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# REPORT

ON THE HEALTH OF THE

# CITY OF LIVERPOOL

FOR THE

YEAR

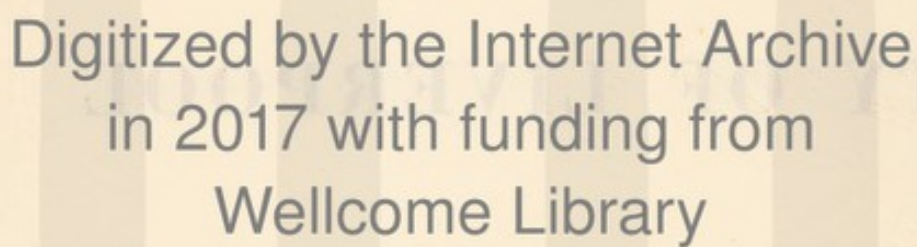
1957

BY

ANDREW B. SEMPLE, V.R.D., M.D., D.P.H.,

*Medical Officer of Health*





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A. C. JAMES, Dipl.P.A.  
(appointed 1.9.57)

## PREFACE

MY LORD MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit my sixth annual report on the health of the City of Liverpool, this being the 110th year reported on by the Medical Officer of Health.

The year 1957 has been one of steady progress in the development of the health and welfare services.

### *Vital Statistics.*

The live birth rate in the City rose during the year to 20.9 per 1,000 compared with 20.6 in the previous year. The still-birth rate also showed a small rise during the year to 24.9 per 1,000 compared with 24.1 in 1956. There is no doubt that the still birth rate represents one of the most obstinate mortality rates which is becoming more important as other causes of child mortality are overcome. The general death rate also rose slightly from 11.4 to 11.9 per 1,000 of the population.

**Vital  
Statistics**

Deaths from tuberculosis continued to show a steady fall during the year and 128 such deaths were recorded as compared with 144 in the previous year.

The remarkable improvement in deaths from tuberculosis is clearly shown when it is recalled that in 1954 there were 244 deaths from tuberculosis in the year. In other words, during the space of just over 3 years the deaths from tuberculosis within the City have been nearly halved.

The infant mortality rate remains unchanged at 26.

The stillbirth rate has remained roughly the same for the last five years and now represents one of the most obstinate rates that is operating within the sphere of maternity and child welfare. The stillbirth rate is causing concern throughout the whole of the country and the Health Department is co-operating with a national voluntary organisation to investigate causes during 1958.

**Stillbirths**



**Midwifery**

During the year there was a surprising reduction in the number of hospital deliveries by 331; at the same time the number of domiciliary confinements increased by 166. The municipal midwives delivered 4,088 cases at home and this represents an average case load for the midwives of 77, as compared with the number of 66 which has been recommended by the Ministry of Health. One of the reasons for the increased number of domiciliary confinements during the year was the occurrence of three attacks of serious infection within maternity units of hospitals throughout the City. The most serious outbreak occurred at Sefton General Hospital and resulted in the closing of the maternity unit there for five weeks in August and September. The cause of the infection was an outbreak of staphylococcal infection with phage type 80 which proved very difficult to eradicate. During the early stages of this outbreak patients were discharged from hospital as soon as practicable and the nursing carried out at home. At the same time, many patients were confined at home under the emergency arrangements. Following the re-opening of the unit, no further cases occurred for six weeks, but it was very disappointing to record that a return of the infection to a minor degree then resulted.

There is no doubt that these serious infections in maternity units are likely to increase rather than decrease in the future and are connected with the increased incidence of staphylococci which are very largely resistant to modern treatment by chemotherapy or antibiotics. Very full details are given in the report of the effect of closing this unit and it is interesting to see that, as a result of the incident at Sefton General Hospital alone, the domiciliary midwives were involved in an additional number of visits totalling 3,697.

**Human Milk Bank**

One of the indirect effects of the additional work thrust upon the midwives was seen in a reduction in the total amount of breast milk which was collected from mothers feeding their babies at home. During the year a total of 5,920 ounces was collected compared with the 1956 figure of 9,886 ounces.

**Premature Babies**

The report contains an extremely full account of the work of the three premature baby midwives at present working within the City. A third midwife started this work full-time in April 1957. Details are given of the types of cases helped and it will be seen that a total of



415 premature infants were helped in this way during the year. Of these, 111 were born at home and nursed entirely at home with the aid of the premature baby midwives service. The remainder were first treated in premature baby units within the hospital and discharged home to the care of the premature baby nurses at an earlier stage than would otherwise have been possible. There is no doubt that this service is playing a large part in further reducing infant mortality, for it is within the group of premature babies especially that infant deaths are extremely high.

The year has seen a further substantial reduction in the number of new cases attending doctors' sessions at ante natal clinics but this is a natural development following the larger part which the general practitioners at present are playing in the domiciliary care of expectant mothers.

During the year, 495 expectant mothers attended the mass radiography unit for routine chest X-ray and check up. In one case active tuberculosis was discovered in a woman in whom it was not otherwise suspected and she was admitted later to hospital. A further case was kept under observation. There is no doubt that an extension of this service would be of great value to the City. It is important to realise that the dangers of radiography to the expectant mother do not concern chest radiography, and that the chest X-ray is quite safe. There is no doubt at all that it is a most valuable diagnostic aid and may well be instrumental in both preventing a child later developing tuberculosis and his mother running the risk of serious spread of latent infection after her confinement.

During the year work commenced on building the Sarah McArd Day Nursery in Shaw Street and it had been hoped that this would be completed by the end of the year. However, site difficulties developed due to the type of foundation, and it is now likely that the nursery will be opened during the first part of 1958. At present there are 12 municipal day nurseries within the City with a total number of 664 places. When the Sarah McArd Day Nursery is opened the Mill Road Day Nursery will be closed and the premises will be returned to Mill Road Hospital who urgently require them. During 1957 the nursery in Salisbury Street School was closed and the premises returned to the Education Authorities.

In addition to the municipal day nurseries there are at present three private day nurseries within the City.

**Dysentery** There have been five outbreaks of dysentery within day nurseries investigated and reported during the year. In all instances the diagnosis was made early and this factor helped to prevent the further spread due to this troublesome illness in young children.

**Infant Clinics** There was a considerable increase in the number of children attending infant clinics during the year and 98,287 attended compared with 89,789 in 1956. This increased attendance is most encouraging and is probably due to many factors but, above all, illustrates the improved liaison between the health visitors and general medical practitioners within the City. Increasingly are general medical practitioners encouraging mothers to attend child welfare clinics with their babies. A larger section in the report is given this year to the work of the health visitors within these clinics.

**Preventive mental health clinic** The preventive mental health clinic which was mentioned for the first time in last year's annual report has continued satisfactorily during the year. Monthly meetings have continued between the senior child psychiatrist within the City, the psychiatric social worker, and local authority staff including senior doctors, health visitors and day nursery matrons. Here the problems have been discussed in detail and cases have been followed up at subsequent meetings. Some of the children who have been investigated have been referred by their general medical practitioner to the psychiatric clinic and, in addition, it has been possible to help certain problem families in this respect. There is no doubt that this important pioneer work is progressing steadily.

**Work of the Health Visitor** In the text of this year's annual report the diverse functions and work of the health visitor is dealt with in greater detail, and, in addition, some case histories are given illustrating the types of problems which the health visitors today deal with. A welcome change has been the increased amount of liaison which has been built up between the health visitors, general medical practitioners, and paediatric units within the City. Many health visitors now attend paediatric out-patients in various hospitals and the follow-up work and close liaison which results has had a most satisfactory effect on child health generally throughout the City.



The special health visitor dealing with diabetics has continued to develop her work during the year and has established a very close liaison with the David Lewis Northern Hospital which treats so many diabetics within the City. This health visitor sees all new cases admitted to hospital, or referred to the hospital, and follows up with a visit to the home to re-assure the relatives and to give a simple explanation of the disease together with elementary information on the basic principles of diet and insulin therapy. Experience has shown that these home visits are of the greatest importance. The special health visitor has found that, very often, patients are somewhat confused and unable to take in all the advice given to them at the visit to the hospital and it has been found that if the health visitor follows up with a home visit many difficulties and misunderstandings can be avoided. Reference is made in a latter part of this preface to a particular and outstanding case of a young diabetic who was in danger of becoming a chronic invalid. Following extensive case work by the health visitor it was possible to establish this person in employment in a sheltered workshop and slowly rehabilitate him back to a more normal life.

Special health  
visitors  
dealing with  
diabetics

The importance of accidents in the home has been stressed, repeatedly, nationally at the present time. In the report details are given of this important aspect of the health visitors' work. Fires and accidental poisoning by children eating highly coloured therapeutic tablets in mistake for sweets are repeatedly occurring. One of the interesting factors that has been defined by the investigations carried out by the health visitor is that, contrary to the popular view, it has been found that second cases of similar home accidents are not at all uncommon in the same home. It used to be considered that the tragic lesson of a child getting burnt within a home was quite sufficient to alert all members of that home to the subsequent danger so that no second accident ever occurred. This has not been found to be the case in some of the accidents investigated. Because of the importance of teaching families in whom accidents have occurred, arrangements have now been made for the ambulance service to notify the health visitor immediately they are involved in the removal to hospital of a child or adult burnt at home. The health visitor then pays an immediate visit and carefully follows up this with further home visits to ensure that her advice, which is given to prevent further accidents, is carried out.

Accidents in  
the home



ing were demonstrated by illuminated cabinets of culture plates. Living insects, model animals, condemned food, posters and charts rapidly showed the method of spread of food poisoning. Considerable interest was shown by the public in all these exhibits.

The value of immunisation and vaccination was stressed. The next display in this tent dealt with problems of infantile gastro enteritis and also with the prevention of accidents in the home, particularly the prevention of burns and poisoning.

Finally, the exhibit included a very comprehensive one on the problems related to tuberculosis. The method of spread, the type of disease and the usual methods of treatment and the method of prevention were all illustrated, and with the ready help and co-operation of the Liverpool Regional Hospital Board, a mass radiography unit provided a living exhibit. During the three days of the Show 1,402 supposedly healthy people presented themselves for X-rays and this resulted in discovering four cases of active pulmonary tuberculosis and one case of carcinoma of the lung. The value of mass radiography is well known and it is extremely pleasant to record the helpful co-operation of the No. 4 Mobile X-Ray unit and the Regional Hospital Board in bringing home to the public in this novel way its extreme value.

#### **Infectious Diseases**

The infectious disease section of the annual report gives full details of the cases of infectious diseases which were reported during the year. Special reports in connection with outbreaks of salmonella anatum food poisoning, influenza and food poisoning caused by staphylococcal toxins were reported in the medical press during the year. These outbreaks are not dealt with in detail because they have been reported in the medical press but the references are given for any person who wishes to study them in greater detail.

#### **Anthrax**

During the year one case of anthrax occurred in a person who had handled hides. The case illustrated once again the hazards of this form of occupation, and it is satisfactory to report that the patient, after appropriate treatment, made a complete and satisfactory recovery.

#### **Typhoid and Paratyphoid Fever**

No case of typhoid fever occurred in the City during the year. Two cases of paratyphoid fever were reported, one was a close contact of a known carrier and in the other case, exhaustive enquiries failed to



reveal the source of the patient's infection. The register of chronic typhoid and paratyphoid carriers was maintained and at present there are three chronic typhoid carriers and five chronic paratyphoid carriers living within the City. All these persons are visited periodically and bacteriological examinations are carried out.

There was a reduction in the number of cases of whooping cough occurring in the City during the year and 1,726 cases occurred compared with 2,559 in the previous year. Two cases proved fatal which was a considerable reduction on the five fatal cases reported last year. **Whooping Cough**

1957 showed the usual periodic increase in the number of cases of measles and there were 10,906 cases of measles reported compared with 6,662 in 1956. One death occurred in a child suffering from measles, aged 18 months old. **Measles**

Thirty-two confirmed cases of poliomyelitis again were recorded during the year within the City. Twenty-five were paralytic cases and 7 non-paralytic cases. There was no connection traced between any of these cases. Two of the patients who developed poliomyelitis died. **Poliomyelitis**

This year showed a further remarkable decrease in the number of cases of food poisoning which occurred in the City. During 1957, 133 cases occurred compared with 307 in 1956, and 544 in 1955. These reductions in the number of cases of food poisoning traced are all the more remarkable when it is realised that the amount of investigation and stool examinations carried out have increased very greatly during the past two years. During 1957 no fewer than 14,000 specimens from 8,713 persons were submitted for bacteriological examination, in connection with outbreaks of food poisoning. There seems to be little doubt that these intensive investigations and the education work carried out by doctors, health visitors and public health inspectors in this field have already paid handsome dividends in the form of a reduction in the amounts of food poisoning present within the City. Details of various outbreaks of food poisoning that occurred are given together with references of medical reports which were published during the year on some of these outbreaks. **Food Poisoning**

There were 484 confirmed cases of bacillary dysentery reported and traced in Liverpool during 1957. This is an increase of 115 on the 1956 **Dysentery**



figure of 369 but still considerably below the 1955 figure of 920 cases. Full details are given in the text of the report of troublesome outbreaks of sonne dysentery which occurred in day nurseries, Part III accommodation, and a primary school.

**Influenza**

In September 1957 a major epidemic of Influenza "A" occurred within the City. The first infection reached Liverpool at the end of June, but the epidemic proper did not start until early in September. A very full report has been published in "The Lancet" of this outbreak. It is interesting to report that in scope it was very similar to the outbreak which swept Merseyside in 1951. However, that was the only substantial similarity between the two outbreaks as, in the 1957 outbreak, the disease was much milder and particularly tended to affect young children and young adults, and one of the most characteristic findings was the apparent lack of attack rate amongst elderly people. For this reason the 1957 outbreak resulted in a much lower mortality rate than in the 1951 outbreak. With the ready help of the Liverpool Regional Hospital Board and the Ministry of Labour and National Insurance, a very close watch was maintained on the spread of this outbreak, and at no time were either the hospital beds or the domiciliary services generally very seriously strained, although, at the height of the epidemic, general medical practitioners were extremely busy. Fortunately, however, the mildness of the disease did not result in many very serious problems being created on account of patients or whole families being extremely and critically ill.

**Brucellosis**

A case of brucellosis was traced during the year and investigations carried out in conjunction with the Ministry of Agriculture and Fisheries resulted in the tracing of the infection back to a Cheshire farm, and appropriate action was taken to prevent a further spread of this disease. Full details of the action taken are given in the text.

**Psittacosis**

During the year the investigations mentioned in last year's annual report continued and a full account is given in the text of this report. It will be seen that considerable evidence was found of infection both in homing and wild pigeons. Post mortem examinations could only be carried out on wild pigeons and analysis of these gave an infection rate of 6 per cent. This survey which has now been completed, and which was possible with the ready co-operation of the Public Health Laboratory,

service and Professor Hughes of the University Department of Veterinary Pathology has shown that the action which the City Council sought and obtained, under the Liverpool Corporation Act 1955, whereby it has powers painlessly to destroy wild pigeons is entirely justified on health grounds.

1957 has seen remarkable increases in the amount of immunisation and vaccination which has been carried out within the City in relation to all the principal diseases which are capable of being prevented in this way.

Immunisation  
and  
Vaccination

Immunisation of children with a safe poliomyelitis vaccine which had been commenced in 1956 was continued in 1957. During the year, 20,803 children completed a course of inoculation against poliomyelitis, 93.9 per cent of these had been inoculated at health department clinics and the remainder were protected by their general medical practitioners. The total number of children who were given inoculation against poliomyelitis during the year was primarily limited by the amount of vaccine available.

Poliomyelitis  
Immunisation

Towards the end of the year, following the extensive outbreaks of influenza which spread to this country from the Far East, the Ministry of Health made available a vaccine against influenza to protect key personnel. Between October and December 1957 a total of 1,710 units of the vaccine were made available in Liverpool. This vaccine was distributed amongst the special priority groups decided upon by the Ministry of Health, including general practitioners, local authority doctors, health visitors, school nurses, tuberculosis visitors, district nurses, midwives, home helps and ambulance drivers.

Influenza  
vaccine

It is satisfactory to report a further increase in the number of children immunised against diphtheria. During 1957, 11,200 children were protected against diphtheria for the first time compared with 10,302 in 1956 and 5,754 received booster inoculations compared with 5,004 in 1956. At a time when other inoculations such as poliomyelitis and whooping cough are gaining in popularity it is very important that diphtheria immunisations are kept at a steady, high level and it is most encouraging to report this further increase this year. It represents hard work on the part of many general practitioners, health

Diphtheria  
immunisation



visitors and other local authority staff concerned with this inoculation campaign.

**Whooping  
Cough**

Even more spectacular has been the increase in the inoculations carried out against whooping cough during 1957, for 9,165 children were immunised against this disease compared with 6,508 children in 1956 and 4,386 in 1955. In other words, in two years the number of children being protected against whooping cough within the City has been more than doubled. Although some of the dangers of whooping cough have been reduced in the last few years, it is still a most dangerous and debilitating disease in the very young child. The effect of the immunisation campaign during the past two years in respect of whooping cough will undoubtedly produce not only fewer deaths in young children but much less chronic ill-health resulting from bronchiectasis.

**Smallpox  
Vaccination**

Following the reduction in 1956 of the number of children primarily vaccinated against smallpox, a special drive was made to increase the number during the year and it is pleasant to be able to report that in 1957 there was a substantial increase in the number of infants being vaccinated for the first time. The figure reached 8,357 compared with 7,616 in 1956 and 7,881 in 1955. These increases in the number of primary vaccinations carried out resulted from both an increased number of children vaccinated by private doctors and those vaccinated at the clinics. It is particularly satisfactory to record the substantial increase in the number of infants being vaccinated by general practitioners during the year. At the time of writing this report, a case of smallpox has just been landed in the Port and once again emphasises the great importance for the City of Liverpool that the proportion of children vaccinated should be as high as possible.

There seems little doubt that some of the success which had been attained during the year in the field of immunisation and vaccination has resulted from the arrangements whereby all the inoculations wherever possible are carried out at the ordinary child welfare clinics so that the mother can arrange to have her child immunised or vaccinated without making a special journey.

**Tuberculosis**

1957 has seen a slight rise in the number of new notifications occurring within the City. This is a disappointing trend although it may be there



result of more strenuous searching for new cases that is going on as a result of the various preventive work carried out within this field. There were 1,021 cases of respiratory tuberculosis discovered within the City in 1957 compared with 1,016 in 1956. There was a slight fall from 101 to 96 in the number of new cases of non-respiratory disease.

The pattern of notification of the disease is shown very clearly in the coloured maps attached. It will be seen that the new cases occur most commonly in the central parts of the City with its cramped living conditions and large amount of sub-standard and overcrowded dwellings.

**Pattern of notification**

Another map is shown giving the distribution of the number of known cases of tuberculosis within the City. This map, which is also coloured, shows remarkable differences compared with the map of notifications, for, in the peripheral wards at Gillmoss and Speke it will be seen that there are a very high percentage of tuberculosis cases. This is probably a direct result of the re-housing of tuberculous cases very largely in these areas. A similar state of affairs could be shown to occur in Kirkby. It is, however, most important to realise that the concentrating of these known cases of tuberculosis in these areas has not led to any corresponding increase in new notifications as will be seen from the first map. This investigation confirms what has already been found in Middlesex, that a new housing estate tends to slow the notification rate of tuberculosis of the surrounding areas rather than the area from which the new inhabitants came.

The remarkable differences between the sexes is shown in Liverpool and is similar to the general effect seen throughout the country. The peak incidence for females is in the period 14-40 years but that for the male considerably later, in the 50's.

**The maximum age incidence of new cases**

It is most satisfactory to report that the number of after-care visits carried out by tuberculosis visitors during the year has risen remarkably, reaching a figure of 42,063 visits compared with the 1956 total of 13,713 and the 1953 total of 24,093. This remarkable achievement has been made possible by the increased number of staff appointed in 1954 and also by the success of the central statistical system whereby it is assured that all cases are visited regularly. Approximately two-thirds of the cases which the tuberculosis visitors have to look after are quiescent

**After-care visits of tuberculosis visitors**



cases having very largely recovered, and these are visited at home twice yearly. The remaining one-third are active cases and are visited at home at least every two months. In many instances, other visits are paid when necessary. The innovation of employing male tuberculosis visitors has proved very successful and these officers have been of great value, particularly in the central areas.

**B.C.G.  
vaccination**

The vaccination scheme for school children between 13 and 14 years old has continued as in previous years. During the year a total of 8,214 children accepted the offer of vaccination which was a figure of 71.3 per cent of acceptances compared with 66.1 per cent in the previous year. It is interesting and encouraging to see that there has been a remarkable change in the percentage of 13 and 14 year old children who are now mantoux positive, that is to say, who have, at some time in their life, been infected by tuberculosis bacilli. In 1957 the figure fell to 21.5 per cent compared with a figure of 28.1 per cent in 1956, 27.9 per cent in 1955 and 34 per cent in 1954. This fall can most fairly be interpreted as indicating that the unknown reservoir of infection within the City is slowly falling. It is, however, most important to realise that compared with much of the rest of the country this figure is considerably higher in Liverpool showing that there is still much more unknown infection in Liverpool than in most other large cities in the United Kingdom.

