	231	71	302	3.92
1913	202	79	381	3.64
1914	231	79	310	4.02
1915	211	72	383	3.66
1916	189	69	258	3.33
1917	202	78	280	3.61
1918	187	75	262	3.37
1919	156	58	214	2.75
1920	159	46	205	2.64
1921	125	34	159	2.03
1922	176	39	215	2.75
1923	130	32	162	2.05
1924	164	32	196	2.50
1925	134	31	165	2.10
1926	126	46	172	2.18
1927	129	35	164	2.08
1928	108	29	138	1.74
1929	141	17	158	2.00
1930	117	25	142	1.78
1931	124	46	170	2.13
1932	111	45	156	1.95
1933	106	19	125	1.56
1934	107	21	128	1.59
1935	115	29	144	1.78
1936	85	20	105	1.29
1937	96	24	120	1.48
1938	99	13	112	1.38
1939	86	14	100	1.23
1940	96	29	125	1.54
1941	86	20	106	1.38
1942	106	18	124	1.57
1943	107	23	130	1.69
1944	118	27	145	1.92
1945	86	29	115	1.52
1946	79	22	101	1.34
1947	126	21	147	1.95
1948	81	16	97	1.15
1949	69	14	83	1.10
1950	66	11	77	1.00

The figures for *non-pulmonary* tuberculosis are set out in table 29. It will be noted that they do not extend farther back than 1906, which is the earliest year for which figures for this form of the disease are available. On the other hand figures for *pulmonary* tuberculosis go back to 1891.

Table 29.—Deaths and Death Rates from *non-pulmonary* Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1906	81	1.06	1929	17	0.21
1907	84	1.10	1930	25	0.31
1908	93	1.08	1931	46	0.57
1909	78	1.02	1932	35	0.44
1910	75	0.97	1933	20	0.24
1911	73	0.95	1934	21	0.25
1912	71	0.92	1935	29	0.36
1913	79	1.02	1936	20	0.25
1914	79	1.02	1937	24	0.29
1915	72	0.93	1938	13	0.16
1916	69	0.89	1939	14	0.17
1917	78	1.00	1940	29	0.35
1918	75	0.96	1941	20	0.26
1918	58	0.74	1942	18	0.24
1920	46	0.59	1943	23	0.30
1921	34	0.43	1944	27	0.35
1922	39	0.50	1945	29	0.38
1923	32	0.40	1946	22	0.29
1924	32	0.40	1947	21	0.29
1925	31	0.39	1948	16	0.21
1926	46	0.58	1949	14	0.17
1927	35	0.44	1950	11	0.10
1928	29	0.36			

The selective effect of age on mortality from pulmonary tuberculosis has been as marked as in previous years. An attempt has been made to present this feature in the tables which follow. In table 30 we note that the figures for a period of twenty five years yield a total of 2,564 deaths which have been sub-divided into age and sex-groups and which exhibit a slight excess of males over females (1,349 as compared with 1,215). There is a very steep rise in mortality after the 15 year group has been passed, with a further increase in 25/35 group, a slight decline in the 35/45 group, and then a sharp decline. This is a fairly typical picture and we note too that at all ages from 15 to 35 years there is a definite excess of female deaths. Thereafter there is a substantial excess in the number of male deaths. It is necessary to repeat the remarks made in previous reports that, in regard to this table, it has to be observed that there are certain discrepancies as compared with other tables in the report, particularly tables 27 to 29 inclusive, which may need explanation.

In table 30 the figures from 1926 to 1936 inclusive are taken from the Annual Reports of the Registrar-General for the appropriate years. Before 1929 the figures in tables 27 and 29 are taken from the records of this Department over a great number of years (see table 13). From 1937 onwards the figures are taken from the records of deaths compiled in the Department itself from the District Registrar's weekly returns. With the exception of one or two years the discrepancies are not very great and since the main object of such tables is to display the *trend* of deaths the conclusions which may be drawn from them are not vitiated to any material extent. Similar observations apply to table 31 in which deaths from non-pulmonary tuberculosis are arranged into age and sex

Table 30.—Deaths from *Pulmonary Tuberculosis* distributed according to sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1926-30	M	299	2	6	7	61	71	80	47	17	8
	F	325	—	6	16	75	96	67	38	18	9
1931-35	M	283	1	2	3	43	77	76	57	20	4
	F	272	1	2	10	72	80	54	36	15	3
1936	M	48	—	—	2	7	11	15	8	5	—
	F	34	—	1	—	6	8	7	5	6	1
1937	M	56	—	—	—	9	10	14	13	8	2
	F	40	—	—	2	10	9	10	4	5	—
1938	M	61	—	—	—	12	12	13	17	4	3
	F	38	—	—	—	4	15	10	7	2	—
1939	M	53	—	—	1	10	6	13	16	6	1
	F	33	—	—	2	11	4	6	6	4	—
1940	M	48	—	—	—	12	9	10	9	8	—
	F	48	1	—	—	12	13	14	4	2	2
1941	M	46	—	—	—	8	11	12	9	6	—
	F	42	—	—	—	5	10	14	9	4	—
1942	M	61	—	—	1	9	13	12	16	5	5
	F	45	—	—	1	17	10	7	6	4	—
1943	M	61	—	1	—	4	15	14	14	9	4
	F	46	—	—	2	15	10	8	3	6	2
1944	M	61	—	1	—	12	9	16	11	7	5
	F	57	1	—	1	13	20	8	4	8	2
1945	M	45	—	1	1	7	9	8	8	7	4
	F	41	—	—	2	6	15	7	6	1	4
1946	M	44	—	—	2	1	4	12	15	6	4
	F	35	—	—	3	10	7	9	3	2	1
1947	M	60	1	2	1	7	7	13	15	10	4
	F	66	—	—	2	16	16	16	8	4	4
1948	M	51	—	—	—	5	14	10	15	5	2
	F	30	—	1	—	7	8	8	3	1	2
1949	M	31	1	—	—	4	4	5	11	4	2
	F	38	—	2	3	7	9	4	8	5	—
1950	M	41	—	—	—	4	4	11	6	13	3
	F	25	—	—	—	3	11	2	3	4	2
Totals	M	1349	5	13	18	215	286	334	287	140	51
	F	1215	2	12	44	289	341	251	153	91	32
Persons		2564	7	25	62	504	627	585	440	231	83

groups except that in this case all are compiled from the District Registrar's returns and accordingly may be said to represent the facts with a reasonable degree of accuracy. In the case of *non-pulmonary* tuberculosis, however, it is necessary to advert to the fact that there is reason to doubt the accuracy of some of the returns. The principal factor in *non-pulmonary* deaths is meningitis and it has been the practice to classify deaths under this heading as due to tuberculosis only when the certifying physician specifies "tuberculosis meningitis."

The causes of the increased deaths noted in previous years were again examined. So far as the figures for the current year are concerned little can be added to the remarks made in the appropriate reports. Once again the great bulk of deaths occur in the age group between 15 and 45 years. This tendency has prevailed for many years as will be seen in table 30. The actual figures for the last twelve years, are as follows. These figures refer to *pulmonary* deaths only.

	15/25	25/35	35/45	45/55	55/65
1937	19	19	24	17	13
1938	16	27	23	24	6
1939	21	10	19	22	10
1940	24	22	24	13	10
1941	13	21	26	18	10
1942	26	23	19	22	9
1943	19	25	22	17	15
1944	25	29	24	15	15
1945	13	24	15	14	8
1946	11	11	21	18	8
1947	23	23	29	23	14
1948	12	22	18	18	6
1949	11	13	9	19	9
1950	7	15	13	9	17

In the following table these age-groups have been sub-divided into the sexes :-

Year	15/25		25/35		35/45		45/55		55/65	
	M	F	M	F	M	F	M	F	M	F
1940	12	12	9	13	10	14	9	4	8	2
1941	8	5	11	10	12	14	9	9	6	4
1942	9	17	13	10	12	7	16	6	5	4
1943	4	15	15	10	14	8	14	3	9	6
1944	12	13	9	20	16	8	11	4	7	8
1945	7	6	9	15	8	7	8	6	7	1
1946	1	10	4	7	12	9	15	3	6	2
1947	7	16	7	16	13	16	15	8	10	4
1948	5	7	14	8	10	8	15	3	5	1
1949	4	7	4	9	5	4	11	8	4	5
Average	6.9	10.8	9.5	11.8	11.2	9.5	12.3	5.4	6.7	3.7
1949	4	3	4	11	11	2	6	3	13	4

Table 31.—Deaths from *non-pulmonary* Tuberculosis arranged into sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1932	M	22	5	5	2	5	1	2	2	—	—
	F	13	—	1	1	2	4	1	2	2	—
1933	M	11	1	4	1	2	1	1	—	1	—
	F	9	3	1	4	—	—	—	1	—	—
1934	M	8	—	4	—	1	—	2	1	—	—
	F	13	2	4	1	2	2	1	1	—	—
1935	M	14	1	4	2	2	1	3	1	—	—
	F	15	—	4	4	—	2	4	—	1	—
1936	M	13	1	4	2	—	2	2	—	2	—
	F	7	3	1	—	2	—	1	—	—	—
1937	M	13	2	3	1	2	1	1	—	2	1
	F	11	—	3	2	1	2	1	—	—	2
1938	M	5	—	1	1	1	1	—	1	—	—
	F	8	—	2	2	—	—	2	—	—	2
1939	M	9	—	5	—	1	1	—	2	—	—
	F	5	—	4	—	1	—	—	—	—	—
1940	M	14	—	6	3	1	2	—	2	—	—
	F	15	3	2	3	1	1	1	2	1	1
1941	M	11	1	1	3	2	3	1	—	—	—
	F	9	1	2	1	2	—	1	—	—	2
1942	M	8	1	3	1	—	1	—	1	—	1
	F	11	2	3	1	2	—	—	1	1	1
1943	M	13	3	4	1	4	1	—	—	—	—
	F	10	—	5	2	1	—	1	—	—	1
1944	M	10	2	6	1	—	—	—	—	—	1
	F	17	2	4	4	1	—	1	2	2	1
1945	M	19	2	5	6	3	1	—	—	1	1
	F	10	1	2	3	3	—	—	—	—	1
1946	M	12	2	3	3	—	—	1	—	3	—
	F	10	—	2	1	2	2	—	2	1	1
1947	M	12	1	2	4	1	1	1	—	—	2
	F	9	—	1	—	2	2	—	—	2	2
1948	M	9	—	5	1	2	—	—	1	—	—
	F	7	1	3	—	2	—	1	—	—	—
1949	M	3	1	1	1	—	—	—	—	—	—
	F	11	3	2	4	—	1	—	—	—	1
1950	M	6	1	5	—	—	—	—	—	—	—
	F	5	—	1	3	—	—	—	—	1	—
Totals	M	212	24	71	33	27	17	14	11	9	6
	F	195	21	47	36	24	16	15	11	10	15
Persons		407	45	118	69	51	33	29	22	19	21

An examination of the causes of the 11 deaths attributed to non-pulmonary tuberculosis yields the following figures.

Tuberculous meningitis ...	...	7
Bones and joints ...	...	2
Abdominal disease ...	...	2

Table 32.—Classification of Deaths from non-pulmonary Tuberculosis.

Cause of Death	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Totals
Meningitis ...	9	10	10	12	10	12	8	6	15	9	10	16	11	15	7	12	12	11	7	202
Peritonitis	4	4	—	3	3	2	—	3	7	2	2	2	1	4	6	1	—	1	1	46
Bones and Joints	4	3	2	4	4	4	2	1	2	5	1	1	7	4	7	6	1	2	2	62
Genito-urinary ...	3	1	1	1	—	—	—	1	2	2	2	—	—	2	1	1	—	—	—	17
Abdominal ...	4	—	—	3	2	2	—	1	—	1	1	1	2	2	—	1	3	—	1	24
Generalised Tuberculosis ...	6	1	5	3	—	1	2	1	—	1	1	—	2	1	—	—	—	—	—	24
Glands ...	—	1	2	—	1	1	—	—	1	—	—	1	—	1	—	—	—	—	—	8
Addison's Disease	—	—	1	2	—	2	—	1	1	—	2	—	2	—	—	—	—	—	—	11
Skin ...	2	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	—	—	—	5
Miscellaneous ...	3	—	—	1	—	—	—	—	—	—	—	1	2	—	1	—	—	—	—	8
Totals ...	35	20	21	29	20	24	13	14	29	20	19	23	27	29	22	21	16	14	11	407

Tuberculous meningitis is almost invariably of human origin. With the exception of glandular disease and, possibly, abdominal tuberculosis most of the conditions listed in table 32 may be said to be of haematogenous origin and due, in the first instance, to pulmonary infection of human origin, it would seem clear therefore that the control of the human carrier or case must be the prime consideration in the attack on tuberculosis.

Table 33.—Non-pulmonary tuberculosis. Analysis of certified deaths, shewing same distributed into sex and age-groups, from 1932 to 1950 (inclusive).

Cause of Death	Sex	All Ages	Under 1 Yr.	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
Meningitis ...	M	103	14	50	18	15	3	2	1	—	—
	F	101	15	37	27	11	6	3	1	—	1
Peritonitis ...	M	26	4	10	5	2	1	3	—	1	—
	F	19	2	4	3	1	1	4	1	—	2
Bone and Joint ...	M	27	—	2	5	4	4	4	1	5	2
	F	35	—	1	7	6	5	2	2	5	7
Genito-urinary ...	M	13	—	—	—	1	4	3	3	1	1
	F	4	—	—	—	—	1	1	2	—	—
Abdominal ...	M	11	—	4	1	1	2	—	2	1	—
	F	12	3	2	—	1	1	1	—	2	1
Generalised Tuberculosis ...	M	16	3	4	2	3	2	2	—	—	1
	F	8	1	1	—	2	2	1	1	1	—
Supra-renal Gland	M	6	—	—	—	1	1	—	2	1	1
	F	6	—	—	—	—	—	1	2	1	2
Miscellaneous ...	M	8	3	1	1	—	—	—	2	—	1
	F	12	—	2	—	3	—	2	2	1	2
TOTALS	M	210	24	71	32	27	17	14	11	9	6
	F	197	21	47	37	24	16	15	11	10	15
PERSONS		407	45	118	69	51	33	29	22	19	21

Table 34.—Proportion of Deaths from Tuberculosis (*all forms*) to Deaths from all causes in 1950.

Age Group	No. of Deaths (all causes)	Deaths from Tuberculosis	Proportion
0/1	81	1	1.2 per cent.
1/5	17	6	35.3 " "
5/15	11	3	27.2 " "
15/25	16	7	43.7 " "
25/35	30	15	50.0 " "
35/45	42	13	31.0 " "
45/55	71	9	12.6 " "
55/65	180	18	10.0 " "
65 and over	556	5	0.9 " "
Totals	1004	77	7.6 " "

This table was computed for the first time for the year 1945. The periods covered are too short to institute any useful comparison. Some points do emerge. In the first place it would appear that the proportions are subject to considerable fluctuation from year to year in the various age-groups and secondly that the proportion of deaths from tuberculosis to all deaths has been tending, for many years, to fall. In the quinquennium 1906-1910 the ratio was over 20 per cent. It has fallen steadily from that time. The ratio for the past five years is shewn in the following table :—

Age Groups	Ratio of Deaths from Tuberculosis to all Deaths (expressed as percentages).					
	1945	1946	1947	1948	1949	1950
0 / 1	1.9	1.8	1.2	1.1	3.8	1.2
1 / 5	34.7	20.8	22.7	34.7	19.2	35.3
5 / 15	46.1	52.9	41.1	15.3	40.0	27.2
15 / 25	54.3	44.8	74.2	59.2	61.1	43.7
25 / 35	62.5	36.1	60.4	64.7	46.6	50.0
35 / 45	30.0	32.8	40.5	30.5	21.9	31.0
45 / 55	14.1	21.2	20.5	19.2	22.3	12.6
55 / 65	4.9	6.6	17.7	11.2	5.7	10.0
65 and over	2.4	2.4	19	1.5	2.3	0.9
Totals	10.4	9.7	11.5	9.7	7.9	7.6

In 1893 the number of recorded deaths from *pulmonary* tuberculosis was 17 per cent. of the total deaths and excepting the year 1904 when the ratio rose to 21.4 per cent., it fell more or less steadily to minima of 6.8 per cent. in 1937 and 6.9 per cent. in 1941. Apart from the year 1893, there were three occasions on which the ratio either reached or slightly exceeded 17 per cent. These were the years 1905-07 inclusive. During 1938-40 the ratio was slightly over 8 per cent. and again in the war years from 1942 to 1944. When computing this ratio in the case of deaths from *all forms* of tuberculosis a picture was produced which differs only in detail from that of the *pulmonary* form of the disease. As mentioned above combined figures are available only from 1906 and in that year the highest ratio (25.3 per cent. was recorded) the lowest ratio (8.55 per cent.) was attained in 1937 and 1941.

The findings presented in these two tables represent the proportion of all deaths occurring which are due to tuberculosis, but they do not tell us the exact risk to which each age-group is exposed. Much, of course, depends on the number of persons in each group and it remains but to work out the actual death-rate in the individual groups by comparing the number of deaths with the number of persons in each group. This was first done in the 1945 report, the various rates being computed in the population in the different age-groups as set out in the Register of Population, 1941. The following table was compiled from the age and sex grouping set out in the Census Report for 1946 and shows the death-rate from tuberculosis in the various groups.

Table 35.—Deaths from Tuberculosis (all forms) divided into age and sex groups with the rates per 1,000 in each group, for the year 1950 :—

Age Group	MALES			FEMALES			PERSONS		
	Num- ber in Group	Deaths	Rate per 1,000	Num- ber in Group	Deaths	Rate per 1,000	Num- ber in Group	Deaths	Rate per 1,000
0/1	903	1	1.11	786	0	—	1689	1	0.59
1/5	2830	5	1.77	2778	1	0.36	5608	6	1.07
5/15	6993	0	—	7025	3	0.43	14,081	3	0.21
15/25	6168	4	0.65	7095	3	0.42	13,263	7	0.53
25/35	4550	4	0.88	6279	11	1.75	10,829	15	1.38
35/45	3156	11	3.48	5208	2	0.38	9364	13	1.39
45/55	3397	6	1.77	4972	3	0.48	7761	9	1.16
55/65	2740	13	4.74	3618	5	1.38	6358	18	2.83
65 and over	2803	3	1.07	4902	2	0.41	6709	5	0.75
<i>Totals</i>	34,535	47	1.36	41,060	30	0.73	75,595	77	1.02

Table 36.—Deaths from tuberculosis (all forms) expressed as rates per 1,000 in each of the age-groups represented. From 1943 the figures are based on the Register of Population 1941, and from 1946 on the Census of Population, 1946.

Age Group	1943	1944	1945	1946	1947	1948	1949	1950	Average Figures
0-1	1.92	3.25	1.95	1.18	1.18	0.59	2.96	0.59	2.15
1-5	1.67	1.84	1.34	0.89	0.89	1.60	0.88	1.07	1.20
5-15	0.35	0.42	0.84	0.64	0.50	0.07	0.57	0.21	0.45
15-25	1.76	1.83	1.39	0.98	1.96	1.96	0.83	0.53	1.40
25-35	2.26	2.61	2.17	1.20	2.40	2.03	1.29	1.38	1.92
35-45	2.42	2.62	1.57	2.39	3.11	2.18	0.96	1.39	2.08
45-55	2.23	2.23	1.84	2.58	2.96	2.45	2.45	1.16	2.24
55-65	2.26	2.57	1.36	1.89	2.52	0.94	1.41	2.83	1.97
65-over	1.03	1.32	1.59	0.89	1.49	0.60	0.45	0.75	1.01

These figures were computed by taking the number of deaths in each group and comparing them with the total number of persons in that group and calculating at rates per 1,000.

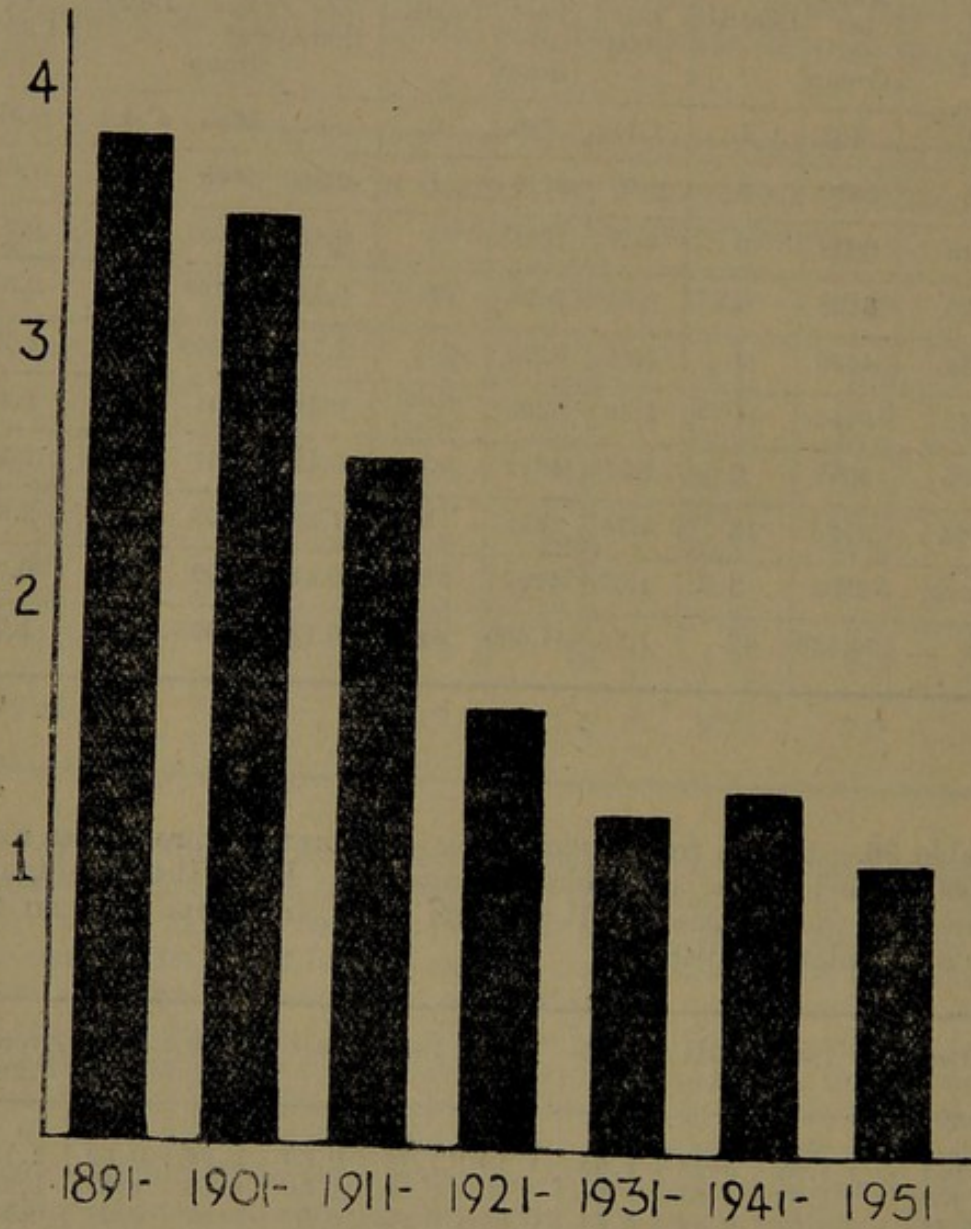


FIG. VI—PULMONARY TUBERCULOSIS. DEATH RATES EXPRESSED AS DECENNIAL AVERAGES.

TUBERCULIN SURVEY.

The Cork Branch of the Irish Red Cross Society undertook a survey of the City Schools in order to ascertain the status of the children in regard to the tuberculin test. The findings of this enquiry were duly reported in the *Irish Journal of Medical Science*, April, 1947, in which appeared a full account of the method employed and the results obtained. A resume of the article was published in this Report for last year. The following table is preserved for record purposes. The figures are of some considerable interest.

Table 37.—Cork City. Results of Tuberculin Test—1944-46.

Age Group	Number Tested	Positive	Negative	Proportion Positive
0 - 4 years	35	11	24	31.4 per cent
4 - 5 "	201	77	124	38.3 "
5 - 6 "	481	213	268	44.3 "
6 - 7 "	737	398	339	54.0 "
7 - 8 "	819	507	312	61.9 "
8 - 9 "	918	601	317	65.5 "
9 - 10 "	823	549	274	66.7 "
10 - 11 "	863	609	254	70.6 "
11 - 12 "	822	627	195	76.3 "
12 - 13 "	743	575	168	77.4 "
13 - 14 "	625	507	118	81.1 "
14 - 15 "	201	164	37	81.6 "
15 - 16 "	44	38	6	86.4 "
16 - 17 "	8	7	1	87.5 "
Totals	7,320	4,883	2,437	66.7 "

By themselves the figures are not so valuable, they indicate the proportion of our children who have been exposed to infection. It remains to be seen whether this proportion is unduly high in comparison with other areas because, if so, it would clearly shew that the incidence of the disease itself was also unduly high. In the following table such a comparison is made.

Year	City	Number Tested	Proportion Positive
1944-46	Cork	7320	66.7 per cent.
1926	Philadelphia	2678	61.0 "
1930-31	London	1003	40.8 "
1930-32	New York	8045	19.2 "
1925-26	S. Francisco	3500	24.6 "
1930-31	Chicago	1000	14.4 "

Figures, other than those for Cork, are from *Pulmonary Tuberculosis* (Kayne, Pagel and O'Shaughnessy, 1939, p.530).