**Action taken  
under Section  
172 of the  
Public Health  
Act, 1956**

Details of successful compulsory committal to hospital of patients under Section 172 of the Public Health Act 1956 is given in the annual report.

**Reports of  
chest  
physicians**

The reports of the various chest physicians who have kindly contributed to the annual report are of particular interest, for they show not only that there is a better follow-up and after-care service now being carried out by the City but that, in spite of these increased services, these physicians feel there is still a very long way to go and certainly no room for any complacency. These reports rendered by physicians, daily in contact with the problems of tuberculosis in all areas of the City, indicate clearly that although there are plenty of signs that the disease is being controlled, there is still a very long way to go before it can effectively be said that the disease is no longer a serious problem in Liverpool.



In the mental health section of the annual report the year's outstanding event, the publication of the report of the Royal Commission on the Law relating to Mental Illness and Mental Deficiency, is discussed in detail and, in addition, some of the recommendations of the Royal Commission which apply, specially to local health authorities, are discussed in the light of the experience in Liverpool. During the year, the number of visits paid by mental health workers in after-care work was roughly the same, although there was an increase in the number of patients dealt with.

Mental  
Health

The department has continued to be very active in helping to obtain satisfactory employment for patients discharged from mental hospitals or mental deficiency institutions, and during the year 351 patients were referred to the special employment officer employed by the department. Once again 44 posts were found and, in addition, 15 other cases found posts themselves following advice from this service. There is no doubt that this service continues to provide a most useful function within the City and there are details of individual cases illustrating this point given in the full text of the report.

Employment

At the request of Rainhill Hospital, a review was carried out of 58 patients who were discharged between 1950 and 1957 following leucotomy operations and who had been referred for after-care. The results of the review are given in the report and show that at least 35 of the 58 patients had been substantially helped by this operation. It was impossible to trace 12 of the cases and in the remaining 11 cases the patients had obtained no material or lasting benefit from the operation.

Review of  
post  
leucotomy  
cases

During the year 7,454 home visits were made in supervising mental defectives at present at home and this is the highest number recorded since the service started. At present there are 1,865 mental defectives living within the community and 1,320 of them in hospital.

Mental  
Deficiency

During the year there was a slight improvement in the waiting list of mental defectives for institutional care. At the end of 1956, 115 mental defectives were awaiting institutional care, of which 68 were in the highest priority group. At the end of 1957 this figure had been reduced to 107 defectives awaiting institutional care, and 56 of those waiting were of the highest urgency. This improvement is welcomed

Institutional  
care



by the department as much of its work has and still is being hampered by the inability of the hospital authorities to provide sufficient and adequate vacancies for mental defectives. The extent of the extreme difficulties which are produced for the defective's family when a severe and often most difficult defective is being retained at home, cannot be over emphasised.

**Training centres**

Towards the end of the year the Health Committee agreed to follow the advice of the Royal Commission and re-name their occupation centres, Training Centres. A search has been going on actively during the year for new or suitable premises which could be converted into new training centres, the need of which is urgent at present within the City. Towards the end of the year agreement was reached that six cottages and the central hall at the Fazakerley Cottage Homes, which is being closed as a children's home, should be made available to the Health Committee for use as training centres. At present plans are being drawn up to convert these cottages into useful training centres for defectives.

**Short Term Care**

During the year there was a reduction in the number of cases helped by providing short-term care for defectives. 44 cases were helped by the Regional Hospital Board compared with 56 in 1956 and 44 by assistance in voluntary homes, compared with 51 in the previous year. It is hoped that it will be possible to increase the number of short-term admissions, for there is no doubt that such an arrangement can help materially the family who is having to look after a defective who really ought permanently to be in a mental deficiency institution. Short-term care can never of course take the place of long-term care but during the difficult period of shortage of hospital institutional vacancies, such an arrangement is of immense value.

**Ambulance Service**

For the first time since 1948 the number of patients conveyed by the ambulance service showed a slight decrease. The reason for this probably was connected more with the direct and indirect effect of petrol rationing early in the year than anything else. One excellent result of petrol rationing was an arrangement made with the North Wales Ambulance Authorities, which the City had been trying to bring about for many years, whereby every ambulance from North Wales visiting Liverpool with a patient lets our control know that it is doing so a



day before, and also on arrival at Liverpool contacts immediately the Ambulance Control Room. Each ambulance is then deployed back to its area taking patients either to its area or to neighbouring areas and subsequent adjustments are made financially between the North Wales Authorities. This arrangement had worked admirably during the year and has meant a spectacular reduction in the number of long distance journeys made by Liverpool ambulances. Reference was made to this arrangement which had just started in last year's annual report, and it is most satisfactory to record that the arrangements have worked very smoothly during the year. Meetings have been held with the Welsh Board of Health and the North Wales ambulance authorities from time to time, and there seems no doubt that a firm foundation has now been laid for a mutual aid service which is to the benefit of every authority.

A disastrous fire occurred in the central ambulance station, Stanhope Street in October. Seven ambulance vehicles were completely destroyed and seven others damaged and the building partly destroyed.

**Fire at Central Ambulance Station**

During the year there has been a remarkable improvement in the waiting list for residential accommodation within the City. At the beginning of this year there were 176 old people waiting for admission to an old persons home, but by the end of the year this figure had fallen to 90. This change has been mainly brought about by the opening during the year of three hostels, at Brookside House, Altercross House, and Ullet Grange which, together, have provided accommodation for a total of 102 residents. It is, however, necessary to remember that the present waiting list includes very urgent cases and that new hostels will be required not only to meet the present waiting list, to assist with the up-grading of Westminster House which will require a further re-housing of nearly 200 persons, and also for the increased number of old persons at present within the City.

**Welfare Services**

During the year houses 3 and 4 in Westminster House have been up-graded and now provide accommodation of a most satisfactory standard for 84 residents. These new units are run with separate staff and, in addition to the structural alterations that have been made, new and attractive furniture and fittings are provided throughout.

**Up-grading of Westminster House**

During the year, the Minister of Health expressed his willingness to



sponsor an application for loan sanction in connection with house No. 12, which is the very large unsatisfactory accommodation on the top floor of the main building. This unit, which in many respects may be amongst the most difficult to convert, represents one of the worst parts of Westminster House. At the same time, the provision of a lift to this part of the building in Westminster House has been agreed, and it is hoped that work on this will commence shortly in the new year.

**Hostels**

The accommodation in the separate hostels has continued to be maintained at the same high standard and, once again due to the generosity of the Merseyside Hospitals Council, it has been possible to provide additional amenities in the form of pianos, television sets and radios at some of the residential establishments. The broadcast line which was also provided with the help of the Merseyside Hospital Council has continued to provide great pleasure for the residents in New Grafton House.

**Temporary  
Accommoda-  
tion**

This problem has varied throughout the year from a total of 31 persons to a maximum of 95 persons accommodated in the temporary accommodation, with a daily average of about 59 persons. Special problems which have been dealt with in the accommodation during the year have included three families of British nationality who have been repatriated into this country from Burma. One change which has been undertaken by the Liaison Committee during the year has been the institution of notice to quit without subsequent power to re-admit to the accommodation persons who have shown no willingness at all to find accommodation. The energetic action of the Liaison Committee in dealing individually with all the difficult cases has resulted in this most tricky problem being kept well within reasonable limits.

**Hungarian  
Refugees**

Mention was made in the last annual report on the problems of Hungarian refugees within the City. During the year, following the kind offer by the Roman Catholic Authorities, Leyfield School, West Derby, was opened as a residential hostel for Hungarians and run by the Health Committee. The first party consisted of 99 Hungarians including both families and single men and women. The hostel remained open from the beginning of March until the end of September during which time 155 refugees had been admitted and all but 7 successfully rehabilitated. This work was undertaken with the helpful



co-operation of the Ministry of Labour and National Service and the various voluntary bodies. The Deputy Manager of Westminster House acted as Manager of the hostel during this time. There is no doubt that this hostel played a significant part in helping and rehabilitating Hungarian refugees in this area. The success of rehabilitating the Hungarians was all the more praiseworthy when it is remembered that the majority of them had to be found occupation outside the precincts of Merseyside. Many of the younger persons were employed in the cotton industry in East Lancashire. Additional amenities for Hungarians in this hostel were provided by the kindness of various local voluntary societies.

The report once again includes details of some of the interesting domiciliary cases which have been dealt with by the welfare visitors during the year. Following the request from the Liaison Committee, the welfare visitors have been investigating rent arrears cases who have been reported to the Arrears Sub-Committee of the Housing Committee. Attempts are made, wherever possible, to persuade the tenant to come to some satisfactory arrangement in the payment of their rent and arrears. In many instances, the tenants are living outside the City boundary in the Kirkby or Huyton estates and in these instances, the cases are referred to the Lancashire Welfare Department who undertake the follow-up.

**Domiciliary  
Welfare  
Services**

This Rest Centre has continued to be most popular throughout the year with old people visiting the Pier Head area. On most days in the summer time the numbers of those who visit the centre has been very high, and on one day over 500 persons attended.

**River View  
Rest Centre**

The provision of two similar centres in other parts of the City, with the aid of a grant from the King George VI foundation, is at present being carefully considered by the Health Committee. One site has been selected in Sheil Park and a second site provisionally ear-marked in the Sefton Park district. It is hoped that these two centres will reach a great need in these areas of the City.

During the year there was a marked reduction in the number of persons who had to be removed compulsorily under Section 47 of the National Assistance Act, 1948. Six persons were moved in this way during 1957 compared to 18 in 1956.

**Removal to  
suitable  
premises of  
persons in  
need of care  
and attention**



It is important to realise that the majority of persons who need care and attention urgently are very ready and willing to go either into hospital or into one of the hostels, and this compulsory power of the National Assistance Act is only used for the exceptional case. In some instances when the initial steps have been taken to carry out Section 47 of the National Assistance Act 1948, the workers find, on arrival at the home of the old persons, that they have now changed their mind and are willing to be admitted, and of course this admission is then done voluntarily.

**Registration  
of disabled  
persons and  
old persons  
homes**

There are 26 homes registered in the City in this category, 17 being administered by voluntary bodies and the remainder by private individuals. The homes have been inspected by officers of the department regularly. It is interesting to note that in one case legal proceedings were taken on the grounds that a person carried out an old persons' home without being registered under the National Assistance Act. The Corporation's case was found proved and the fine was effected. The home in question had been previously registered but the registration had been cancelled because the home was not being conducted in a satisfactory manner. This case clearly shows the great value of registration as a means of control over the standard being maintained in such homes.

**Blind Welfare**

Details of the extensive blind welfare undertaken within the City are given in the main body of the annual report. It will be seen that during the year the School for the Blind at Hardman Street had to close its workshop. This step had been taken because of the gradual decline in the number of trainees admitted. At the time of closing there were twelve employees in the workshop. The Cornwallis Street Workshops were able to absorb six of the redundant employees, three were placed in sighted industry and two had proceeded to industrial rehabilitation. In only one instance was there a case of a blind person considered fit for employment who had not been placed at the end of the year. The number of persons in sighted industry continues to be most satisfactory, and at present total 103 compared with 80 in sheltered employment within the City. This increased proportion of persons now employed in open industry, compared to sheltered employment, is a most satisfactory change and the department is most grateful to the ready help and co-operation which they have at all times received from industry



in the area. It is important too, to realise the part played by the Blind Placement Officer of the Royal National Institute for the Blind who has been so successful during the past 2-3 years in increasing the numbers of blind people employed in open industry. The figures of sheltered employment compared with open industry in 1953 were 97 in sheltered employment and 94 in open industry. These show the measure of the success achieved when it is realised that the present day figures are 80 compared with 103.

The Council has continued to help increasingly these workshops which cater for handicapped persons. During the year a sum of £3,400 was contributed by the City Council towards the running of the workshops. A careful investigation was carried out by the Organisations and Methods Sections of the Town Clerk's Department into the functioning of the staff of the workshops, and certain agreed changes were made. The numbers of handicapped persons employed in the workshops has increased to just under 50. The majority of these workers are engaged in the bookbinding department, where 36 are employed. About 9 of them are engaged in Christmas card renovation and the remainder in printing and boot and shoe repairs.

**Sir Robert  
Jones  
Workshops**

A good example of the value of this workshop was given during the year, and was in relation to a severe diabetic patient, a young man, who had been unable to carry out any satisfactory occupation for the past ten years. He came into the hands of the Welfare Section of the Health Department when a request was made for him to be accommodated in Westminster House. He is a man in his early 30's. It seemed that to admit such a young person to residential accommodation would be to admit failure, and every arrangement was made to avoid this. He was sent away on a rehabilitation course, a very great deal of case work was carried out by the special health visitor looking after diabetics and finally, arrangements were made to admit him to Sir Robert Jones Workshops. After an uneasy start, he has settled down and is already well on the way to complete rehabilitation.

The immense value of such a method of rehabilitation is only capable of being understood when one is brought into close contact with such a case. It may well be that these workshops, and the various other services working for this man, have prevented this person from becoming a helpless chronic invalid.



**Deaf and  
Dumb  
Welfare**

The deaf and dumb welfare to 580 residents in the City is provided both by the Liverpool Adult Deaf and Dumb Benevolent Society and the Catholic Deaf and Dumb Society of St. Vincent de Paul. A grant of £3 10s. 0d. per head per year, is allocated and in the case of Roman Catholics half this sum is paid to each body in recognition of the fact that the Roman Catholic Deaf and Dumb Society solely provide welfare with a religious background, and the Liverpool Adult Deaf and Dumb Benevolent Society, in the case of Roman Catholics, undertake other types of welfare including employment problems. The annual report does not contain a very full account of the excellent work which is undertaken by both these bodies mainly because both of them publish separately a full annual report of their society, giving full details of their work. Anybody interested in these bodies should therefore consult the appropriate reports of these two bodies.

**Epileptics**

In the last annual report, considerable reference was made to the problem of epileptics within the City. During 1957, a voluntary body called the Merseyside Epileptics Association was formed following a public meeting arranged by the Liverpool Council of Social Service at which senior members of the Health Department were represented. This Association, whose aim is to provide welfare facilities for the 3,000 epileptics in Liverpool, has developed satisfactorily during the year. Accommodation was provided for them, free of cost, by the City at Walton Village and the Association includes not only patients suffering from epilepsy but any interested individual and representatives from Local Authorities, hospital almoners, physicians and surgeons and Ministry of Labour, etc. A Committee to enquire into the local welfare on epileptics was set up and the City Council is represented on this Committee by the Deputy Medical Officer of Health and the Chief Welfare Officer.

It is most satisfactory to see a start being made to get a voluntary welfare association going on Merseyside dealing with epileptics. The difficulties of the epileptic are often very great. Perhaps it is unique in that it is one of the few groups of handicapped persons in which secrecy by the patient is considered to be most important. This secrecy which often means that a person in need of help will be very reticent to come forward is primarily the result of misinformed public opinion which fears the epileptic, and which results very often in anybody

suffering even from a relatively minor degree of epilepsy from being able to obtain or keep satisfactory employment. It is hoped that slowly with the concerted help of everybody interested in this matter, that this attitude of the public will be changed. Until it can be changed there is no doubt that there must be a severe limit imposed on what can be done to help the case of the epileptics generally in this country.

A total of 4,203 general medical cases were dealt with in the housing points scheme during the year. In addition, 862 pulmonary tuberculosis and 79 non-pulmonary tuberculosis cases applied for assistance and were carefully considered. These overall figures represent a slight increase compared with the previous year. However, it does seem that the number of applications since this scheme started over two years ago has been remarkably constant.

**Housing  
Points  
Scheme**

Points have been awarded to roughly 60 per cent of the applicants.

The work of the public health inspectorial section has increased dramatically during the past few years. A good instance of the extent and scope of this increase is shown by the fact that during 1957 a total number of 385,455 visits and inspections were carried out compared with 269,786 in the previous year. Reference will be found in the main text giving some even more dramatic increases in the work, for during 1957, 53,454 visits were made to hotels, shops, cafes, clubs and places of entertainment compared with 16,940 in 1956 (an increase of nearly three times within the year). These increases have, of course, caused considerable strain on the present staff and indeed it would have been quite impossible to have achieved this degree of inspection but for the fact that the paid pupilage and training arrangements which were instituted recently have worked so well.

**Environ-  
mental health  
control**

This training scheme has operated throughout the year and has continued to produce excellent results. Twelve assistant inspectors, after completing the four-year course, obtained the qualifying certificate and are full public health inspectors. In addition, thirteen public health inspectors obtained the certificate of the Royal Society of Health, qualifying in meat and other inspections and these are now on the rota for meat and other food inspection duties.

**Training  
scheme for  
assistant and  
trainee public  
health  
inspectors**



**New legisla-  
tion—Rent  
Act, 1957**

The Rent Act 1957 came into operation on the 6th July, 1957 and produced, as had been anticipated, many thousands of enquiries for advice on procedure. Duties under the Rent Act were given priority and these necessitated the attention of a large number of inspectors for most of their duty time. Enquiries and procedure have been dealt with smoothly and the special Sub-Committee of the Health Committee meeting weekly has greatly facilitated the speed with which these enquiries can be dealt.

**Clean Air  
Act, 1956**

The Clean Air Act 1956 came into operation at the very end of 1956 and immediate advantage was taken of the new provisions for the creation of the No. 1 smoke control area in the City of Liverpool. Arrangements are also being made, as mentioned in the report, for further smoke control areas to be designated as soon as possible.

**Wild pigeons**

Action has continued in respect of complaints from the occupiers of buildings and houses regarding nuisances caused by wild pigeons. During the year under the Liverpool Corporation Act, 1955, 2,372 wild pigeons were caught and painlessly destroyed. Arrangements have now been made for Corporation buildings to receive special attention in an effort to reduce this nuisance considerably. Reference has already been made under the infectious disease portion of the report to the research work carried out in relation to psittacosis and wild pigeons where it has already been shown that wild pigeons are not only a serious nuisance but an obvious danger to health in this way.

**Hazards of  
radiation**

The Windscale Nuclear accident early in October emphasised the extreme importance of growing hazards to health from radiation. One consignment of milk from the surrounding area of Lancashire and Westmorland had been sent to the City and as a precautionary measure vehicles concerned were tested by the department but were found to be free from contamination.

There is, however, a very urgent need throughout the whole country for the adequate training of all key personnel working in health departments in the hazards from radiation and in preventive measures. It is encouraging to note that an early course for medical officers of health has been organised by the Society of Medical Officers of Health, and arrangements have already been made for the health department to



be represented at this course. In addition, special meetings have been arranged by the Royal Society of Health which have also been attended by representatives from the health department.

Considerable extensions have been made during the year under the Liverpool Corporation Act, 1955, to ensure that the Corporation undertake increasingly, work which landlords have failed to carry out. The machinery under the Liverpool Corporation Act 1955, to enable the Authority to do this work in default and later to collect the cost from the rents, is of great importance, for it means a great shortening in the time that the nuisance is allowed to remain affecting the health of the occupants of such houses. During the year the local authority carried out such work in respect of 125 houses at a cost of approximately £3,000. In addition, in 185 premises where choked drains had existed, the Special Sub-Committee gave authority for the emergency procedure to be put into operation to clear these drains.

Work carried  
out in default

A considerable amount of the enquiries investigating infectious disease are undertaken by the public health inspectorial staff. A total of 7,483 such visits were paid by public health inspectors during the year. The collection of stool specimens in cases of food poisoning and sonne dysentery have been greatly facilitated by the use of both the district and assistant inspectors and also by using an inspector who is equipped with a motor cycle.

Infectious  
disease  
enquiries

The drive of slum clearance which has been one of the characteristics of the work of the health department during the past five years has continued energetically. However, as many of the old problems of housing are resolved so many new ones arise. Perhaps one of the most obvious and difficult problems today has been the fact that land, which was readily available for housing development 10-15 years ago, is becoming more and more difficult to obtain, and the lack of suitable land is having a very obvious effect on the speed with which the slum clearance programme can continue. Various methods are being used in an attempt to alleviate the situation. One method is the rehousing of populations to areas outside the Authority's boundary and another the erection of multi-storey blocks within the Authority's area.

Housing and  
slum  
clearance

During the year 2,379 houses were surveyed in detail as to their suitability for including in areas and 24 clearance areas were represented to the Council. This compares with 1,640 houses surveyed during 1956. Twelve compulsory purchase orders and one clearance order were

Progress of  
slum  
clearance  
during the  
year



submitted for confirmation to the Ministry of Housing and Local Government and were subsequently confirmed. Four public enquiries and two hearings in respect of seven of the compulsory orders submitted were held and the remaining compulsory orders and one clearance order were unopposed. A total of 1,232 houses were contained in these confirmed orders.

In addition, 19 individual houses were represented as unfit for human habitation in accordance with provision 116 of the Housing Act, 1957. Following these representations, nine demolition orders and 39 closing orders were made in respect of these properties, two owners gave undertakings in relation to the remainder not to re-let until the properties had been made fit for human habitation.

**Dangers of  
purchasing  
sub-standard  
property**

The consequences and dangers of purchasing sub-standard property are constantly being brought to the notice of the health department. Special leaflets have been produced by the Personal Service Society advising young couples against purchasing any property without first seeking proper legal advice or consulting the local authority, but still young couples, desperate for a home of their own, often ignore this advice and purchase a sub-standard dwelling. Some of these houses may well be declared as unfit before the owner/occupier has completed the agreed repayments and this produces a situation that can only result in extreme financial hardship and misery to the purchaser. Expert advice is freely given to would-be purchasers of property and any person who is at all doubtful whether the property that they are purchasing is likely or not to come within the sub-standard category is strongly advised to seek the advice of the health department.

The detailed proposals contained in the Rent Act 1957 are explained in the text of the annual report. As already mentioned, many thousands of enquiries have already been dealt with about the procedure of this Rent Act. Advice is still being sought daily for many people as to whether or not their properties are likely to be de-controlled or not, and if so what provisions must be complied with. By the end of 1957, 1,966 applications for certificates of disrepair under the 1957 Rent Act had been received from tenants of property. Prior to the 1st July, 1956, certificates of disrepair were obtained in accordance with the provisions of the Housing Repair and Rent Act 1954, and 34 applications were received during the first half of the year in this way.



There is little doubt that many of the older houses in this City are far too large for modern requirements and that it is possible to convert them into housing units of more manageable size. The conversion and improvement of such properties would provide good modern self-contained homes for many hundreds of families now living under conditions of great difficulty in inconveniently sub-let houses. Under the Housing Repairs and Rent Act 1954 there is power for the Local Authority to assist with the cost of conversions of such properties, provided that the conversions are bona fide improvements and the cost is in excess of £100. During 1957, grants were approved in 87 cases. It is interesting to note that the majority of such grants are given to owner/occupiers. The hope, when this section of the Housing Repairs and Rent Act was introduced, that this might induce landlords on a large scale to improve their property does not seem to have materialised as far as the City of Liverpool is concerned. By far the majority of those taking advantage of the provision in relation to the improvements grant are owner/occupiers.

From time to time in past annual reports, I have mentioned that there is a need for the implementation of the standards of environmental health control mentioned in the Gowers Report of 1949. In this year's report the question of heating and temperature control has been discussed in greater detail. During the year special attention has been paid to these points and on some occasions it has been found that the temperature in work places and offices is much too low. This not only causes extreme discomfort to employees but also has a remarkable effect in reducing the efficiency of the worker concerned. Experience generally in this country has shown that under normal working conditions a minimum space temperature of 65° F is considered as being ideal. It is a curious fact that whereas it is a legal requirement to secure and maintain a satisfactory temperature in shops and factory work rooms, there is no similar control in the case of non-industrial employment such as offices. Improvements have, however, been able to be effected very largely by persuasion. Generally, employers are sympathetic to this problem and by and large are surprised when the inspectors have pointed out the extremely low temperature.

In this year's report much greater detail is given of the duties and work carried out by the public health inspectors in relation to the Administration of Shops Act, 1950



administration of the Shops Act 1950, and the Young Persons Employment Act, 1938. Generally speaking, the legislation governing the control of persons working in the shops is inadequate and difficult to operate. Early in the year, a Shops Bill was introduced in Parliament but subsequently withdrawn. Following the re-organisation of the work of the inspectorial staff generally, each district inspector is now responsible for carrying out the duties in relation to this part of his work within his own area. These new arrangements have meant that individual inspectors can now cover manageable and small areas which not only makes for greater and more efficient control but allows the shopkeepers to get to know the inspectors much more easily. This is a most important fact for, in the absence of very strict legislation, it is necessary to effect improvements more by persuasion and goodwill than by anything else. The increase in this part of the work has already been referred to and the number of visits to shops has trebled during the past year.

Contraventions of evening closing provisions are traced most generally to small back street shops and details of the difficulties in controlling this form of practice are given in the main text of the report. Also full details are given of the entitlements of assistants under the Shops Act whereby a compulsory weekly half-day holiday must be provided for all assistants. It is important to realise that the idea of this weekly half-day holiday is that it shall be a rest period, and it is not therefore permissible for an assistant to be employed on this half-day and to receive payment in lieu of time off. Generally, this position is very well observed.

#### **Hairdressers and Barbers**

The provision of Section 42 of the Liverpool Corporation Act 1955 whereby hairdressers and barbers are now registerable with the Local Authority has continued to work very well. At present there are 599 registered hairdressers and 717 inspections have been carried out to check on conditions. Generally, the standard is good and warning letters were served in respect of only 22 practices and then mainly in regard to minor affairs. One complaint was received in regard to hairdressing being carried out unsatisfactorily in a dwellinghouse. Observation enquiries were made and as a result the business has ceased to operate. It is a good example of how the registration of the hairdressers and barbers can add, not only to the protection of the public but also to the trade concerned.



The effect of the increasing use of mechanical power in factories is seen in environmental health control in many ways. Changes in the character and type of personnel employed and reduction of numbers of workers engaged on particular processes, as well as the replacement of male by female labour, has led to great changes in the working conditions within the factory. Generally speaking, the change is accompanied by improved and better working conditions, floors are free from accumulation of dirt, etc., walls and windows become cleaner and the work room itself shows an example of order and tidiness which was never present before mechanisation.

The investigation of industrial nuisances arising from a source of manufacturing and other industrial activities still take an appreciable amount of the inspectorial time in the department. Most of the complaints received relate to excessive noise, dust or effluvia.

Experience under the powers provided by the Liverpool Corporation Act, 1955 has shown that it has become possible to abate and alleviate some of the graver nuisances produced by noise. During the year action has been taken in respect of the noisy, travelling Gantry crane, circular saws, dust extraction equipment, metal drum reconditioning, careless handling of structural steel work, gas cylinders, etc. Occasionally it has been necessary to serve statutory notices but usually the mitigation and reduction of this type of nuisance has been achieved by discussion and friendly co-operation of the proprietor of the offending business.

During the year special attention was given to the difficult problem of the emission of effluvia from the by-products plant inside and outside the Abattoir processing animal waste. The foul gases which are often and usually involved during this work should be trapped and rendered innocuous by suitable condensers, but in some cases the apparatus is not always successful in completely deodorising these gases. The reasons for this depend very much on the human element and it is doubtful if this type of plant can be made absolutely fool-proof. The tracing of offensive smells from the by-product plants at Stanley Abattoir were undertaken and determined and remedial measures put into operation. In one case it had been found that a fat melting plant was being treated on occasions with quantities of material in excess of what the plant adequately could deal with. This plant has now been fitted with



a special type of deodoriser which dissolves the vapour and has very largely removed the nuisance. A significant feature was the fact that later in the year, when over 200 animal carcasses had to be destroyed from animals slaughtered at the Abattoir following the outbreak of foot and mouth disease, no nuisance was produced by the by-products plant at all. This shows very clearly the great improvements which have been effected in this respect during the year.

**Atmospheric pollution**

The progress of combating atmospheric pollution within the City has continued steadily. The Clean Air Act came into operation at the beginning of the year and the first smoke control order has been confirmed by the Ministry of Housing and Local Government. As a result of this, Liverpool will be the first city to have a smoke control area made under the new legislation. A measure of the progress which has already been attained within the City in this respect was given by the fact that only 48 abatement notices were issued during the year, compared with 100 in 1956.

A change in administration by which prevention of atmospheric pollution duties are now shared by all public health inspectors throughout the City has helped considerably in being able to cover the City more effectively.

One of the undoubted difficulties which industry at present has to face is the fact that they often can only obtain sufficient quantities of poor fuel and, in many instances, it is impossible for them to meet their power requirements without this fuel and to keep their chimneys smokeless. The smoke control problems on the river have improved during the year although it is still difficult to reach effectively and quickly all offenders because of the vast distances involved.

**Smoke Control Area No. 1**

Full details are given of the City of Liverpool No. 1 Smoke Control Area which was submitted to the Ministry for confirmation in July and confirmed on 27th September, 1957. The operative date of this control area is 1st April, 1958. The immense difficulties and problems created by Clarence Dock power station are again discussed in the annual report. During the year the City Council agreed to lead a deputation to the Ministries of Power, Local Government and Housing and at the time of writing this report that deputation is about to visit



these Ministries. Details of the liaison which has been obtained between the Central Electricity Authority and the Health Department are given in the report.

It is most satisfactory to report that during the year regular diesel services started on some of the suburban lines in and around Liverpool. There is little doubt that this is likely to be the complete answer for such services and already there has been a noticeable improvement from the atmospheric pollution.

Smoke from  
railway  
engines

Progress has continued to be evident in the field of food hygiene within the City. There is evidence that the public has already become more conscious of the need to demand cleaner food but there is still a long way to go in educating the public and all those involved in the food handling trades.

Food  
Hygiene

The administrative change whereby the food inspection duties have been spread out throughout the whole of the inspectorial staff have led to a dramatic increase in the number of visits paid during the year to retail food shops, cafes, bakehouses, licensed premises and food factories. In 1957 a total of 25,645 visits were made compared with a total of 14,492 in 1956. The result of this increased inspection has been that many irregularities and infringements of the Food Hygiene Regulations 1955 have been discovered and steps immediately taken to put these right. Increased visits have also been paid to cafes and restaurants and 1,234 such places were visited compared with 1,121 in 1956.

There has also been a marked increase in the amount of inspectorial work carried out in clubs, and 1,406 visits were paid to clubs of all types compared with 816 visits in 1956. All this extra inspection work has led to better standards of food hygiene throughout the City and there is no doubt now that the minimum standard demanded by the Food Hygiene Regulation 1955 are very largely being carried out in such premises. One of the main difficulties found in relation to the Food Hygiene Regulation has been that small shops have been very loath to make arrangements for suitable washing facilities for their assistants. The portable bowl for washing is not suitable and details are given in the annual report of examples of their unsuitability.

Clubs



**Street Trading** The Food Hygiene Regulations 1955 brought food street trading businesses within the scope of the law and set a similar standard for them compared with other food premises. During the year a special survey was carried out to find out the number of street traders and a total of 4,177 inspections and observations were made which resulted in 1,267 infringements of the Food Regulations being discovered. Warning letters were sent and improvements made. It must be stressed that many of these traders have been most anxious to do all they can to meet the requirements of the Food Hygiene Regulations and definite progress has been achieved.

**Transport of food** Within the main text of the annual report for the first time there are references in detail to the transport conditions of food within the City. There are, of course, many special problems in relation to the transport of food but it must be realised that however high the standards of hygiene reached in retail shops or in factory premises producing foods, both can be negated by bad conditions of transport from the factory to the shop. Great differences of standard in this respect were observed throughout the City and there are many traders whose standards are extremely high. Wherever possible the standards of cleanliness have been improved. The general improvement will, however, be slow as very largely it is a question of re-education of traders in this respect.

**Supervision  
of hygiene  
at city  
markets**

The new arrangement introduced last year whereby all the food inspection at the market came under the direct control of the Chief Public Health Inspector has worked extremely well and details of all the inspections carried out and problems dealt with during the year are given in the general text of the annual report.

**Milk  
Supplies**

The delegation of duties, relating to the supervision in inspection of milk supplies, to the general public health inspectorial staff which occurred during the beginning of 1957 has worked extremely well and has resulted in a much wider cover of this important inspectorial work. Full details are given in the annual report. It will be seen that during the year, 2,764 licences were issued.

The new arrangements introduced by the City Council in January, 1957 whereby assistant public health inspectors started to work at Stanley Abattoir as well as other public health inspectorial staff has worked remarkably well and has led to an easing of the general problems associated with the shortage of full-time meat inspectors. Full details of the meat inspectorial duties are given in the general text of the annual report.

This section of the health department, with all its various duties, has continued to expand throughout the year. Some of the increased duties have been in connection with other changes within the department, such as the extension of the poliomyelitis immunisation scheme. All the intricate problems of the transport of this material, which must be kept at low temperatures all the time, has been dealt with by this section.

In addition, this section deals with the inspection of verminous premises and the subsequent disinfection carried out on furniture and the disinfestation of persons at disinfecting stations. It also deals with control of the City mortuary and burial service, the distribution of home nursing equipment, assistance with the transport of mobile meals and the maintenance of a food and general store, as well as the issue of welfare foods.

This section has also been very actively concerned with the most successful health education exhibit at this year's Liverpool Show.

My thanks are especially due to the Chairman, Alderman Alexander Griffin, and the Deputy-Chairman, Alderman M. J. Reppion, who throughout the year have both devoted much time to the work of the Department and have always been ready with helpful advice and guidance on matters of policy. I am also grateful to all the members of the staff of the Health Department for their loyalty and unsparing service during the year, which was in many ways a difficult one for the staff as we were in the process of moving into our new office accommodation.



I also acknowledge the assistance given by the members of the Health Committee and for the kindness and courtesy with which they have considered the reports and recommendations made to them in the course of the year.

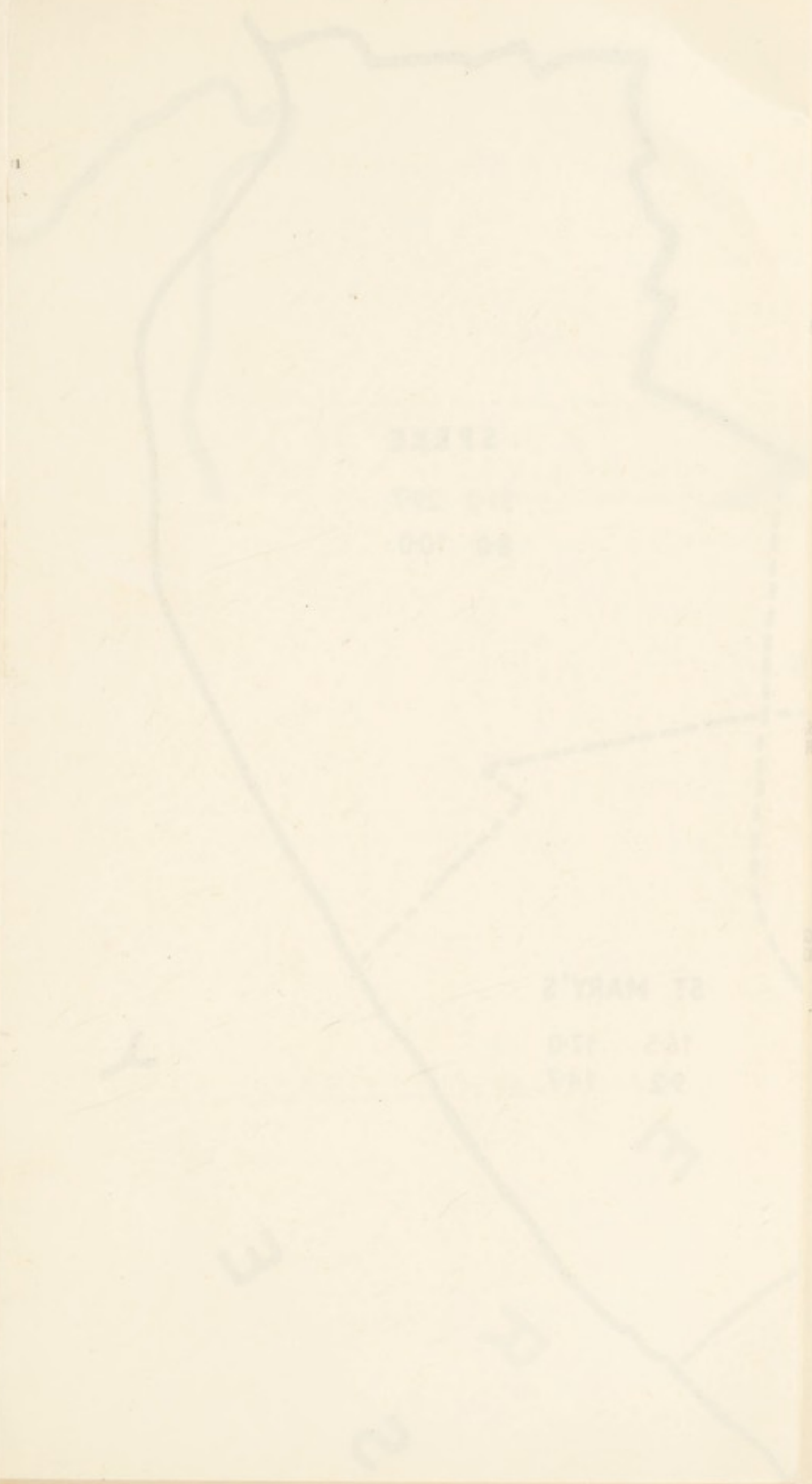
I am,

Your obedient servant,

Andrew B. Semple

Medical Officer of Health.

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CITY of LIVERPOOL  
MUNICIPAL WARDS  
1957

SHOWING

BIRTH RATE per 1000 population  
DEATH RATE per 1000 population  
INFANT DEATH RATE per 1,000 live births  
NUMBER OF PERSONS PER ACRE



CITY OF LIVERPOOL  
POPULATION  
768,700  
BIRTH RATE 20.9 per 1000 population  
DEATH RATE 11.8 per 1000 population  
INFANT DEATH RATE 26.4 per 1,000 live births  
NUMBER OF PERSONS PER ACRE 27.6

# CITY OF LIVERPOOL

## SUMMARY

OF

## VITAL STATISTICS FOR 1957

|                                             |     |        |                                       |                                         |                        |                                          |
|---------------------------------------------|-----|--------|---------------------------------------|-----------------------------------------|------------------------|------------------------------------------|
| Area (land and inland water)                | ... | ...    | ...                                   | ...                                     | ...                    | 27,818 Acres                             |
| Population (Estimated by Registrar General) | ... | ...    | ...                                   | ...                                     | ...                    | 768,700                                  |
| Live Births ...                             | ... | 16,044 | Live Birth Rate ...                   | 20.9 per 1,000 of estimated population. |                        |                                          |
| Deaths (all causes)...                      | ... | 9,093  | Death Rate ...                        | 11.8 per 1,000 of estimated population. |                        |                                          |
| Deaths (under 1 year of age)                | 423 |        | Infant Mortality rate                 | } 26 per 1,000 live births.             |                        |                                          |
| Deaths from :—                              |     |        |                                       |                                         |                        |                                          |
| Pulmonary Tuberculosis                      | }   | 123    | Pulmonary Tuberculosis death rate     | }                                       | 0.16                   | } per 1,000 of the estimated population. |
| Other forms of Tuberculosis                 | }   | 5      | Non-Pulmonary Tuberculosis death rate | }                                       | 0.006                  |                                          |
| Respiratory Disease                         | }   | 1,558  | Respiratory death rate                | }                                       | 2.03                   |                                          |
| Cancer ...                                  | ... | 1,603  | Cancer death rate                     | 2.08                                    |                        |                                          |
| Maternal Deaths ...                         | ... | 7      | Maternal Mortality rate               | }                                       | 0.42 per 1,000 births. |                                          |
| Neonatal Death Rate                         | ... | 17.5   |                                       |                                         |                        |                                          |
| Stillbirth Death Rate                       | ... | 24.9   |                                       |                                         |                        |                                          |
| Perinatal ...                               | ... | 39.1   |                                       |                                         |                        |                                          |



## VITAL STATISTICS.

### Statistical Appendix

The majority of the lengthy statistical tables are included in a special appendix at the back of this report. A list of these tables is given on pages v-vi of the preface.

### *Births.*

#### Birth Rate

During the year, 16,044 live births were registered within the City which represents a birth rate of 20·9 per 1,000 of the estimated mid-year population. 8,240 of these births were male and 7,804 were female. 5·3 per cent of the total live births (854 births) were illegitimate live births. These figures show an increase in the birth rate for the year compared with 1956. There has, at the same time, been a small increase in the percentage of illegitimate births. The birth-rate within the City continued to be considerably higher than the average for England and Wales which, for the year, was 16·1 per 1,000. The variation in births and stillbirths from 1938 to 1957 inclusive is given in the graph on the page facing.

### *Stillbirths.*

#### Stillbirth Rate

There were 409 stillbirths registered in the City during the year, representing a stillbirth rate of 24·9 per 1,000. This is a slight increase on the figure of 24·1 for the preceding year. The stillbirth rate among legitimate babies was 24·5 per 1,000 and among illegitimate babies was 31·7 per 1,000.

### *Mortality.*

#### General Death Rate

There were 9,093 deaths registered within the City during the year, 4,752 males and 4,341 females. This gives a general death rate of 11·8 per 1,000 as compared with a death rate of 11·4 for the preceding year. The number of deaths from cancer of the lung was exactly the same as the figure for the previous year, namely 448. It is encouraging to record that a further fall was observed in the number of deaths from tuberculosis during the year, and the number of such deaths fell to 128 compared with 144 in the previous year.

The trend of mortality of all causes and certain specified diseases have been prepared and are produced on the accompanying graphs. The full details of the causes of mortality are given in the statistical appendix.