The figures cited indicate a definitely high proportion of positive reactors in this area, from which we must infer a correspondingly high proportion of open cases of tuberculosis. It may also be inferred that practically all, if not actually all, of these actively infecting cases are suffering from the pulmonary form of the disease. We have no comparable figures to indicate our position in relation to other urban areas in this country. Such information would be valuable. It would show, for example whether Cork presents certain features in regard to tuberculosis different from the remainder of the country and whether special efforts should be made here to deal with them.

Table 38.—Tuberculosis (all forms). Comparative Statement of annual death rates.

Year	Éire	Cork	Dublin	Limerick	Waterford
1936	1.17	1.29	1.59	1.40	1.57
1937	1.23	1.48	1.59	1.49	1.57
1938	1.09	1.38	1.47	1.10	1.32
1939	1.13	1.23	1.48	1.27	1.25
1940	1.25	1.54	1.63	2.05	1.43
1941	1.24	1.38	1.58	1.58	1.40
1942	1.47	1.57	1.90	2.12	1.65
1943	1.46	1.69	1.84	1.95	1.86
1944	1.34	1.92	1.60	2.10	1.40
1945	1.20	1.52	1.60	1.80	1.80
1946	1.10	1.34	1.50	2.00	1.80
1947	1.20	1.95	1.60	1.80	1.80
1948	1.04	1.15	1.30	1.10	1.60
1949	0.9*	1.10	1.00*	1.50*	0.80*
1950	0.8*	1.00	0.90*	1.00*	1.70*

*These figures are taken from the *Annual Summary* of the Registrar General and are subject to correction.

NOTIFICATIONS.

The number of notifications received during the year was 163. Prior to 1930 such notifications were for the period from the 1st April to 31st March following. Notifications for previous years were as follows :

1925-26	...	110	1938	...	147
1926-27	...	108	1939	...	128
1927-28	...	73	1940	...	114
1928-29	...	116	1941	...	173
1929-30	...	179	1942	...	159
1930 (April-Dec.)	...	133	1943	...	173
1931	...	196	1944	...	161
1932	...	136	1945	...	169
1933	...	164	1946	...	183
1934	...	112	1947	...	183
1935	...	154	1948	...	174
1936	...	154	1949	...	163
1937	...	166	1950	...	195

Table 39.—Notifications of Tuberculosis distributed according to Sex and Age.

Year	Total	Sex	All Ages	Under 5 yrs	5-15	15-45	45-60	60 and up
1930	133	M	77	4	11	50	11	1
		F	56	5	11	37	2	1
1931	196	M	114	9	24	64	15	2
		F	82	7	19	53	3	—
1932	136	M	71	5	11	42	11	2
		F	65	1	6	48	7	3
1933	159	M	89	5	10	59	14	1
		F	70	5	8	48	8	1
1934	112	M	43	1	6	26	9	1
		F	69	4	10	41	9	5
1935	154	M	83	7	14	43	14	5
		F	71	5	15	40	7	4
1936	154	M	76	9	10	33	16	8
		F	78	3	12	55	6	2
1937	166	M	91	5	10	47	25	4
		F	75	2	10	52	5	6
1938	147	M	78	4	6	52	15	1
		F	69	4	10	49	5	1
1939	128	M	60	5	9	33	10	3
		F	68	3	3	54	6	2
1940	114	M	56	1	6	35	14	—
		F	58	5	4	41	6	2
1941	173	M	90	8	13	48	19	2
		F	83	8	14	51	7	3
1942	159	M	80	8	13	43	16	—
		F	79	3	18	48	6	4
1943	173	M	83	1	14	45	14	9
		F	90	1	10	66	10	3
1944	161	M	76	2	10	83	16	10
		F	85	6	18	50	3	8
1945	169	M	78	6	15	38	16	3
		F	91	7	14	56	6	8
1946	183	M	89	3	18	46	13	9
		F	94	5	11	71	6	1
1947	183	M	87	8	16	39	18	6
		F	96	7	13	60	13	3
1948	174	M	86	2	13	54	14	3
		F	88	9	14	57	4	4
1949	163	M	98	9	18	57	7	7
		F	65	4	16	37	6	2
1950	195	M	95	18	19	34	17	7
		F	100	7	16	66	8	3

SPUTUM EXAMINATIONS.

Examination of specimens of sputum is carried out in the laboratory attached to the Tuberculosis Clinic. 568 such specimens were examined during the past year, of which 153 were found to contain tubercle bacilli while 415 were negative. Of the 568 specimens examined 86 were submitted by medical practitioners. The following table shows the number of specimens examined, and the results obtained since 1931.

Year	Total	Positive	Negative
1931	375	90	285
1932	440	94	346
1933	502	118	384
1934	519	121	398
1935	512	94	418
1936	467	93	374
1937	511	73	438
1938	336	49	287
1939	228	51	177
1940	336	88	248
1941	276	68	208
1942	295	81	214
1943	277	61	216
1944	325	67	258
1945	321	87	234
1946	325	116	209
1947	435	121	314
1948	392	106	286
1949	380	114	266
1950	568	153	415
Totals ...	7820	1875	5975

Where tubercle bacilli exist in very small numbers the usual direct examination of specimens may not be sufficient to demonstrate their presence and a more elaborate technique becomes necessary. This technique consists of digestion of the specimen (with caustic soda) in an incubator at body temperature, centrifugalisation, neutralisation of the deposit and culture on a selective growth medium. The medium we are using at present is Lowenstein's. A typical culture appears in three to four weeks. Cultural methods, with other lines of investigation, are demanded when we wish to find out that arrest of disease has taken place and this method along with animal inoculation must be regarded as the supreme test of active tuberculous infection. All the examinations recorded in the above table were made by the ordinary routine Ziehl-Nielson staining method. The newer method of examining for tubercle bacilli was used by us for the first time in 1945. 291 specimens were dealt with during the past year of which 62 were positive.

Table 40.—Numbers and Results of *Cultural Examinations* of Sputum.

Year	Number	Positive	Negative
1945	30	3	27
1946	53	14	39
1947	32	2	30
1948	30	4	26
1949	94	16	78
1950	291	62	229

CLASSIFICATION OF NEW CASES.

As in former years the new cases dealt with at the Tuberculosis Dispensary who presented signs of advanced disease was disproportionately high. 15 per cent. of such were found to be in Stage III. and 59 per cent. in Stage II. ; in other words, no less than 71 per cent. of the new cases were suffering from definitely established disease recognisable by ordinary clinical methods. These figures are similar to those of former years and must be regarded with considerable dissatisfaction, as little or nothing can be done in regard to the treatment of such advanced cases apart from palliative methods. The main factor in the production of this state of affairs appears to be the failure of patients to seek treatment sufficiently early.

At a conference of Tuberculosis officers held in Dublin in November 1944, a new method of classification was adopted according to which cases were graded, in the first instance, into those in which tubercle bacilli could not be detected in the sputum and those who had positive sputum. The latter are further subdivided into grades corresponding to those previously recognised. According to the new classification the stages found on the examination of new cases were as follows :—

	1950	1949	1948	1947	1946	1945	1944
Sputum Negative ...	3	7	8	7	10	13	20 %
Sputum Positive—Stage I.	23	7	15	12	3	4	4 „
„ „ Stage II.	59	46	74	40	40	34	12 „
„ „ Stage III.	15	40	30	41	47	49	64 „

The fact that 3% of the new cases were classified as sputum negative does not necessarily mean that all these were good cases for treatment or that the disease was of little extent. While specimens from some were examined and found negative others had no sputum for investigation. Treatment is not withheld from patients who come under this category for the diagnosis can usually be clearly established by other methods of approach. The examination of the sputum remains, however, the most valuable aid we possess in the diagnosis of the disease, the estimation of risks to which contacts are exposed and the assessment of progress of the patient.

The cases reported as sputum negative were made up of :—

- Cases of tuberculous pleural effusion.
- Cases who came on transfer under our scheme after treatment elsewhere.

- (c) Cases who had X-Ray evidence of infiltration in which there was doubt whether complete arrest had taken place, and
- (d) Cases of advanced disease of a miliary type.

In all these categories but the last the probable behaviour of the disease is regarded at the outset as favourable. (a) Tuberculous pleural effusion needs the rigorous care that all cases of pulmonary tuberculosis require. (b) Cases who come under treatment to us with a negative sputum and a history of treatment elsewhere are regarded as quiescent and if treatment is persevered in there is every prospect of final arrest of the disease. These cases have shewn a favourable response to treatment and immunity to the disease is becoming established. (c) The third category requires careful review. They represent the type of case that may be uncovered by the mass radiological survey of healthy groups and it is the business of the tuberculosis officer to decide whether these cases are active or not. (d) The miliary group represents a condition of widespread disease in the body. The lungs are involved with other organs in a blood borne dissemination which arises as a result of an escape of a lethal dose of bacilli into the blood stream. These cases may die of intense toxæmia before the lung lesions break down to excrete the organisms.

The following table, which is introduced for comparative purposes, gives the corresponding proportions for previous years.

Table 41.—Showing the proportion of early, moderately advanced and advanced cases attending the Tuberculosis Clinic for the first time (1930 to 1943).

TYPE	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Stage I. (Early)	15%	8%	9%	6%	14%	13%	6%	9%	5%	8%	6%	3%	4%	9%
Stage II. (Moderately Advanced)	36%	50%	38%	39%	28%	30%	43%	38%	33%	32%	44%	46%	34%	44%
Stage III. (Advanced)	49%	42%	53%	55%	58%	57%	51%	53%	62%	60%	50%	51%	62%	47%

COLLAPSE THERAPY.

Ten new cases received Artificial Pneumothorax and Two cases Artificial Pneumo Peritoneum. These cases had their inductions carried out at Heatherside Sanatorium by the Resident Medical Staff.

Thirteen cases are having refills and management at the Tuberculosis Clinic.

The number of cases treated during the year was 23. 400 refills were given.

X-RAY EXAMINATION

All the cases that come for chest examination are screened. 756 films for cases attending the dispensary were obtained on the recommendation of the tuberculosis officer.

Screen examinations of the lungs are made :—

- (1) To define the extent of lung involvement by disease.
- (2) To observe the progress of cases undergoing artificial pneumothorax treatment.
- (3) To help in the examination of those who have been in contact with tuberculosis patients.

The number of screen examinations made during the year was 1032.

Year	X-ray Examinations	Screen Examinations
1943	88	253
1944	71	643
1945	92	952
1946	98	881
1947	74	931
1948	89	888
1949	268	956
1950	756	1032

The average number of X-ray examinations carried-out each year from 1930 to 1942 was 98.

ADMINISTRATION.

The routine administrative work of the Tuberculosis Dispensary is summarised in the following paragraphs.

New cases examined :

Adults	.....	422
Children	.....	366
Total	.....	788

New cases found to be suffering from tuberculosis :

Adults	.....	130
Children	.....	44
Total	.....	174

INSTITUTIONAL TREATMENT.

In the tables which follow statistical details are given of the various institutions which have been utilised for the treatment of our cases during the past year. Early and moderately early cases of pulmonary disease have, almost all, been referred to the Cork Sanatorium at Heatherside.

Table 42.—Particulars of Institutional Treatment afforded during the Year.

	Under treatment 1st Jan., 1950	New Cases Admitted during 1950	Discharged during 1950	Under treatment 31st Dec., 1950	Number of cases treated during year
SANATORIUM					
Males	41	54	53	42	95
Females	42	58	59	41	100
TOTAL	83	112	112	83	195
ST. PATRICK'S HOSPITAL					
Males	13	13	12	14	26
Females	8	40	36	12	48
Children	2	1	3	—	3
TOTAL	23	54	51	26	77
ST. JOSEPH'S HOSPT.					
Males	14	15	14	15	29
Females	9	15	17	7	24
Children	—	—	—	—	—
TOTAL	23	30	31	22	53
DISTRICT HOSPITAL					
Males	10	52	49	13	62
Females	5	22	18	9	27
Children	—	25	20	5	25
TOTAL	15	99	87	27	114
NORTH INFIRMARY					
Males	—	3	3	—	3
Females	—	3	3	—	3
Children	1	3	2	2	4
TOTAL	1	9	8	2	10
SOUTH INFIRMARY					
Males	—	9	9	—	9
Females	1	6	6	1	7
Children	2	9	8	3	11
TOTAL	3	24	23	4	27
MERCY HOSPITAL					
Children	—	2	1	1	2
VICTORIA HOSPT.					
Children	5	8	11	2	13
ST. MARY'S, CAPPAGH					
Children	4	2	4	2	6
ST. JOSEPH'S, COOLE					
Children	2	1	—	3	3
ST. RAPHAEL'S PREVENTORIUM					
Children	9	14	13	10	23
FOYNES					
.....	1	5	1	5	6

In the tables immediately following a detailed analysis is presented of the admissions to institutions over a number of years.

Table 43.—Number of Persons afforded Institutional Treatment under the Corporation Tuberculosis Scheme.

Year	Pulmonary		Non-Pulmonary		Totals		Grand Total
	Adults	Children	Adults	Children	Adults	Children	
1930	214	—	7	34	221	34	255
1931	152	—	5	45	157	45	192
1932	143	—	8	32	151	32	183
1933	136	1	12	17	148	18	166
1934	154	2	9	20	163	22	185
1935	182	1	10	32	192	33	225
1936	166	—	6	12	172	12	184
1937	197	3	—	19	197	22	219
1938	142	1	2	7	144	8	152
1939	142	—	7	11	149	11	150
1940	137	1	2	15	139	16	155
1941	142	5	6	17	148	22	170
1942	142	2	5	19	147	21	168
1943	144	—	12	20	156	20	176
1944	137	4	11	6	148	10	158
1945	130	5	9	35	139	40	179
1946	147	1	5	21	152	22	174
1947	139	2	7	34	146	36	182
1948	144	3	7	33	151	36	187
1949	122	2	13	40	135	42	177
1950	195	1	21	25	216	26	242

When this table was compiled it became apparent that there was something contradictory about the figures. Taking into consideration the greatly increased number of beds available at institutions such as the Mallow Chest Hospital, St. Colman's Hospital (Macroom) and St. Fachtna's Hospital (Skibbereen) one would naturally expect that there should be a very much greater number of admissions at the end of the table than at the beginning. The increase is not so very striking and in seeking an explanation it suggested itself that in the earlier period (when only Heatherside was available) patients remained for much shorter periods.

It was decided therefore to examine the number of patient-days spent in the institutions and the following figures (kindly supplied by Mr. D. O'Donovan, Secretary, Joint Committee of Management of the Cork Sanatoria) confirm the supposition.

Year ended 31st March	Patient days
1941	5,246
1942	6,670
1943	5,689
1944	5,459
1945	8,610
1946	8,529
1947	12,354
1948	11,241
1949	20,341
1950	32,998

These figures relate to Cork City Patients only.

In addition to the institutions referred to above it will be noted from table 40 that others are also concerned. All these institutions, with one exception, are included in table 42. The exception is the Cork District Hospital, which came directly into the Corporation Scheme for the first time in 1938. The number of persons admitted to that hospital in that and the years following is as shewn in the next table.

Table 44.—Patients admitted to Cork District Hospital for treatment of tuberculosis.

Year	Adults	Children	Total
1938	66	15	81
1939	31	6	47
1940	39	5	44
1941	34	10	44
1942	41	11	52
1943	41	10	51
1944	44	21	65
1945	48	12	60
1946	57	10	67
1947	53	13	66
1948	55	16	71
1949	10	—	10
1950	74	25	99

Table 45.—Admission of Children to St. Raphael's Preventorium (opened in 1948).

1948	.....	10
1949	.....	8
1950	.....	14

In addition, 5 children were admitted to St. Senan's Preventorium at Foynes in 1950.

Table 46.—Return of number of patients treated under the Tuberculosis Scheme, during the year ended 31st December, 1950.

	Pulmonary Tuberculosis			Non-Pulmonary Tuberculosis			Total
	Children under 15 years	Other Persons		Children under 15 years	Other Persons		
		Males	Females		Males	Females	
(i) No remaining under treatment							
(a) On 1st Jan., 1950 ...	38*	151	125	39	9	18	380
(b) on 31st Dec., 1950 ...	56†	175	173	56	16	22	498
(ii) No. of new patients treated during year ...	28‡	71	84	31	7	11	232
(iii) No of cases under observation at close of year 1950 ...	1	4	3	—	—	—	8

*Including 36 cases of primary tuberculosis.

†Including 54 cases of primary tuberculosis.

‡Including 28 cases of primary tuberculosis.

PROVISION OF EXTRA NOURISHMENT, CLOTHING, Etc.

In a Departmental letter (P.H. circular 53/43) dated 31st March, 1943, the principal provisions of which are outlined below, the Minister approved for recoupment from the National Tuberculosis Grant of:—

- Free allowance of extra nourishment in the form of eggs, butter and milk to patients while they are awaiting admission to institutions or following discharge after an approved term of institutional treatment. Allowance per patient not to exceed: $3\frac{1}{2}$ pints of milk, $\frac{1}{2}$ -lb. of butter, 7 eggs per week.
- A separate bed and, where necessary, bedding for infective patients receiving domiciliary or dispensary treatment. Expenditure by the L.A. should not exceed £4 in any one case (this amount was subsequently raised to £15).
- In the case of necessitous patients undergoing treatment in institutions, suitable clothing if such be necessary to derive the full benefit of treatment.

In table 47 are set out the number of persons who have benefitted under this scheme and the amount of money which has been expended in connection with it.

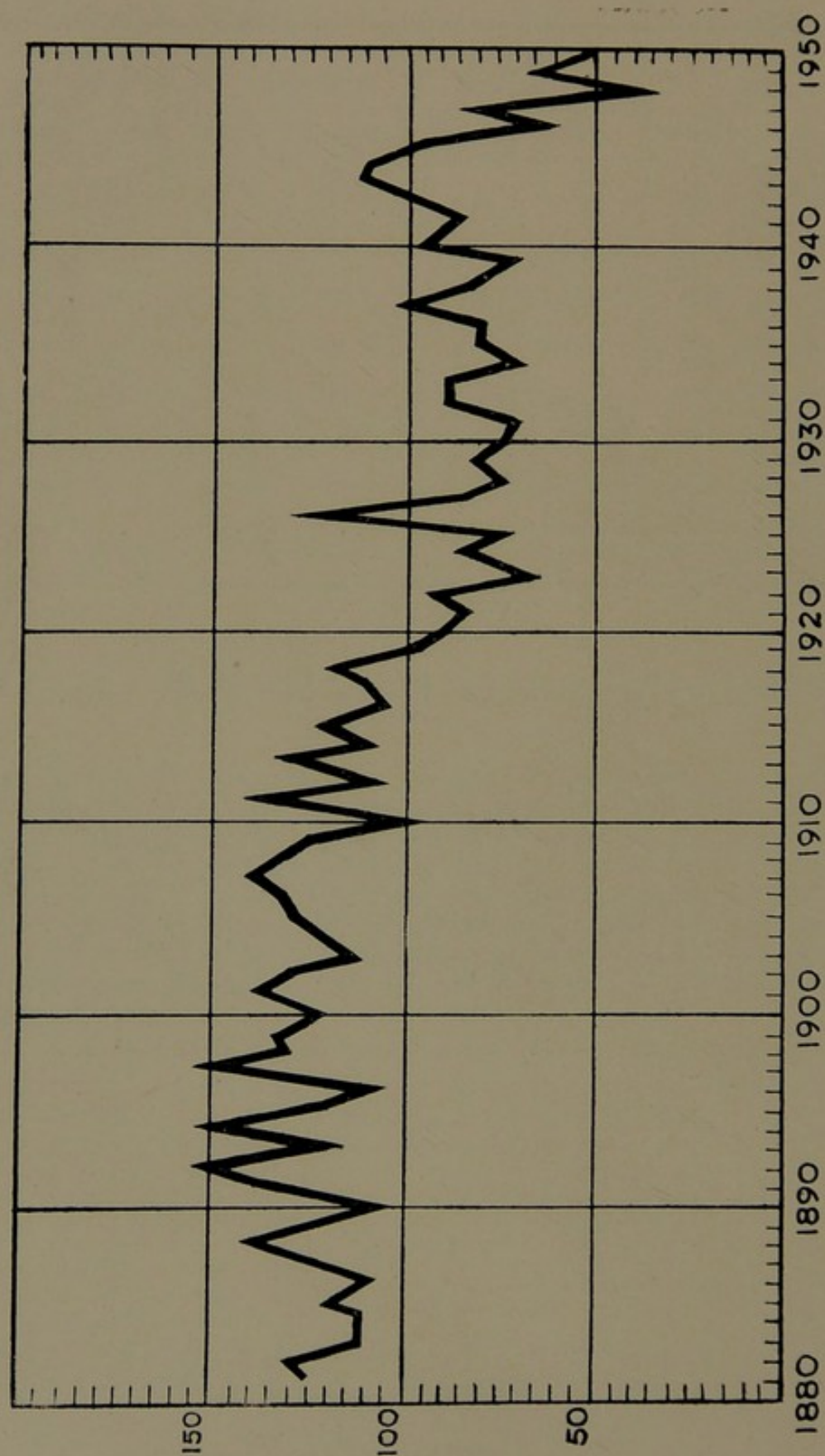
Table 47.—Provision of Extra Nourishment, Clothing, etc., in connection with the national tuberculosis grant. Particulars of persons benefitting and amount of money expended in connection with same.

Year	EXTRA NOURISHMENT		CLOTHING		BEDS AND BEDDING		TOTAL	
	Persons	Cost	Persons	Cost	Persons	Cost	Persons	Cost
		£ s. d.		£ s. d.		£ s. d.		£ s. d.
1944	67	367 17 0	73	282 13 8	6	65 12 6	146	716 3 2
1945	150	577 7 4	104	481 7 11	18	75 19 6	272	1134 14 9
1946	102	560 6 5	140	441 19 9	17	206 19 10	259	1209 6 0
1947	111	597 11 1	127	421 12 7	17	148 12 7	255	1167 16 3
1948	129	747 5 2	120	594 0 1	13	45 7 9	262	1386 13 0
1949	160	873 10 0	153	1011 9 3	14	31 6 9	327	1916 6 0
1950	181	1219 19 4	278	1146 1 0	76	167 10 6	535	2533 11 8
Tls,	900	4943 16 4	995	4379 4 3	161	741 9 5	2056	10,066 4 10

INFECTIOUS DISEASES (MAINTENANCE) REGULATIONS, 1948.

In accordance with the terms of Circular Letter No. P.H. 11/48, dated 11th February, 1948 this enactment came into force on 1st March, 1948 and from that date to 31st December following the number of beneficiaries was 174 and the amount granted was £5,456 0s. 0d. During 1949 the number of such beneficiaries was 190 and grants paid over to them amounted to the sum of £10,155 6s. 3d. In 1950 the number of recipients was 228 and the amount spent on them was £12,643 15s. 5d. During the year allowances were stopped in respect of 5 patients who resumed work.

FIG VI—INFANT MORTALITY FROM 1880 TO PRESENT YEAR



Section IV.

Maternity and Child Welfare.

(A) INFANT MORTALITY.

The number of deaths of children under one year of age amounted to 81. This is equivalent to an infant mortality rate of 50 per 1,000. The figures for last year were 131 and 68 per 1,000 respectively. The corresponding figure for the whole country (Registrar-General's Annual *Summary*—subject to correction) was 45. The principal contributory factors were as follows :—

Premature birth and congenital debility	28
Diarrhoea and Enteritis	19
Broncho-pneumonia	9
Lobar pneumonia	7
Convulsions	3
Intra cranial haemorrhage	3
Cerebro spinal meningitis	3
Marasmus	2
Tuberculous meningitis	1

Medical officers of health are sometimes looked upon as mainly administrators, and in the immediate present, when medical administration is for some reason unpopular, they may be referred to as "mere" administrators. In fact, when he can, the medical officer of health probably leaves his "mere administration" to subordinates, and concentrates upon those questions of incidence of disease, defects of environment, requisites of positive health and health education that are the work for which he needs his professional qualifications, his thorough grounding in clinical medicine, and his philosophic acumen and discrimination. He, at least, must be able to put first things first, and in so doing he may incur unpopularity as much to-day as a hundred years ago. But when things need saying, they ought to be said.

J. V. WALKER, M.O., M.R.C.P., *Jour. Roy. San. Inst. Mar. 1951.*

Table 48.—Infant Mortality, Cork City, Éire, and England and Wales from 1891.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.É
1881	124	89.4	139	1916	105	81.3	91
1882	127	94.9		1917	108	84.0	96
1883	109	95.0		1918	118	80.2	97
1884	110	91.9		1919	100	84.4	89
1885	120	91.3		1920	79	77.5	80
1886	110	93.9	145	1921	76	72.6	83
1887	123	93.6		1922	93	68.9	77
1888	139	96.0	136	1923	66	66.4	69
1889	125	92.0	144	1924	87	71.6	75
1890	106	91.6	151	1925	74	67.9	75
1891	138	91.4	149	1926	130	74.4	70
1892	150	99.9	148	1927	87	70.8	70
1893	132	99.8	159	1928	76	67.9	65
1894	150	97.4	137	1929	81	70.4	74
1895	131	98.0	161	1930	77	68	60
1896	106	91.0	148	1931	71	69	66
1897	152	104.0	156	1932	89	71	65
1898	131	105.2	160	1933	89	65	64
1899	133	103.2	163	1934	72	63	59
1900	120	105.3	154	1935	84	67	57
1901	139	95.5	151	1936	80	74	59
1902	127	95.2	133	1937	103	73	58
1903	112	92.2	132	1938	75	66	53
1904	118	95.8	145	1939	73	65	50
1905	131	90.2	128	1940	92	66	56
1906	133	88.0	132	1941	85	73	59
1907	139	88.5	118	1942	100	68	49
1908	134	91.2	120	1943	113	83	49
1909	125	87.3	109	1944	108	79	46
1910	96	89.1	105	1945	89	71	46
1911	139	91.3	130	1946	62	63	43
1912	107	82.1	95	1947	87	68	41
1913	136	93.1	108	1948	47	49	34
1914	119	81.0	105	1949	68	51	
1915	132	85.2	110	1950	50	45	

" . . . It is commonly said that the pace of life has increased, and that there is a greater strain upon the nervous system of the modern man and woman. If this be so, how can it be explained? One important reason is probably the development of the internal combustion engine, which Philip Gibbs regards as "the most destructive agent of ancient peace, present beauty and future safety." "Thirty years ago," he says, "if the schoolboy were five minutes late for his tea, his mother did not turn pale and go to her cottage door with panic in her heart. If the husbandman came home even an hour late because he had stopped for a glass of ale in the Three Horses, his wife did not expect his corpse to be brought to her on a stretcher."—K. B. NOAD, *Med. J. Aust.*, Feb. 25, 1939, p.294.