# CITY OF LIVERPOOL

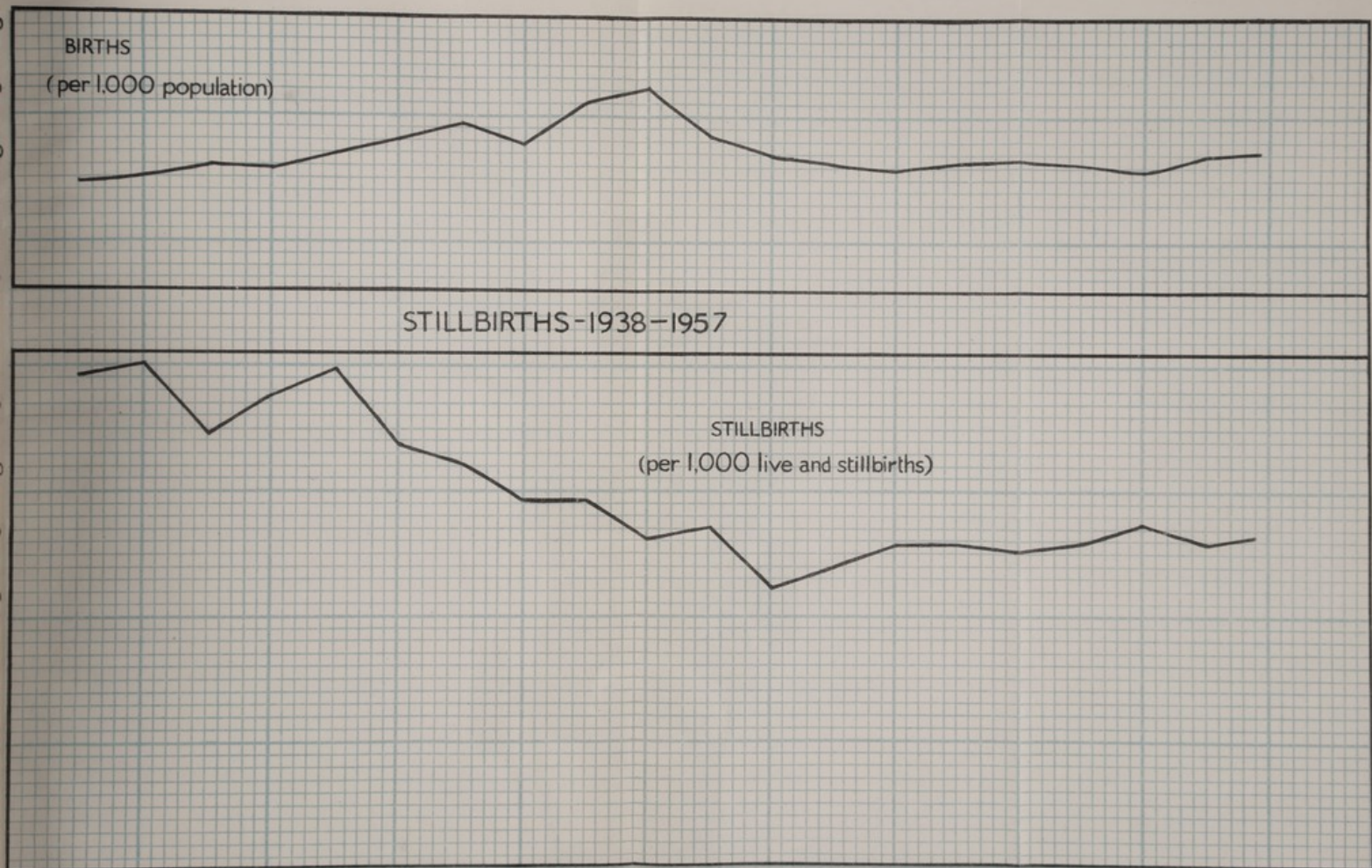
## BIRTHS - 1938 - 1957

BIRTHS  
(per 1,000 population)

## STILLBIRTHS - 1938 - 1957

STILLBIRTHS  
(per 1,000 live and stillbirths)

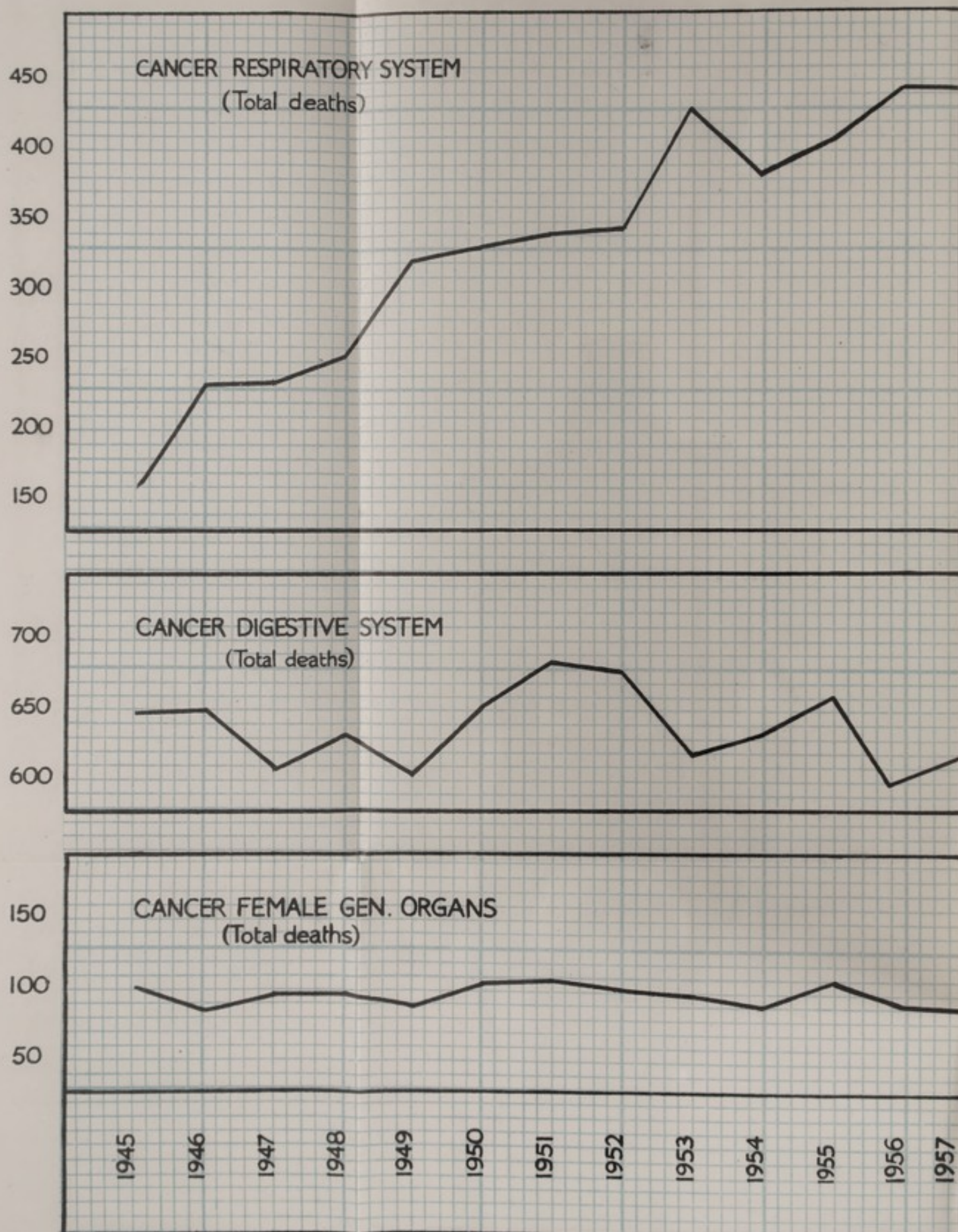
1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957





# TRENDS OF MORTALITY-LIVERPOOL

1945 - 1957





1938 — 1957

Death rate per 1,000

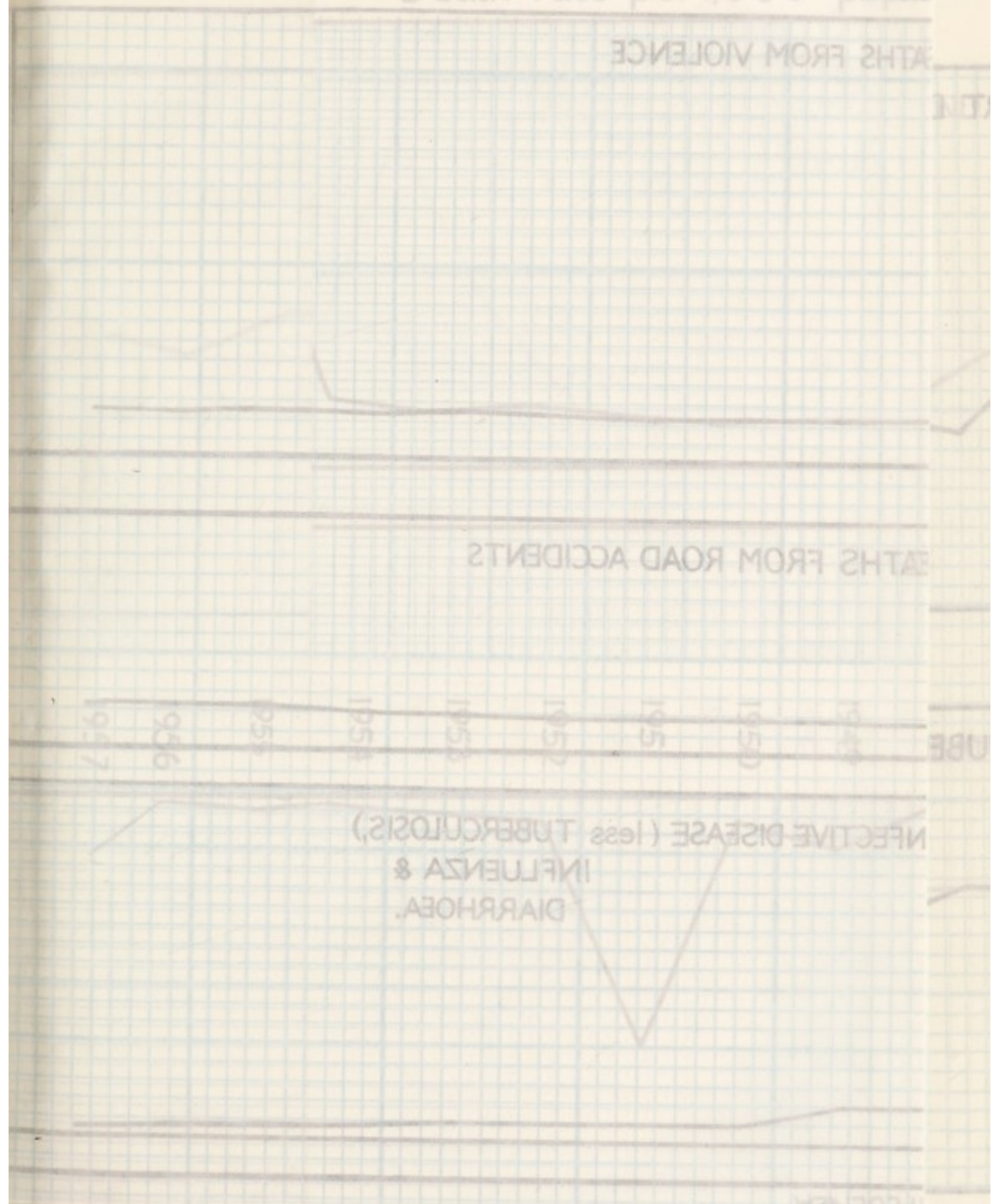
DEATHS FROM VIOLENCE

DEATHS FROM ROAD ACCIDENTS

INFECTIVE DISEASE (less TUBERCULOSIS)  
INFLUENZA &  
DIARRHOEA

1948 1949 1950 1951 1952 1953 1954 1955 1956 1957

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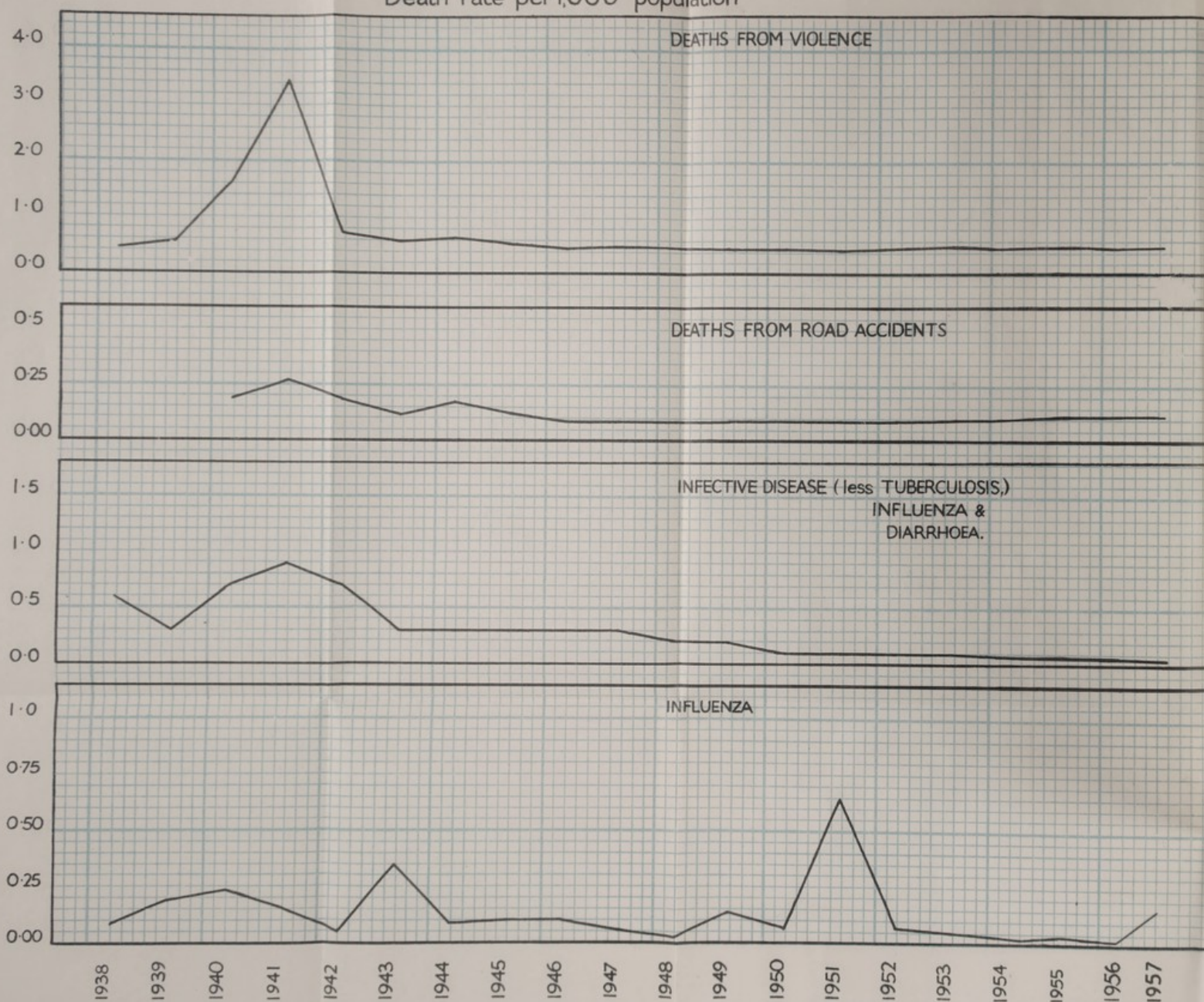