Table 49.—Infant mortality in Cork and other Irish Cities from 1920.

Year	Cork	Dublin*	Belfast†	Limerick*	Waterford*
1920	79	152	132	109	96
1921	76	143	115	113	102
1922	93	120	94	108	94
1923	66	117	101	128	78
1924	87	119	107	90	93
1925	74	117	104	91	106
1926	130	127	112	146	114
1927	87	123	101	102	83
1928	76	102	103	117	105
1929	81	106	112	118	110
1930	77	97	78	114	91
1931	71	94	90	120	92
1932	89	100	111	91	132
1933	89	83	102	126	103
1934	72	80	80	76	92
1935	84	94	112	106	126
1936	80	114	102	95	90
1937	102	102	94	68	97
1938	75	96	96	70	99
1939	73	90	86	59	73
1940	95	91	122	70	111
1941	85	118	91	95	88
1942	100	98	90	77	91
1943	113	126	111	76	100
1944	108	125	89	136	84
1945	89	111	84	88	74
1946	62	96	61	75	67
1947	87	85	60	90	77
1948	47	48	45	80	66
1949	68	95	55	75	60
1950	50	48	49	46	42

* Figures for current year obtained from *Annual Summary of Registrar-General*. Those for previous years have been corrected from figures in the *Annual Reports* of the Registrar-General for the appropriate years.

† Figures obtained from Superintendent Medical Officer of Health.

Table 50.—Deaths of infants *under one month* in Cork City and the ratio of same to the total number of infant deaths (i.e., under one year), together with the comparative figures for the whole country.

Year	CORK CITY		ÉIRE. Relation of deaths under one month to all infant deaths
	Deaths under one month	Proportion to all infant deaths	
1931	41	30.1 per cent	38.4 per cent.
1932	47	29.6 " "	35.9 " "
1933	56	33.3 " "	39.7 " "
1934	43	29.9 " "	38.7 " "
1935	39	26.2 " "	39.9 " "
1936	56	36.8 " "	40.5 " "
1937	58	31.4 " "	41.7 " "
1938	34	27.2 " "	42.4 " "
1939	47	39.8 " "	44.1 " "
1940	45	29.4 " "	42.0 " "
1941	52	30.9 " "	41.2 " "
1942	52	32.9 " "	39.5 " "
1943	91	46.4 " "	40.2 " "
1944	58	31.0 " "	41.9 " "
1945	61	39.3 " "	44.5 " "
1946	59	54.1 " "	45.5 " "
1947	68	42.5 " "	43.2 " "
1948	35	40.2 " "	46.1 " "
1949	55	42.0 " "	— " "
1950	36	44.4 " "	— " "

Table 51.—Cork City—Deaths of Infants under one year from conditions which constitute the principal causes of Infant Mortality.

Year	Number of Births Registered	DEATHS OF INFANTS UNDER ONE YEAR FROM												Rate per 1000 Births	Whooping Cough	Rate per 1000 Births	Bronchitis	Rate per 1000 Births	Convulsions	Rate per 1000 Births	Diarrhoea and Enteritis	Rate per 1000 Births	Pneumonia	Rate per 1000 Births	Congenital Malformations	Rate per 1000 Births	Prematurity	Rate per 1000 Births	Congenital Debility	Rate per 1000 Births
1931	1,963	18	9.1	20	10.2	9	4.5	28	14.2	8	4.1	16	8.1	5	2.5	3	1.5													
1932	1,820	28	15.4	13	7.1	6	3.3	39	21.4	13	7.1	19	10.4	8	4.4	8	4.4													
1933	1,884	19	10.1	27	14.3	7	3.7	38	20.1	17	9.0	13	6.9	13	6.9	2	1.0													
1934	1,846	17	9.2	24	13.0	6	3.2	32	17.3	12	6.5	9	4.8	8	4.3	8	4.3													
1935	1,015	18	9.4	19	9.9	5	2.6	50	26.1	23	12.0	6	3.1	5	2.6	—	—													
1936	1,913	12	6.2	28	14.6	5	2.6	36	18.8	27	14.1	10	5.2	6	3.1	—	—													
1937	1,799	18	10.0	13	16.7	7	3.9	45	25.0	27	15.0	18	10.0	4	2.2	5	2.8													
1938	1,761	13	7.4	19	10.8	7	3.9	31	17.6	21	11.9	9	5.1	3	1.7	3	1.7													
1939	1,632	24	14.1	16	9.8	8	4.9	34	20.8	9	5.5	10	6.1	3	1.8	2	1.2													
1940	1,670	17	10.2	25	14.9	4	2.4	45	26.9	15	8.9	8	4.8	5	2.9	—	—													
1941	1,680	15	8.9	25	14.9	10	5.9	33	19.6	16	9.5	11	6.5	6	3.5	1	0.6													
1942	1,842	14	7.6	18	9.7	17	9.2	49	26.6	16	8.7	10	5.4	5	3.2	1	0.5													
1943	1,781	12	6.2	46	25.8	11	6.1	52	29.2	25	14.0	8	4.5	4	2.2	2	1.1													
1944	1,721	5	2.9	29	16.8	9	5.2	63	36.0	28	16.2	7	4.0	3	1.7	13	7.5													
1945	1,690	6	3.5	32	18.9	10	5.9	50	29.5	16	9.4	6	3.5	3	1.7	—	—													
1946	1,756	8	4.5	37	21.0	4	2.4	17	9.6	8	4.5	6	3.4	3	1.7	—	—													
1947	1,824	16	8.8	37	20.3	8	4.4	31	17.0	9	4.9	8	4.4	2	1.1	5	2.7													
1948	1,785	8	4.4	18	10.0	10	5.6	19	10.6	11	6.1	4	2.3	—	—	3	1.6													
1949	1,885	11	5.9	27	14.5	11	5.9	40	21.0	11	5.9	5	2.6	2	1.0	2	1.0													
1950	1,599	4	2.5	17	10.6	7	4.4	19	11.9	16	10.0	3	1.9	—	—	1	0.6													

* Including broncho pneumonia.

Note :—Figures in this table are based on returns of the Registrar-General.

Table 52.—Deaths of infants under 1 year, shewn as neo-natal and other deaths.

Cause of Death	Neo-Natal	Others	Total
Prematurity ...	17	—	17
Congenital Debility ...	4	—	4
Congenital Malformations†	4	3	7
Diarrhoea and Enteritis ...	3	16	19
Broncho-pneumonia*	2	14	16
Marasmus ...	2	—	2
Tuberculosis ...	—	1	1
Convulsions ...	—	3	3
Whooping Cough ...	—	—	—
Measles ...	—	—	—
Meningitis ...	—	3	3
Miscellaneous ...	4	5	9
Totals ...	36	45	81

† Including congenital cardiac disease.

* Including pneumonia and bronchitis.

(Note—The figures in this table do not necessarily agree with the corresponding figures in table 49. This is due to the fact that, on investigation, transfers from one disease to another have been found to be necessary. Figures in table 9 are based entirely in District Registrar's returns of registered causes of death).

In connection with this matter an investigation was carried out in this area, during the period 1943 to 1948, into the causes of infant deaths. One part of this enquiry was devoted to feeding and the resultant findings were of considerable interest. They are incorporated in the following table.

Table 53.—Relationship between the *mode of feeding* and infant deaths occurring **between ages 1 month and 12 months** (computed for the years 1943 to 1948 inclusive).

Cause of Death	No. of Deaths	Feeding	
		Breast	Artificial
Gastro enteritis	207	3	204
Broncho-pneumonia	101	16	85
Whooping Cough	22	1	21
Marasmus	27	2	25
Congen-Syphilis	14	—	14
Tuberculosis	10	—	10
Prematurity, etc.*	53	6	47
Meningitis	6	3	3
Infect. Diseases	5	—	5
Convulsions	21	—	21
Septic Infection	3	1	2
Miscellaneous	45	8	37
Total	514	40	474

*Including congenital debility and congenital malformations.

It will be noted that the protection afforded by breast-feeding is by no means confined to gastro-enteritis. Its influence is markedly felt in the case of bronchitis too and, indeed, in the infections generally. There seems to be no doubt whatever that breast-feeding is the best start in life which any child can receive. All the accumulated evidence points to this and our great problem is to find out why some mothers cannot, and others will not nurse their babies. We see, therefore, the importance of an educational campaign to foster the adoption of natural methods of feeding on a much wider scale. Such a campaign should by no means be confined to the mothers themselves. There is only too good reason to conclude that many medical practitioners and nurses do not realise the fundamental importance of this question.

Table 54.—**Éire.** Principal causes of Infant Deaths (ratio per 1,000 Births). The corresponding figures for Cork City are shewn in Table 51.

Year	Congen- ital Debility	Prema- turity	Diarr- hoea and enteritis	Pneu- monia	Convul- sions	Congen- ital Malfor- mations	Bron- chitis	Whoop- ing Cough
1931	16.00	8.58	8.27	7.72	6.78	3.38	3.17	1.16
1932	16.46	8.53	9.33	8.44	6.54	3.40	3.96	2.60
1933	14.38	9.59	8.92	6.99	5.61	3.59	2.79	2.54
1934	13.78	8.05	7.50	6.72	5.41	3.54	3.26	2.97
1935	14.19	9.76	10.65	8.08	4.50	3.90	3.40	1.05
1936	14.44	11.31	10.38	8.96	5.32	4.44	2.96	2.20
1937	13.65	12.16	9.95	8.34	4.99	4.39	2.92	2.46
1938	12.79	10.96	9.12	8.43	4.43	4.38	2.71	1.74
1939	12.68	11.02	9.33	7.67	4.48	4.82	2.35	1.37
1940	13.25	10.67	9.67	7.70	3.55	4.59	2.62	1.77
1941	14.14	11.57	14.18	7.93	4.23	5.57	2.34	1.46
1942	13.66	9.24	14.32	7.11	4.05	5.13	2.51	1.18
1943	15.20	11.58	18.26	8.91	3.99	5.85	2.93	2.87
1944	14.55	11.72	15.82	8.60	4.40	5.30	2.16	2.19
1945	10.89	11.32	15.58	8.44	3.53	5.31	1.62	1.36
1946	9.57	11.80	13.11	7.54	2.61	5.20	1.19	0.96
1947	11.38	11.83	10.34	8.61	2.93	5.38	1.52	2.97
1948	7.93	10.13	5.00	6.40	2.33	4.90	1.23	2.08

(B).—**Rhesus Factor Testing.**

Details of this service were given in last year's report. The following particulars relate to the work done in the year covered by the report. I am obliged to Dr. J. A. Ryan, Transfusion Officer, Cork Blood Transfusion Service, for the details. Dr. Ryan carries out the Rhesus Tests.

No. of Rhesus investigations undertaken during 1950	443
No. of women found to be Rhesus negative (D neg.)	66
No. of repeat antibody investigations on Rh-neg. women	13
No. of Women found to have immune antibodies	5

Of the five women with antibodies four had been immunised by a previous pregnancy and one by a previous transfusion of blood.

It is now considered an essential part of a Maternity Service to Rhesus type all cases. Rh. investigation serves to forecast the advent of a baby suffering from Haemolytic Anaemia of the Newborn and also to eliminate the possibility of a Rh-negative maternity case receiving a transfusion of Rh-positive blood. It cannot be too frequently stressed that all women of child-bearing age and under should have their Rh-type ascertained before transfusion so that they will receive the correct Rh type of blood.

(C) NOTIFICATIONS OF BIRTHS.

The Acts bearing on this subject are the Notification of Birth Acts, 1907, which was adopted by the Corporation in September, 1922, and the Notification of Births (Extension) Act, 1915. These Acts place an obligation on certain individuals to notify to the Medical Officer of Health within thirty-six hours, births which have occurred in the area. The object of the Acts is to enable the Local Authority to afford advice and assistance to parents on the care and upbringing of children.

The general procedure in connection with the notification of births was outlined in my Report for the year 1942. The total number of such notifications received during the year amounted to 1,599. The number of *live births registered* during the same period, according to the Annual Summary of the Registrar-General was 1,618.

(D) MATERNAL MORTALITY.

There was 1 death under this heading during the year.

Table 55.—The number of deaths of women directly attributable to or associated with pregnancy or childbirth, together with the rate per 1,000 births during each of these years, for the City of Cork. (Corrected for Births and Deaths in public institutions).

Year	Deaths from Puerperal Septic Diseases		Deaths from accidents of Pregnancy or Childbirth		Total Deaths from Puerperal Septic Diseases and accidents of Pregnancy or Childbirth		Deaths from causes associated with Pregnancy or Childbirth (not included in foregoing)		Total Deaths caused by, or associated with Pregnancy or Childbirth	
	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births
1924	5	2.55	6	3.05	11	5.60	1	0.51	12	6.11
1925	5	2.54	5	2.54	10	5.08	1	0.51	11	5.59
1926	3	1.66	8	4.42	11	6.08	—	—	11	6.08
1927	5	2.74	6	3.28	11	6.02	—	—	11	6.02
1928	3	1.64	9	4.92	12	6.56	1	0.55	13	7.11
1929	—	—	4	2.24	4	2.24	—	—	4	2.24
1930	1	0.46	3	1.37	4	1.83	—	—	4	1.83
1931	1	0.52	7	3.63	8	4.10	—	—	8	4.10
1932	1	0.55	8	4.28	9	4.95	—	—	9	4.95
1933	1	0.54	8	4.32	9	4.85	1	0.54	10	5.40
1934	5	2.60	2	0.52	7	3.60	—	—	7	3.60
1935	1	0.51	5	2.56	6	3.08	—	—	6	3.08
1936	1	0.52	4	2.08	5	2.60	—	—	5	2.60
1937	—	—	—	—	—	—	—	—	—	—
1938	—	—	6	3.51	6	3.51	—	—	6	3.51
1939	1	0.58	3	1.75	4	2.3	—	—	4	2.30
1940	—	—	8	4.6	8	4.6	—	—	8	4.60
1941	—	—	5	2.9	5	2.9	—	—	5	2.91
1942	—	—	3	1.7	3	1.7	—	—	3	1.70
1943	1	0.56	2	1.12	3	1.6	—	—	3	1.61
1944	2	1.14	6	3.42	8	4.56	—	—	8	4.56
1945	—	—	4	2.36	4	2.36	—	—	4	2.36
1946	—	—	2	1.10	2	1.10	—	—	2	1.10
1947	—	—	1	0.50	—	—	—	—	1	0.50
1948	—	—	—	—	—	—	1	—	1	0.50
1949	—	—	—	—	—	—	1	—	1	0.50
1950	—	—	—	—	—	—	1	—	1	0.60

Table 56.—Maternal Mortality in different areas.

Year	Whole Country		Cork City		City of Dublin		Belfast		Limerick County Borough		Waterford County Borough	
	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births
1920	326	4.8	13	5.8	55	6.0	95	7.7	3	2.9	2	2.7
1921	336	5.5	8	4.0	53	6.5	53	4.7	1	1.0	3	5.1
1922	370	6.3	7	3.6	61	7.1	55	5.1	12	11.8	—	—
1923	328	5.3	4	1.9	46	5.5	58	5.3	16	5.6	3	4.9
1924	330	5.2	12	6.1	46	5.0	46	4.4	1	0.9	4	5.9
1925	312	5.0	11	5.6	42	4.9	29	2.8	3	2.8	4	6.4
1926	329	5.4	11	6.1	31	3.5	57	5.5	5	4.8	—	—
1927	291	4.8	11	6.0	23	2.8	36	3.7	5	4.8	3	4.7
1928	318	5.4	13	7.1	31	3.5	43	4.6	5	4.5	2	3.0
1929	283	4.9	4	2.2	30	3.4	43	4.8	7	6.2	1	1.6
1930	294	5.0	4	1.8	43	4.1	44	4.6	4	3.7	3	4.6
1931	272	4.7	8	4.1	29	2.1	54	5.7	4	3.5	3	4.5
1932	235	4.9	9	4.9	33	3.1	49	5.5	8	4.0	6	8.6
1933	255	4.4	10	5.4	22	2.1	42	5.2	7	7.1	2	2.8
1934	304	5.2	7	3.6	41	3.7	57	6.3	2	1.9	—	—
1935	272	4.6	6	3.0	38	3.3	54	6.0	6	5.5	4	4.0
1936	273	4.7	5	2.6	42	3.5	57	6.2	2	2.0	3	4.5
1937	204	3.3	—	—	33	2.8	56	6.1	3	2.9	4	5.8
1938	204	3.6	6	3.5	29	2.5	48	5.2	4	4.0	3	4.8
1939	150	2.7	4	2.3	23	2.0	—	—	1	1.0	1	1.6
1940	227	4.0	8	4.6	21	1.9	37	4.4	3	3.0	7	10.3
1941	209	3.7	5	2.9	21	1.8	31	3.6	3	3.0	1	1.6
1942	163	2.4	3	1.7	20	1.6	31	3.2	1	0.9	2	2.5
1943	162	2.5	3	1.6	15	1.2	32	2.9	1	0.9	—	—
1944	176	2.7	7	3.8	18	1.4	24	2.3	1	0.9	2	2.8
1945	159	2.4	4	2.4	17	1.3	18	1.8	4	3.5	1	1.4
1946	132	2.0	2	1.1	14	1.1	23	2.2	2	1.6	—	—
1947	130	1.8	1	0.5	12	0.9	13	1.2	7	5.4	—	—
1948	124	1.9	1	0.5	8	0.6	13	1.3	3	2.7	1	1.5
1949	106	1.6	1	0.5	14	1.1	8	0.8	1	1.0	—	—
1950	61	1.1	2	0.6	13	1.0	6	0.7	—	—	1	1.5

The above figures were obtained from the *Annual Reports of the Registrar-General* with the exception of those for the years 1949 and 1950 (which were taken from the *Annual Summary* for that year) and those for Belfast, from 1922 onwards, which were kindly supplied by the Superintendent Medical Officer of Health. All figures include deaths from sepsis arising from abortion and miscarriage.

(F) WORK OF THE MATERNITY AND CHILD WELFARE SCHEME.

The following is a summary of the work carried out during the year by the staff of the Centre

Attendances of children under one year :—

(a) New Cases	...	...	3231
(b) Old Cases	...	...	4064
Attendances of Mothers with Children	...	...	7570

Cases seen by the Medical Officer :—

(A) Under one year			
(1) New Cases	...	...	1460
(2) Old Cases	...	...	1095
(B) One to two years			
(1) New Cases	...	...	500
(2) Old Cases	...	...	729
(C) Two to five years			
(1) New Cases	...	...	312
(2) Old Cases	...	...	573
(D) Expectant Mothers			
(1) New Cases	...	...	590
(2) Old Cases	...	...	405

Ante-natal work—

Number of cases dealt with	...	590
Number of attendances ...	...	995

Return of Health Visitors' work—

(A) Under one year			
(1) Primary visits	...	1549	
(2) Secondary visits	...	4096	
(B) One to two years			
(1) Primary visits	...	1387	
(2) Secondary visits	...	1548	
(C) Two to five years			
(1) Primary visits	...	902	
(2) Secondary visits	...	2950	
(D) Expectant Mothers			
(1) Primary visits	...	891	
(2) Secondary visits	...	693	

The following cases were dealt with at the **artificial sunlight** clinic during the year :—

Debility	...	...	20
Rickets	...	...	23
Avitaminosis	...	...	10
Coeliac Disease	...	...	2
Slow Development	...	...	19
Anaemia	...	...	7
Malnutrition	...	...	10
Bronchitis	...	...	14
Number of cases treated	...	...	105
Number of Exposures	...	...	1519

(G) SUPERVISION OF MIDWIVES.

1. Number of Midwives in Practice :—				
Certificate of C.M.B.	...	...	...	47
Other recognised certificates	...	...	...	18
Total	...	...	...	65
2. Number of Midwives according to type of practice :—				
Attached to public institutions	...	...	...	4
Conducting only private maternity or nursing homes	...	...	...	10
Dealing with less than five cases per year	...	...	...	5
Monthly nurses	...	...	...	15
Others	...	...	...	31
Total	...	...	...	65
3. Number of visits of inspection of midwives	...	...	...	339
4. Disinfection of appliances	...	...	...	1
5. Reasons for summoning Medical help :—				
Abnormal presentation	...	...	...	4
Obstructed and delayed Labour	...	...	...	4
Post partum haemorrhage	...	...	...	4
Rise of Temperature	...	...	...	1
Ruptured perineum	...	...	...	3
Retained (&c.) Placenta	...	...	...	4
Miscellaneous	...	...	...	5
6. Notifications of still births	...	...	...	76
7. Notifications of artificial feeding	...	...	...	128
8. Notifications of having laid-out dead bodies	...	...	...	1
9. Notifications of deaths	...	...	...	77
10. Puerperal Pyrexia	...	...	...	1

It was unnecessary to undertake any legal proceedings against midwives during the year.

ARTIFICIAL FEEDING.

Cracked or inverted nipples	...	...	...	48
Health would not permit	...	...	...	19
Insufficient	...	...	...	15
Refusals (no cause assigned)	...	...	...	46
				128

The above figures refer to all notifications received during the year and include County cases treated in City Nursing Homes.

Section V.

School Medical Service.

The medical inspection of the following groups was carried out during the year :—

Entrants—Pupils born in 1944 and pupils born in 1942 and 1943 if not previously examined.

Second Age Group—Pupils born in 1941 and pupils born in 1938, 1939 or 1940 who had been absent for periodic examination or had not been examined previously.

Third Age Group—Pupils born in 1937 and pupils born in 1935 or 1936 who had been absent for periodic examination or had not been examined previously.

Other Inspections—Those pupils who, at the last periodic inspection, had been marked down for further observation or treatment, also those pupils examined at the request of Head Teachers, School Nurses, Parents, etc.

Number of Children Inspected.

I. Periodic Inspections	.....	.....	.....	3,740
Entrants	.....	.....	1,390	
Second Age Group	.....	.....	1,251	
Third Age Group	.....	.....	1,099	
II. Other Inspections	.....	.....	.....	3,321

Table 57—Return of Defects found by Medical Inspection for the Year ended 31st December, 1950.

Disease or Defect	Periodic Inspections	Other Inspections
	Number of Defects	Number of Defects
SKIN :		
Ringworm—Scalp	2	3
Ringworm—Body	2	2
Scabies	5	1
Impetigo	22	9
Other Diseases (Non-Tuberculous)	19	4
EYE :		
Defective Vision	239	427
Strabismus	134	238
Blepharitis	59	38
Conjunctivitis	72	117
Styes	20	33
Corneal Opacities	3	4
Other Conditions	22	40
EAR :		
Defective Hearing	46	24
Otorrhoea	44	67
Other Conditions	27	42
NOSE AND THROAT :		
Enlarged Tonsils and Adenoids	353	403
Other Conditions	14	35
HEART AND CIRCULATION :		
Heart—Organic	30	44
Heart—Functional	8	9
Anaemia	15	10
LUNGS :		
Bronchitis	56	20
Bronchiectasis	4	1
Other Diseases (Non-Tuberculous)	28	15
NERVOUS SYSTEM :		
Chorea	2	2
Epilepsy	2	—
Other Conditions	—	—
TUBERCULOSIS :		
Pulmonary	—	1
Glands	8	3
DEFORMITIES :		
Surgical Tuberculosis....	4	3
Congenital	3	2
Due to Anterior Poliomyelitis	7	3
Other Forms	12	22
HERNIA		
	4	3
OTHER DISEASES AND DEFECTS :		
	75	33
MISCELLANEOUS :		
Minor Injuries, etc.	24	7

Defective Nutrition.

Percentage of mal-nourished children 2.7

Uncleanliness.

Percentage of verminous children Boys and Girls 4.7
 " " " " Girls 7.7
 " " " " Boys 2.0

Table 58—Percentage of Conditions of Uncleanliness

	Head Nits Present	Head Pediculi Present	Body Pediculi Present
Girls	7.1	0.9	0.5
Boys	1.0	0.6	0.6

Unsatisfactory Clothing and Footgear.