# TRENDS OF MORTALITY—LIVERPOOL

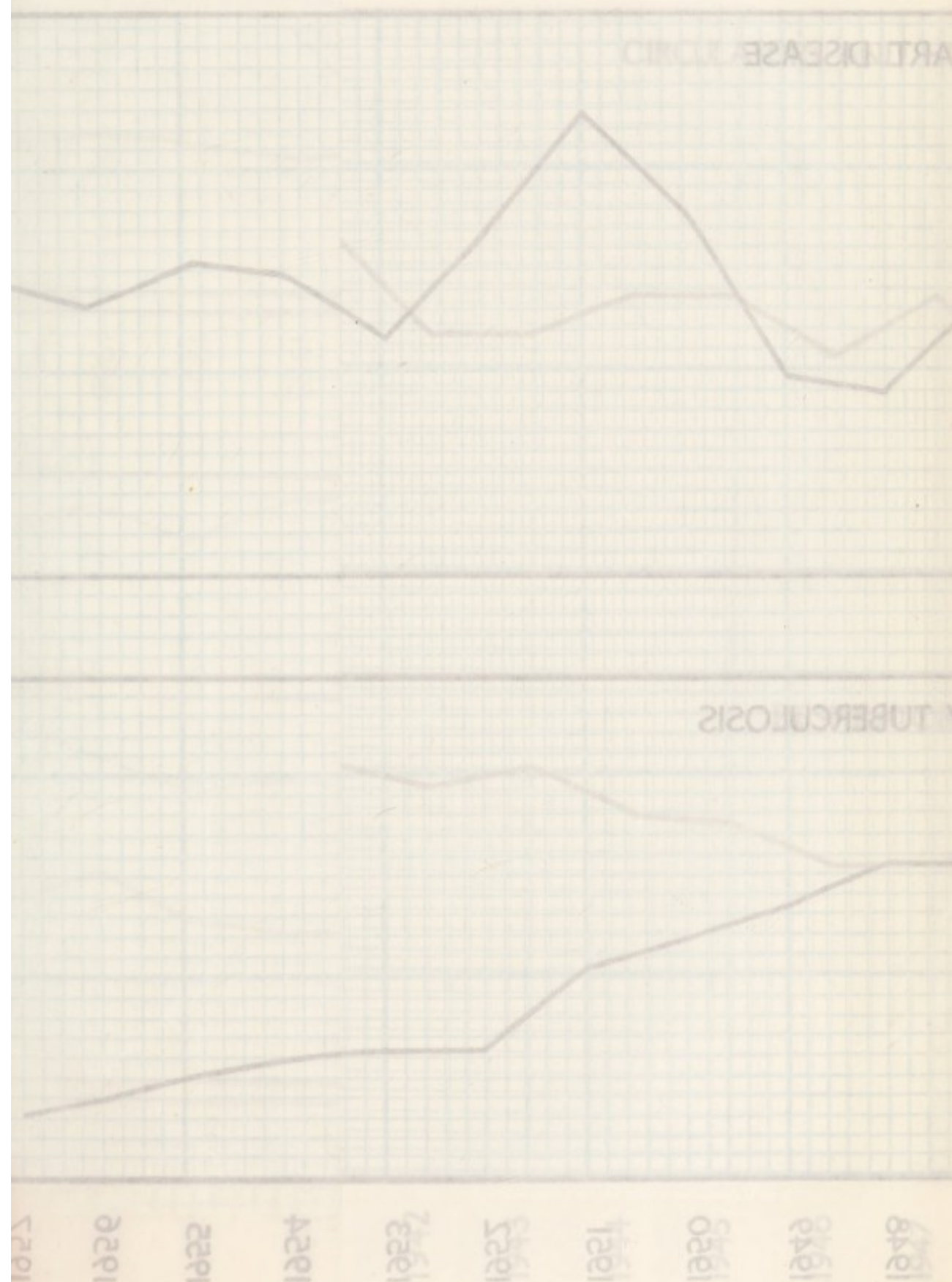
1938 — 1957

Death rate per 1,000 population



1938 — 1939

Death rate per 1000

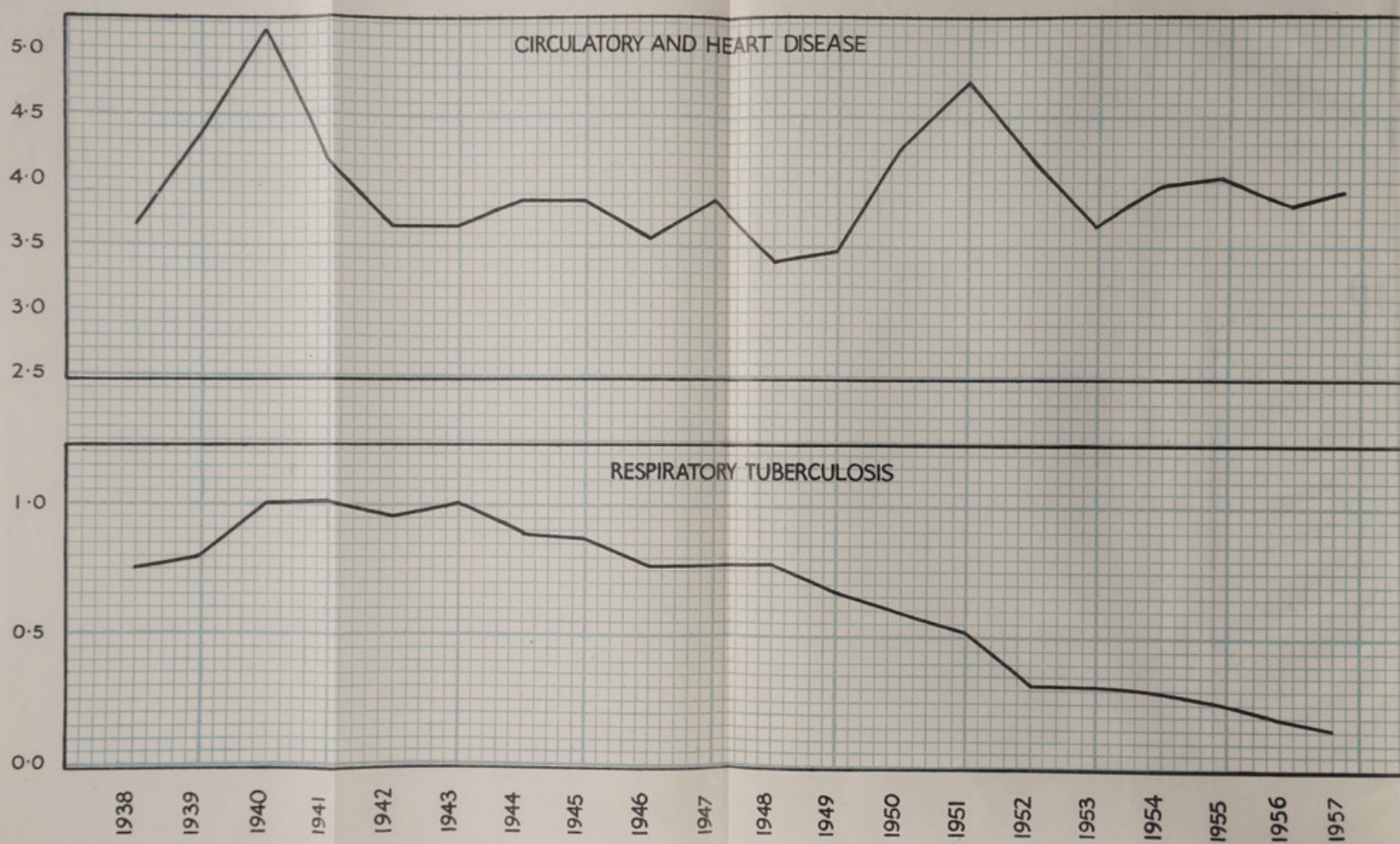




# TRENDS OF MORTALITY - LIVERPOOL

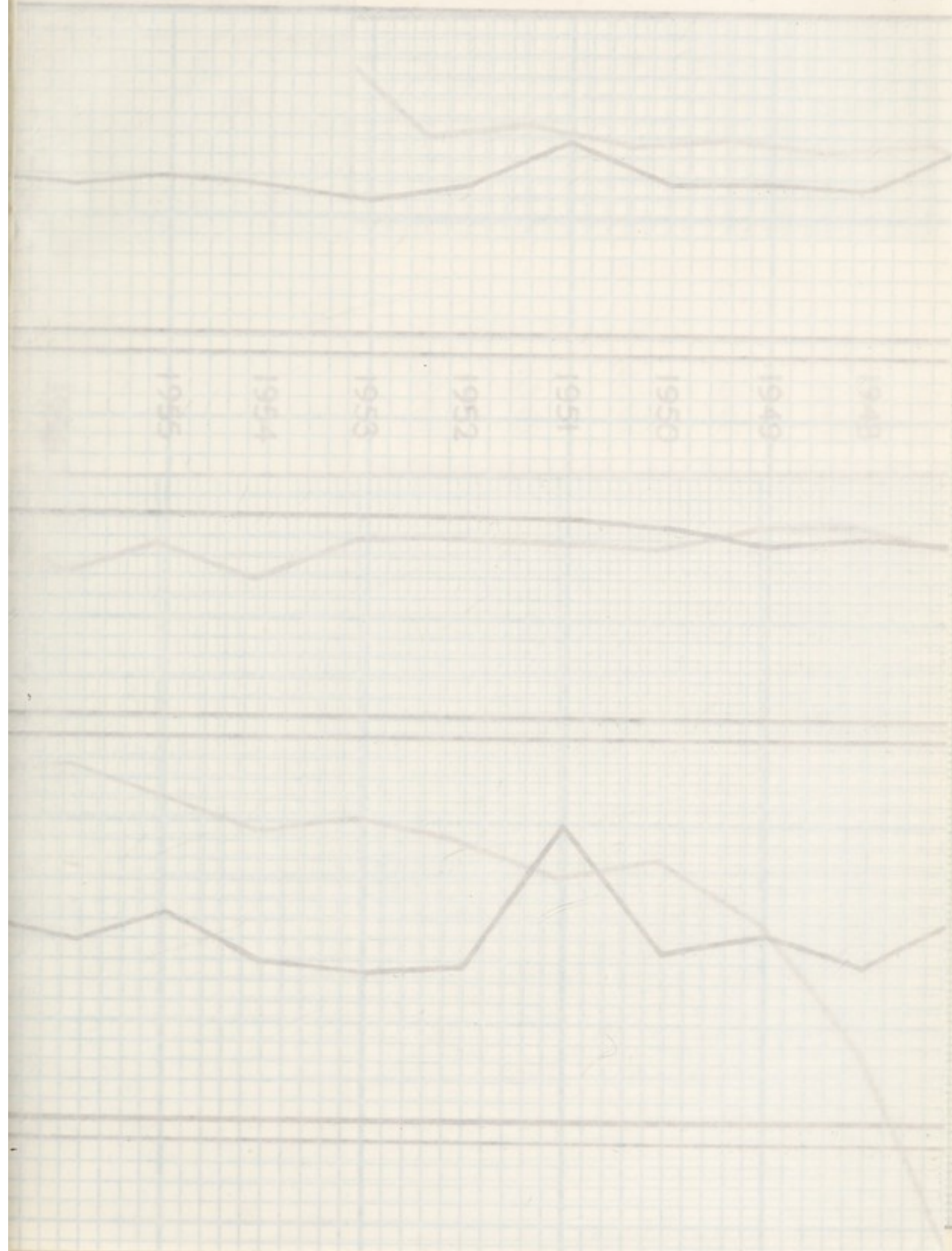
1938 - 1957

Death rate per 1,000 population



52 - 1938

Death rate population

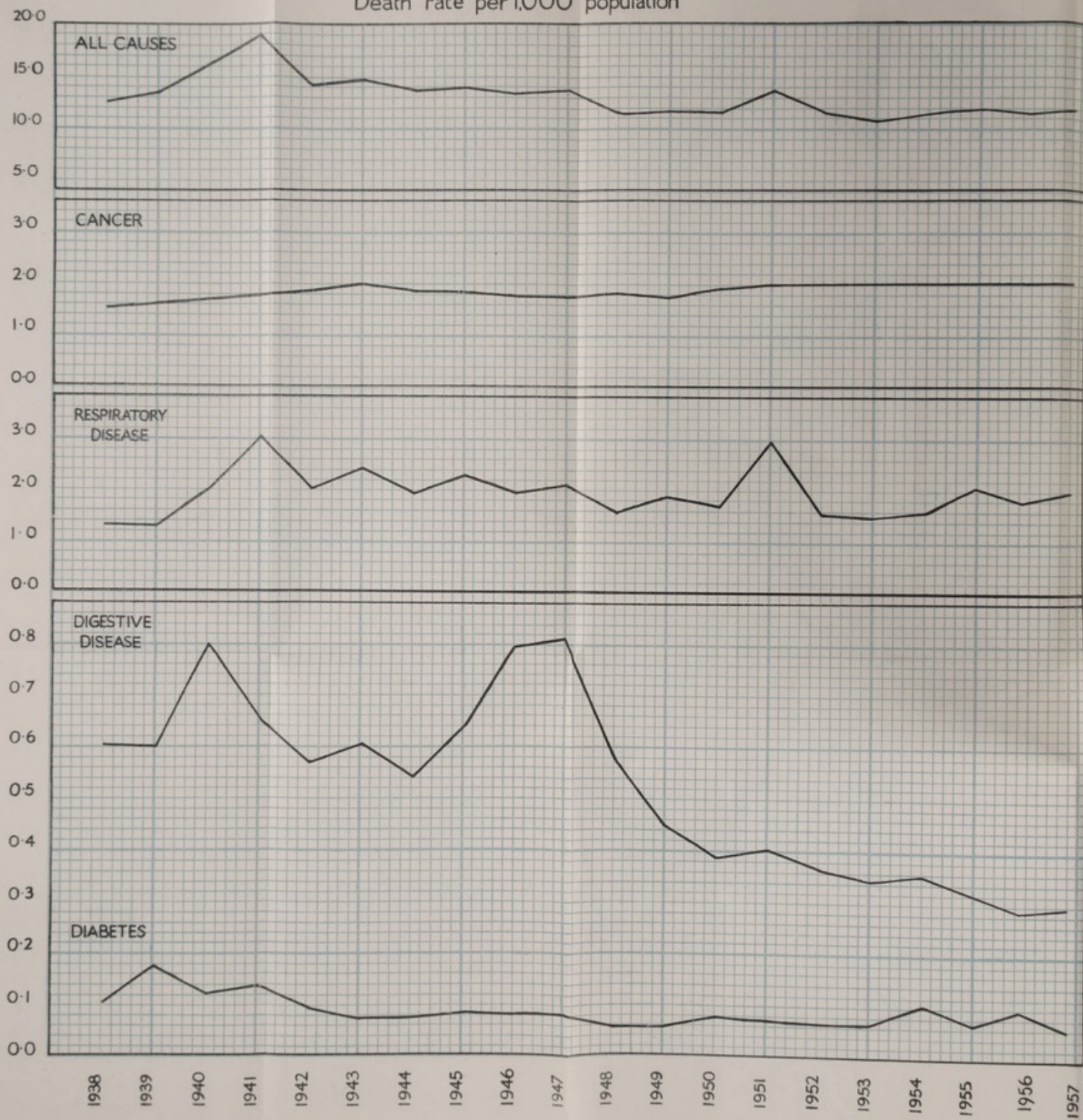




# TRENDS OF MORTALITY-LIVERPOOL

1938 — 1957

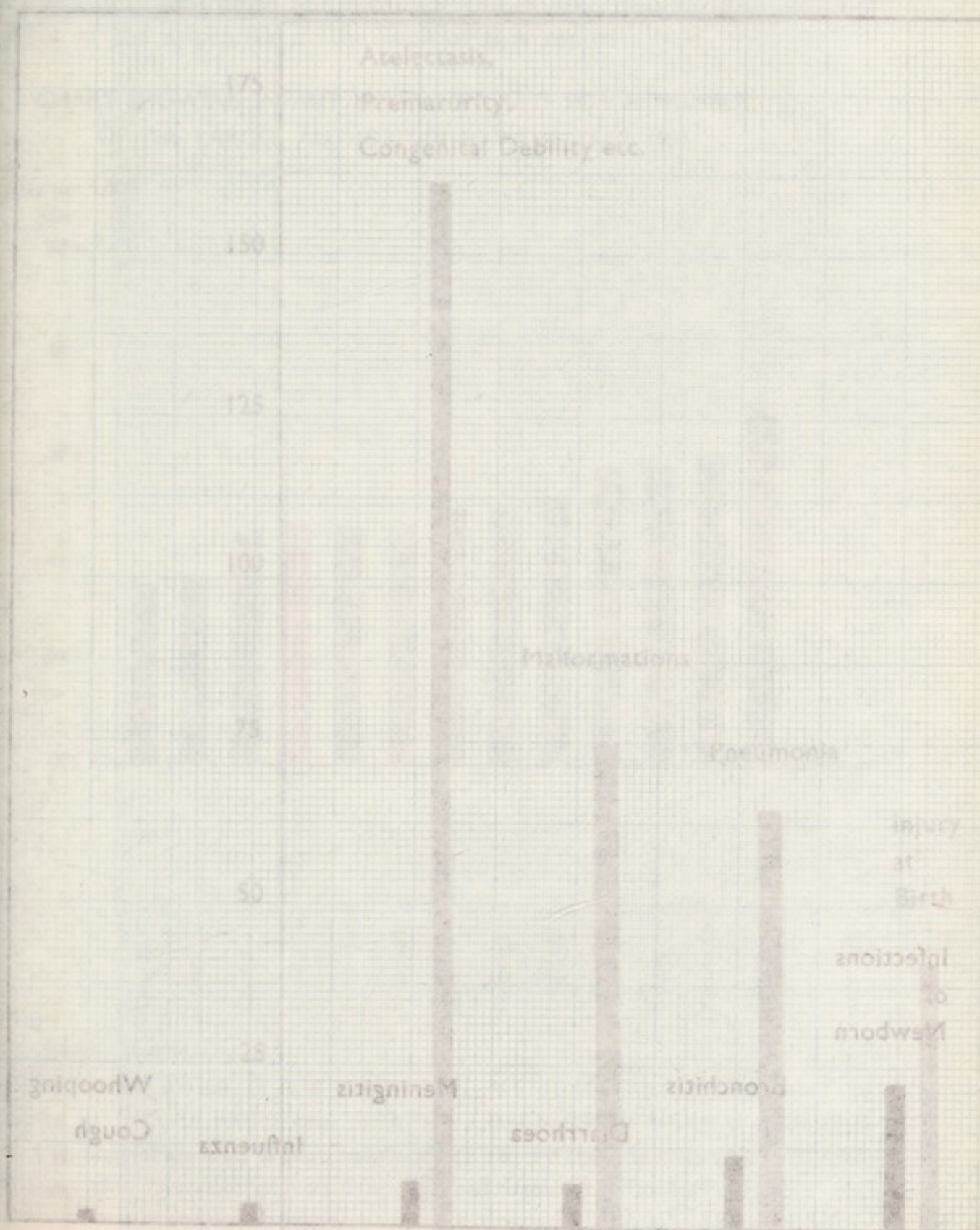
Death rate per 1,000 population





# CITY OF LIVERPOOL CAUSES OF INFANT MORTALITY—1927

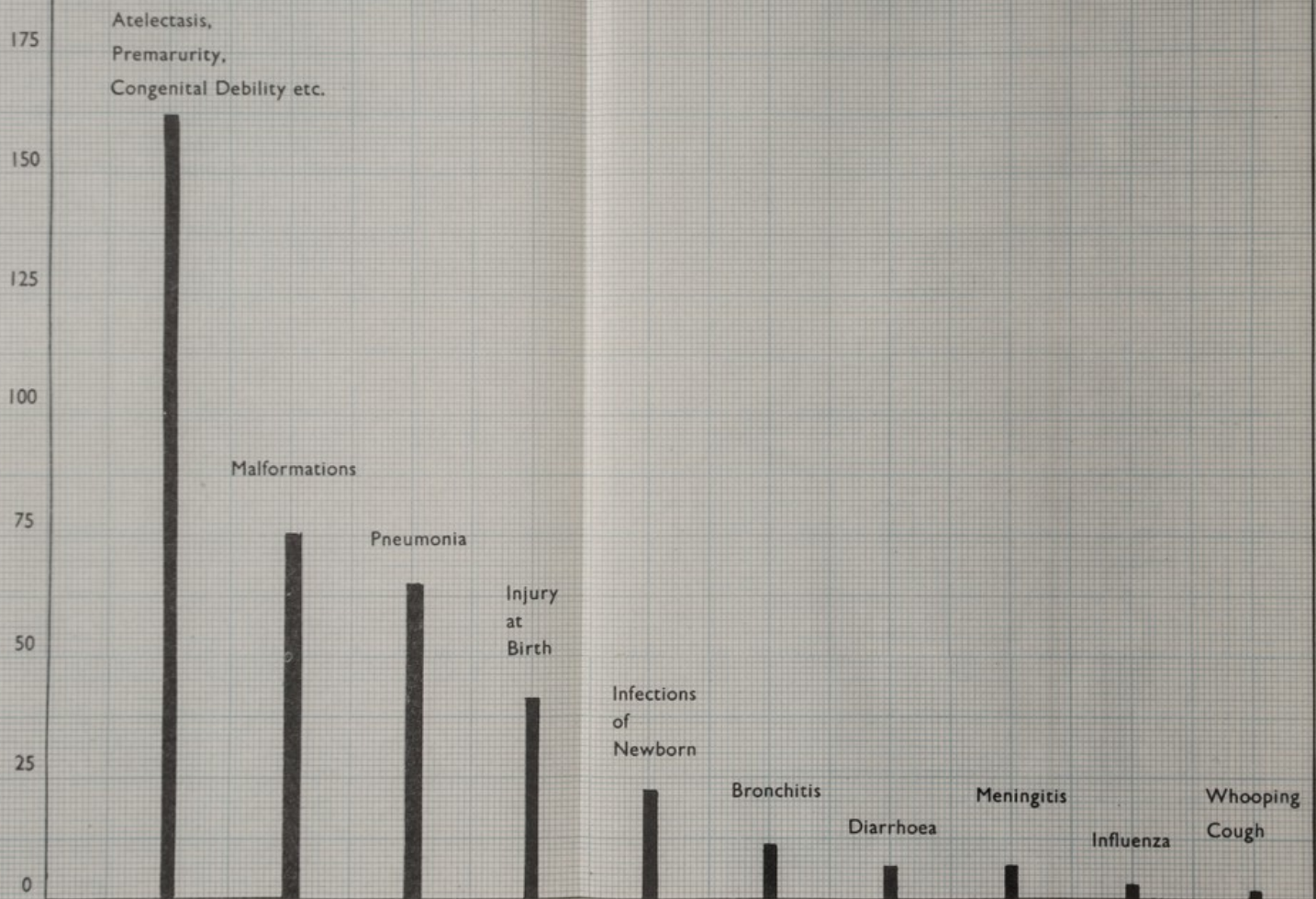
Total  
Deaths





CITY OF LIVERPOOL  
PRINCIPAL CAUSES OF INFANT MORTALITY—1957

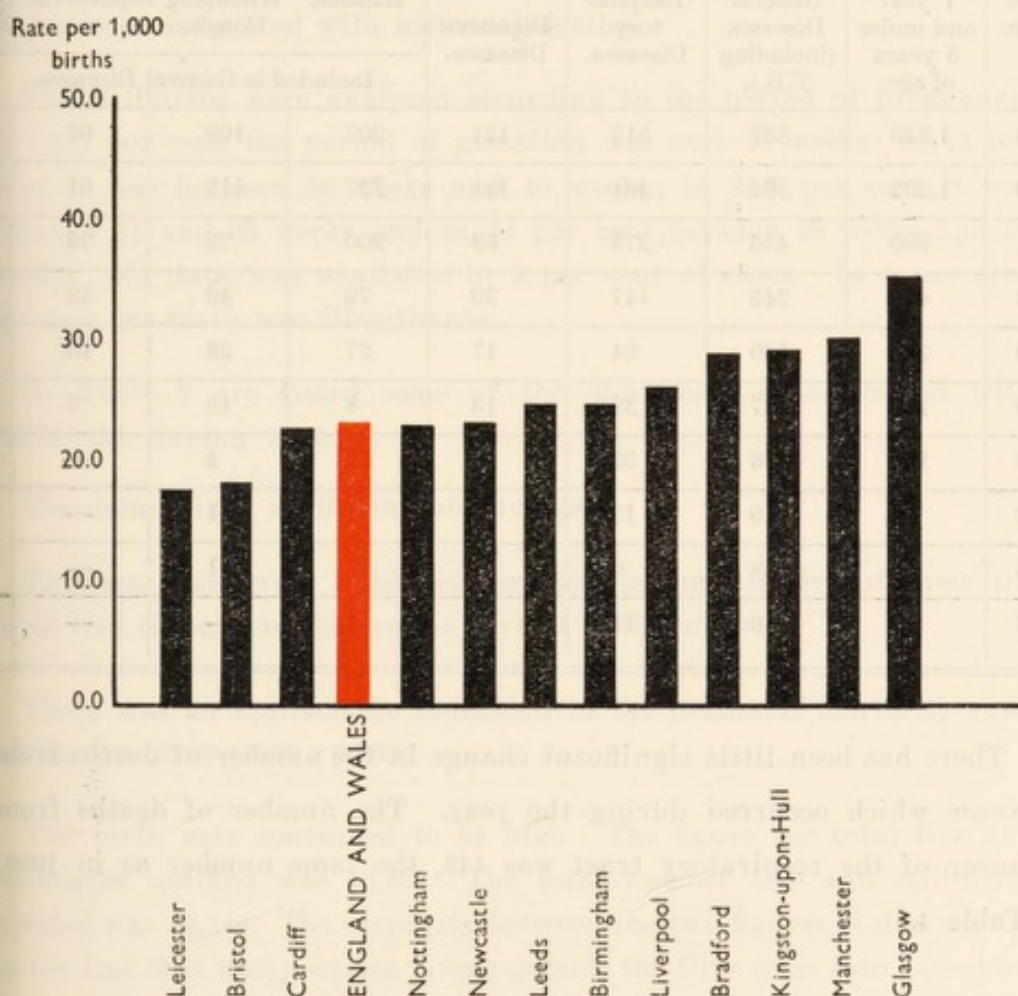
Total  
Deaths



### Infant Mortality.

The infant mortality rate was unchanged during the year at 26 per 1,000 live births. A total number of 423 infant deaths occurred, of which 27 were illegitimate children. This represents an illegitimate infant mortality rate of 32 compared with a legitimate mortality rate of 26. The principal causes of infant mortality are represented in a graph facing this page, and complete causes are given in the statistical tables in the appendix at the back of this report.