Boys and Girls 4.5%
 Boys 3.9%
 Girls 5.2%

Table 59—Proportion of principal Diseases and Defects found by periodic Medical Inspection

Disease or Defect		Percentage
Defective Nutrition	.....	2.7
Verminous Conditions	.....	4.7
Skin (Non-Tuberculous Disease)	.....	1.3
Eye	{ Defective Vision requiring Refraction	15.3
	{ Other Diseases and Defects	4.7
Ear	.....	3.1
Nose and	{ Enlarged Tonsils and Adenoids	9.4
Throat	{ Other Conditions	0.4
Heart and Circulation	.....	1.4
Lungs (Non-Tuberculous Disease)	.....	2.4
Tuberculosis (Pulmonary)	.....	Nil
Nervous System	.....	0.1
Deformities	.....	0.7
Other Diseases and Defects	.....	2.1

Table 60—Average Height and Weight of Children inspected and Comparison with the Average Standard. (Baldwin and Woods Tables)

BOYS

Age	No. examined	Average Height in ins.	Average Weight in lbs.	Average Standard Weight for Height	Percentage over or under Weight according to Standard
5	231	42	43	39	10.3% over
6	380	44	46	43	7.0% over
7	44	45	48	45	6.7% over
8	257	48	56	53	5.7% over
9	270	49	59	55	5.5% over
12	309	55	78	74	5.4% over
13	216	57	80	82	2.4% under

GIRLS

Age	No. examined	Average Height in ins.	Average Weight in lbs.	Average Standard Weight for Height	Percentage over or under Weight According to Standard
5	172	42	41	39	5.1% over
6	355	44	44	42	4.8% over
7	22	47	50	50	—
8	186	48	54	52	3.8% over
9	323	49	57	55	3.6% over
12	163	56	77	78	1.3% under
13	278	58	87	88	1.1% under

TREATMENT OF DEFECTS.

The following figures do not include treatment of children who attend City Schools but who reside in the County and are therefore referred to the County School Medical Service for treatment.

Enlarged Tonsils and Adenoids
Operative Treatment

Under the School Medical Service Scheme	By Private Practitioners	Total
287	5	292

Other Defects and Diseases of Nose and Throat

Treated at :—

Intern Dept. of Hospitals associated with S.M.S. Scheme	5
Extern Dept. of Hospitals associated with S.M.S. Scheme	5
Intern and Extern Depts. of Hospitals associated with S.M.S. Scheme	2

Total Number Treated 12

Defective Vision

Submitted to Refraction		Glasses Prescribed			Change of Glasses Not necessary	Glasses not Prescribed
Under the School Medical Service Scheme	By Private Practitioners	Under the School Medical Service Scheme	By Private Practitioners	Total		
385	28	370	28	398	4	11

Other Defects and Diseases of Eye

Treated at :—

Intern Dept. of Hospitals associated with S.M.S. Scheme	29
Extern Dept. of Hospitals associated with S.M.S. Scheme	299
Intern and Extern Depts. of Hospitals associated with S.M.S. Scheme	5
Total Number Treated	333

Ear Diseases and Defects

Treated at :—

Intern Dept. of Hospitals associated with S.M.S. Scheme	14
Extern Dept. of Hospitals associated with S.M.S. Scheme	159
Intern and Extern Depts. of Hospitals associated with S.M.S. Scheme	7
Total Number Treated	180

REVIEW OF DEFECTS TREATED UNDER THE SCHOOL MEDICAL SERVICE SCHEME

Skin.

275 cases were treated at the School Clinic. They consisted of Scabies 121, Impetigo 83, Ringworm Scalp 10, Ringworm Body 9 and others 52.

The number of cases of Scabies continues to show a considerable decrease. The numbers for 1949 and 1948 were 367 and 856 respectively. There is also a decrease in the number of cases of other skin diseases.

Eye.

(a) DEFECTIVE VISION.

385 cases were refracted at the hospitals associated with the Scheme. Lenses (and frames when obtainable) were supplied by Messrs. James Mangan, Ltd., and were given free of charge to 347 children. The number of children who do not wear their glasses regularly and who fail to have them repaired has been very high.

I am glad to note, however, that the number of defaulters for the year 1950 shows a considerable decrease. Of the 373 cases of defective vision and strabismus among children examined at Periodic Medical Inspection 76 or 20.4% did not wear their glasses regularly or at all. The corresponding percentage for 1949 was 40.6%.

(b) *EXTERNAL EYE.*

333 cases were treated at the hospitals associated with the Scheme and 114 at the School Clinic. The former included surgical treatment of 18 cases of strabismus, other cases included corneal ulcer 16, keratitis 12, iritis 1, nebula 2, 38 cases had orthoptic treatment for squint.

Ear.

180 cases were treated at the hospitals associated with the Scheme. They included 3 cases of mastoiditis, 1 aural polypus. The majority of the other cases were otitis media.

Nose and Throat.

TONSILS AND ADENOIDS.

287 cases had operative treatment at the hospitals associated with the Scheme.

Of the 3,740 children examined at Periodic Medical Inspection 556 or 14.9 per cent. had their tonsils and adenoids removed.

OTHER DISEASES AND DEFECTS.

12 cases were treated at the hospitals associated with the Scheme.

Cleanliness.

Nits were present in 7.1 per cent. of girls' heads and 1.0 per cent. of boys' heads. These percentages show a considerable decrease on the figures for 1949 which were 11.6 per cent. and 1.2 per cent. respectively. The figures for 1948 were 13.1 per cent. and 1.5 per cent. It is indeed gratifying to see such a decrease in the percentage of uncleanness in school children. This decrease can be attributed to a higher standard of attention by parents and to the use of D.D.T. Emulsion, which is supplied at the School Clinic. 130 cases were treated at the School Clinic.

Minor Injuries, Septic Sores, etc.

179 cases were treated at the School Clinic.

Children referred to Tuberculosis Clinic

	County Borough Clinic	
	<i>Suspects</i>	<i>Contacts</i>
Referred	49	2
Pulmonary Tuberculosis	1	—
Tuberculous Adenitis	11	—
Did not attend	—	1

“ Following up ” of Children Inspected

(a) In connection with those found to be suffering from physical defects :

Number of Children visited	.....	.....	1,839
Number of visits paid	.....	.....	2,155

(b) In connection with those who did not attend for treatment :

Number of Children visited	.....	.....	23
Number of Attendances at the School Clinic	.....	.....	6,763

The number of attendances for treatment of minor ailments was 1,363, of those 274 were for scabies.

Children residing in the County and attending Schools within the Borough.

Referred to the County School Medical Service for treatment :

For Nose and Throat Defects	.....	.....	93
For Eye Defects	.....	.....	74
For Dental Defects { Group A	.....	.....	256
Group B	.....	.....	287

DENTAL SECTION.

Group A

(a) Routine Inspections.

Made during the course of periodic medical inspection with the exception of the age groups coming under routine dental inspection by School Dentist

Number Inspected	Number with Carious Teeth
1,741	1,307 or 75.1%

(b) Special Inspections, i.e. inspection of cases not included under (a) considered to be especially in need of dental treatment or for whom parents applied for treatment.

334	334
Total Group A	2,075
	1,641

Group B.

Children inspected by School Dentist

No. Inspected	No. with Carious Teeth.
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FIRST INSPECTIONS :

Children from 5 to 10 years old inspected for the first time

1,515	1,130 or 74.6%
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SECOND INSPECTIONS :

Children from 6 to 10 years old inspected for the second time

724	516 or 71.3%
-----	--------------

THIRD INSPECTIONS

Children from 7 to 10 years old inspected for the third time

509	360 or 70.7%
-----	--------------

FOURTH INSPECTIONS :

Children from 8 to 10 years old inspected for the fourth time	242	165 or 68.2%
---	------	------	------	-----	--------------

FIFTH INSPECTIONS :

Children from 9 to 10 years old inspected for the fifth time	....	....	....	16	11 or 62.5 %
Total Group B	....			3,006	2,182

The above figures include children who reside in the County. These were referred to the County School Medical Service for treatment.

Treatment of Dental Defects.

Table 61.—Dental Caries. Particulars of Treatment Carried out.

No. of Children treated	No. who completed treatment	Extractions			Fillings			Scalings Dressings, Silver Nitrate and Chromic Acid Treatments
		Temp. Teeth	Perm. Teeth	Total	Temp. Teeth	Perm. Teeth	Total	
2,981	2,160	5,806	1,499	7,305	400	1,106	1,506	2,276

General anaesthetics were given to 928 children.

Number of visits to defaulters, 123.

Number who obtained treatment as a result of such visits, 57.

School Meals.

The Grant for the Meals was £4,000 and the number of children catered for 4,418. The meals were given in twenty-four schools and were as follows :—

- A. Milk—North Presentation Convent Infants' Mixed, Central District.
- B. Milk with buns, bread or bread and jam—The Cathedral, St. Mary's, Eason's Hill, St. Francis' Boys, St. Francis' Girls, Presentation Brothers' Monastery, Greenmount, St. Marie's of the Isle, SS. Peter and Paul's Senior Girls, SS. Peter and Paul's Infant Girls, SS. Peter and Paul's Infant Boys, and for part of the year South Presentation Monastery and St. Joseph's Monastery.
- C. Milk and buns during the warmer months, cocoa and buns during the colder—South Presentation Convent Girls, South Presentation Convent Boys.
- D. Milk and bread and jam or buns to some children, bread and jam or buns only to the remainder—St. Nicholas Girls and St. Nicholas Boys, Blackpool and St. Mary's of the Rock.
- E. Cocoa and buns or bread and butter—Christian Brothers Blarney Street, North Presentation Convent Senior Girls and Clochar Christ an Ri.
- F. Buns—Strawberry Hill Boys, Strawberry Hill Girls, St. Vincent's Convent.

As mentioned in previous reports the milk ration is very inadequate in the majority of schools. The Grant for School Meals will not cover the cost of an adequate milk ration plus bread. If this grant be spent on milk only it would ensure that children who need an extra ration of milk in school would be able to obtain same.

Table 62.—Floor and Cubic Space per Pupil in Average Attendance :

NATIONAL SCHOOL	Average Attendance	Square ft. per pupil in average attendance	Cubic ft. per pupil in average attendance
Clochar Chriost an Ri	514.6	8.6	105.8
Angel Guardian, Mayfield	228.1	8.8	116.8
North Monastery	794.7	9.0	146.7
Mainistir Chriost an Ri	526.6	9.9	116.9
South Presentation Convent Boys	219.8	10.3	112.9
St. Nicholas Girls, Blackpool	324.2	10.4	149.3
The Cathedral	384.1	10.5	123.9
North Presentation Convent Senior Girls	933.5	10.7	128.1
Christian Brothers, Blarney Street	485.9	10.9	109.3
Strawberry Hill Girls	155.9	10.9	131.0
North Presentation Convent Infants	622.9	11.2	183.8
Scoil Neasain Naomhtha	450	11.3	158.1
Strawberry Hill Boys	141.1	11.4	137.6
St. Mary's of the Rock	269.1	11.6	197.9
St. Patrick's Infants	282.7	12.2	233.6
St. Nicholas Boys, Blackpool	440	12.3	153.5
St. Marie's of the Isle	1,098.9	12.3	168.7
St. Vincent's Convent	1,291	12.8	187.3
SS. Peter and Paul's Senior Girls	132	13.5	195.4
St. Francis Boys	150.4	13.6	156.4
St. Mary's, Eason's Hill	202.3	14.3	170.8
St. Patrick's Senior Girls	211.9	15.3	257.0
SS. Peter and Paul's Infant Girls	112.9	15.3	229.7
South Presentation Convent Girls	1,191.0	15.4	169.6
St. Joseph's Monastery, Mardyke	312.3	15.6	218.6
Presentation Brothers, Greenmount	450.6	15.9	325.6
St. Patrick's Senior Boys	210.3	16.3	212.8
SS. Peter and Paul's Infant Boys	99.4	18.0	270.2
South Presentation Monastery	323.9	19.4	281.7
Bun Scoil Gobnatan	120.0	24.6	739.1
St. Francis Girls	79.4	27.7	322.5
Ard Scoil Gobnatan	95.5	28.3	848.2
Scoil Barra	99.3	43.1	1,294.9
St. Finbar's, Dean Street	27.3	57.1	685.7
St. Luke's	30.7	70.9	1,323.1
Central District	43.9	71.6	1,144.8
Summerhill	18.2	118.6	2,373.6
St. Mary Shandon	10.5	127.9	2,044.5
St. Nicholas, Cove Street	23.3	163.9	2,162.3

Section—VI. Control of Food Supplies

The following report has been compiled by Mr. S. R. J. Cussen, Chief Veterinary Officer :—

(A) SUPERVISION OF MILK.

1034 samples of milk were examined in our laboratory during the year. These samples may be roughly divided into two groups :

1. Detailed bacteriological examination	...	419 samples
2. Dirt test only	... ..	414 "
3. Samples collected and submitted to authorised Bacteriologist	.....	68
4. Samples examined on behalf of Dept. of Agriculture	.....	133
Total	.....	1034

1. The first group *i. e.* those submitted to full examination comprised samples collected as follows (according to designation) with the addition of 13 samples of pasteurised milk.

Highest Grade	.....	19
Standard	.....	12
Pasteurised Milk	.....	12
New Milk	.....	376
Total	.....	419

The following tests were applied :—

(a) Sedimentation (or Dirt) Test.

This test was applied to samples in Groups 1 and 2.

The procedure was identical with that outlined in previous reports and the results obtained in the various grades were :—

	Highest Grade	Standard	Pasteurised	New Milk
Very Clean	19	9	9	82
Clean	—	3	3	398
Fairly Clean	—	—	—	187
Dirty	—	—	—	105
Very Dirty	—	—	—	18
TOTAL	19	12	12	790

The Sediment (or Dirt) test is a simple and reasonably reliable one. It does not pretend to absolute scientific accuracy, but as a rough and ready index of general trends in the direction of cleanliness it maintains its position in the armamentarium of the dairy bacteriologist. Since its chief value is that of an indicator of general tendencies the results obtained over a number of years are set out below.

Table 63.—Result of Dirt Test.

Year	No. of Samples	Very Clean	Clean	Fairly Clean	Dirty	very Dirty
1930	412	8	72	118	156	58
1931	408	23	61	82	139	103
1932	630	4	27	108	265	226
1933	485	3	27	105	221	129
1934	339	—	19	51	148	121
1935	223	—	7	21	103	92
1936	227	3	21	43	106	54
1937	206	5	31	80	70	20
1938	174	3	36	83	49	3
1939	714	61	184	224	193	52
1940	736	163	251	176	115	31
1941	440	120	162	82	59	17
1942	516	119	223	38	67	19
1943	534	138	248	87	53	8
1944	540	159	235	80	54	12
1945	839	45	292	331	143	28
1946	860	50	416	245	135	14
1947	518	27	199	177	96	19
1948	585	43	224	143	132	43
1949	584	53	173	209	123	26
1950	833	101	410	202	108	12
Totals	10,803	1128	3318	2755	2535	1086

In order to test the general tendency in regard to cleanliness the last two columns of this table have been taken together and further analysed. The results are shown in the next table.

Table 64.—Proportion of Samples classified as "Dirty,"

Year	No. of Samples Examined	Dirty	Proportion
1930	412	214	51.9 per cent.
1931	408	242	59.3
1932	630	491	77.9
1933	485	350	72.2
1934	339	269	79.3
1935	223	195	87.4
1936	227	160	70.9
1937	206	90	43.6
1938	174	52	29.8
1939	714	245	33.9
1940	736	146	19.8
1941	440	76	17.2
1942	516	86	16.6
1943	534	61	11.3
1944	540	66	12.2
1945	839	171	20.3
1946	860	149	17.3
1947	518	115	22.2
1948	585	175	29.9
1949	584	149	25.5
1950	833	120	14.4

(b) Microscopic Test.

419 samples were submitted to routine microscopic examination. Acid-fast organisms were detected in 2 of these samples. Streptococci were present in 11 and Pus Cells in 9. In 397 instances the samples were free from suspicious organisms.

(c) Bacteria of Faecal Origin.

Included in this Group is the *Bacillus Coli* the presence of which may be regarded as showing carelessness in the production and handling of milk. The test for *B. Coli* was carried out on Highest Grade and Standard Milks. A full account of the test has been given in previous reports.

The findings for the year was as follows :—

Designation	No. of Samples Examined	B. Coli Present	Proportion Free from B. Coli
Highest Grade	19	1	94.7%
Standard ...	12	3	75.0%

(d) Pathogenic Bacteria.

Under this heading our principal concern is the presence of the *tubercle bacillus* in milk. Other organisms (*e.g.*, streptococci) are also concerned in a minor role and have been alluded to under the heading of microscopic examination. The biological test (involving the use of guinea pigs) is the only reliable test for tubercle bacillus and the results obtained over a number of years are set out in columnar form as follows :—

Table 65.—**Tubercle Bacilli in Milk**—Results of Biological Tests.

Year	No. of Tests	Positive	Proportion Positive
1931	2	—	—
1932	14	1	7.1 per cent.
1933	63	—	—
1934	10	—	—
1935	25	4	16.0 „
1936	201	13	6.4 „
1937	23	—	—
1938	90	7	7.7 „
1939	71	5	7.0 „
1940	94	4	4.2 „
1941	96	4	4.1 „
1942	105	2	1.9 „
1943	75	6	8.0 „
1944	68	4	5.8 „
1945	99	4	4.0 „
1946	101	4	3.9 „
1947	77	4	5.2 „
1948	74	—	—
1949	100	2	2.0 „
1950	87	5	5.7 „
Total	1473	69	4.7 „

The figures for individual years are, on the whole, on the small side so far as reliable information is concerned. The sum total, however, of some 1473 tests yielding an approximate proportion of 4.7 per cent. positive may be regarded as a fairly accurate index of the amount of tubercle infection in the local milk supply. This is one aspect of the milk problem which recent legislation has done nothing to solve.

(e) **The Reductase Test.**

The modified method of Wilson has been used. As in the case of other tests mentioned, this method has been fully described in previous reports. Briefly, by means of a colour index which takes into account the rate of decolourisation of a standard solution of methylene blue added to given quantities of milk maintained at a standard temperature, the bacterial content (in numbers) can be estimated. The results obtained are set out below and in order to assist in the interpretation of these results it seems desirable to specify the values attached to the various grades :

Grade I	...	Less than 500,000 bacteria per c.c.
Grade II	...	500,000 to 4 million bacteria per c.c.
Grade III	...	4 million to 20 million bacteria per c.c.
Grade IV	...	Over 20 million per c.c.

Particulars of the various samples and the results obtained are set out below : (419 Samples)

Highest Grade Milk—

Grade I	.....	15
Grade II	.....	4
Grade III	.....	—
Grade IV	.....	—
		19

Standard Milk—

Grade I	...	11
Grade II	...	—
Grade III	...	1
Grade IV	...	—
		12

New Milk—

Grade I	...	289
Grade II	...	79
Grade III	...	11
Grade IV	...	9
		388

BACTERIOLOGICAL EXAMINATIONS

In addition to the above 68 samples were submitted to the Authorized Bacteriological Examiner to be examined to determine the number of bacteria in 1 Cubic Centimetre of the Milk in accordance with the provisions of Section 52 of the Milk and Dairies Act, 1935.

The following is the results of the examination in each case :—

Sample No.	Bacteriological Count	Sample No.	Bacteriological Count
1	80,000 per c.c.	35	140,000 per c.c.
2	500,000 "	36	1,080,000 "
3	160,000 "	37	2,400,000 "
4	100,000 "	38	27,000 "
5	350,000 "	39	1,152,000 "
6	170,000 "	40	584,000 "
7	50,000 "	41	320,000 "
8	20,000 "	42	300,000 "
9	1,220,000 "	43	200,000 "
10	140,000 "	44	800,000 "
11	300,000 "	45	2,000,000 "
12	3,600,000 "	46	1,088,000 "
13	3,900,000 "	47	940,000 "
14	34,000 "	48	850,000 "
15	800,000 "	49	160,000 "
16	400,000 "	50	1,200,000 "
17	700,000 "	51	950,000 "
18	900,000 "	52	550,000 "
19	800,000 "	53	2,180,000 "
20	300,000 "	54	900,000 "
21	350,000 "	55	800,000 "
22	550,000 "	56	750,000 "
23	150,000 "	57	80,000 "
24	600,000 "	58	1,000,000 "
25	200,000 "	59	40,000 "
26	40,000 "	60	600,000 "
27	250,000 "	61	400,000 "
28	300,000 "	62	200,000 "
29	600,000 "	63	1,000,000 "
30	300,000 "	64	3,000,000 "
31	200,000 "	65	200,000 "
32	120,000 "	66	180,000 "
33	1,900,000 "	67	20,000 "
34	1,360,000 "	68	2,000,000 "

33 samples did not comply with the provisions of Article 3 of the Milk and Dairies (Bacteriological Examinations Regulations 1936.

133 samples of Milk were examined on behalf of the Dept. of Agriculture in our Laboratory. 61 of these samples were collected by our own staff. They consisted of 13 samples of Highest-Grade, 24 samples of Pasteurised, 12 samples of Standard and 12 samples of Pre-pasteurised Milk.

For *pasteurised* milk and *pre-pasteurised* milk plating on nutrient media with direct colony counts was substituted for the Reductase test and by this method the following results were obtained :

Pasteurised		Pre-pasteurised	
Sample Number	Bacteria per c.c.	Sample Number	Bacteria per c.c.
1	110,000	1	460,000
2	92,000	2	1,264,000
3	21,000	3	320,000
4	24,000	4	640,000
5	124,000	5	2,080,000
6	98,000	6	768,000
7	368,000	7	6,432,000
8	800,000	8	2,368,000
9	16,000	9	3,424,000
10	56,000	10	720,000
11	20,000	11	816,000
12	21,000	12	1,344,000
13	85,000		
14	290,000		
15	95,000		
16	30,000		
17	170,000		
18	3,200,000		
19	3,008,000		
20	1,120,000		
21	232,000		
22	124,000		
23	96,000		
24	70,000		

The remaining 72 Samples were collected at Creameries and submitted as follows :—

By Cork Co. M.O.H.	.....	44
„ Kerry Co. M.O.H.	.....	6
„ Waterford Co. M.O.H.	.....	22

PROSECUTIONS.

(A) MILK AND DAIRIES ACT, 1935.

12 persons were prosecuted for non-observance of the above act.

9 convictions were obtained and fines amounting to £21 15s. 0d. and costs imposed.

3 Cases were marked proved with payment of Costs.

With reference to the successful prosecutions.—

2 summonses were brought under Section 24	
4 „ „ „ „	59
6 „ „ „ „	60

Section	Number Prosecuted	Number Convicted	Fines Imposed
24	2	2	£0 15 0 with Costs
59	4	4	£19 10 0 „ „
60	6	3	£1 10 0 „ „
Totals	12	9	£21 15 0 with costs

Maximum fine imposed was £15 and costs.

Minimum „ „ „ 5/- „

Section 24 : Relates to the prohibition of the sale of milk by un-registered dairymen.

„ 59 : Relates to the prohibition of the sale of dirty milk.

„ 60 : Relates to the sale of milk in public places and prescribes for the conspicuous inscription of the dairyman's name and address on the vehicle, car or receptacle and the words "Bainne ar díol, Uachtar ar díol or Blathach ar díol."

(B)—THE MILK AND DAIRIES REGULATIONS, 1936 :

Twenty-two persons were prosecuted for non-observance of the above Regulations.

Seventeen convictions were obtained and fines amounted to £12 15s. and costs imposed.

Five cases were marked "Proved" with payment of costs.

With reference to the successful prosecutions particulars are appended herewith of the enactments concerned with the summonses undertaken:—

(a) The Milk and Dairies Regulations 1936.

1 under Article 8(4)	1 under Article 25
3 „ 8(6)	2 „ 27
1 „ 9	1 „ 28
2 „ 21	1 „ 41(4)
3 „ 22(3)	1 „ 42(1)
2 „ 22(5)	

PROSECUTIONS UNDER MILK AND DAIRIES
REGULATIONS, 1936 :

Article	Number Prosecuted	Number Convicted	Fines Imposed	Marked Proved
8(4)	1	1	5/- and costs	—
8(6)	3	3	£2 5 0 „	—
9	1	1	5 0 „	—
21	2	2	£1 7 6 „	—
22(3)	4	3	£5 0 0 „	1
22(5)	2	1	£1 0 0 „	1
25	1	1	£1 0 0 „	—
27	2	2	£0 15 0 „	—
28	1	1	5 0 „	—
41(4)	1	1	7 6 „	—
42(1)	3	1	5 0 „	2
42(4)	1	—	—	1
Totals	22	17	£12 15 „	5

Maximum fine imposed was 40/- and costs.

Minimum „ „ 5/- „

- Article 8 (4) Relates to the provision of clothing etc., by a dairyman in a dairy under his control.
- „ 8 (6) Relates to the keeping in good order and repair of all utensils machinery and apparatus in dairies by dairymen.
- „ 9 : Relates to the general duty of an Employee.
- „ 21 : Relates to the cleansing of Milk Stores, Milk Shops and Appliances.
- „ 22 (3) : Relates to the cleansing of Vessels and Appliances.
- „ 22 (5) : Relates to the storing of Vessels and Appliances.
- „ 25 : Relates to the prevention of Contamination by dust, dirt or flies.
- „ 27 : Relates to the prohibition against keeping Milk in uncovered vessels.
- „ 28 : Relates to the cleanliness of persons having access to Milk.
- „ 41 (4) : Relates to the filling and sealing of sale containers and the marking on such of the name and address of the producer together with the date of production.
- „ 42 (1) : Provides that every sale container be provided with a tap.
- „ 42 (4) : Relates to the keeping of Milk in or the selling of Milk from a sale receptacle, which does not comply, with the provisions of Article 42.

The price of milk increased during the war years, not a great deal considering the cost of production and handling. The following was the average price per gallon for loose milk from Producer to Wholesaler :—

	s.	d.	
1939	0	11½	per gallon
1940	0	11½	" "
1941	1	1½	" "
1942	1	1½	" "
1943	1	3	" "
1944	1	5½	" "
1945	1	6.83	" "
1946	1	6.85	" "
1947	1	10½	" "
1948	1	11½	" "
1949	1	11¾	" "
1950	1	11½	" "

The Retail price of milk was fixed in September 1940. The price varied according to supplies available, being higher during the scarce period which occurred between the months of November and March.

The range of prices from 1940 to 1950 is as follows :—

	d.	d.	
1940	2½	to 3	per pint loose
1941	2¼	" 3	" " "
1942	2½	" 3½	" " "
1943	2½	" 3½	" " "
1944	2¾	" 3½	" " "
1945	2¾	" 3½	" " "
1946	2¾	" 3¾	" " "
1947	3¼	" 4¼	" " "
1948	3¼	" 4	" " "
1949	3½	" 4¼	" " "
1950	3¼	" 4½	" " "

Table 66.—The consumption of milk increased during the period under review. The average daily consumption in gallons from 1939 to 1948 was as follows :—

Month	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January	8,400	8,184	7,731	8,416	8,547	8,714	8,799	9,082	9,133	9,099	9,304	9,462
February	8,604	8,443	8,130	8,615	8,796	8,917	9,074	9,296	9,158	8,282	9,417	9,644
March	8,661	8,260	8,090	8,696	8,929	8,936	9,143	9,360	9,088	9,351	9,584	9,844
April	8,602	8,916	8,442	8,582	9,037	8,986	9,279	9,457	9,272	9,597	9,754	9,764
May	8,933	8,642	8,309	9,004	9,342	9,266	9,623	9,806	9,786	10,025	10,199	10,324
June	9,119	8,836	8,938	9,232	9,633	9,422	9,879	9,866	10,178	10,236	10,507	10,565
July	8,616	8,381	8,485	9,042	9,473	8,975	9,555	9,704	9,560	10,307	10,125	10,113
August	8,437	8,367	8,660	9,678	8,903	8,881	9,194	9,443	9,856	9,464	9,634	9,680
September	8,586	8,371	8,926	9,079	9,232	9,178	9,649	9,717	9,960	9,993	9,907	9,942
October	8,456	8,673	8,900	9,054	8,949	9,113	9,639	9,640	9,778	9,833	9,881	9,859
November	8,407	8,015	8,552	8,728	8,912	9,074	9,418	9,340	9,368	9,534	9,645	9,733
December	8,180	8,178	8,793	8,563	8,691	8,869	9,021	9,015	9,149	9,438	9,410	9,425
Average	8,582	8,444	8,497	8,808	9,037	9,028	9,356	9,477	9,524	9,684	9,781	9,863

These figures apply to the Cork Milk Board Area. There are no figures regarding the amount of milk consumed available for Cork County Borough. I am indebted to the Secretary of the Cork Milk Board for the information.

(B) MEAT INSPECTION.

Meat Inspection Depot :—7,038 bovine carcasses were examined. Of this number 1,111 (15.78%) were found to be affected with varying degrees of Tuberculosis. It was found necessary that 12 such carcasses (0.17%) should be totally destroyed as unfit for human consumption while 1,099 (15.6%) were partially condemned. In addition to the 7,038 bovine carcasses 28,883 sheep carcasses were also examined and of this number 7 carcasses (0.02%) were totally condemned and 9 partially (0.03%) for diseases other than Tuberculosis.

1,321 Veal carcasses were examined and of this number 4 carcasses were wholly condemned and 1 partially condemned as being affected with Tuberculosis. 1,008 Pork carcasses were also examined and of this number 3 carcasses (0.3%) were totally condemned and 59 partially (5.8%) condemned as being affected with tuberculosis.

Table 67.—The amount (by weight) of meat examined and condemned at the Depot was as follows :—

Variety	Quantity Examined	Tuberculosis		Other Diseases	
		Quantity Condemned	Pro-portion	Quantity Condemned	Pro-portion
	lbs.	lbs.		lbs.	
Beef ...	3,519,000	9,397	0.26%	1,200	0.03%
Mutton ...	1,144,415	—	—	451	0.04%
Veal ...	52,800	270	0.5%	65	0.1%
Pork ...	201,600	1,379	0.6%	157	0.07%

The amount of offals condemned at the Depot for Tuberculosis and other conditions was as follows :—

Part	Tuberculosis	Other Diseases	Total
Lungs ...	1,594	—	1,594
Heart ...	750	—	750
Livers ...	263	416	679
Kidneys ...	30	—	30
Head and Tongues ...	456	—	456
Total	3,093	416	3,509

Meat seized in shops and voluntarily surrendered during the year :—

	Seized	Surrendered
Beef ...	240 lbs.	37,365 lbs.
Pork ...	—	72,856 „
Bacon ...	—	— „
Veal ...	—	592 „
Fish ...	—	1,870 „
Fruit ...	—	7,215 „
Poultry ...	—	13,948 „

Slaughterhouses and Bacon Factories.

Table 68.—**Tuberculosis.** Particulars of animals killed in local slaughterhouses and the incidence of tuberculosis therein :—

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle	1,437	305 (21.2%)	3 (0.2%)	302 (21.0%)
Sheep	19,145	—	—	—
Calves	495	3	3 (0.6%)	—

2,866 lbs. of Beef (representing 0.4%) of the quantity examined were condemned on account of tuberculosis.

Bacon Factories :—Particulars of pigs slaughtered in bacon factories and reserved for local consumption in the form of pork and sausages were supplied to us by the Veterinary Inspectors of the Department of Agriculture. The number of pigs was 3,331 of which 979 (29.4%) were found to be affected with tuberculosis. 31 of these (0.9%) were totally condemned and 948 (28.5%) partially condemned.

44,275 lbs. (2.6%) of pork were condemned on account of tuberculosis.

Table 69.—**Diseases other than Tuberculosis.**—Particulars of incidence found in slaughterhouse killings :—

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle	1,437	1 (0.07%)	—	1 (0.07%)
Sheep	19,145	4 (0.02%)	3 (0.015%)	1 (0.005%)
Calves	495	2 (0.4%)	2 (0.4%)	—

100 lbs. of beef (representing 0.001%) of the quantity examined were condemned on account of diseases other than tuberculosis.

Bacon Factories :—0.01% of pork was condemned on account of diseases other than tuberculosis.

Table 70.—Inspections carried out in *slaughterhouses* by our Veterinary Staff were as follows :—

Species	Carcases Examined	Condemned		
		Wholly	Partially	Meat & Offals
Cattle	1,437	3	303	7,187 lbs.
Sheep	19,145	3	1	152 „
Calves	495	5	—	242 „

The provisions of this Act were outlined in the 1937 Annual Report, it is not proposed to make further reference to them here.

THE SLAUGHTER OF ANIMALS ACT, 1935.

The provisions of the Act were diligently observed by occupiers of slaughterhouses and slaughtermen, consequently there were no prosecutions under the Act during the period under review.

PREPARATION OF MEAT AND MEAT PRODUCTS

The number of premises within the Cork Urban Sanitary District where meat and meat products are prepared for human consumption is as follows :—

Slaughter Houses—

Licenced (under the Public Health Act, 1878)	13
Registered (being in use before the 1878 Act)	2
Registered (under the Fresh Meat Act)	4

Bacon Factories—

Where Pigs are slaughtered for Production of Bacon	4
Where Pigs are slaughtered for Bacon and Pork	4
Where Cattle are slaughtered in addition to Pigs	4

Sausage Factories

Triperies	6
-----------	---

Number of inspections made of premises where meat is prepared and sold :—

Slaughter Houses	974
Sausage Factories	354
Triperies	60
Meat Markets	620
Butcher Shops	1,105
Pork Shops	117

In addition to the above the following inspections were made :—

Provision Shops	429
Fish Shops	238
Fruit Shops	96
Hawkers' Stands	1,110

COMPULSORY MEAT INSPECTION

Bye Laws with respect to the sale of meat within the County Borough of Cork were made and adopted by the Corporation on the 23rd August, 1949 and came into operation on the 1st March, 1950. Under these Bye Laws no meat shall be exposed or offered for sale or sold within the Co. Borough for human consumption unless same shall have been previously inspected and passed as fit for human consumption and stamped by an officer appointed by the Corporation for that purpose.

Under these Bye Laws the owner of a carcase of any slaughtered animal the meat of which is intended for human consumption shall convey or cause to be conveyed to the meat Inspection Depot for the purpose of inspection the carcase and organs thereof and he shall not remove or cause to be removed the Lymphatic Glands from the carcase or the organs nor modify or obliterate any evidence of disease in any part of the carcase organs or viscera of the animal by washing, rubbing, stripping or any other manner before examination.

The officer appointed by the Corporation if satisfied that the meat and organs are fit for human consumption he shall stamp the same or cause to be stamped with the meat Inspection Stamp.

The penalty for an infringement of these Bye Laws is £5 and in the case of a continuing offence to a further penalty of £2 for each day after written notice of the offence from the Corporation.

(C) SALE OF FOOD AND DRUGS ACTS. MILK.

Appended herewith is the Report of the City Analyst (Mr. D. J. O'Sullivan, M.Sc., F.R.I.C.).

Table 71.—Samples of Milk submitted for Analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1950 ...	105	102	3
June 30th, 1950 ...	83	79	4
Sept. 30th, 1950 ...	83	79	4
Dec. 31st, 1950 ...	72	71	1
Totals ...	343	331	12

BUTTER.

Table 72.—Samples of Butter submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1950 ...	6	6	—
June 30th, 1950 ...	7	7	—
Sept. 30th, 1950 ...	7	7	—
Dec. 31st 1950 ...	6	6	—
Totals ...	26	26	—

SPIRITS.

Table 73.—Samples of Spirits submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1950 ...	2	2	—
June 30th, 1950 ...	2	2	—
Sept. 30th, 1950 ...	—	—	—
Dec. 31st, 1950 ...	3	3	—
Totals ...	7	7	—

Table 74.—Miscellaneous samples submitted, for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1950	118	115	3
June 30th, 1950 ...	92	91	1
Sept. 30th, 1950 ...	95	94	1
Dec., 31st 1950 ...	100	100	—
Totals ...	405	400	5

Table 75.—Details in regard to miscellaneous samples examined during the year.

Articles	No. of Samples	Articles	No. of Samples
Wine ...	3	Semolina ...	14
Margarine ...	34	Sauce ...	10
Confectionery ...	15	Sugar ...	7
Custard Powder ...	10	Brawn ...	1
Pearl Barley ...	9	Cooked Meat ...	1
Sausages ...	7	Rice ...	38
Drugs ...	17	Bisto ...	3
Cheese ...	17	Tea ...	2
Cocoa ...	17	Currants ...	5
Beer ...	34	Raisins ...	1
Flour ...	23	Sultanas ...	2
Cornflour ...	22	Sago ...	5
Coffee ...	11	Lard ...	4
Vinegar ...	7	Cider ...	4
Oatmeal ...	12	Bourn-vita ...	1
Cream ...	2	Sweets ...	5
Pudding ...	8	Tinned Fruit ...	1
Mineral Waters ...	11	Mustard ...	1
Jam ...	11	Ice Cream ...	2
Jelly ...	8	Salt ...	5
Tapioca ...	2	Ovaltine ...	1
Dripping ...	1	Tinned Fruit ...	2
Syrup ...	1	Farola ...	2
Bread ...	5	Beans ...	1
		TOTAL ...	405

Table 76. Return of Offences detected by the Food and Drugs Inspectors during the year.

Particulars of Offence					Results of Proceedings		
Milk deficient in fat	....	3%	....	....	Fines	—Cautioned—	
"	"	6%	....	....	"	5/- Costs	17/3
"	"	8%	....	....	"	5/-	17/4
"	"	8%	....	....	"	5/-	17/3
"	"	8%	....	....	"	3/6	17/3
"	"	10%	....	....	"	5/-	17/-
"	"	11%	....	....	"	7/6	17/4
"	"	13%	....	....	Marked "proved"	17/3 costs	
"	"	15%	....	....	"	5/-	17/3
"	"	18%	....	....	"	5/-	17/3
"	"	20%	....	....	"	3/6	17/4½
"	"	20%	....	....	"	5/-	17/4
Margarine	....	2.2% added water			"	7/6	18/6
Cornflour—consisted of potato starch					"	5/-	17/-
Semolina Infested with cereal mites.					"	5/-	17/4
Solution of Hydrogen Peroxide 70% deficient in amount of peroxide					"	5/-	17/9
Oatmeal, Infested with cereal mites					"	20/-	17/5

Section VII.—Water Supply.

BACTERIOLOGICAL EXAMINATIONS.

In the report for 1931 I outlined the procedure adopted in connection with the examination of the supply at the bacteriological laboratories of University College, Cork, by Prof. W. J. O'Donovan. In the year 1928 Dr. O'Donovan undertook a detailed and systematic examination in which a very large number of samples were studied. Our subsequent procedure has been based on his findings of that year and his recommendations have resulted in a supply of a consistently high degree of purity. In 1950, as in former years, samples were collected and examined on five days during each week. The procedure included an estimate of the number of bacteria growing at 37° C. in 48 hours. The total number of samples examined amounted to 251. The average number of bacteria in 1 c.c. was 5.4 and the number of samples sterile in 1 c.c. was 7.

The routine procedure in connection with these examinations is that samples are collected by the staff of the Public Health Department in special sterilised bottles. These samples are transmitted to the Laboratory for examination. A report is sent to the City Medical Officer who, in turn, sends a copy to the Water Engineer. In the event of an unsatisfactory sample coming to light in the laboratory the subsequent cycle of events is speeded up by telephonic communications between the various departments pending receipt of a subsequent formal report. In this manner there is exercised a triple check in the purification and distribution of the supply.

In the following tables are summarised the results of the various examinations carried out during the year (and previous years) at the Bacteriological Laboratories, U.C.C., by Prof. O'Donovan and his staff.

Table 77.—Summary of results of routine examinations of water

Total Routine Samples of Tap Water	Bacillus Coli Test					Average daily No. of Bacteria per c.c.	No. of Samples sterile in 1 c.c.
	100 c.c's —ive	100 c.c's +ive	50 c.c's +ive	10 c.c's +ive	1 c.c's +ive		
251	251	—	—	—	—	5.4	7

As stated above, the examinations carried out during the year included an estimation of the numbers of bacteria growing at 37° C. in 48 hours. The findings are set out in the following table and compared with those of previous years.

Table 78.—Average number of bacteria per cubic centimetre growing at 37° C. from daily sample for each month.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1932	14.0	0.8	1.6	4.6	4.5	5.4	44.1	20.3	2.2	4.6	4.7	2.2
1933	1.8	1.0	1.1	1.5	1.8	4.1	19.2	14.6	2.7	2.1	1.3	3.9
1934	1.1	1.6	1.3	1.4	3.4	21.2	18.4	7.4	1.7	4.0	4.2	4.0
1935	2.9	2.7	1.6	1.0	2.7	2.1	2.9	5.2	8.9	7.9	4.4	1.2
1936	1.2	1.2	0.9	1.6	1.9	1.9	5.0	1.8	3.4	1.4	2.7	3.9
1937	4.1	2.8	1.4	1.2	0.7	0.2	3.7	1.0	2.8	6.4	2.8	5.4
1938	1.8	2.2	1.9	1.5	0.9	1.4	2.0	1.4	2.2	2.0	2.6	2.2
1939	1.7	1.4	2.9	2.6	1.7	21.5	6.6	6.7	3.0	30.8	9.4	3.5
1940	1.8	5.3	1.8	1.0	1.3	4.4	11.8	4.2	4.5	4.5	4.5	2.8
1941	2.2	0.7	2.8	1.6	10.1	7.3	4.6	4.1	1.4	1.6	7.2	1.4
1942	3.4	2.7	7.0	2.6	2.5	3.9	5.8	4.9	6.4	2.1	4.8	3.0
1943	2.3	1.2	1.3	1.7	2.4	6.0	5.1	1.2	4.7	2.3	1.9	2.5
1944	2.6	2.0	2.2	2.2	1.3	1.4	2.5	4.3	3.1	1.9	1.8	2.9
1945	2.2	2.3	2.4	2.3	1.8	2.1	3.7	3.7	2.7	3.2	2.4	2.1
1946	2.6	3.1	1.6	2.3	2.1	2.9	2.1	1.2	1.2	5.3	2.9	1.7
1947	2.7	1.8	2.2	2.2	3.5	1.1	1.7	2.3	2.4	2.0	2.6	2.4
1948	3.3	2.5	3.4	2.0	2.2	4.1	3.8	2.8	2.5	3.3	2.9	1.8
1949	3.5	5.0	3.9	3.4	3.4	3.8	4.3	4.0	5.2	6.1	4.5	3.5
1950	4.4	4.6	3.2	4.5	2.4	2.9	7.4	5.6	5.1	9.9	7.9	7.9

Table 79.—Showing average consumption of Water per Head, per Day (in gallons).

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1934	39.6	40.0	39.1	39.9	39.2	42.1	42.8	40.6	41.4	38.6	39.0	40.2
1935	38.5	40.2	40.1	41.2	41.2	43.6	46.8	48.1	46.5	43.5	43.4	35.2
1936	47.6	44.1	44.0	44.4	46.5	47.1	47.1	46.4	44.5	44.8	44.1	43.8
1937	42.7	43.1	41.8	41.6	45.1	45.9	45.9	46.3	45.7	45.0	43.1	42.7
1938	41.5	40.3	39.5	41.4	40.5	40.5	40.9	39.8	41.3	40.6	39.7	41.8
1939	45.6	40.9	39.9	40.1	40.0	44.2	42.8	41.6	41.8	39.5	37.5	37.2
1940	44.7	43.1	39.8	39.3	40.2	44.0	44.9	42.6	41.9	38.6	36.7	39.3
1941	38.5	39.1	39.2	37.9	38.9	40.8	43.1	42.6	42.0	40.4	38.8	37.5
1942	36.7	36.5	36.3	37.4	37.7	38.5	41.1	39.6	39.7	37.7	37.6	36.4
1943	35.5	35.6	36.4	38.0	37.7	39.3	43.3	40.4	42.1	40.2	35.7	37.8
1944	35.2	36.8	38.1	37.6	38.8	38.5	35.0	36.3	40.8	36.7	35.9	36.8
1945	38.8	50.0	40.3	41.0	41.2	43.2	44.2	42.6	44.0	41.3	39.0	40.0
1946	38.8	38.9	39.8	40.3	40.5	40.7	42.4	41.2	42.3	42.6	40.9	40.5
1947	42.9	45.3	44.5	42.0	43.5	46.4	46.0	47.8	46.9	44.8	43.9	46.8
1948	44.5	43.4	45.3	45.1	45.4	47.1	48.0	46.8	47.0	47.3	44.8	45.2
1949	42.8	43.2	43.1	44.8	45.6	49.0	51.2	46.0	49.7	47.1	46.7	47.3
1950	46.3	46.4	46.4	45.9	48.1	52.2	50.9	47.0	48.2	47.0	45.2	48.9

Table 80.—Comparative results of examinations of tap water made during each of the years from 1931 to 1950.

Year	Total number of samples examined	BACILLUS COLI TEST				
		100 ml —ive	100 ml +ive	50 ml +ive	10 ml +ive	1 ml +ive
1931	260	242 (93.0%)	9 (3.5%)	9 (3.5%)	— —	— —
1932	260	245 (94.2%)	3 (1.2%)	12 (4.6%)	— —	— —
1933	253	244 (96.4%)	4 (1.6%)	4 (1.6%)	1 (0.4%)	— —
1934	261	249 (95.4%)	4 (1.5%)	6 (2.3%)	2 (0.8%)	— —
1935	252	235 (93.2%)	3 (1.2%)	7 (2.8%)	5 (2%)	2 (0.8%)
1936	252	244 (96.8%)	2 (0.8%)	5 (2%)	1 (0.4%)	— —
1937	253	235 (92.9%)	11 (4.3%)	6 (2.4%)	0 —	1 (0.4%)
1938	254	251 (98.8%)	1 (0.4%)	0 —	1 (0.4%)	1 (0.4%)
1939	259	254 (98.0%)	1 (0.4%)	3 (1.2%)	1 (0.4%)	— —
1940	261	244 (92.7%)	2 (0.8%)	10 (3.8%)	5 (1.9%)	2 (0.8%)
1941	266	255 (92.1%)	10 (3.7%)	8 (3%)	1 (0.4%)	2 (0.8%)
1942	254	244 (96.1%)	3 (1.2%)	2 (0.8%)	5 (1.9%)	— —
1943	255	253 (99.2%)	—	—	2 (0.8%)	—
1944	255	239 (93.7%)	—	6 (2.4%)	7 (2.7%)	3 (1.2%)
1945	255	246 (96.5%)	—	3 (1.2%)	4 (1.5%)	2 (0.8%)
1946	254	252 (99.0%)	—	1 (0.4%)	1 (0.4%)	—
1947	257	249 (96.9%)	1 (0.4%)	1 (0.4%)	6 (2.3%)	—
1948	253	246 (97.2%)	0 —	3 (1.2%)	1 (0.4%)	3 (1.2%)
1949	254	246 (96.8%)	2 (0.8%)	4 (1.6%)	2 (0.8%)	—
1950	251	251 (100%)	0 —	0 —	0 —	0 —

The bacteriological results indicate that a high degree of purity was maintained during the year, indicating a corresponding degree of efficiency in the purification plant.

Section VIII.—Sanitary Department.

Table 81—Return of work performed by Sanitary Inspectors.

District	INSPECTION OF											SERVED	
	Houses and Yards	Tenement Houses	Tenement Rooms	Infected Dwellings	Common Lodging Houses	Milk Shops	Bakeries	Work Shops	Slaughter Houses	Factories	Out-workers	Justices Orders	Notices to abate nuisance
No. 1 ...	5708	102	556	13	4	35	6	38	4	—	—	—	191
No. 2 ...	2771	1205	3438	32	33	1	1	9	2	—	—	5	235
No. 4 ...	5820	671	1939	57	—	101	14	187	34	—	—	9	113
No. 5 ...	3031	234	3579	23	14	103	2	18	1	—	—	—	137
No. 6 ...	3152	2912	3793	17	17	2	2	17	—	—	—	3	165
No. 7 ...	5367	1971	3937	25	4	—	—	31	3	—	—	18	330
Female Inspector	—	—	—	—	—	—	291	2067	—	1688	94	—	—
Totals ...	25,849	7,095	17,242	167	72	242	316	2367	44	1688	94	35	1171

District No. 3 is divided for purposes of supervision between Districts No. 2 and 4.
The number of inspections carried out by the Corporation Drain Tester was 3,393

In addition to the foregoing the Health Inspectors carried out inspections and made reports under Part II of the *Housing (Amendment) Act 1948* as follows :—

The number of reports made under Sections 7 and 8 (Control of Certain Premises) was 12.

The number of prosecutions taken out under Sections 8 (Control of Certain Premises) was 1.

The number of reports made under Section 11 (Multiple Dwellings) was 9.

The number of permission granted under Section 12 (to keep Multiple Dwellings) was 163.

The number of Notices (to abate nuisances in drains) served under Part II of the *Local Government (Sanitary Services) act 1948* was 260.

The number of reports made on the housing conditions of applicants for Corporation Houses was 283.

Table 82.—Summary of Inspections, etc.

	No. of Inspections
Houses, yards, etc.	25,849
Tenement Houses	7,095
Tenement Rooms	17,242
Infected Dwellings	167
Common Lodging Houses	72
Bakeries	316
Workshops	2,367
Outworkers	94
Factories	1,688
Milk Shops	242
Slaughter Houses	44
Drains and W.C.'s Tested	3,393
Number of Notices to abate nuisances	1,431
Number of Justices' Orders	35
Amount of fines imposed in respect of same	£5 5 6

Table 83.—Return of Inspections made by Veterinary Staff during the year :—

Slaughter Houses	974
Butcher Shops	1,105
Tripe Houses	60
Meat Markets	620
Milk Shops	867
Milk Vans	1,640
Cowsheds	195
Sausage Factories	354
Hawkers' Stands	1,110
Provision Shops	429
Pork Shops	117
Fish Shops	238
Fruit Shops	96
Cold Stores	2

No of Prosecutions

Amount of Fines imposed }

See Section V., Prosecutions

SHOPS (CONDITIONS OF EMPLOYMENT) ACT, 1938.

In the following table are set out particulars of the work done by the Shops Inspectors during the year.

Number of Inspections, 1,522

Particulars of Defects Found :

Insufficient Ventilation	.....	12
Insufficient Heating	.....	31
No Heating Provided	.....	2
No Seating Accommodation	.....	38
Insufficient Sanitary Accommodation	.....	3
No Sanitary Accommodation	.....	1
No Washing Accommodation	.....	3

Total 90

Exemption Orders served (<i>re</i> Sanitary Accommodation)	.....	—
Works Notices served	.....	2
Verbal Notices	.....	87

As in former years recommendations of the inspectors have been generally complied with and, in fact, it was not found necessary in any instance during the year to initiate court proceedings. In one case no sanitary accommodation was provided, but as the shop closed no action was deemed necessary. The number of shops found, during the year, with insufficient heating was fairly high ; this was mainly due to the limited supply of meters available.

DETAILS OF DISINFESTATION SCHEME.

HOUSES TREATED				PERSONS TREATED				
Tene-ments	Lodg-ings	Private	Total	Rooms	Male	Fe-male	Chil-dren	Total
31	5	103	139	457	20	1	2	23

Details of Disinfestation of Yards and Manure Heaps—*Summer 1950*

District No.	Stalls	Manure Heaps	Piggeries	Yards
1	111	3	—	—
2	196	36	56	19
4	116	45	65	2
5	148	10	—	1
6	65	21	8	14
7	268	19	28	—
	904	134	157	36

Particulars of D.D.T. issued at Dispensaries—*June to December 1950*

Dispensary District	Powder	Emulsion
South	152 $\frac{1}{2}$ doz. pkts.	33 $\frac{1}{2}$ pints
North	158 $\frac{1}{2}$ „	21 $\frac{3}{4}$ „
Mahony's Avenue	10 $\frac{1}{2}$ „	6 $\frac{1}{2}$ „
	321 doz $\frac{1}{2}$. pkts.	61 $\frac{3}{4}$ pints.