CHART SHOWING INFANT MORTALITY RATE FOR A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1957



### Perinatal Mortality.

This rate, which is the number of stillbirths and the number of deaths in infants under one week per 1,000 births is being increasingly used in statistics and it represents more fairly the hazards of childbirth. During 1957 the rate was 39.08 compared with 38.68 in 1956.



**Child  
Mortality  
Rate**

*Child Mortality.*

The various child mortality rates, both in total and for specific diseases, are given in the table illustrated below. It will be seen that although the deaths under one year of age rose very slightly during the year the deaths from 1 year to 5 years of age fell from 58 to 47.

YEARLY AVERAGE NUMBER OF DEATHS IN SUCCESSIVE QUINQUENNIA, 1920-1954, AND TOTAL DEATHS IN THE YEARS 1955, 1956, AND 1957.

| Year.   | Deaths under 1 year of age. | DEATHS, 1 YEAR AND UNDER 5 YEARS OF AGE. |                                    |                       |                     |                               |                 |             |
|---------|-----------------------------|------------------------------------------|------------------------------------|-----------------------|---------------------|-------------------------------|-----------------|-------------|
|         |                             | Total, 1 year and under 5 years of age.  | General Diseases (including T.B.). | Respiratory Diseases. | Digestive Diseases. | Measles.                      | Whooping Cough. | Diphtheria. |
|         |                             |                                          |                                    |                       |                     | Included in General Diseases. |                 |             |
| 1920-24 | 2,278                       | 1,349                                    | 557                                | 513                   | 121                 | 202                           | 109             | 62          |
| 1925-29 | 1,879                       | 1,252                                    | 564                                | 461                   | 121                 | 227                           | 118             | 61          |
| 1930-34 | 1,601                       | 890                                      | 456                                | 278                   | 63                  | 200                           | 72              | 79          |
| 1935-39 | 1,283                       | 487                                      | 243                                | 147                   | 30                  | 79                            | 46              | 58          |
| 1940-44 | 1,140                       | 366                                      | 160                                | 94                    | 17                  | 27                            | 23              | 45          |
| 1945-49 | 1,100                       | 168                                      | 67                                 | 36                    | 13                  | 8                             | 15              | 9           |
| 1950-54 | 553                         | 100                                      | 26                                 | 22                    | 5                   | 2                             | 4               | —           |
| 1955    | 462                         | 71                                       | 9                                  | 19                    | 5                   | 1                             | 1               | —           |
| 1956    | 413                         | 58                                       | 8                                  | 6                     | 1                   | —                             | 1               | —           |
| 1957    | 423                         | 47                                       | 6                                  | 11                    | 6                   | 1                             | —               | —           |

**Deaths from  
Cancer**

There has been little significant change in the number of deaths from cancer which occurred during the year. The number of deaths from cancer of the respiratory tract was 448, the same number as in 1956 (Table 4.)

## MATERNITY AND CHILD WELFARE

There was no appreciable reduction in the infant mortality rate **Infant Mortality** during the year

The stillbirth rate has also remained about the same. There were 503 **Stillbirths** stillbirths during the year, 97 of them relating to mothers outside the City and 9 were inward transfers. The remaining 397 were fully investigated.

Sixty-eight stillbirths occurred in the domiciliary service, four in nursing homes, one in an ambulance and one was found abandoned. Three were associated with maternal deaths.

The stillbirths were analysed according to the period of pregnancy. In 12.3 per cent the period of gestation was over 40 weeks; in 43 per cent it was between 36 weeks and 40 weeks; in 28.7 per cent it was between 31 and 35 weeks and in 14 per cent between 28 weeks and 30 weeks. No data was available in 2 per cent of cases. In 5 per cent of cases the birth was illegitimate.

In Table 7 are listed some of the abnormalities associated with stillbirths during 1957.

The domiciliary stillbirth rate was 13.3.

**Domiciliary Cases**

Thirteen cases were unbooked emergencies and in five of these the birth had taken place before the arrival of the midwife.

There was no appreciable reduction in the perinatal mortality rate, **Perinatal Mortality** which was 39.08 (1956: 38.68).

The birth rate continued to be high. The figure for total live and **Births** stillbirths notified was 16,663. The total number live and stillbirths notified was 19,148. The disparity between the two figures is due mainly to the fact that many women living outside the City come into Liverpool hospitals to be confined.

### Midwifery.

The number of hospital deliveries has decreased by 331. On the other hand, 95 more patients were delivered in private nursing homes.



During the year, 260 midwives gave the required notice under Section 15 of the Midwives Act, 1951, of their intention to practise midwifery in the City. (See Table 9.)

The domiciliary midwifery staff remained on an average four below establishment throughout the year. There was quite a number of applicants for domiciliary posts who were not appointed. Unfortunately they could be divided roughly into two classes, those who were eminently suitable but could not be persuaded to live "on the district", and those whose references indicated that they worked well if under supervision. It has been suggested that the midwives with cars might reasonably be permitted to live away from their districts. A tentative trial of this procedure has been made from time to time when the domiciliary service was carrying an extra burden.

It is thought, that in order to recruit midwives for domiciliary work they will eventually have to be permitted to live away from their districts. This would only function if the midwife could be called through a health centre or a district clinic giving a 24-hour service.

**Case Load** During 1957 the average case load of the municipal midwives was 77, which is in excess of the number (66) recommended by the working party some years ago.

**Confinements** During the year the domiciliary confinements increased by 166. The municipal midwives delivered 4,088 cases, the Liverpool Maternity Hospital District Midwives 1,029, and the midwives in private practice delivered 22 cases.

During the year an increasing number of primigravida were delivered at home.

The closure of the maternity wards at Sefton General Hospital, due to staphylococcal infection, caused a considerable increase in the work of the midwives, particularly in their home visiting. An account of this outbreak of infection at this hospital is given at the end of this section of the report.

**Early Hospital Discharges** There was a total of 7,744 special visits paid by midwives in addition to their ordinary routine work. Of these visits, 3,646 were to maternity

cases discharged from hospital before the 10th day; 3,291 were to Home maternity cases for investigation of home conditions, and 807 were Conditions ante-natal visits.

Gas/air analgesia was administered in 3,394 domiciliary deliveries in Analgesia 1957 as compared with 3,276 in 1956. 2,816 domiciliary deliveries were given pethidene as compared with 2,558 in 1956. (See Table 8.)

During 1957, 928 visits were paid by the administrative staff to Work of the midwives and 602 special visits were also paid by them in respect of Supervisors special cases including puerperal pyrexia and patients with bad obstetric histories who refused to book at a hospital for confinement.

Under the rules of the Central Midwives Board, midwives sought Medical medical aid in 2,051 cases—1,615 mothers and 436 infants. Assistance

On 73 occasions consultants were called in connection with obstetrical emergencies or complications (55 mothers and 18 infants).

During the year the midwives were called out by the ambulance service to 37 cases

Eleven midwives were suspended from practice in order to prevent the spread of infection.

Six municipal midwives attended postgraduate courses of instruction Refresher Courses during the year—two at Kingston upon Hull, two at London and two at Bangor. One supervisor of midwives attended a course in London.

The Part II midwifery training school, in conjunction with Sefton Part II General Hospital, continues to develop. Thirty-three pupil midwives Training of Midwives completed their training during the year and qualified as midwives.

### Flying Squad.

During the year there was a total of 71 calls. In 60 cases the doctor was booked for the delivery, in nine the midwife only was booked, and two were unbooked emergencies. Nine patients were transferred to hospital. Of the 71 cases, two had ante-partum haemorrhage and three had bleeding before the 28th week, there were three forceps deliveries, two were born before the arrival of the midwife, one was a breech and 60 were normal vertex deliveries.



Blood transfusions were given in 28 cases.

The primary reasons for calling the flying squad are shown in the following table:—

|                                      |     |     |                |
|--------------------------------------|-----|-----|----------------|
| Asphyxia neonatorum ...              | ... | ... | 1              |
| Prolapse of cord ...                 | ... | ... | 2              |
| Abortion ...                         | ... | ... | 3              |
| Ante partum bleeding ...             | ... | ... | 2              |
| Intra partum bleeding ...            | ... | ... | 27             |
| Post partum bleeding ...             | ... | ... | 15             |
| Traumatic bleeding ...               | ... | ... | 1              |
| Retained placenta (without bleeding) |     |     | 17             |
| Obstetric shock ...                  | ... | ... | 2              |
| Prolonged labour ...                 | ... | ... | 1              |
|                                      |     |     | <hr/> 71 <hr/> |

### **Puerperal Pyrexia.**

#### **Causes of Puerperal Pyrexia**

During 1957 there were 695 cases of puerperal pyrexia. The cause in 123 cases was urinary infection, in 194 cases pelvic infection, in 129 respiratory infection and in 79 breast infection. The cause was not known in 170 cases.

### **Outbreak of a Staphylococcal Infection in a Maternity Block.**

The following is an account of the work of the domiciliary service following on the closure for a period of five weeks of the maternity wards at Sefton General Hospital. The causal organism in this outbreak was the staphylococcus phage type 80. Seventy-one newborn infants were infected.

During May, June and July, 1957, the Midwifery Section reported an increasing number of cases of sepsis of one kind or another among the babies discharged before the 10th day from the maternity wards of the above hospital. In addition, the health visitors reported a smaller number of septic cases discharged from the same hospital after the 10th day.

On 19th August, 1957 a meeting was held at the hospital to discuss the incidence of sepsis among the newborn infants. It was attended by members of the hospital staff and representatives from the Regional Hospital Board and the Health Department. In view of the nature and extent of the infection it was agreed that the maternity ward should be closed and that no further cases should be admitted. The ward remained closed until 23rd September, 1957, a period of five weeks.

On 19th August, 1957, there were sixty patients in the maternity wards and on 2nd September, 1957 the last patient was discharged. The resulting load placed on the local authority services is listed under the following headings:

(a) *Follow-up of cases delivered in infected wards.*

All patients discharged between 19th August, 1957 and 2nd September, 1957 were from infected wards. It was, therefore, necessary to second two midwives from the domiciliary service to visit them until the 14th day of the puerperium. These two midwives carried out a total of 217 visits and between them they covered all districts in Liverpool. They returned to routine midwifery duties on the 2nd September and the 10th September, respectively.

(b) *Home visiting of hospital booked cases.*

Following the decision to close the maternity wards, the obstetrician provided the local authority with the names and addresses of 276 normal cases booked for hospital and due for delivery within the subsequent four weeks. Every case was visited by a midwife, who explained the circumstances of the hospital emergency to the patient and offered to book her for a home confinement. Owing to the unequal distribution of cases in the different areas, it was necessary to allocate some cases to midwives outside their usual districts. The maximum use was, of course, made of midwives with their own cars and also of local authority transport. The hospital very kindly provided transport at the weekends during the emergency. This follow-up of these booked hospital cases was more time consuming than had been anticipated. Some patients were not known at the addresses given and it was later discovered that they had moved and had failed to notify the hospital of their change of address, although they were attending the hospital ante-natal clinic regularly. One or two had been delivered in other hospitals, several had moved to districts outside Liverpool. A total of 807 ante-natal visits were paid by the midwives to these cases.

(c) *Domiciliary deliveries.*

Between 21st August, 1957 and 30th September, 1957, the domiciliary midwives delivered 90 of the booked hospital cases and 575 normally booked domiciliary patients. The total number of domiciliary deliveries during this period was, therefore, 665. 121 of these were delivered by



the Liverpool Maternity Hospital district midwives. Some patients who had originally booked for hospital and who subsequently agreed to have a home confinement, but were undelivered when the maternity ward opened on 23rd September, 1957, declined the offer to go to hospital.

(d) *Early discharges from hospitals.*

During the period of the emergency all abnormal cases were admitted to the remaining four maternity hospitals. In order to meet the demand for beds many patients had to be discharged before the tenth day as shown in the following table:—

DAY OF DISCHARGE.

| Hospital.       | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Cases | Visits |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-------|--------|
| Broadgreen..... | —   | 9   | 17  | 17  | 2   | 9   | 2   | —   | 56    | 298    |
| Mill Road ..... | —   | 8   | 49  | 50  | 24  | 10  | 1   | —   | 142   | 736    |
| Walton .....    | 1   | —   | —   | —   | 1   | —   | —   | —   | 2     | 14     |
| L.M.H. ....     | —   | 6   | 3   | —   | 3   | 4   | —   | 1   | 17    | 91     |
| Lourdes Private | —   | —   | —   | —   | 1   | —   | —   | —   | 1     | 4      |
| Total .....     | 1   | 23  | 69  | 67  | 31  | 23  | 3   | 1   | 218   | 1,143  |

It will be seen from the above table that 1,143 visits were made by the midwives to early hospital discharges.

Towards the end of the first week of the emergency it became evident that some further measures would have to be taken to ease the burden of the midwives. Many were having successive nights with little or no rest.

*Assistance given to the midwives.*

1. During a period of five weeks, all cases referred to the Health Department from the hospital ante-natal clinics for assessment of home conditions, were transferred to the health visitors for home visiting and reporting.

2. For a period of one week, during the height of the emergency, normal booked domiciliary cases were transferred to the health visitors on the 10th day instead of the 14th day of the puerperium.

3. Three retired midwives were engaged on a part-time basis for carrying out nursing visits.

4. A health visitor who happened to be on leave prior to going overseas was engaged for a month to assist with the home visiting.

**Summary of the extra work undertaken by the Domiciliary Midwifery Service in respect of this outbreak of infection.**

|                                        |     |     |     |       |
|----------------------------------------|-----|-----|-----|-------|
| Deliveries                             | ... | ... | ... | 90    |
| Visits to above deliveries             | ... | ... | ... | 1,530 |
| Visits to cases from infected wards    |     |     |     | 217   |
| Ante natal visits                      | ... | ... | ... | 807   |
| Visits to early hospital discharges... |     |     |     | 1,143 |
| Total Visits                           |     |     |     | 3,697 |

**Outbreak of Gastro Enteritis at a Maternity Hospital.**

On the 29th June, 1957, it was reported that an outbreak of infection had occurred at Mill Road Maternity Hospital. The Medical Officer of Health was invited to confer with the senior members of the hospital staff and as a result it was agreed to discharge all patients from the infected wards. In all, 197 mothers and babies were discharged and followed up for a minimum of 21 days. 67 babies had signs suggestive of diarrhoea and their stools were sent for laboratory examination. *B. Coli* 119 was isolated in 21 cases.

Three midwives were seconded to carry out the nursing visits of all cases discharged before the 10th day. The midwives visited until the 14th day in normal cases, but if the baby appeared ill, they continued to visit until the baby's condition had improved. After the midwives had ceased to visit, the health visitors took over and continued to visit until the 21st day. In infants with positive stools the health visitor continued to visit until negative reports were received.

**Ante-natal Care in Relation to Toxaemia.**

A meeting was held of the representatives of the three parts of the National Health Service to discuss the issues raised in the Memorandum of the Standing Maternity and Midwifery Advisory Committee on



ante-natal care related to toxæmia in 1956, but it was not considered necessary to hold a further meeting in 1957.

At the meeting held in 1956 the members of the hospital services were reasonably satisfied with the general arrangements for ante-natal care in Liverpool. It was agreed, however, that there was a serious lack of mothercraft teaching for hospital booked cases. The Medical Officer of Health is making every effort to remedy this situation and it is hoped that a close liaison will continue to be maintained between the maternity hospitals and the local authority staff.

#### **Private Nursing Homes.**

##### **Maternity Homes**

There are nine private homes, five of which take maternity cases, and have between them a total of 39 maternity beds. During the year they delivered a total of 432 mothers. One home is registered for 18 geriatric cases and three for both medical and surgical cases.

#### **The Human Milk Bank.**

The milk has continued to be collected from domiciliary cases and has been heat-treated and stored at the Royal Liverpool Children's Hospital. During the year a total of 5,920 oz. was donated by 117 mothers. This is a considerable reduction on the 1956 figure of 9,886 oz. and is no doubt associated with the very heavy case load of the midwives, which of necessity reduces their health education work.

#### **Premature Baby Midwives.**

A third premature baby midwife was appointed and commenced duty in April, 1957. She has had considerable experience in the care of premature babies in hospital. Since her appointment there has been a rapid increase in the volume of work, especially in respect of early hospital discharges.

##### **Number of Visits**

The number of visits paid by the special midwives to babies born at home before the 14th day was 2,222, and the visits paid by them after the 14th day numbered 888. The number of visits paid by them to infants discharged from hospital for domiciliary nursing was 2,160.

##### **Transfers to Hospital**

Six cases were nursed at home and later transferred to hospital. Seven cases were transferred to hospital immediately after delivery and thereafter transferred home for nursing.

Three hundred and four babies were discharged home to the care of the domiciliary nursing service. Hospital Discharges

Of the 111 babies born at home and nursed entirely at home, 71 were breast fed, 12 were partly breast fed and 28 were artificially fed. Of the 304 infants born in hospital, 83 were breast fed, 48 were partly breast fed, 169 were artificially fed and 4 were not known. Type of Feeding

The following are the comments of the first nurse who was appointed to carry out the domiciliary nursing of premature infants in Liverpool: Cases

"This was a Twin pregnancy of full-time duration. The home conditions were appalling; the family consisted of eight children and the parents. They lived in a two-bedroomed house with gas light only in the living-room (where the babies had been born) and the kitchen. The scullery was lit by candles. The sanitary conditions of the house left much to be desired. The mother refused to allow the babies to be admitted to hospital. Case 1

"There was only one pan in the house which, when not in use for the sterilisation of our infant feeding equipment, was used for family cooking.

"At the first evening visit the babies had to be attended by candle light because the mother was unable to obtain a shilling for the meter.

"The twins weighed 3 lb. 8 oz. and 4 lb. 6 oz. at birth. The mother first tried to breast feed them but soon had to change to artificial feeding. Twin No. 1 began to lose weight and three-hourly tube feeds were commenced. By now two premature baby nurses were employed and the feeds were given alternately by the nurses resulting in six visits daily for four days, after which there was a noticeable improvement in the infant, who began to suck from a bottle and eventually took all feeds well. During this time as we were concerned for the general welfare of the family, we had not only to supervise the twins but to give advice to the oldest child regarding her catering and cooking for the family. Also daily visits had to be made to the local hospital casualty department with one of the younger children who had crushed his finger in a wooden mangle.



"After nearly three months of visiting, the twins were turned 6 lb. and their care was transferred to the health visitor."

Case 2

"One of the most difficult patients which the premature baby nurses had to contend with was one where the home conditions were ideal but the mother refused to allow the baby to go to hospital. The baby weighed 4 lb. 12 oz. at birth and because of his immaturity required tube feeding. After six days of tube feeding the infant, which involved numerous daily visits, the mother requested that instead of visiting the baby by day we could feed him at night. We were told that she would leave her front door open and that we could easily arrange to come and go without disturbing the family, as she and her husband needed their sleep. If we conserved the infant's energy through the night, as we had done during the day, with tube feeds, then she could manage the day feeds.

Case 3

"Following a consultation with her doctor, she was persuaded to have the baby admitted to hospital—not because he was ill, but because of the mother's unreasonable attitude and lack of co-operation."

"This baby weighed 3½ lb. at birth. The mother was most anxious to look after the baby herself as it was her fourth pregnancy and her first live baby. The premature baby nurse, therefore, undertook the care of this case and remained in attendance for altogether eight weeks. During the first few days the baby was visited three or four times daily. The baby's condition improved steadily and at the end of eight weeks weighed 6½ lb. and since this has progressed steadily."

### Maternal Deaths.

There were seven deaths due to pregnancy and child bearing, three had toxæmia, two died of pulmonary embolism, one from sepsis and one from hæmorrhage.

Of the three cases of toxæmia, one was an illegitimate pregnancy in which the patient did not have any ante-natal care. She had a 26 weeks miscarriage following on termination of pregnancy brought about by Dettol douching. This was an emergency admission to hospital and the patient died 13 days after delivery. The other two cases had been booked for hospital delivery at 10 and 17 weeks pregnant, respectively.

In one of these two cases there appears to have been a difference of opinion about the diagnosis, and a senior obstetrician holds the view that this was not toxæmia, but a uræmia associated with renal rickets and chronic nephritis.

Two patients died of pulmonary embolism, one was booked for hospital delivery, delivered in hospital, and died at home. The other was booked for home delivery, delivered at home, and died in hospital. Both appeared to have had adequate ante-natal care. One died 17 days after delivery and the other 22 days after delivery.

One patient died of hæmorrhage. She had a megaloblastic anaemia of pregnancy and was booked for hospital delivery.

The remaining case died of sepsis consequent on a criminal abortion.

There were seven deaths due to associated causes. Three had mitral stenosis, one myocarditis, one patient died of leukaemia and one of carcinoma. The remaining patient died of paralytic ileus, consequent on acute appendicitis.