Section IX.—Housing

Houses erected and let	2,935
Houses erected and purchased by occupants	206
Houses erected (occupants still re-paying mortgage)	116
Total	3,257

Houses in process of erection	353
-------------------------------------	-----

Assistance to private persons and Public Utility Societies :—

(a) Under Section 6 of the Housing Acts, 1925–28... ..	£4,685	0	0
(b) Under the Housing Acts	£10,405	0	0

Assistance under Small Dwellings Acquisition Acts :—

(a) To houses built by Public Utility Societies	£103,125	0	0
(b) To houses built by Private Individuals	£215,827	10	0

Amount expended by Corporation on Working Class Dwellings
£1,352,807 0s. 0d.

Table 84.—Tenants paying rents of different amounts (summary).

Rental	No. of Tenants
20/- to 30/-.....	282
15/- to 20/-	632
10/- to 15/-	897
9/- to 10/-	161
8/- to 9/-	224
7/- to 8/-	71
6/- to 7/-	301
5/- to 6/-	199
4/- to 5/-	234
Under 4/-	137
Total No. of Tenants	3,138

Housing Requirements

The housing requirements of the city are set out in the tabular statement below. The figures were arrived at as the result of a special survey made by the inspectorate staff of this department. The survey was carried out from February, to May 1951 but it is deemed advisable to include it in this Report. The findings were as follows :

(1) The Number of Unfit Houses that cannot be made fit at Reasonable Cost	1,874
(2) The Number of Unfit Houses that can be made fit at Reasonable Cost	1,902

(3)	The Number of Families in Unfit Houses	.....	.....	2,351
(4)	The Number of Families Overcrowded in Unfit Houses that can be made fit at Reasonable Cost	.....	.....	979
(5)	The Number of Families Overcrowded in Good Houses	.....		796
(6)	TOTAL NUMBER OF FAMILIES REQUIRING TO BE REHOUSED	.....	.....	4,126
(7)	Number of Adults Requiring to be rehoused	.....	14,343	
	„ Children „ „ „	.....	6,097	
	TOTAL NUMBER OF PERSONS REQUIRING TO BE REHOUSED	.....	.....	20,440

(Note :—Children over 10 years are counted as adults)

- (8) Of the 4,126 families requiring to be rehoused :—
- (a) 1,159 state that they have applied for houses and are awaiting re-housing for periods as follows :—
- | | | | |
|-------------------|-------|-------|--------------|
| (i) 0 to 2 years | ..... | ..... | 402 families |
| (ii) 2 to 4 years | ..... | ..... | 317 „ |
| (iii) 4 to 6 „ | ..... | ..... | 152 „ |
| (iv) 6 to 8 „ | ..... | ..... | 113 „ |
| (v) 8 to 10 „ | ..... | ..... | 58 „ |
| (vi) Over 10 „ | ..... | ..... | 117 „ |
- (b) 644 families state that they have not so far made application for re-housing but intend to do so.
- (c) 2,323 families state that they are not interested in re-housing. The principal reasons for this are the high rents charged for Corporation houses and the great aversion they have to being transferred from the neighbourhood in which they have grown up and lived their lives.

POPULATION AND ECONOMIC DATA

Year	Population	Area (sq. miles)	Population per sq. mile	Population per 100 sq. miles
1900	1,000,000	10,000	100	100
1910	1,200,000	10,000	120	120
1920	1,400,000	10,000	140	140
1930	1,600,000	10,000	160	160
1940	1,800,000	10,000	180	180
1950	2,000,000	10,000	200	200
1960	2,200,000	10,000	220	220
1970	2,400,000	10,000	240	240
1980	2,600,000	10,000	260	260
1990	2,800,000	10,000	280	280
2000	3,000,000	10,000	300	300
2010	3,200,000	10,000	320	320
2020	3,400,000	10,000	340	340
2030	3,600,000	10,000	360	360
2040	3,800,000	10,000	380	380
2050	4,000,000	10,000	400	400
2060	4,200,000	10,000	420	420
2070	4,400,000	10,000	440	440
2080	4,600,000	10,000	460	460
2090	4,800,000	10,000	480	480
2100	5,000,000	10,000	500	500

SUMMARY CORK CORPORATION HOUSES—31st DECEMBER 1950

NAME OF SCHEME	No. of Houses in Scheme	Erected	Cost of Scheme in Pounds	Cost Per House in Pounds	No. of Rooms	Cubic Contents of House	Cost of Construction per Cu. Ft.	Density Index	WEEKLY RENTS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MADDEN'S BUILDINGS	76	1886	6,500	£85 10 0	3	5,630	3½d.	44	4/10 to 10/6 (F)
RYAN'S do.	16	1888	1,291	81 0 0	2	3,960	5d.	40	2/7 to 5/11 (F)
HORGAN'S do.	126	1891	10,000	79 10 0	3	4,480	4½d.	52	3/1 to 10/6 (F)
ROCHE'S do.	128	1892	9,933	77 10 0	3	4,400	4½d.	80	3/2 to 6/7 (F)
CORPORATION do.	33	1900	5,900	179 0 0	3	3,108	1/1½d.	94	5/6 (F)
SUTTONS do.	46	1905	26,578	143 10 0	3	4,680	7½d.	61	6/2 to 10/7 (F)
KELLEHER'S do.	50	1906		143 10 0	3	4,680	7½d.	78	6/2 to 7/1 (F)
BARRETT'S do.	89	1906		143 10 0	16 c 2 73 c 3	4,680	7½d.	61	4/8 to 6/2 (F)
McCURTAIN'S VILLAS	76	1922	108,325	£777 732	5 4	9,600 9,050	1/7½d.	14	12/4 to 13/- (F)
FRENCH'S do.	30	1923		732	5	9,050	1/7½d.	15	10/- to 11/8 (F)
MacSWEENEY'S do.	40	1923		732	5	9,050	1/7½d.	15	12/- to 15/- (F)
CAPWELL	148	1928	65,072	4 @ 391 136 @ 430 8 @ 601	4 c 3 136 c 4 8 c 5	7,820	1/1½d.	16	8/6 to 14/- (F)
TURNER'S CROSS	152	1930	75,091	417	5	7,820	1/0½d.	16	8/- to 13/- (F)
TURNER'S CROSS EXTN.	168	1932	103,512	415	5	7,950	1/0½d.	16	12/5 to 15/- (F)
GURRANABRAHER 1	252	1934	102,223	306 365	70 c 3 182 c 4	6,734 8,032	11d.	19	3/5 to 17/- (D)
GURRANABRAHER 2	108	1935	40,628	341	4	8,380	9½d.	18	3/5 to 17/- (D)
GURRANABRAHER 3	78	1936	29,215	346	4	8,380	10d.	19	3/5 to 17/- (D)
GURRANABRAHER 4	82	1936	31,161	336	4	8,415	9½d.	16	4/6 to 19/2 (D)
BANDON ROAD	86	1936	29,503	283	4	7,480	9½d.	20	3/10 to 16/10 (FD)
COMMON'S ROAD 1	170	1936	79,652	14 @ 530 14 @ 397 142 @ 384	14 c 5 186 c 4	11,583 8,662 8,380	11d.	16	4/5 to 19/6 (FD)
COMMON'S ROAD 2	106	1937	43,146	100 @ 350 6 @ 341	4	8,826 8,662	9½d.	16	4/5 to 19/2 (FD)
BAKER'S LANE 1	266	1938	127,712	12 @ 542 120 @ 413 86 @ 435 20 @ 338 28 @ 363	12 c 5 206 c 4 48 c 3	11,583 8,826 9,306 7,224 7,774	11½d.	18	4/5 to 19/2 (FD)
BAKER'S LANE 2	242	1940	132,410	126 @ 451 116 @ 476	4	8,826 9,306	1/0½d.	18	4/5 to 19/1 (D)
FARRANFERRIS 1	206	1939	116,590	8 @ 467 14 @ 625 50 @ 476 102 @ 501 14 @ 389 18 @ 419	14 c 5 152 c 4 40 c 3	8,662 11,583 8,826 9,306 7,224 7,774	1/1d.	15	4/5 to 19/6 (D)
ASSUMPTION ROAD	70	1939	28,709	356	6	6,048	1/2d.	14	17/4 (F)
GREENMOUNT	210	1941	123,295	182 @ 508 28 @ 498	4	8,826 8,662	1/1½d.	16	4/6 to 19/- (D)
CATHEDRAL ROAD	90	1946	63,000 (Est.)	868 662 (Est.)	22 c 5 68 c 4	11,583 8,826	1/6d.	15	21/- to 24/11 (F)
SCHOOL PLACE	10	1947	*	*	4	8,826	*	15	21/- (F)
ST. ANNE'S PARK	23	1948	*	*	4	9,327	*	16	21/- (F)
FULLER'S ROAD	23	1948	*	*	8 c 5 15 c 4	12,221 9,327	*	6 21	21/- 25/- (F)
MT. EDEN TERRACE	14	1948	*	*	4	9,253	*	27	21/- 21/7 21/8 (F)
BARRETT'S TERRACE	42	1949	*	*	4	9,253	*	14	21/- (F)
BALLYPHEHANE	163	1950	*	31 @ 1391 110 @ 1120 22 @ 793	31 c 5 110 c 4 22 c 2	11,550 10,360 7,300	2/5d. 2/2d. 2/2d.	13	25/- (F) 20/- (F) 15/- (F)
FRIAR'S WALK	18	1950	*	*	11 c 5 7 c 4	13,566	*	13	25/- 30/- 32/6 (F)

*Information not available at time of going to press.

Table 86.—Analysis of the Incomes of 1,820 Families who are at present housed under Differential Rents.

NUMBER OF TENANTS WITH WEEKLY INCOMES AS FOLLOWS

SCHEME	Under 20/-	20/- to 30/-	30/- to 40/-	40/- to 50/-	50/- to 60/-	60/- to 70/-	70/- to 80/-	80/- to 100/-	Over 100/-	Houses in Scheme
Gurranebraher 1	7	4	25	5	6	18	14	22	151	252
" 2	1	—	3	2	4	4	2	7	85	108
" 3	2	2	6	1	2	5	3	6	51	78
" 4	1	3	5	6	2	1	5	16	43	82
Bandon Road	5	5	3	2	6	3	6	6	50	86
Commons Road 1	1	3	4	9	7	3	3	13	127	170
" 2	2	—	6	4	5	5	4	9	71	106
Farranferris	—	7	9	6	7	9	10	19	139	206
Baker's Lane 1	4	3	22	9	10	10	9	19	180	266
" 2	2	8	24	29	12	11	9	18	129	242
Greenmount	6	8	18	15	10	7	7	21	118	210
Croaghtamore Gardens	1							1	12	14
	32	43	125	88	71	76	72	157	1,156	1,820

Section X.—Port Health

The Public Health Department is now undertaking the functions of the dissolved Port Sanitary Authority and in addition is executing the Infectious Diseases (Shipping) Regulations, 1948, in the functional area of the County Council.

Limits of Jurisdiction.

These are defined in The Cork Port (Enforcement of Health Regulations) Order, 1948, as follows :—"The expression "the Port" means the whole of that part of the customs port of Cork which lies between Power Head and Cork Head in the County of Cork, together with the waters of the said port of Cork within such limits and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits and the places for the time being appointed as the customs boarding station or stations for such part of the said port and the places for the time being appointed under the Health Regulations for the mooring or anchoring of a ship.

Deratization and Deratization Exemption Certificates.

Authority to issue the above is given by articles 19 and 20 of the Infectious Diseases (Shipping) Regulations 1948.

These certificates are almost identical with the international form of deratization and deratization exemption certificate drawn up by the office International d'Hygiene Publique under article 28 of the 1926 Convention and reprinted in the supplement to the Weekly Epidemiological Record, R.E.H. 174, dated 26th April, 1950. During the year 7 exemption certificates and 1 deratization certificate, were issued.

Issue of Deratization and Deratization-exemption Certificates.

The Quarantine Commission of the United Nations Health Organization Interim Commission at their session October, 1946, discussed the very many difficulties that arose in the estimation of the rat population on board vessels with a view to the issue of deratization and deratization exemption certificates, and surveyed the possibility of laying down an "index" which would be a basis for this purpose. At the request of the Commission, Dr. M. T. Morgan, Medical Officer of Health, Port of London, undertook to investigate this complex problem. The work was published under the auspices of the U.N.H.O. on the 22nd September, 1947, in the form of a note. This indicates quite clearly the conditions under which exemption certificates might be granted together with conditions calling for fumigation. As it appears to be very desirable to obtain uniformity on these matters, certificates are issued in this port on the basis of the published "index".

Cuskinny Intercepting Hospital.

The intercepting hospital is situated about two miles east of the town of Cobh and about half-a-mile from Cuskinny Strand on the northern shore of the harbour. The hospital was built in the year 1880 by the old Cork Board of Guardians and was acquired by the Port Sanitary Authority in the year 1902 from the Commissioners of Public Works (Ireland) and

since has been kept in good repair and condition. This property has now been vested in the Cork Corporation. The function of the hospital is to deal with the more serious types of infectious disease (e.g., small pox, plague, cholera, typhus, etc.) should any such cases arrive in the port necessitating hospital treatment or isolation. Infected vessels would moor at the quarantine anchorage, the patient being removed by motor launch and landed at Cuskinny Strand or some suitable slipway and transferred to ambulance for transport to the hospital.

Infectious Diseases (Shipping) Regulations, 1948.

These Regulations become operative from 1st July, 1949 and are designed to prevent the importation of the conventional diseases, smallpox, plague, etc., together with diseases listed in the first schedule of the Regulations. It is now necessary for the Master of every vessel entering the district from a foreign port to complete and sign a declaration of health which must be handed to the boarding officer of the Customs and Excise, the City Medical Officer or other officer of the health authority, whoever should board the vessel first. Free pratique will not be granted if the answers to any of the questions set out on the face of the form are in the affirmative.

Unauthorised Boarding.

A few reports have been received from the Customs authorities in connection with unauthorised boarding of vessels from foreign ports before they are free from control. Subsequent investigations on this matter shewed that quay labourers, against whom complaints had been made, were not conversant with the new Regulations and have given verbal undertakings to co-operate in every way with this department. A letter to stevedores, trade union representatives and others, with business on board vessels, was circulated, and it is felt that there will be no recurrence of these incidents. The object of these restrictions is to guard against the introduction of infectious disease. It is the duty of the officer of customs and excise to enquire specifically into the health of the crew and passengers arriving from foreign ports and until he is satisfied on this score, no one except certain named categories can board or leave these vessels.

Disinfection of Second-hand Clothing etc.

A little confusion appears to have arisen among importers of cleaning rags and secondhand clothing in regard to the requirements of article 20 of the Infectious Diseases Regulations, 1948, which govern such matters. This specifically states that such article shall be accompanied by a certificate issued by a Medical Officer of Health that it has been *effectually disinfected by steam* or in the case of an article liable to be damaged by steam, by other recognised means which shall be specified in the certificate. Several certificates indicating chemical disinfection of imported goods obviously of a type and substance suitable to steam disinfection, had to be rejected. As a general rule all second hand clothing is subjected to steam disinfection with the sole exception of flimsy and delicate silks, fur coats, boots, shoes, etc., which would be damaged under this process. These are placed in a specially constructed timber cabinet and exposed to a strong concentration of formaldehyde gas for a period of not less than twenty-four hours. Cleaning rags in all cases undergo steam disinfection at a pressure recommended for the destruction of sporing organisms.

A total of 5 tons, 13 cwts, 24 lbs. of imported secondhand clothing and cleaning rags were disinfected during the year.

Precautions Against Smallpox.

During the first week of April, the spread of smallpox in Glasgow was such that it necessitated precautions to prevent its possible introduction into the port by the weekly arrival of the S.S. "Rathlin" with passengers from that port.

Accordingly, instructions were issued to the Clyde Steamship Co. Ltd., here, that passengers and crew would not be permitted to land on arrival until the vessel was boarded and health conditions ascertained. It was also indicated to the Clyde management that vaccination would be offered to those on board the "Rathlin" not recently protected and those refusing this service would not be permitted to land.

The Collector of Customs and Excise was requested to arrange for the hailing of this vessel when passing Cobh inward and to direct it to the quarantine station in the lower harbour if the reply to the health query was in the affirmative. The "Rathlin" was boarded in Cork on arrival and all on board found well.

Vaccination was offered to passengers and crew and a total number of 47 availed of this. Those who produced recent evidence of protection against smallpox were not revaccinated. One member of the crew refused to accept protection and was detained on board under Section 28, sub sections (b) and (f) of the Infectious Diseases (Shipping) Regulations 1948.

Whilst the danger existed, the "Rathlin" was boarded immediately on arrival each voyage and precautions taken to prevent passengers and crew not recently protected and unwilling to be vaccinated from landing.

The utmost co-operation was received from the Clyde Steamship Co. Ltd., both here and in Glasgow, the Collector of Customs and Excise, Cork, and the Chief Preventive Officer, Cobh.

Measures against Rodents.

All vessels from foreign ports are boarded after arrival by the Port Health Officer who, after satisfying himself as to the health conditions and to the validity of the deratization certificate proceeds to the examination of the vessel in regard to rat infestation, particular attention being paid to cargo surfaces as soon as the holds have been opened up. The various cargo compartments are searched for sick or dead rats, which, if found, are submitted at once for bacteriological examination. During the period under review it is significant to report the complete absence of rat life on board a larger number of foreign going vessels which discharged in the port than hitherto. Compared with the number found infested during the immediate pre-war years, there are now positive indications of the immense strides that have been made in the past decade in the control of the ship rat. Shipowners have no doubt contributed in no small degree to this satisfactory position by the part elimination of conditions conducive to the nesting of rats on board their vessels. The gradual change over from solid fuel to oil fuel for steaming purposes has also helped by the elimination of semi-permanent harbourages in the various bunker spaces. Whilst excellent progress has generally been made in the proofing of hold spaces it would appear from inspections carried out here that the same

attention has not been given to potential harbourages and runs under the deck heads of upper cargo spaces. These consist of electric cable junction boxes and sheet metal casings protecting electric wires. Although it has been the practice here to advise shipowners on the protection of small spaces vulnerable to rat nesting, this cannot be considered satisfactory as it is indicative of the employment of beginners on this work in the shipyards. A case might therefore be made for investigation into this matter by W.H.O. with a view to having rat proofing on board vessels approved by riparian authorities before they are put into commission.

The following measures would be adopted in this port in the event of a vessel being found effected with human or rodent plague to prevent rats from coming ashore.

- (1) Vessel would be breasted off at least six feet from the quayside by placing wood floats between it and the quay wall.
- (2) Besides the adjusting of rat guards, moorings would be parcelled with old canvas on shore side of rat guards and same smeared with Stockholm tar.
- (3) Gangway would be required to be lifted from sunset to sunrise.
- (4) Intensive trapping and examination of rodents caught in the immediate neighbourhood of the ship's berth.

Of all diseases liable to be introduced by shipping, *plague* is without doubt the most to be feared, hence the necessity for the stringent precautions in regard to its prevention. Several of the ports from which shipping arrives in Cork are situated in countries in which plague is endemic, even though the ports themselves may not actually be infected at the time of departure. There is, however, the ever present danger of the importation of *plague infected rats* from such ports and it is in consequence of this danger that so much importance is attached to the systematic trapping and examination of rats taken on vessels. As there is always a certain amount of migration of rats from ships to the shore while vessels are tied up at their moorings it is also necessary to maintain a constant sampling and examination of the shore rats taken in warehouses adjacent to the quays. It will be noted from the appropriate tables that of 52 rats taken during the past year, 24 were submitted to post-mortem examination and that all gave negative results. In the previous year 44 were trapped, of which 29 were examined, also with negative results. The rats are examined in the first instance by the Inspector, under the supervision of the Chief Veterinary Officer. In the event of a suspicious finding, the carcase would be referred to the Bacteriological Department of University College for a further examination.

The fact that so many rats have been examined and found negative is not by any means an indication for relaxation in the measures which have been adopted in connection with their reduction and the prevention of plague. One infected rat coming ashore might be the cause of an outbreak among the shore population and from time to time we are reminded of this ever present danger by the discovery of plague infected rats in other ports. Plague is rarely transferred from one human being to the other, such transfer requires an intermediary and the agent is almost always the rat flea. It is only when an epizootic breaks out among the rats and large numbers die that the infecting flea seeks a new host and may transfer his attention to human beings. In countries where the disease is endemic, outbreaks among human beings are always heralded by excessive mortality among rats. Excessive rat mortality

on board ship is a very suspicious sign of plague infection and Masters are bound to notify any such happening at the port of arrival. Plague is such a deadly disease that no relaxation in preventive measures can be tolerated and for this reason it is necessary to keep up a constant watch over vessels arriving from foreign parts and for systematic examination and extermination of rats.

Notes on Shipborne rodents

Contrary to the general opinion, there appears to be no factual evidence nowadays, to support the theory that ships harbour huge colonies of rats. It is surprising nevertheless, to hear these remarks, not only from the average city dweller but even from officials who are intimately connected with shipping. Undoubtedly during the era of the sailing ships there might have been good reason for such belief, due to long voyages, when a couple of rats on board over a period of some months might raise a colony running into some hundreds. Similar cases may have been found also on steamships which port health authorities could do very little to correct, until powers were delegated to them by the International Sanitary Convention, in June, 1926.

This instrument provided, *inter alia* for the deratting of all foreign going vessels every six months should conditions on board not comply with those laid down by Article 28 (b) which governs the issue of deratization exemption certificates. Therefore, with this International control of shipping, the report of a vessel harbouring a pronounced rat infestation should be a rare occurrence. During the three year period 1937 to 1939, a total of 40 steam vessels from foreign ports were inspected in this port for the purpose of estimating the rat population on board. The findings, subsequently confirmed by deratting, shewed that a total of 158 rats were recovered from 13 of these vessels, representing an average of 12.1 rats per ship and that 33% of the examined vessels were infested. During the four year period 1947 to 1950, a further 40 vessels were examined here for the International Certificate. Of these, 10 were found infested or 25%, with an estimated rat population of 73, representing an average of 7.3 rats per vessel. The bulk of the carcasses recovered, numbering 45, were found on two vessels alone, which were, more or less, identical in build with those found infested and deratted during the 1937-1939 period.

The decrease of rat population and rat infested vessels may be attributed in the main to the following :—(1) increased number of proofed vessels ; (2) fewer solid fuel burners ; (3) more extensive use of H.C.N. as a deratting agent ; (4) greater accuracy in estimating rat infestation and (5) more co-operation between shipowners and port health authorities.

The use of the word "fumigation" in connection with the eradication only, of shipborne rats is rather a misnomer. It might possibly have been used in error when SO_2 was used exclusively for this purpose, but since its replacement by H.C.N., it might be more appropriate and correct in now speaking in terms of "Deratting" rather than "Fumigation".

Water Supply.

Drinking and boiler water is obtained directly from the public supply. There are upwards of 80 such hydrants available in this port. As mentioned in the section dealing with the supply to the City, the water is subjected to systematic sampling and bacteriological examination. 251 samples were examined during the year and the results indicated that the water was of first-class quality.

Table 87.—Return of Shipping—other than vessels not shipping or unshipping cargo—entering the Port since 1932.

Year	Number of Arrivals			Tonnage		
	Foreign	Coastwise	Totals	Foreign	Coastwise	Totals
1932	315	1,375	1,690	352,459	602,509	954,968
1933	399	893	1,292	371,757	462,047	833,804
1934	404	817	1,221	407,188	463,169	870,357
1935	285	1,015	1,300	323,631	525,062	848,693
1936	249	1,053	1,302	277,779	583,922	861,701
1937	250	1,098	1,348	300,730	594,396	895,126
1938	239	1,084	1,323	280,403	598,114	878,517
1939	202	1,074	1,276	274,660	521,801	796,461
1940	116	1,053	1,169	174,087	373,841	547,928
1941	—	522	522	Nil	203,976	203,976
1942	Figures not available.					
1943	do.					
1944	do.					
1945	do.					
1946	83	653	736	92,416	307,694	400,110
1947	148	535	683	276,194	283,626	559,820
1948	149	787	936	245,967	510,896	756,953
1949	215	779	994	262,479	558,251	820,730
1950	291	864	1,155	361,289	582,921	944,210

Principal foreign ports from which vessels arrived during the year :—

U.S.A.—New York, Baltimore, Norfolk, Philadelphia, Galveston, New Orleans, Longview.
 Canada—Halifax, St. John, Montreal, Sorel
 South America—Buenos Aires, Bahia Blanca, Montevideo, Santos, Rio de Janeiro.
 North Africa—Casablanca, Oran, Algiers, Sfax.
 Turkey—Izmir.
 Greece—Piraeus.
 Persian Gulf—Basrah.
 Spain—Cadiz, Port Lexioes, Huelva, Valencia, Barcelona.
 Portugal—Oporto, Lisbon.
 France—Le Havre, Cherbourg, Rouen.
 Belgium—Antwerp.
 Holland—Rotterdam, Amsterdam.
 Germany—Hamburg, Bremen
 Baltic Ports—Gotenborg, Stettin, Danzig, Aalborg, Rapsu.
 Canary Islands—Teneriffe.

Principal Cargoes landed in the Port.

Wheat and wheat offals, maize, barley, timber (dressed and undressed) fertilisers, phosphate, pyrities, motor car parts, motor oils and spirits, cement, coal, tractors, machinery, dried fruits, wine, roofing slates, cork, salt.

Table 88.—Return of Vessels entering the Port which were dealt with by the Department each month during 1950.

Month	Foreign Direct & Indirect	Coastwise	Total
January ...	9	47	56
February ...	15	55	70
March ...	14	55	69
April ...	14	42	56
May ...	11	61	72
June ...	10	65	75
July ...	3	24	27
August ...	17	49	66
September ...	21	47	68
October ...	34	57	91
November ...	25	39	64
December ...	16	51	67
Totals ...	189	592	781

Table 89.—Return of Imports and Exports from 1932.

Year	Imports (tons)	Exports (tons)
1932	890,377	104,884
1933	710,149	89,319
1934	784,174	66,606
1935	743,939	63,219
1936	788,545	73,673
1937	829,704	78,530
1938	802,238	65,147
1939	900,644	105,659
1940	734,888	74,517
1941	262,222	37,448
1942	Figures not available	
1943	do.	do.
1944	do.	do.
1945	do.	do.
1946	375,494	36,159
1947	557,566	35,293
1948	651,848	48,884
1949	700,929	49,442
1950	895,920	73,635

Sanitary defects and nuisances dealt with during 1950.

Dirty Focles	.....	.....	.....	.....	69
Dirty Store Rooms, Wash Places and Lockers	.....	.....	.....	.....	40
Dirty Mess Rooms and Cabins	.....	.....	.....	.....	31
Dirty Refrigerator	.....	.....	.....	.....	1
Dirty Galleys	.....	.....	.....	.....	5
Damp Quarters	.....	.....	.....	.....	17
Leaky Deckheads	.....	.....	.....	.....	16
Defective Port Frames, Discs and Prisms	.....	.....	.....	.....	28
Defective W.C. Fittings	.....	.....	.....	.....	17
Defective Bogie Stoves	.....	.....	.....	.....	5
Defective Flooring Boards	.....	.....	.....	.....	1
Defective Lockers	.....	.....	.....	.....	3
Defective Shell Plating	.....	.....	.....	.....	1
Defective Ventilation	.....	.....	.....	.....	4
Verminous Quarters	.....	.....	.....	.....	3
Foul Water Closets	.....	.....	.....	.....	48
Ships' Gear in Accommodation	.....	.....	.....	.....	2
Defective Hawse Pipes	.....	.....	.....	.....	1
Choked Waste Pipes	.....	.....	.....	.....	4
Total ...					296
Verbal Notices Given	...	...	...	...	138
Written Notices Left on Board	...	...	...	...	54
Letters to Owners	...	...	...	...	3
Total ...					195

A total of 1445 visits of inspection of vessels were carried out during the year.

Table 90.—Summary Vessels Inspected

Description	Number of Arrivals	Tonnage of Arrivals	Number Inspected	Number Found Defective	No. of Defects & Nuisances Remedied
<i>Foreign</i> Steamers	291	361,289	189	43	33
Direct & Indirect <i>Coastwise</i> Motor & Steam	864	582,921	592	149	134
Total	1155	994,210	781	192	167

TABLE 91—RATS TRAPPED ASHORE.

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
Jan. ...	1	1	—	—	—	1
Feb. ...	5	—	3	2	—	5
March ...	4	—	2	2	—	1
April ...	3	2	1	—	—	2
May ...	3	2	1	—	—	2
June ...	8	—	6	2	—	2
July ...	—	—	—	—	—	—
August ...	2	1	1	—	—	1
Sept. ...	2	1	1	—	—	—
Oct. ...	5	1	4	—	—	—
Nov. ...	4	—	4	—	—	2
Dec. ...	5	—	1	4	—	1
Total ...	42	8	24	10	—	16

* All P.M. Examinations proved Negative.

TABLE 92—RATS TRAPPED ON VESSELS

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam*
January	—	—	—	—	—	—
Feb. ...	1	—	1	—	—	1
March	—	—	—	—	—	—
April	1	—	1	—	—	1
May ...	2	—	—	2	—	1
June ...	1	—	—	1	—	1
July ...	1	—	—	1	—	1
August	—	—	—	—	—	—
Sept. ...	2	—	—	2	—	2
October	—	—	—	—	—	—
Nov. ...	—	—	—	—	—	—
Dec. ...	2	—	—	2	—	1
Totals	10	—	2	8	—	8

* All P.M. Examinations proved negative.

TABLE 93.—THE NUMBER OF RATS TRAPPED IN THE PORT SINCE 1938.

Year	No. rats trapped	No. of P.M's	Results
1938	199	136	Negative
*1939	231	149	"
1940	146	66	"
1941	119	28	"
1942	43	20	"
1943	32	23	"
1944	34	21	"
1945	42	28	"
1946	52	25	"
1947	56	31	"
1948	51	34	"
1949	44	29	"
1950	52	24	"

*Poisoning campaign commenced in the mills and stores abutting the dock area.

Table 95—Temperature at Cork (in the Shade) from 1884 to Present Year.

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YEAR	January	February	March	April	May	June	July	August	September	October	November	December	Mean Temper- ature of Year
	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean	Max. Min. Mean		
	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees		
1884	55-31-45.5	54-31-46.5	54-30-45.5	57-34-48.5	68-37-55.5	73-40-59.0	72-45-61.5	74-44-62.2	71-45-58.5	60-34-52.2	60-28-45.2	55-23-41.3	51.8
1885	54-27-41.7	50-27-43.5	54-30-43.5	62-30-48.2	61-34-52.0	73-42-59.2	80-43-62.0	74-46-60.5	65-36-55.2	57-35-46.7	58-31-46.7	54-25-39.5	49.9
1886	52-23-38.0	52-28-41.5	57-25-41.5	65-32-46.7	65-33-50.5	76-45-57.7	79-44-59.5	76-45-60.5	65-39-56.5	64-37-51.5	58-29-45.0	50-22-39.0	49.0
1887	54-30-43.0	54-27-43.5	58-25-42.0	62-26-44.5	70-35-52.5	81-47-62.5	80-47-64.2	76-42-60.7	69-39-55.0	61-28-48.2	54-24-42.0	55-25-39.7	50.0
1888	54-26-43.0	52-26-38.2	56-26-40.7	59-28-46.5	68-39-53.2	73-39-57.0	70-40-57.5	74-42-60.0	66-37-55.5	63-31-50.5	58-27-48.0	56-28-44.7	49.6
1889	58-26-43.0	57-27-42.2	59-29-44.7	58-32-46.7	68-40-48.0	77-46-58.0	77-45-60.0	72-43-58.7	70-38-57.2	59-32-48.2	60-29-48.2	56-29-44.2	49.9
1890	55-29-44.0	54-29-42.5	58-28-45.2	61-29-48.0	70-39-53.0	73-45-58.0	72-43-58.4	72-40-58.4	75-42-50.2	66-34-53.0	60-24-44.6	52-25-39.0	50.3
1891	53-23-40.3	56-31-45.7	61-22-42.1	60-31-46.9	73-34-50.0	78-40-58.6	75-44-59.0	73-40-58.0	71-39-56.5	61-29-48.5	53-28-42.6	55-26-44.0	49.4
1892	55-20-39.2	55-25-42.3	57-24-40.0	62-27-47.2	66-37-53.1	73-39-56.2	73-44-59.0	70-44-60.0	68-37-55.0	56-28-45.0	56-31-47.2	53-27-42.7	49.7
1893	53-21-40.5	53-24-42.5	60-34-47.5	67-31-51.5	69-43-56.5	80-46-59.8	74-46-61.2	77-45-61.7	71-33-55.2	63-31-49.0	59-30-43.0	53-26-42.5	50.9
1894	53-11-39.5	56-28-44.6	57-33-44.8	62-37-49.0	67-34-50.0	71-38-57.0	72-45-69.0	71-44-57.5	66-36-53.5	66-33-49.5	59-28-46.0	54-29-44.5	49.6
1895	47-23-36.5	48-22-34.5	63-27-44.0	61-31-48.2	70-33-53.0	74-40-58.7	70-44-58.7	70-43-59.0	71-46-58.9	62-28-46.0	56-30-45.0	54-26-42.5	48.7
1896	53-26-43.0	55-32-45.2	56-31-46.5	65-34-50.0	74-33-56.2	82-47-60.5	75-42-60.0	73-41-57.5	68-41-55.0	65-30-43.2	53-29-42.0	53-23-40.0	49.9
1897	50-22-37.5	56-32-46.0	55-31-44.0	58-29-46.0	70-35-51.0	75-41-59.0	77-43-61.0	80-45-59.5	67-38-53.2	61-37-52.2	58-32-47.2	53-29-44.0	50.1
1898	55-32-45.8	54-26-41.5	58-28-41.0	60-31-47.7	67-34-51.0	74-39-56.8	78-44-59.5	73-46-69.5	72-40-58.7	64-34-51.3	59-30-44.0	55-27-45.4	50.3
1899	53-26-40.1	52-29-43.0	64-22-43.0	63-29-46.6	65-34-50.6	78-41-59.5	76-45-60.0	76-46-62.3	71-31-54.1	60-29-47.9	55-39-47.2	51-24-40.0	49.5
1900	54-27-39.5	52-14-35.4	51-25-38.6	65-33-47.8	68-36-50.7	75-42-56.8	75-45-60.1	71-42-57.0	67-38-55.1	63-32-48.1	57-29-41.7	52-26-42.3	47.9
1901	49-24-37.8	49-22-35.8	51-34-38.9	59-39-45.0	68-34-51.9	72-37-54.2	76-46-60.2	75-41-57.5	67-39-54.0	61-31-47.0	54-19-41.2	51-26-37.5	46.8
1902	50-25-40.6	49-22-36.6	57-30-44.0	57-29-44.0	67-31-47.3	74-38-53.1	74-40-56.0	68-40-56.2	68-36-53.6	62-34-57.4	55-30-43.5	52-25-39.0	46.8
1903	50-22-39.5	52-29-42.7	52-29-41.1	57-27-43.7	69-36-50.4	70-35-54.0	74-43-56.6	68-40-56.4	64-36-52.4	60-28-46.2	55-24-41.0	48-22-37.0	46.4
1904	49-27-38.5	49-24-37.2	52-25-39.1	60-32-44.4	65-32-48.6	69-49-54.2	73-40-57.3	69-41-56.4	63-38-52.5	63-35-50.2	57-25-43.5	52-28-43.0	47.4
1905	51-29-42.0	55-23-41.6	53-30-42.6	58-33-46.4	68-36-52.6	75-42-58.0	76-45-60.0	70-42-55.5	68-39-53.6	62-26-45.0	52-23-39.0	50-30-43.3	48.3
1906	50-28-41.1	47-25-38.0	58-30-42.6	59-29-44.3	64-33-49.7	75-42-57.8	74-44-59.0	73-44-59.8	71-40-55.0	63-29-49.0	55-29-44.0	53-20-39.0	48.4
1907	49-18-39.6	52-25-38.4	57-32-45.8	64-30-45.4	65-35-48.7	69-49-53.5	78-41-58.6	68-43-57.0	68-38-57.0	60-28-45.9	52-29-49.8	49-27-39.5	47.5
1908	52-23-38.5	53-31-43.0	52-29-40.4	56-26-43.4	68-37-52.0	71-40-55.7	80-46-59.5	74-44-58.2	67-38-53.5	64-33-53.0	56-28-45.7	51-30-41.1	49.0
1909	51-28-40.3	52-22-39.6	56-30-43.6	61-31-46.8	66-33-51.0	69-41-54.0	71-45-58.6	79-43-59.7	65-37-52.3	64-26-49.0	55-20-38.2	50-24-38.3	47.4
1910	50-25-38.5	53-27-39.0	55-30-41.0	60-29-43.9	68-34-51.4	66-44-55.5	70-45-57.5	69-46-57.0	68-37-54.5	62-34-49.0	53-24-39.0	50-28-41.5	47.3
1911	50-27-39.2	53-22-39.7	56-29-40.3	59-27-40.9	70-37-52.2	72-45-56.7	79-44-61.0	73-45-60.2	73-39-54.3	57-31-48.0	53-26-39.9	49-27-39.3	48.0
1912	50-27-40.8	50-32-40.0	57-32-41.8	61-32-47.0	63-36-51.2	66-32-52.9	74-44-55.7	61-36-51.3	68-36-53.5	61-31-50.1	59-33-49.2	54-30-44.3	48.1
1913	52-27-40.6	54-32-43.6	55-34-45.0	59-29-44.7	64-36-49.5	75-38-54.0	74-47-55.9	74-40-58.8	72-44-57.6	61-32-51.5	60-34-48.9	56-33-45.6	49.6
1914	54-43-48.5	55-50-53.0	55-50-52.4	60-53-56.9	62-55-58.2	70-59-64.4	69-53-64.8	67-63-64.6	66-60-62.6	62-55-58.4	58-50-53.4	53-46-50.0	47.2
1915	50-37-43.5	45-25-35.0	58-35-46.5	50-35-42.5	62-40-51.0	64-40-52.0	62-42-52.0	65-43-54.0	62-40-51.0	55-37-46.0	48-28-38.0	40-28-34.0	44.9
1916	50-36-43.3	47-30-39.1	45-30-37.8	49-36-42.6	60-34-47.4	55-40-47.8	66-40-53.4	65-49-57.7	60-40-50.0	56-36-46.4	47-32-40.4	40-24-32.5	44.8
1917	52-22-36.0	50-24-35.0	52-28-39.25	59-30-41.5	70-32-50.25	66-40-52.25	68-40-55.4	70-46-56.12	66-26-51.25	56-36-40.8	58-30-44.5	56-26-38.4	45.7
1918	50-22-36.0	54-32-43.0	56-26-41.0	64-32-48.0	67-33-50.0	76-36-56.0	76-40-58.0	74-40-57.0	64-36-50.0	62-30-46.0	54-26-40.0	54-26-40.0	47.0
1919	54-24-36.0	50-26-39.0	50-24-37.8	56-30-43.2	72-34-51.2	68-36-51.0	74-40-58.0	80-40-57.5	64-34-49.7	62-36-44.6	56-14-34.5	54-28-41.0	46.0
1920	52-30-40.0	50-30-39.8	50-30-41.3	56-36-46.3	66-28-46.3	68-34-53.7	66-42-53.5	66-40-53.2	68-32-51.2	60-36-48.5	56-24-41.6	50-20-36.0	45.9
1921	60-25-44.7	50-24-36.2	50-24-37.5	58-26-41.5	70-34-48.4	76-32-55.0	80-40-60.0	74-38-54.2	64-32-48.2	62-28-47.4	46-20-39.7	50-28-41.2	46.2
1922	56-20-49.1	48-24-37.2	46-24-34.5	48-22-34.8	80-30-61.0	74-40-54.0	72-38-67.2	72-36-54.0	66-36-52.3	60-20-56.0	66-30-44.0	54-26-39.2	48.6
1923	54-27-43.4	55-29-43.6	56-30-45.1	58-31-46.2	65-33-49.3	65-33-49.3	79-48-62.2	78-42-59.6	69-37-53.4	61-30-49.5	58-20-38.8	53-25-43.0	49.2
1924	53-29-43.8	51-26-41.4	56-25-42.5	62-27-46.0	65-35-51.5	70-41-56.7	68-42-57.9	70-40-57.8	71-40-54.4	64-57-50.8	59-29-46.0	56-33-46.0	49.6
1925	55-31-44.4	55-28-41.8	60-29-43.8	57-30-45.6	62-34-50.3	81-44-59.5	75-45-60.2	74-43-60.2	68-35-53.3	69-32-52.5	59-24-41.2	56-21-39.8	49.4
1926	53-28-43.1	57-32-46.5	61-31-45.7	63-31-49.8	75-33-51.1	72-39-55.5	83-45-63.3	75-46-61.8	72-37-58.2	74-25-48.3	57-27-42.3	55-21-41.5	50.6
1927	60-28-42.3	57-26-44.1	57-27-45.9	65-29-48.4	72-36-53.5	70-38-54.5	74-50-61.1	76-46-59.9	70-36-54.5	65-35-52.2	61-23-43.5	52-26-40.8	50.1
1928	55-30-44.1	57-33-45.6	57-27-44.4	64-30-46.2	75-37-54.0	69-40-55.8	78-43-60.6	72-41-58.8	70-34-54.7	65-32-50.8	58-27-46.5	55-28-41.9	50.3
1929	54-23-39.8	56-28-43.5	69-26-46.3	65-33-47.9	75-31-52.4	71-41-56.7	75-42-59.8	72-44-59.6	74-39-58.9	63-31-49.5	59-24-44.8	56-27-42.7	50.2
1930	53-26-41.3	52-24-37.7	57-26-43.2	66-30-47.4	68-36-53.0	76-40-58.3	78-45-59.3	69-42-57.5	70-40-56.5	61-35-51.6	60-27-44.6	54-29-43.3	49.5
1931	53-27-41.2	55-30-42.2	56-25-43.5	64-34-48.3	65-35-52.7	72-43-58.4	71-43-59.5	76-37-59.4	65-22				

Table 94.—Showing Monthly Rainfall in Cork from 1878 to Present Year

Section XI—Meteorology.

I am indebted to Prof. H. N. Walsh, University College, for the following particulars concerning the weather conditions during the year, and more especially for the trouble which he has gone to to bring up to date the Tables which follow.

Table 94.—Rainfall in inches for each quarter and for each year from 1901 to present year.

Year	I.	II.	III.	IV.	Total
1901	10.07	7.62	10.75	10.12	38.56
1902	9.29	7.80	7.31	12.88	37.28
1903	16.89	8.80	14.95	12.13	52.77
1904	13.63	5.71	10.41	7.47	37.22
1905	11.70	6.59	9.82	9.14	37.25
1906	9.46	5.76	5.58	9.03	29.83
1907	4.06	10.10	7.40	16.02	37.58
1908	7.67	5.28	10.16	9.53	32.64
1909	7.61	9.94	2.62	9.74	29.91
1910	10.70	7.24	8.64	11.98	38.56
1911	5.94	6.89	7.87	18.47	39.17
1912	13.46	7.07	9.30	7.05	36.88
1913	13.92	10.32	7.73	12.49	44.46
1914	13.72	3.60	9.85	15.20	42.42
1915	11.62	6.27	9.26	15.68	42.83
1916	8.68	9.19	7.37	21.11	46.35
1917	8.75	6.93	9.40	7.25	32.33
1918	14.75	5.59	13.37	13.73	47.44
1919	10.78	7.11	6.77	6.97	31.63
1920	11.75	14.12	8.90	13.24	48.01
1921	8.04	2.22	8.71	9.90	28.87
1922	13.08	5.45	10.57	8.15	37.25
1923	14.41	5.38	10.71	10.54	41.04
1924	12.32	9.76	11.82	17.66	51.56
1925	10.31	10.49	8.43	11.92	41.15
1926	15.42	8.19	4.68	9.55	37.84
1927	12.20	6.16	11.45	16.06	45.87
1928	16.14	13.86	8.31	17.35	55.66
1929	11.28	6.72	7.27	20.91	46.18
1930	14.98	5.91	12.67	14.35	47.91
1931	12.30	10.35	8.34	13.27	44.26
1932	8.54	8.11	7.31	13.62	37.58
1933	8.61	8.74	5.22	6.47	29.04
1934	9.66	7.13	11.49	13.75	42.03
1935	5.33	9.33	9.98	10.97	35.61
1936	16.77	4.51	9.13	9.88	40.29
1937	19.67	6.12	7.90	8.52	42.21
1938	9.22	7.38	7.99	15.14	39.73
1939	13.01	4.94	7.43	16.53	41.91
1940	14.74	6.64	3.80	17.96	43.14
1941	12.82	5.47	5.73	14.40	38.42
1942	11.39	8.43	8.21	8.17	36.20
1943	11.59	7.47	8.80	10.99	38.85
1944	4.79	5.16	11.43	16.34	37.72
1945	8.90	6.23	10.30	12.25	37.68
1946	9.50	7.84	12.52	15.82	45.68
1947	21.07	12.36	6.38	11.29	51.10
1948	13.06	6.02	7.53	23.80	50.41
1949	4.73	7.64	8.05	11.81	33.23
1950	12.49	4.54	13.93	9.53	40.49

The mean temperature for 1950 was 50.1°F. The warmest days were May 13th, and June 12th with a Max., shade temp., of 75°F. The warmest nights were, June 7th, 15th, 21st, August 17th, 25th, 28th, with, a Min., shade temp., of 62°F. The coldest night was Dec., 6th, with a Min. shade temp., of 21°F.

Table 97.—*Mean Temperature* (°F.) for each quarter and for each year from 1901 to present year.

Year	I.	II.	III.	IV.	For whole year
1901	37.5	50.4	57.2	41.9	46.8
1902	40.4	48.1	55.3	43.3	46.5
1903	41.1	49.4	54.4	41.4	46.6
1904	38.3	49.1	55.4	45.6	47.1
1905	42.1	52.4	56.9	42.4	48.4
1906	40.6	50.6	57.9	44.0	48.3
1907	41.3	49.1	57.5	42.1	47.5
1908	40.6	50.4	57.0	46.6	48.6
1909	40.2	50.6	56.9	41.8	47.5
1910	39.5	50.3	56.3	43.2	47.4
1911	39.7	51.3	58.5	42.4	47.5
1912	40.9	50.4	53.5	47.9	48.2
1913	43.0	49.4	57.4	48.7	49.6
1914	40.3	51.4	56.7	43.5	48.1
1915	38.3	49.2	52.7	39.2	44.9
1916	40.0	45.9	53.7	39.7	44.8
1917	36.7	48.1	54.2	43.9	45.7
1918	40.0	51.3	55.0	42.0	47.0
1919	37.6	48.5	54.4	40.0	45.5
1920	40.3	48.9	52.6	42.0	45.9
1921	39.6	48.3	54.3	42.7	46.2
1922	40.2	49.9	57.8	46.4	48.6
1923	44.0	50.7	58.4	43.8	49.2
1924	42.6	51.4	56.7	47.6	49.6
1925	43.3	51.8	57.9	44.5	49.4
1926	45.1	52.1	61.1	44.0	50.6
1927	44.1	52.2	58.5	45.5	50.1
1928	44.7	52.0	58.0	46.4	50.3
1929	43.2	52.3	59.4	45.7	50.1
1930	40.7	52.9	57.8	46.5	49.5
1931	42.3	53.1	58.2	46.7	50.1
1932	43.2	52.1	59.7	46.4	50.4
1933	42.3	54.5	62.1	44.9	51.0
1934	42.4	52.8	59.8	47.6	50.6
1935	44.1	52.7	59.4	44.2	50.1
1936	42.8	52.6	59.9	47.1	50.5
1937	42.6	53.8	59.2	44.9	50.1
1938	45.3	52.3	58.4	46.6	50.6
1939	44.6	53.9	59.8	45.9	51.0
1940	43.2	55.6	58.9	45.4	50.8
1941	40.4	51.8	60.0	47.5	49.9
1942	42.6	53.4	59.6	45.5	50.2
1943	44.9	53.8	57.0	46.3	50.5
1944	44.4	53.9	58.7	45.3	50.5
1945	43.9	52.5	60.3	49.3	51.5
1946	44.3	52.5	57.4	46.7	50.2
1947	39.1	52.6	59.0	47.9	49.6
1948	44.7	52.3	58.8	48.9	51.2
1949	45.7	53.9	61.9	47.7	52.3
1950	44.9	53.9	58.2	43.6	50.6

BAROMETER.

The mean reading for 1950 was : 29.90 ins. The highest reading was 30.51 ins., on the 18th January. The lowest reading was 29.02 ins. on the 19th November.

SUNSHINE.

Total bright sunshine for 1950 was 1,345.7 hours.

	Hours		Hours
1930	... 1,478.1	1940	... 1,493.9
1931	... 1,313.8	1941	... 1,246.5
1932	... 1,282.5	1942	... 1,482.5
1933	... 1,465.8	1943	... 1,093.8
1934	... 1,480.1	1944	... 1,209.1
1935	... 1,442.0	1945	... 1,263.8
1936	... 1,357.5	1946	... 1,274.4
1937	... 1,259.4	1947	... 1,252.9
1938	... 1,350.9	1948	... 1,333.5
1939	... 1,393.1	1949	... 1,479.9

SUMMARY OF WEATHER OBSERVATIONS AT CHARLESTON, BALLINACURRA

January :

BAROMETER :	Highest	.....	30.61 on the 18th.
	Lowest	.....	29.68 „ 5th.
	Mean for the Month		30.21
THERMOMETER :	Highest	.....	55°F. on the 2nd & 8th.
	Lowest	.....	23°F. „ 25th.
	Mean for the Month		43.8°F.
RAINFALL :	2.25" which is 1.64" below average.		
SUNSHINE :	38.6 hours which is 8.4 hours below average.		
WINDS :	Were mainly Westerly for the first 10 days of the month and moderate ; there followed 9 days of light, variable winds and for the remainder of the month, wind veered easterly, very light at first but rising to gale force on the 28th and 29th and continuing squally and tempestuous.		

REMARKS : The year opened with overcast skies and relatively high temperatures ; after a broken spell an anti-cyclone set in on the 9th and weather was dry, sunny and cold, with frequent ground frosts until the 27th. The remainder of the month was squally, and very broken, with no less than 1.56 inches of rain in 4 days.

The frosty weather in mid January was bracing and healthy, clearing the soil of surface insect pests. The heavy rain at the end of the month, though overdue after the dry weather of the autumn, left the ground wet and heavy and so set back work on the land.