### Day Nurseries.

There are three private day nurseries, the Adam Cliff Day Nursery, **Private Day Nurseries** Everton Road; Mrs. Hyland's Day Nursery, 4, Oak Terrace, and the third nursery was opened this year at the Victoria Settlement Community Centre, York Terrace. This nursery is situated in a poor area and is run in conjunction with the general activities of the community centre. There are three full-time paid staff employed to assist in the day nursery, together with a varying number of voluntary helpers. This nursery has proved a very great help to the mothers and children. The maximum number in the nursery at any one time during this year was 45, although originally it was registered to take 70 children. The charge is 1s. per day per child and it is open from 9 a.m. to 12 noon and 2 p.m. to 4 p.m. The local authority medical officer visits regularly for the purpose of giving advice and medically examining the children. The health visitors for the district also keep in close touch.

One trained nurse is registered to mind six children. During the year two minders have been registered to mind three children each. **Daily Minders** These minders are visited regularly by the health visitors for the district and also by one of the local authority medical officers.



**Local  
Authority  
Day  
Nurseries**

It was anticipated that the Sarah McArd Day Nursery in Shaw Street would be completed in 1957. Unfortunately, considerable difficulty was encountered by the builders on the foundations as it was being built on a bombed site, and this caused delay in the early part of the building operations. It is hoped that the nursery will be opened early in 1958.

The nursery held in the Salisbury Street School was closed towards the end of the year in anticipation of the new nursery being opened. There are at present twelve day nurseries with a total of 664 places. The Mill Road nursery, which is housed in the premises of the Mill Road Maternity Hospital, will be closed as soon as the occupancy of the new nursery can be obtained. The premises at Mill Road are most unsatisfactory for use as a day nursery and, in addition, they are urgently required by the Regional Hospital Board.

**Dysentery**

There have been five outbreaks of dysentery in the day nurseries and these are reported in the sections dealing with epidemiology.

**Local Authority Clinics.**

**Ante Natal  
Clinics**

The number of cases attending both the medical clinics and the midwives clinics continued to fall.

The number of new cases attending the doctors' sessions fell from 3,053 in 1956 to 2,397 in 1957 with a corresponding fall in total attendances from 17,200 in 1956 to 14,079 in 1957.

During the year, seven ante-natal sessions have been closed on account of poor attendance.

**Midwives'  
Clinics**

There are now three midwives' clinics functioning in the City. The total number of women who attended during the year was 263 and the total attendances made were 1,021.

**Relaxation  
Classes**

An increasing number of mothers are being referred from the hospitals and the general practitioners to the relaxation classes. The health visitors also attend these classes for the purpose of giving talks and demonstrations on mothercraft.

**Rhesus  
Tests**

During the year, 1,705 blood specimens were taken for rhesus tests.

During 1957, 1,008 ante-natal mothers were referred to the mass radiography unit and 495 attended, giving an acceptance rate of 49 per cent. Ten mothers were recalled, and in six of these cases the second plate was normal. One mother was kept under observation, and one case of active tuberculosis was discovered and admitted to hospital for treatment.

During 1957 there was a considerable increase in the number of children attending the clinics for the 0-5 age group. The total attendances in 1956 were 89,789 and 98,287 in 1957. The attendance of infants under a year attending for the first time has also increased from 8,209 to 8,481.

There are probably many factors operating towards this increased attendance, the most important may possibly be the improved liaison between the health visitors and the general practitioners. Few general practitioners now discourage the mothers from attending the infant clinics with their babies. This is indeed a considerable advance, for mothers can attend the clinic without incurring the displeasure of their doctor. Large numbers of mothers see the health visitors at the children's hospitals and, consequently, are more ready to accept their advice knowing that they are working in co-operation with the hospital authorities.

An increasing number of mothers are coming to the clinics for advice regarding the various social problems, usually between 9 and 10 in the morning. In some districts this period, which would normally be devoted to clerical work, has become an advisory session, when the health visitor sees parents who have urgent problems. These visits are not included in the total attendances.

At one of the clinics, monthly meetings are held between the field workers in different spheres of activity, as follows: Personal Service Society, Family Service Unit, National Society for the Prevention of Cruelty to Children, Tuberculosis Nurse, Mental Health Nurse, Psychiatric Social Worker, Children's Department—and various social problems are discussed such as unemployment, employment of handicapped persons, etc.

At another clinic, case conferences were held for the workers engaged with problem families. An account of this work is given on page 27.



It is felt also that the quality of medical care given at the clinics will also attract more mothers. A medical officer who has not only good qualifications, but has also had considerable experience of all aspects of child care, soon earns a reputation for herself among the mothers of the district served by the clinic. The department was fortunate in having the services during the year of an officer of outstanding ability, who though working only part-time, was nevertheless able to exert considerable influence over the mothers. This medical officer has now left the country.

An effort was also made to stabilise the medical care at the clinics so that the same medical officer attended all the sessions at any given clinic. It may not be possible, however, to continue this regime during next year.

It is felt that only medical officers who have had considerable experience of child care should take the infant clinics. For this reason the recent suggestion made by the Professor of Paediatrics that the staff of the Children's Hospitals should be allocated to certain infant clinics is particularly welcome.

#### Toddlers Clinics

The two toddlers' clinics are continuing to function satisfactorily and it is hoped to extend these clinics to other districts.

The majority of mothers cease to attend the infant welfare centres after the baby is a year old. Many are, however, pleased to have the chance of bringing the toddler back to the clinic for a routine check. The toddlers attend by appointment. It has also been found that mothers who have never attended a clinic with their babies are happy to accept the invitation to have a routine medical check-up of the toddler.

The toddlers' clinics are really combined clinics where the health visitor has a baby session and the doctor has a toddlers' session. The mother sees the health visitor first with the baby, and then proceeds to the doctor with the toddler, unless, of course, the baby's condition is unsatisfactory, when the doctor sees both baby and toddler. Combined clinics are necessary in Liverpool on account of the high birth rate.

Monthly meetings with the senior child psychiatrist and the psychiatric social worker are held at a local authority clinic. They are attended by members of the Medical Officer of Health's staff as follows: Senior Medical Officer for Mental Health, Assistant Medical Officers of Health on the staff of the maternity and child welfare section and health visitors and day nursery matrons. Behaviour problems in small children are discussed and the cases are followed up at subsequent meetings. Some of the children are referred via their general practitioners to the psychiatric clinic and the psychiatrist in due course reports to the meeting the result of the treatment given at the hospital clinic. In addition, certain problem families have been discussed, and in all it is felt that the staff received valuable advice as to how to deal with their problems in the homes.

Psychiatric  
Clinic

### **The Work of the Health Visitor.**

The young infant continues to play an important rôle in the health visitors' work—more visits are being paid to assess home conditions and advise in the necessary preparations before premature babies are discharged home from hospital. Close supervision of their progress is kept during the early months of life. Early visits were paid to children discharged from hospital to ensure that consultant's advice was being carried out and progress being maintained.

The health visitors were asked to do an increasing number of different types of special visits, e.g., the visiting of persons applying to act as foster parents. The following are reports of three cases that were referred to the health visitors.

1. "This family was unknown to me, having lived elsewhere until fairly recently. As there was a pre-school child, I visited the home. During our conversation Mrs. — told me she had applied for a twelve-year-old foster child, a girl, to be a companion for her four-year-old girl.

"This child is very pale and puny and obviously not receiving adequate diet or sleep. Mrs. — thought a girl of twelve years would go to bed early with this child, who is frightened by her two elder brothers aged 9 and 7 years, who, Mrs. — informed me, were 'out of hand'. The foster child, she thought, would be able to 'control them'.



"Mrs. — has a part-time job and I feel that any child placed in this home would become a drudge and expected to accomplish what the parents have failed to do."

2. "This is a five-roomed house, occupants are: Mr. and Mrs. —, back bedroom; daughter aged 41 years, middle bedroom; married daughter, husband and three children in front bedroom.

"Mr. and Mrs. — work part-time, daughter is in regular employment.

"The married daughter, her husband and three children live in overcrowded conditions. There is constant friction in this household between parents and daughters and as a result the married daughter has rapidly lost a lot of weight, and is in a highly nervous state. I have advised her to see her general practitioner. Her child aged 9 years had a chest X-ray last week.

"The whole house is untidy and badly kept."

3. "Mr. — is a registered blind person—one artificial eye and 30 per cent sight in his remaining eye. His two sons are partially sighted and are weekly boarders at the Blind School. One of these boys has developed behaviour problems and when I visited the home, the mother was most unwilling to have him home at weekends.

"In 1955 Mr. — was off sick for four months and the family were unable to meet all their financial commitments. To enable the debts to be cleared, I recommended their pre-school child's admission to the day nursery for six months, to enable the mother to go out to work. Since that date the family have not fallen into any serious debt but Mrs. — has experienced difficulty in budgeting for the family.

From my knowledge of the family I do not consider they would be suitable foster parents."

It was recommended to the Children's Department that the applications of these three families should be refused.

The health visitors worked closely with the National Society for the Prevention of Cruelty to Children. The following is the case report of

a family that is being watched both by the Health Department and this Society.

"This family comprises father, mother and six children whose ages range from 4 years to 10 years. The father had a lobectomy some years ago and is now a constant sufferer from chronic bronchitis and emphysema. He was in hospital for a period in June, 1957. The mother has fairly good health, she is slight but appears strong and healthy.

"In 1955 the father was fined for stealing, although apparently this was during a 'black' period in the family life, before the parents obtained a legal separation and he was constantly drunk and used to ill-treat his wife. Unfortunately, or fortunately, he returned home and was admitted by his wife the same night that the separation was granted and they have been together ever since. The wife states that her husband has much improved in his habits and now very rarely goes out when he is well.

The home varies considerably, sometimes it is dirty and very untidy, at others it is quite clean and tidy, dependent, no doubt, on the mother. The children have frequently been poorly clad though this is not always so. They are well nourished and appear happy. The wife holds the purse strings but has not much sense of proportion about budgeting. I gather the husband is worse.

"The family income is £6 7s. 0d. sickness benefit, £2 8s. 0d. family allowance and 7s. 6d. National Insurance—£9 2s. 6d.

"The mother stated that the last time she was prosecuted about one child's absence from school she was granted an 'unconditional discharge'. It was during the time of the father's illness and the N.S.P.C.C. Inspector apparently wrote a letter to the Court."

In addition to their valuable work with children, the health visitors are becoming more and more concerned with the medical and social problems affecting the adult members of their families, and more visits of a special nature were included in their daily lists. **Special Visits**

Special visiting to notified cases of measles ceased in April, 1957, but continued in cases of whooping cough. The number of visits paid to **Whooping Cough and Poliomyelitis**



measles cases until April was 2,402 and whooping cough visits for the year were 1,720.

Visits to contacts of cases of poliomyelitis increased to 1,145 and in all instances special supervision was given.

#### Liaison with Hospitals

The regular attendance of health visitors at paediatric out-patient departments enables them to have first-hand information of the advice given to individual cases. In addition, they are kept up-to-date with new advances in paediatrics.

Requests were made from time to time by the hospital almoners for reports on certain special cases, and the following is an extract from one of the health visitor's reports. This report also gives some indication of the amount of time which a health visitor may have to spend on one family in an effort to help them to resolve some of their difficulties.

"David is one of six children, three of whom are younger than himself. A new baby is expected. They live in a modern Corporation flat on the first floor of a block.

"During David's initial stay in hospital (from July 1952, to June 1956) the parents gradually lost touch with him. This sounds more heartless than was actually the case. David was under twelve months old when he contracted poliomyelitis. The parents soon found that he was being well cared for in hospital, and he obviously loved the nursing staff. The distance from home and the mother's frequent pregnancies made it increasingly easy to make excuses not to visit him.

"When David came home on 15th June, 1956, he was just learning to walk with the aid of a full length caliper on his left leg and two walking supports. For David this sudden transfer from the orderly, secure life of a long-term hospital patient to the rough and tumble of a family of utter strangers who lived in a manner that terrified him, was almost equivalent to being sent to another planet. David had known no life other than hospital life, yet was old enough to know that he had parents who never bothered to visit him in hospital. The child's reactions made his life even more miserable. He shrank from his father, and wet and soiled himself day and night.

"His mother did make a valiant effort to mother him at first, but she became sickened by his habits and embarrassed by his appearance and helplessness. She had an eight-weeks'-old baby, a toddler of nineteen months and a girl of  $3\frac{1}{2}$  years to cope with as well as David. The two schoolgirls were fairly helpful but still only young children. The mother's health was poor after the birth of the last baby in April, 1956, and she failed to take David for out-patient treatment at the hospital. I took David to the hospital in August, 1956, and suggested the use of the mobile physiotherapy unit and this was arranged.

"Early in September the mother was admitted to hospital and David was sent to live with an aunt. Although living less than five minutes' walk from the hospital, this aunt failed to attend the out-patients' department as requested and after having David for about six weeks, she sent him home again as intolerably dirty. Poor David felt, and looked, a complete outcast.

"I had reported David to the Education Department and he was granted an early place in a special school, but his parents failed to take him there on the due date. He seemed to me to be losing ground physically and becoming very timid and listless and so I reported his case to the school welfare department. They took immediate steps to overcome all the obstacles to his starting school, but he did not get the chance of attending as on 25th January I saw him and was alarmed at his appearance and rapid loss of weight. I asked the mother to call in the family doctor immediately, who referred him to hospital and he was re-admitted on the 20th February, 1957.

"This child was with his own family for a period of eight months. He never really recovered from the initial shock of the tremendous change in his environment but rather deteriorated to the state in which he was re-admitted.

"Would it be too much to ask that he be spared a repetition of this experience? Something in the nature of a half-way house between hospital and home is needed to ease the transition. As he is now of school age, a period in a residential special school in Liverpool, with weekly contact with his family, might be the answer."



**Work with  
the Aged**

There has again been a marked increase in the number of visits paid to old people by the health visitors in addition to their usual functions related to the care of mothers and children and to other aspects of family life.

The visitors concerned themselves not only with all the needs of the aged, i.e., home helps, nursing equipment, baths, and assistance from other statutory and voluntary bodies, but also keep a continued eye on their welfare.

**Follow up of  
diabetic cases  
attending  
hospital.**

A health visitor has been engaged full time on this work and has been able to establish a close liaison with the David Lewis Northern Hospital. Reports are given to the almoners regarding social and environmental problems. Hospital staff make enquiries about patients' welfare. It is gratifying to know that the patients are treated as individuals rather than just "diabetics", especially in the rush of a busy clinic.

The health visitor sees all new cases admitted to hospital. This is followed up by a visit to the home to reassure the relatives and to give a simple explanation of the disease, together with elementary information on the basic principles of carbohydrate metabolism. Great importance is attached to these home visits.

Health visiting of diabetic patients attending the hospital outpatient department has continued throughout the year and altogether 1,680 visits have been paid to diabetic patients. Cases have been referred by general practitioners, Queens Nurses, almoners from other hospitals, and some have been discovered during the course of visiting on the district.

The patients have now become well known to the health visitor, who has been able to discern those which require concentrated attention. Regular visiting to prevent the patients becoming casual and careless about diet and regular clinic attendance is necessary. Advice regarding the care of the feet and consequent prevention of gangrene is an important factor.

Visits to places of employment, contact with general practitioners, clergy and voluntary and local authority personnel have been carried out on behalf of patients.

Several elderly patients have, after a great deal of persuasion, received National Assistance grants. Group talks are given in the clinics and regular visits paid there.

Difficulty in the follow-up of patients by the hospital is experienced because of the large number of cases from various other local authorities and many changes of address have been discovered. There is still a necessity for the display of visual aids in the outpatients department.

During the year there have been 34 cases admitted into hospital:—

|                                                         |       |
|---------------------------------------------------------|-------|
| Inoperable carcinoma ... ..                             | 2     |
| Hyperglycaemia ... ..                                   | 2     |
| Hypoglycaemia ... ..                                    | 7     |
| Myocarditis ... ..                                      | 1     |
| Congestive cardiac failure ... ..                       | 3     |
| Amputation of foot ... ..                               | 1     |
| Intermittent claudication (amputation<br>of leg) ... .. | 1     |
| New cases for stabilisation ... ..                      | 3     |
| Pulmonary tuberculosis ... ..                           | 2     |
| Coronary thrombosis ... ..                              | 1     |
| Cerebral thrombosis ... ..                              | 2     |
| Excision of rectum (carcinoma) ... ..                   | 1     |
| Operation for cataract ... ..                           | 1     |
| Bronchitis ... ..                                       | 3     |
| Pruritis vulvae ... ..                                  | 1     |
| Thrombophlebitis ... ..                                 | 1     |
| Change from soluble to Lente Insulin                    | 2     |
| <hr/>                                                   | <hr/> |
| Total ... ..                                            | 34    |
| <hr/>                                                   | <hr/> |
| Number of deaths in year ... ..                         | 29    |

mainly due to congestive cardiac failure, coronary and cerebral thrombosis and old age.

The hospital is seldom notified of the cause of death and contact with general practitioners on this matter may be useful to the hospital staff.

The care of illegitimate infants and their mothers continues to be an important part of the health visitors' work. Frequent visits are paid to the mother and baby homes and an excellent liaison is maintained with the social workers of the different religious and voluntary organisations.

Care of the  
Unmarried  
Mother.

By arrangement with the Education Committee children under the age of 5 years suffering from defective vision or orthopaedic defects may receive treatment and advice at the School Health Service special

Special  
treatment for  
pre-school  
children.



clinics. During the year, 396 cases were referred to the School Health Service, namely:—

|                         |     |     |     |     |
|-------------------------|-----|-----|-----|-----|
| Defective Vision ...    | ... | ... | ... | 206 |
| Orthopaedic defects ... | ... | ... | ... | 186 |
| Speech defects ...      | ... | ... | ... | 4   |

**Infestation  
by Head Lice.**

Infestation by head lice still persists among mothers and young children and the health visitors continue to give it their attention. In addition to those cases they discover for themselves, other infected families were referred to them by nursery matrons, school nurses, general practitioners, hospitals and others.

During the year, 205 children and 60 adults were found to be verminous and in all cases advice was given as to cleanliness and arrangements made for cleansing at home or at cleansing stations.

In all, 19 adults and 68 children were cleansed at the cleansing stations, the remainder being cleansed at home.

**Accidents in  
the Home.**

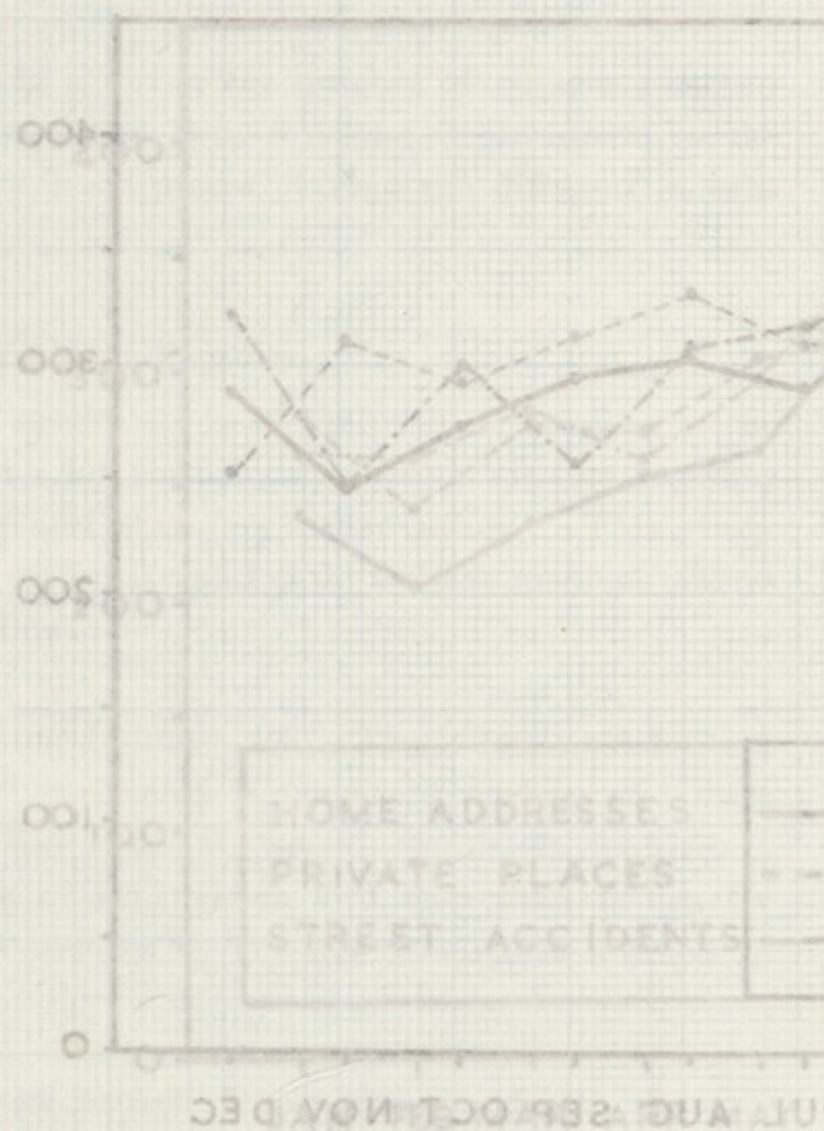
Health visitors are very much aware of the still too high incidence of accidents in the home and are never-failing in their efforts to prevent them.