February :

BAROMETER :	Highest	.....	30.26 on the 21st.
	Lowest	.....	29.18 ,, 3rd.
	Mean for the Month 29.71		
THERMOMETER :	Highest	.....	34°F. on the 9th, 16th and 17th.
	Lowest	.....	26°F. ,, 26th.
	Mean for the Month 43.05°F.		
RAINFALL :	5.87" which is 2.82" above average.		
SUNSHINE :	65.2 hrs. which is 2.82" below average.		
WINDS :	Moderate to strong and mainly from the South and West, during the first half of the month conditions were wild and squally and winds reached gale force on the 5th, 8th, 11th and 16th subsequently winds abated their strength.		

REMARKS : February inherited the heavy rain and stormy weather prevailing at the end of January and until the 16th conditions were unsettled and subject to wild squalls with sudden changes from rain to ground frosts ; thunder and lightning caused electrical disturbances and gales brought tragedies at sea and heroic attempts at rescue near our coasts. In the second half of the month winds lost their violence but heavy rain continued.

" February Fill-dike " lived up to its reputation ; there were only 5 days without rain and at 5.87 inches this has been the wettest February since 1929. As a result, work on the land has been held up and preparation of the seed bed, so fundamental to a good harvest, has been much delayed.

Penetrating damp has been responsible for a great increase in colds, coughs and other ailments.

March :

BAROMETER :	Highest	.....	30.67 on the 5th.
	Lowest	.....	29.38 ,, 16th.
	Mean for the Month 30.15.		
THERMOMETER :	Highest	.....	58°F. on the 4th.
	Lowest	.....	30°F. ,, 1st.
	Mean for the Month 47.3°F.		
RAINFALL :	2.85" which is 0.21" below average.		
SUNSHINE :	98.3 hours which is 17.7 hrs. below average.		
WINDS :	Very variable, light at first, strengthening in the middle of the month to gale force on the 15th and 16th and then becoming light or moderate.		

REMARKS: March began with a welcome and much needed anti-cyclone and its first fortnight was fine and bright. From the 12th to the 22nd weather was wild, broken and squally; the month's rainfall was concentrated into these 10 days and during this bad spell there were two gales, thunder and lightning and general atmospheric disturbances. On the 23rd another anti-cyclone set in, accompanied by light, drying winds and brilliant sunshine.

Work on the farm and in the garden, so much hampered by February's rain, has had a great opportunity for recovery. Although the wet weather in the middle of the month was damaging and depressing, March in its first fortnight and last week was March at its best, and the preparation of the Seed Beds, and sowing operations have been general under good conditions.

April :

BAROMETER : Highest 30.42 on the 22nd.
 Lowest 29.64 „ 2nd.
 Mean for the Month 29.97

THERMOMETER : Highest 61°F. on the 29th.
 Lowest 31°F. „ 14th & 15th.
 Mean for the Month 47.4°F.

RAINFALL : 1.93" which is .46" below average.

SUNSHINE : 165.8 hours which is 8.8 hrs. above average.

WINDS : Until the last few days of April, winds were moderate to strong and veering between North and West. Heavy squalls on the 2nd and 9th reached gale force.

REMARKS: The first week of April was stormy and broken and relatively mild, but, during the second week of the month, temperatures dropped sharply and winds developed a harsh sting which had a very bad effect on young plants and corn and gave a severe check to growth; during this unpleasant spell even the rain was cold, there were hail showers and ground frosts.

After heavy rain on the 16th, day temperatures rose though nights remained very cold, but winds stayed very harsh and severe until they veered southerly on the 28th and weather softened.

There were only 4 rainless days in April, but the rain was mostly in the form of scattered showers, so that, the total for the month is below average. The damaging harshness of the winds undid the good which the bright sunshine might otherwise have done and rendered April a bad month for farm and garden.

May

BAROMETER :	Highest	.....	30.37	on the	30th.
	Lowest	.....	29.69	„	21st.
	Mean for the Month 30.16				
THERMOMETER :	Highest	.....	72°F.	on the	13th.
	Lowest	.....	33°F.	„	17th.
	Mean for the Month 53.25°F.				
RAINFALL :	.85" which is 1.74" below average.				
SUNSHINE :	203.4 hours which is 16.4 hrs. above average.				
WINDS :	With the exception of the first four and last five days of the month winds veered from North to East consistently and were moderate to strong.				

REMARKS : May was a bright and sunny month, pleasant for early holiday makers, but much too dry for farm and garden. Day temperatures rose steadily to a peak point (72°F.) on the 13th and then dropped 19° in three days, but by the end of the month were again well up in the 60's.

There were 20 rainless days in May ; on the "rain days" scattered showers were general, and only on the 21st, 22nd and 23rd was any significant fall recorded—.52 inches between the three of them. Following on the last two dry weeks of April, and combined with drying Easterly winds, this has produced severe drought conditions, and rain is now urgently needed.

June :

BAROMETER :	Highest	.....	30.44	on the	5th.
	Lowest	.....	29.73	„	21st.
	Mean for the month 30.10				
THERMOMETER :	Highest	.....	73°F.	on the	12th.
	Lowest	.....	40°F.	„	15th.
	Mean for the month 58.5				
RAINFALL :	1.94" which is .15" below average.				
SUNSHINE :	171.2 hours which is 14.8 hours below average.				
WINDS :	Moderate and mostly from the West and South-West.				

REMARKS : In the first half of June the warm, dry conditions prevailing at the end of May continued, and provided lovely weather for holiday-makers, but the prolonged drought had an adverse effect on farm and garden ; the surface of the ground was baked and powdery and the water level in rivers and lakes alarmingly low. From the 1st May to the 16th June there were only 13 "rain days", and only 0.8 inches of rain were recorded ; it was therefore a welcome relief when weather broke on the 17th June and over 1 inch rain fell in 48 hours. Night temperatures dropped until the last week of the month when they rose sharply and weather remained dull, warm and inclined to be showery.

The mean temperature is the highest recorded for any June since 1940, although the sunshine is below average.

July :

BAROMETER :	Highest	30.27 on the 19th.
	Lowest	29.41 „ 16th.
	Mean for the month 29.98.	
THERMOMETER :	Highest	71°F. on the 30th
	Lowest	41°F. „ 26th.
	Mean for the month 59.5°F.	
SUNSHINE :	158.2 hours which is 11.8 hours below average.	
RAINFALL :	2.55" which is .32" below average.	
WINDS :	Were South-westerly throughout almost the whole month, light in the first week, then increasing to moderate.	

REMARKS : July was a month of unsettled and variable weather, very disappointing to haymakers and to people on holiday. It was, for the most part, heavy and oppressive and its outstanding feature was the frequency of its rainfall, rather than the amount of it. There were only five days in July's thirty-one on which rain was not recorded, yet its total of 2.55 inches is below the normal.

The month provided splendid growing weather and corn crops are well advanced, but now need a fine, warm spell for maturing and ripening the grain.

August :

BAROMETER :	Highest	30.25 on the 15th.
	Lowest	29.50 „ 9th.
	Mean for the month 29.92.	
THERMOMETER :	Highest	71°F. on the 3rd & 12th.
	Lowest	42°F. „ 29th.
	Mean for the month 58.25°F.	
SUNSHINE :	198 hours which is 40 hours above average.	
RAINFALL :	6" which is 2.85" above average.	
WINDS :	Mainly from the South and West. moderate to strong in the first half of the month, and light subsequently.	

REMARKS : August was a very bad month, with frequent rain and thoroughly unsettled conditions. There were only five altogether fine days and much of the rain that fell was very local in character, varying greatly within a small area and characterised by its violence. At six inches this was the wettest August since 1928, readers therefore may be surprised that this very wet month also yielded 40 hours more sunshine than normal.

It was, in fact, the frequency of the rainfall, rather than the amount of it, that was so damaging. Farmers have had a distracting time trying to harvest their corn which rarely had a chance of drying out before further rain again delayed them and the harvest, which promised to be unusually early, is now running late.

September :

BAROMETER :	Highest	.....	.....	30.31 on the	23rd.
	Lowest	.....	.....	29.59	„ 30th.
	Mean for the month 29.93.				
THERMOMETER :	Highest	.....	.....	69°F. on the	3rd.
	Lowest	.....	.....	39°F. on the	16th & 29th.
	Mean for the month 54.9°F.				
SUNSHINE :	114 hrs. which is 18 hours below average.				
RAIN :	5.16" which is 2.49" above average.				
WINDS :	Mainly from the West and South ; moderate to strong in the first half of the month, and reaching gale force on the 6th and 13th. A very violent gale, one of the most violent known in these regions, swept the country on the 16th and 17th and left behind it a trail of extensive damage. After this winds became moderate.				

REMARKS : This was the wettest September since 1935 ; there were only two days in which no rain was recorded, but by far the greater portion of rain fell in the first sixteen days of the month. On the 16th a steady downpour was the prelude to a Southerly gale of almost unprecedented violence and over 1 inch fell in 24 hours. The storm, estimated to be moving over the Atlantic at 100 miles per hour, burst over this area felling trees in hundreds, whipping off roofs, dislocating wires and hurling corn and hay stacks to the ground. The violent wind continued long after the rain ceased and, as though to make some tardy amends for its destructive sport, it did much to dry up corn, and the surface of the ground.

Subsequent weather was much improved, but there was heavy rain again on the night of the 22nd and 23rd and in the early hours of the 29th.

Following a very wet August, September's frequent rainfall made harvesting conditions exceedingly difficult. Some 11.16 inches fell in $8\frac{1}{2}$ weeks, an unenviable record, last broken in 1934, when August and September yielded 11.17".

The successive strong winds wrought havoc to the apple crop and owing to the saturation of the ground the lifting of the potato crop was much delayed.

October :

BAROMETER :	Highest	30.44 on the 23rd.
	Lowest	29.68 „ 1st.
	Mean for the month 30.10.	
THERMOMETER :	Highest	63°F. on the 18th.
	Lowest	33°F. „ 31st.
	Mean for the month 50.1°F.	
SUNSHINE :	101.9 hours which is 6.9 hours above average.	
RAIN :	1.74" which is 2.07" below average.	
WINDS :	Mainly South West to West, moderate to strong in the first week of the month and subsequently light.	

REMARKS : After the very heavy rainfall of August and September, October brought a welcome anti-cyclone, which lasted until the closing days of the month, and enabled the late threshing of corn and autumn work in farm and garden to be carried out in excellent conditions. After the first week temperatures dropped sharply and though bright sunshine warmed many days, nights were for the most part cold. It was a bracing and wholesome month, bringing a belated reminder of what the summer might have been, and kindly postponing the grey days of approaching winter.

November :

BAROMETER :	Highest	30.32 on the 4th.
	Lowest	29.13 „ 19th.
	Mean for the month 29.83.	
THERMOMETER :	Highest	58°F. on the 2nd.
	Lowest	29°F. „ 25th & 26th.
	Mean for the month 43.15°F.	
RAINFALL :	3.5" which is .39" below average.	
SUNSHINE :	81.3 hours which is 19.3 hours above average.	
WINDS :	Light to moderate, and mainly from the South and West during the first three weeks of the month ; then veering North-East.	

REMARKS : After heavy rain on the 1st November we had ten days of anti-cyclonic weather, with bright sunshine raising day temperatures, but cold nights. From the 10th to the 20th, weather was very broken with night frosts, thunder, heavy showers and squally conditions. A spell of Easterly wind again brought fine weather, but it was very much colder, with overcast grey skies and day temperatures low in the forties, though after heavy rain on the 27th, these tended to rise once more.

The month has been a good one for the farm and garden and has enabled late autumn and early winter work to be pushed well ahead.

December :

BAROMETER :	Highest	.....	.....	30.45 on the	26th.
	Lowest	.....	.....	29.49	„ 22nd.
	Mean for the month 29.97.				
THERMOMETER :	Highest	.....	.....	52°F. on the	9th
	Lowest	.....	.....	26°F.	„ 6th & 15th.
	Mean for the month 37.35°F.				
RAINFALL :	3.59" which is .58" below average.				
SUNSHINE :	51.8 hours which is 9.8 hours above average.				
WINDS :	Were mainly from the north and light but were very strong on the nights of the 13th and 22nd, after which they tended to veer East.				

REMARKS : December opened with a very cold spell, and in its first week there were ground frosts at night and light falls of snow, though bright sunshine helped to mitigate these harsh conditions by day. Temperatures rose in the second week, but dropped again in the middle of the month, and in the closing days of the year weather was very severe, with frost and snow locally. It will therefore be no surprise to readers to learn that 1950 gave us the coldest December since 1938, although sunshine was a little above average.

As always, when frost was followed by thaw and then by frost again, the ground was either hard and slippery or soft and wet, and many roads were difficult to travel at intervals.

Appendix I.

OPERATION OF THE SCHEME FOR THE
TREATMENT OF VENEREAL DISEASES.

Table. 98—Record of Work Done in the V.D. Treatment Centre.

	Cork City		Cork County		Other Districts		Total		Total Male and Female Cases
	M.	F.	M.	F.	M.	F.	M.	F.	
<i>New Cases (1st time)</i> ...									
Syphilis ...	7	7	3	3	1	—	11	10	21
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	7	3	—	—	7	—	14	3	17
Not V.D. ...	25	25	4	5	5	—	34	30	64
Total ...	39	35	7	8	13	—	59	43	102
<i>Total Attendances :—</i>									
Syphilis ...	265	1152	170	602	7	—	442	1754	2196
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	28	24	3	—	9	—	40	24	64
Not V.D. ...	31	36	6	11	8	—	45	47	92
Total ...	324	1212	179	613	24	—	527	1825	2352
<i>Cured :—</i>									
Syphilis ...	3	4	1	3	—	—	4	7	11
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	7	3	—	—	7	—	14	3	17
Not V.D. ...	—	—	—	—	—	—	—	—	—
Total ...	10	7	1	3	7	—	18	10	28
<i>Pathological Exams. :—</i>									
Wassermann ...	108	70	47	33	2	—	157	103	260
Gonococci ...	26	3	3	—	7	—	36	3	39
Kahn ...	24	58	7	26	—	—	31	84	115
Total ...	158	131	57	59	9	—	224	190	414
<i>Therapy :—</i>									
Arsenicals ...	91	721	61	315	3	—	155	1036	1191
Bismuth Preparations ...	169	224	101	178	5	—	275	402	677
Irrigations ...	—	—	—	—	—	—	—	—	—
Douches ...	—	1	—	—	—	—	—	1	1
Penicillin... ...	28	66	3	30	9	—	40	96	136
Potassium Iodide ...	—	3	—	—	—	—	—	3	3
Total ...	288	1015	165	523	17	—	470	1538	2008

Table 99.—Record of *new cases treated annually at Centre.*

Period	Syphilis	Soft Chancre	Gonorrhoea	Not V.D.	Total
1938	29	—	42	34	105
1939	37	1	27	42	107
1940	34	8	30	46	118
1941	25	6	42	68	141
1942	54	4	63	67	188
1943	113	4	79	101	297
1944	81	1	49	116	247
1945	59	—	63	107	229
1946	73	—	48	130	251
1947	46	—	39	91	176
1948	50	—	39	99	188
1949	26	—	17	68	111
1950	20	—	17	64	102

Table 100.—Record of new cases treated during 1950 (non V.D. Cases not included).

Period	Males	Females	Total
Jan.	8	1	9
Feb.	—	—	—
Mar.	1	1	2
Apr.	3	2	5
May	1	1	2
June	—	2	2
July	2	—	2
Aug.	1	—	1
Sept.	1	—	1
Oct.	3	3	6
Nov.	2	—	2
Dec.	3	3	6
Totals	25	13	38

Table 101.—Monthly attendances at V.D. Centre, 1950.

Period	Males	Females	Total
Jan.	57	191	248
Feb.	49	165	214
Mar.	53	187	240
Apr.	36	143	179
May	19	169	188
June	37	183	220
July	45	147	192
Aug.	32	132	164
Sept.	38	145	183
Oct.	49	143	192
Nov.	68	119	187
Dec.	44	101	145
Totals	527	1825	2352

The total number of new cases (Male and Female) of Gonorrhoea and Syphilis treated during the year was 37. This represents a decrease on last year's figure which was 43. It is in fact the lowest number of new cases treated at the Centre since 1938.

Appendix II.

OPERATION OF THE COUNTY BOROUGH SCHEME FOR THE WELFARE OF THE BLIND

The following are the terms of the Scheme drafted for this purpose and now in operation within the Borough :—

In this scheme the term " Blind Person " shall mean any inhabitant of the County Borough who is so blind as to be either unable to perform any work for which eyesight is essential, or unable to continue his or her ordinary occupation ; the term " The Corporation " shall mean the Lord Mayor, Aldermen and Burgesses of the County Borough of Cork, acting by the City Manager ; the term " The Minister " shall mean the Minister for Local Government and Public Health.

2. The Corporation will establish and maintain a Register in which shall be entered the name and address, age, sex, religion and other necessary particulars of every blind person who shall produce a certificate from a recognised Ophthalmic Surgeon that the acuity of vision of such person (refractive error being corrected) is below 1/20th normal (3/60th Snellen), or that such person is so blind as to be unable to continue his or her ordinary occupation. Any person between the ages of 30 and 70 may, however, be registered without producing such certificate on furnishing evidence of being in receipt of a pension in pursuance of Section 6 of the Old Age Pensions Act, 1932. The Register shall be kept written up-to-date, and shall be revised annually in the month of January. The Corporation shall be empowered to pay reasonable fees to Ophthalmic Surgeons for certifying in cases of necessitous persons.

3. Arrangements will be made by the Corporation with the Authorities of one or more of the Institutions for the Blind mentioned in the Schedule hereto on such terms as may be approved by the Minister for the following purposes :—

- (a) the education or industrial training of suitable blind persons between the ages of five years and thirty years ;
- (b) the employment in workshops for the Blind of blind persons suitable for such employment, their maintenance in a Hostel, and the augmentation of their wages ;
- (c) the maintenance in Homes of blind persons who, owing to age or infirmity, are incapable of work.

4. The Corporation may in cases of unemployed and necessitous blind persons ineligible for education or industrial training under Article 3 (a) of this Scheme and living in their own homes or in lodgings, grant assistance to such persons in accordance with the following scale :—

Classification of Blind Persons	Amount of weekly allowance
(a) Blind person over 15 years and under 21 years of age	20s. 0d.
(b) Blind person 21 years of age and upwards	15s. 0d. (with pension)
(c) Married man 21 years of age and upwards with wife dependent on him	20s. 0d. (with pension)
(d) Additional allowance for each child	3s. 6d.

In considering the grant of allowances on this scale to the classes of blind persons at (a) and (c) above, the Corporation will not take into account casual earnings of any such person where they are satisfied that such earnings do not exceed twenty shillings per week.

5. Nothing in this Scheme is to be construed as giving blind persons irrespective of their means or conduct, a right absolute to assistance. The Corporation will not grant an allowance under Article 4 above to any blind person under 21 years of age who is capable of instruction and who declines without a satisfactory reason to take advantage of the facilities for education, training or employment under the Scheme, or who is by conduct or otherwise deemed unsuitable for assistance. No habitual mendicant shall be granted an allowance under the Scheme unless the practice of mendicancy is discontinued. No person shall be eligible to receive assistance under this Scheme who shall not have been resident within the County Borough for two years previous to date of application for assistance.

6. The Corporation may incur such expenditure in the execution of this Scheme as the Minister may from time to time approve.

7. This Scheme shall come into operation on the 1st October, 1932 and shall continue for a period of three years, but may during the period with the consent of the Minister be modified, extended or revoked by the Corporation, and with the like consent may be continued for such further time as may be deemed necessary. Any question, dispute or difference arising in connection with the interpretation of this Scheme shall be determined by the Minister whose decision shall be final.

SCHEDULE

Institutions for the Blind Approved by the Minister	Class of Blind Persons Received
1. St. Mary's Institution for Female Blind, Merrion, County Dublin	Females, also boys up to 7 years of age
2. St. Joseph's Asylum for Male Blind, Drumcondra, Dublin	Males
3. Richmond National Institution for Industrious Blind, 41, Upper O'Connell Street, Dublin	Males
4. Cork County and City Asylum for the Blind, Infirmary Road, Cork	Males and Females

The number of persons receiving weekly allowances in their own homes from the Corporation during the year was 226, and the disbursements under the heading amounted to £7,744 12s. 4d. 25 applications were received for allowances. Other disbursements amounted to £166 9s. 6d. (examinations, grant to National Council and other expenses). In addition to the above-mentioned, 23 cases were maintained in Institutions by direct grants from the Corporation, viz. :—Cork Blind Asylum (9 males and 8 females); St. Mary's, Merrion (6 females). The total cost of the maintenance amounting to £870 2s. 3d.

The following note is contributed by the Hon. Secretary of the local branch of the National Council for the Blind of Ireland.

Home Teaching for the Blind.

Under the National Council for the Blind, this very essential service has been inaugurated in Cork City, to which the Corporation has granted a small annual contribution towards the expenses incurred by employing trained and qualified Home Visitors and Teachers.

The work of the Home Visitor is varied and broad, embracing social as well as mental instruction. She must help the blind to become active members in their homes, teach them to read embossed type, various handicrafts, such as knitting and rugmaking, and to bring an interest and hope into their otherwise hopeless lives.

The Home Visitor can help to prevent blindness in children, who often, through parental ignorance and negligence, or want of interest, lose their sight, which under proper care and supervision can be cured by seeing that they are provided with glasses where necessary and sent for treatment. She also gives her assistance and advice over pension applications, appeals and better accommodation.

Wireless sets are distributed on loan where most required, entertainments organised and free seats at musical shows secured.

Voluntary visitors also give their services to read and spend some time talking to the lonely blind, who greatly appreciate these visits.

Classes are held weekly for instruction in basket making, chair-caning and other forms of handicraft. The finished articles are presented for sale only if up to standard—no inferior goods labelled "Made by the Blind" are passed for sale. Efficiency is the definite aim.

The Home Teacher becomes a real friend of the Blind, who turn to her in all their difficulties, knowing that they will obtain help and encouragement to become as useful and important as their sighted brothers and sisters.

Suitable cases are urged to enter institutions for the blind and arrangements made for this purpose.

The Home Teacher has office hours daily where any blind or defective sighted person can get in touch with her and make enquiries. Over the Home Visitor is an Executive Council who meet monthly, receive the reports of the Home Visitor, deal with various cases, arrange the financial side of the work and follow closely and with interest the progress which is being made.

The following is a resume of the work done by the Home Visitors of the National Council for the Blind.

Number of Cases on Register on 31st December	.....	.....	478
Visits paid to Blind	.....	.....	2,449
Visits paid on behalf of the Blind	.....	.....	373
Interviewed at office, City Hall	.....	.....	1,281
Number of Braille readers	.....	.....	17
Number of Moon readers	.....	.....	6
Number attending Men's Handicraft Class	.....	.....	12
Number attending Women's Handicraft Class	.....	.....	8
Number of Home Workers whose work is of saleable standard			34
Number helped with Artificial Eyes and Spectacles	.....	.....	6
Number given Fuel and Christmas Gifts	.....	.....	110
Number given help to buy Dentures	.....	.....	1
Number given Nourishment and Relief	.....	.....	294
Helped to purchase Furniture and Bedding	.....	.....	14
Individuals issued with Penny Dinner Tickets	.....	.....	2
Sent to Institutions for the Blind	.....	.....	1

Appendix III.

Physical Features of the Area

The City of Cork is situated on the river Lee, fifteen miles from its mouth in Cork Harbour. On the north bank of the river there is steep rising ground almost prohibiting building development, save in the form of hillside roads and open building of large houses, with the exception of the marked break of the Blackpool valley, very full use of which has been made. Next comes the flat island comprising the centre of the City. This island is almost entirely artificial, and consists of six feet of filled-in material, with ten feet of slob below that and then gravel overlying old red sandstone. Southwards is a gently undulating tract of land about one and a half miles wide enclosed by a range of hills. There is a considerable amount of land liable to flood in the Lee Valley, west of the city, towards Carrigrohane, and the flatness of the islands on which the city is built and the height to which unusual tides ascend being nearly to the crown of the arches of the old bridges, render certain portions of the city itself also liable to flooding.

The geological formation of the city region is simple and clearly marked in its effect on the landscape. There are only two systems visible, both paleozoic rocks, the carboniferous limestone and the older underlying Devonian, representing the old red sandstone. Each of these formations is in two series; the carboniferous in a crystalline limestone and in a dark shale (with some 10 feet slate); The Devonian in the upper old red sandstone (yellowish and reddish) and in the lower, old red sandstone (red and purple). The characteristic aspect of the countryside has been caused by the crinkling of these strata into regular parallel folds. Further the limestone which should have formed the ridge of the anticlines has been denuded or dissolved away, so that the highest ground consists of old red sandstone, and even the lower series of this; the hollow folds, floored by limestone, have been subsequently protected from further denudation by a covering of boulder clay. In this immediate region there are thus three old red sandstone ridges and two limestone valleys, in the northern of which the city stands under the brow of the northern sandstone ridge. If this sandstone ridge had possessed its original limestone capping, it would probably have been at least 2,000 feet high.

Appendix III.

Physical Features of the Area

The City of Cork is situated on the south-western corner of the island of Ireland, in the County of Cork. It is one of the largest and most important cities in the country, and is the principal port of the south-west. The city is built on a peninsula, and is surrounded by water on three sides. The River Lee flows through the city, and is the main source of water for the population. The city is also situated on the main road between Dublin and Cork, and is a major centre of commerce and industry. The physical features of the area are characterized by the presence of the River Lee, the city walls, and the surrounding hills and fields. The city is built on a peninsula, and is surrounded by water on three sides. The River Lee flows through the city, and is the main source of water for the population. The city is also situated on the main road between Dublin and Cork, and is a major centre of commerce and industry. The physical features of the area are characterized by the presence of the River Lee, the city walls, and the surrounding hills and fields.

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THE CITY OF CORK