There are three main types of home accident to children—burns, falls and swallowing dangerous objects—the most prevalent and dangerous of these is still burning.

There has been a great increase in the installation of closed slow combustion stoves but open fires still remain with us, presenting many hazards when not properly guarded.

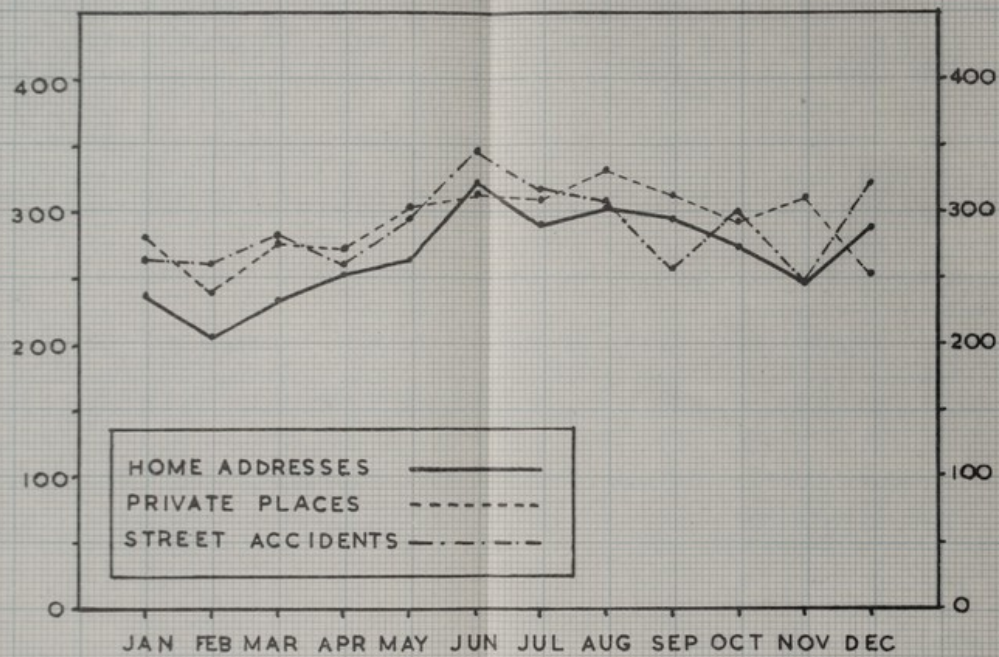
Father still lights his pipe with a blazing piece of the daily paper, and manufacturers still do not make children's clothing fire resistant. In their daily visits, therefore, health visitors are constantly reminding parents of their responsibility not to leave young children alone in the house with an open fire. If necessary, the health visitors will help the parents to procure a fireguard either through the National Assistance Board, through a voluntary association at a reduced cost, or in the last resource, by instalments paid to the health visitor. Compared with burns, injuries due to falls come low on the list, but nevertheless, are

# AMBULANCE ACCIDENTS 1952





# PATIENTS INVOLVED IN ACCIDENTS AND REMOVED BY AMBULANCE DURING 1957.



still happening unnecessarily. Parents have to be continually reminded of the hazards of furniture, domestic equipment and playthings left in a dangerous position. When children start to climb stairs they should be helped and taught to do so properly.

There is an ever increasing production by pharmacists of attractively coloured sugar-coated tablets, and it is becoming increasingly important to stress to the parents the fact that a small child is unable to discriminate between pills and sweets. If a child sees a bottle of similarly coloured tablets he may not hesitate to make a meal of them.

A graph has been prepared showing the number of persons removed to hospital by ambulance who had been involved in accidents in the home, in the street and in private places, during the different months of the year.

### **Problem Families.**

It was decided to make a special study of the problem families in the City, of the work being done for them by the health visitors together with the various voluntary and statutory organisations. This study was delegated to one of the maternity and child welfare medical officers and she has reported as follows:—

A register was started during January, 1957. The following definition was used as a guide—"A problem family is one which, because of failure to attain or to maintain the minimum social standards requires a substantially greater degree of supervision and help than is usually provided by existing social services". The health visitors notified 80 such families.

Of these, there were seven broken homes due to death, divorce, separation and desertion; and six unmarried mothers, three of whom were living with the putative father. In 40 cases the male head of the family was unemployed, physical illness accounting for seven. These families' main income was national assistance and family allowance. Ill-health of the mother, both physical and mental, was an important contributory factor in these problem families; thirty were physically ill, eleven mentally ill and the remainder were of low intelligence, bad



managers or showed complete indifference to home life. In several cases where it was felt to be of benefit, arrangements were made through the Child Welfare Association for mothers to go away for periods of convalescence.

The obstetrical histories of all mothers were scrutinised. In all there were 493 pregnancies, of these, severe ante-partum and post-partum haemorrhage had occurred in 16 cases, 35 other pregnancies had ended in miscarriage and there were 13 stillbirths. Eighteen babies were premature (5 died within 1 week). Eleven infants died within the first two years of life.

In the incidence of haemorrhage, hypopituitarism was kept in mind but all signs and symptoms were absent.

In the 80 homes there were 454 children, of these, 40 were illegitimate and 6 were delinquents. The children in the majority of homes showed no signs of physical neglect or malnutrition, although the standards of hygiene were low. In thirteen cases one or both parents had been to court on charges of physical neglect and cruelty, nine had served a prison sentence while four were fined or put on probation. There were three fathers with prison records for larceny or brawling.

Over half the families lived in modern corporation houses or flats, four in condemned property, the remainder in overcrowded rooms.

These families are known to most of 14 social agencies, both statutory and voluntary. There was an average of five workers per family, and in two instances ten workers were interested. Constant efforts of rehabilitation were made in the homes by advising and teaching house-craft, budgeting, etc., and nine mothers have spent a period of four-six weeks in the Brentwood Rehabilitation Centre. The follow-up on return showed improvement for a period of from one-two months then backsliding set in. Two have maintained improved standards and one is no longer considered a problem family.

In order to get co-ordination between the various social workers, twenty conferences took place in the various welfare clinics to discuss the progress being made in the families of that area and to decide the best policy to adopt. Four families were brought up for discussion at the psychiatric clinic.

On summing up the progress made during the year in trying to rehabilitate these families, remembering that every family has its own standards of cleanliness, wise spending and personal relations: six are no longer considered problem families, three due to fathers getting regular employment and the mother's stay in Brentwood in one case. The other three were rehoused with a resulting greater interest in the home. Supervision is still continued by the health visitors. Three were rehoused outside the City.

Eighteen are chronic problem families and will remain so—in three cases the children have been taken into care by the local authority.

Twenty-five show signs of improvement in home management mainly due to frequent and daily visiting by social workers.

Twenty-eight fluctuate—two have been recommended for a period of training at Brentwood.

### **Welfare Foods.**

The functions of this service are to arrange for the distribution to the general public of national dried milk, cod liver oil, vitamin tablets and orange juice. For this purpose a considerable number of distribution centres require to be maintained throughout the City. Where it is anticipated that the demand will be sufficient, new centres have been opened in order to continue an adequate service to the public.

To provide welfare foods to those areas which were not adequately served by a fixed distribution centre, a van was placed at certain points in the City on specified days at fixed times, and proved extremely useful in maintaining the efficiency of the service to beneficiaries. This vehicle served a dual purpose in maintaining supplies to the fixed distribution centres.

There were 51 distribution centres in all, which are classified as follows:—

16 full-time.

15 part-time.

4 mobile points.

16 voluntary centres.



We are greatly indebted to two City stores for kindly providing facilities for the disposal of welfare foods on a full-time basis.

The staff of 37, who were under the control of the Chief Inspector, consists of 2 supervisors and 35 distributors, 22 of whom are full-time and 13 part-time.

The following figures of the turnover during the year may be of interest:—

546,424 tins national dried milk.

70,924 bottles of cod liver oil.

37,387 packets vitamin tablets.

572,997 bottles orange juice.

It will be noted that the distribution figures show a reduction from the previous year. This took place at the time the prices were increased by Ministry of Health instructions. It is now thought that the present turnover has become stabilised and there will not be any further fluctuation.

On the other hand, the proprietary brands of baby foods, which are sold in clinics and other centres, show a marked increase over previous years.

### **Home Nursing Equipment.**

The scheme for the loan of home nursing equipment established in accordance with the provisions of Section 28 of the National Health Service Act, 1946, to patients being nursed in their own homes, functioned very satisfactorily during 1957. The scheme was supervised by one of the deputy superintendent health visitors.

No charge was made for the loan of the equipment, nor was any restriction placed on the number of different articles which could be borrowed by any one patient. A deposit—refundable on the return of the equipment—of one-tenth of the value was required, however, where the cost of an article exceeded two pounds. Loans were made for three monthly periods and extensions were granted at the request of the patients' doctors.

The demand for this service continued to grow, and each year it has been necessary to increase the stock of equipment, which numbered

1,031 items at the end of the year. During 1957, 2,562 articles were loaned (see Table 11) and necessitated 4,127 visits for the purpose of providing or collecting the equipment.

A health visitor called on these patients to assess their needs, and to advise on the use of the equipment. Frequently the health visitors were able to give assistance with other problems affecting the patient's mental and physical comfort.

### Home Nursing.

The Liverpool Queen Victoria District Nursing Association continued to act on an agency basis for the local health authority during 1957, operating from the following homes, centres and double-districts:—

#### *Homes.*

Central Home, 1 Princes Road.  
Walton Home, 1 Church Road.

#### *Nursing Centres.*

58 Queens Drive, 18.  
2 Hillfoot Avenue, 19.  
14 Ashcombe Road, 14.

#### *Double Districts.*

60 Manica Crescent, Fazakerley.  
39 Malleson Road, Larkhill.  
192 East Lancashire Road, Norris Green.  
95 Heathgate Avenue, Speke.

The Lady Williamson Home was closed at the end of August and the area formerly nursed from here was divided between the Central Home, 58, Queens Drive and 2, Hillfoot Avenue, i.e., the Dingle area as far as Lark Lane to the Central Home, the Aigburth and Mossley Hill areas to 58, Queens Drive and the Garston and Springwood areas to 2, Hillfoot Avenue, Hunts Cross.

The nursing staff at the 31st December, 1957, was comprised as follows:—

- 1 Senior Superintendent of Home Nursing.
- 1 Superintendent.
- 1 District Nurse Tutor.
- 4 Assistant Superintendents.
- 51 Queen's Nurses (full-time).
- 6 Queen's Nurses (part-time).
- 4 State Registered Nurses (full-time).
- 10 State Registered Nurses (part-time).
- 15 State Enrolled Assistant Nurses.
- 9 Student District Nurses.

which, in terms of full-time staff, was 14 below the approved establishment.



- Injections** The giving of injections again comprised a large proportion of the work undertaken, 76,770 injections of insulin being given and 52,796 of penicillin, 25,259 of streptomycin, 31,321 of haematin and 57,412 others, making a total of 243,558.
- Visits** Nursing visits were made between the hours of 8.30 a.m. and 1.30 p.m. and 4.30 p.m. and 7.30 p.m. daily. Twice daily, i.e., morning and evening, visits continued to be paid to patients sufficiently ill to require them, and a skeleton staff was on duty each evening until 10 p.m. for emergency calls. A total of 1,487 late visits were made during the year to patients requiring late morphia injections, etc.
- Nursing Care of Infants** During the year, 3,901 visits were paid to infants under one year, and of the total of 552 children treated, 128 were under one month old. (See Table 13.)
- Minor Ailments Clinic** The minor ailments clinic at the Central Home continued in use and the statistics for 1957 are given in Table 15.
- Training** The training of district nurses continued throughout the year; 177 nurses qualified as Queen's Nursing Sisters during 1957. Of these, 55 were trained for the Liverpool staff, 2 on behalf of other county borough authorities, and 10 on behalf of county authorities as far afield as Cumberland, North Riding, Worcestershire and the Isle of Man. The course of training is six months for state registered nurses, or four months for nurses who are health visitors, midwives or district nurses with at least 18 months' experience on the district.
- A block system of training is in use whereby the lecture course is concentrated into one month. During this period all lectures are given, the students doing purely theoretical work; the remainder of the training period is spent in tutorials, study classes, visits of observation and practical work.
- Mobile Physiotherapy Service** The Liverpool Queen Victoria District Nursing Association, in addition to district nursing, maintained a mobile physiotherapy service comprising two fully equipped independent units. This service, being outside the scope of the National Health Service, was entirely reliant upon patients' payments, voluntary donations and subscriptions, and a half-share of the income from the Association's investments.

During 1957, the unit gave a total of 4,033 treatments and made a further 75 non-treatment calls for varying reasons.

Cases were referred to the units by hospital specialists and general practitioners and through the service being available to them, a large proportion of elderly chronic patients were kept in a state of moderate mobility, thus relieving the hospitals of potential in-patients.

Services were provided for the following cases:—

|                       |     |
|-----------------------|-----|
| Majority              | 210 |
| Minority              | 15  |
| Chronic               | 155 |
| Infants               | 50  |
| Chronic Sick and Aged | 145 |
| Other                 | 200 |

The number of discharges for and is considerably different in the range. It is hoped that the new scale will assist the patients for their safety and for the home help, to whom the patients were a period of treatment for a period of treatment with a view to a safe and

The demand for service was not nearly so great as in the early part of 1957. All applicants needing help were assisted, most of those during the months of September and October.

These are the patients requiring indefinite daily service because of illness and infirmity and they about a large number of the staff. These patients tend to become the responsibility of the system for without a home help they would be in hospital.

At the end of December, 600 aged and handicapped persons were receiving help for one or two mornings each week for housework, shopping, etc. This service is normally restricted to those who are without other help and need someone to help them and their homes to a reasonable standard of cleanliness. It is occasionally extended to younger people who are handicapped and in a similar position. There are many enquiries for help of this nature from people with families



## THE HOME HELP SERVICE

### Home Help Service

1957 was a very busy year for this section and at times it was difficult to keep pace with the constant demand for service. 2,385 families were assisted compared with 2,159 families in 1956. The number of home helps employed increased to 168.

A revised scale of charges for householders unable to pay the standard charges was approved in December, 1957. The rent allowance and the personal allowances were increased, thereby bringing them into line with the increased cost of living.

Service was provided for the following cases:—

|                       |     |     |     |     |       |
|-----------------------|-----|-----|-----|-----|-------|
| Maternity             | ... | ... | ... | ... | 316   |
| Tuberculosis          | ... | ... | ... | ... | 18    |
| Cancer                | ... | ... | ... | ... | 25    |
| Influenza             | ... | ... | ... | ... | 55    |
| Chronic Sick and Aged | ... | ... | ... | ... | 1,146 |
| Other illnesses       | ... | ... | ... | ... | 566   |

### Maternity

The number is disappointingly low and is undoubtedly attributable to the charge. It is hoped that the new scale will assist these applicants, both for their sakes and for the home helps, to whom the maternity work is a period of brightness in a job concerned with so much that is sad.

### Influenza

The demand for service was not nearly so great as in the epidemic of 1951. All applicants needing help were assisted, most of these during the months of September and October.

### Chronic Sick

These are the patients requiring indefinite daily service because of illness and infirmity and they absorb a large number of the staff. These patients tend to become the responsibility of the section, for without a home help they would be in hospital.

### Aged

At the end of December, 696 aged and handicapped persons were receiving help for one or two mornings each week for housework, shopping, etc. This service is normally restricted to those who are without other help and need somebody to keep them and their homes up to a reasonable standard of cleanliness. It is occasionally extended to younger people who are handicapped and in a similar position. There are many enquiries for help of this nature from people with families

who can work for them and from those able to afford to pay for private help, and in these cases the service is only provided temporarily or not at all.

This title covers all the applications from patients temporarily requiring daily service because they are recovering from operations or are suffering from complaints such as fibrositis, lumbago, bronchitis, etc. It does not include influenza which is shown separately. **Other Illnesses**

Several members of the staff have helped in successfully dealing with problem families, principally because they are able to teach, guide and advise in addition to performing the usual duties. **Problem Families**

It is a noticeable fact that they have been successful with young mothers only and in no case as yet has any lasting improvement been made in the home of an older woman.

As stated earlier the number was increased to 168 in December 1957, and as the demand shows no sign of abating, it is obvious that a further increase is necessary if the service is to be granted to all who need it. The home helps are a varied group of women of ages ranging from 27 years to 64 years. The contrast in ages is desirable for, generally speaking, the aged patient likes a younger woman in her home whilst the younger patient appreciates the experience and wisdom of the older home help. **Home Helps**

The ideal home help is adaptable and able to fit into any home whether poor or prosperous, but there is a small group who prefer to work in the more humble homes. These women usually carry their own cloths, dusters and disinfectant with them and thoroughly enjoy their work.

The administrative staff consists of:—

- 1 Organiser.
- 1 Assistant Organiser.
- 2 Clerks.
- 2 Visitors.

**Administra-  
tion**

6,766 visits were made during the year to see new applicants, and to supervise the activities of the home helps already installed. In view of the large area to be covered by the small number of visiting staff, the use of a Corporation car was necessary on many occasions. One visitor purchased a scooter, thus enabling her to see many more patients than she could by public transport.



## HEALTH EDUCATION

The activities of the department in the field of health education during the year have been very wide. Every facility has been given by the department to provide speakers on various health matters and this service is becoming much more widely known throughout the City. It is satisfactory to realise that the public, through their various organisations, are seeking to learn more and more about the measures taken by the Health Department to implement the various health services. Speakers have been provided during the year to deal with all health matters including maternity and child welfare, mental health, food hygiene, smoke control and slum clearance.

In addition, throughout all the clinics third dimension exhibits have been set up dealing with the following subjects:—

Displays explaining various points of diphtheria immunisation campaign;

Various techniques of infant feeding including a tray showing bottles and different techniques of feeding;

Prevention of home accidents;

Prevention of burns;

Prevention of poisoning by wrongly taking therapeutic tablets;

Clean kitchen;

Clean food;

Hygiene in the home;

Care of teeth and the prevention of dental caries.

A leaflet has been printed for distribution to mothers on discharge from maternity hospitals giving full details of the local health authority's services. In addition to the general health education matters which have been carried on uninterrupted throughout the year a large health education exhibit was set up at the Liverpool Show.

Liverpool  
Show 1957

Health education exhibits illustrating various aspects of maternity and child welfare, tuberculosis, housing and health, and the work of the port health services were set up as follows:—

The maternity and child welfare display showed the prevention of infection in the small child and the health visitors' rôle in child care.

The exhibits also included a tent showing good and bad housing which was vividly portrayed by the use of photographs and modern models of old and new houses. Hygiene in the home was the theme of several of the stands and the modern bathroom was exhibited. The use of detergents within the home was illustrated and displayed on another stand. A model kitchen and living-room showing the use of plastics in the home emphasised methods of plastic material being adapted to replace less suitable materials.

In addition, atmospheric pollution problems within the home were highlighted on a stand showing various types of smokeless appliances.

Hygiene in food shops was illustrated by a modern shop which was rigged up complete with stock and fittings. In setting up this exhibit the assistance of many firms was gratefully accepted and their help was much appreciated.

Another of the main exhibits showed certain important aspects of infectious disease prevention and control.

The port health service as a means of preventing importation of infectious disease into Liverpool by sea or air was the theme of the first display at the marquee entrance. A large model of the fireboat "William Gregson", used for the purpose of conveying the boarding port medical officer to shipping requiring pratique occupied the first portion of the centre dividing partition. Several models of aircraft and Liverpool liners together with a continuous demonstration of frozen egg sampling completed the first display. The second display showed how such common infectious diseases as influenza, common cold and whooping cough were spread by droplet infection. A large panel illustrated the dangers of the unguarded cough together with demonstration of virus cultivation and methods of reducing droplet infection by the use of various sprays.

Poliomyelitis was the subject of the third display; photographs, posters and charts illustrated trends and development, and methods of spreading this disease up to the present day. Its increasing incidence in western civilised countries was compared with Middle East states existing in more primitive hygienic conditions. The rôle of the health department and various other agencies were shown in the prevention,



diagnosis and after-care of this disease. A demonstration of poliomyelitis vaccination, together with photographs of the stages in its production was an important part of this display. Parents of children eligible for inoculation were encouraged to ask questions and obtain consent forms from the doctors and health visitors in attendance at this display.

The fourth display illustrated the causes and prevention of food poisoning. Bacteria commonly responsible for food poisoning were demonstrated by illuminated cabinets of culture plates. The exhibit was illustrated by living insects, model animals, condemned foods, posters and charts. The work of the Health Department in investigating and tracing sources of food poisoning was illustrated by photographs. Prevention in the form of the latest electrical food storage containers including refrigerators and deep freeze containers and accessories to hygiene for domestic and commercial use were loaned and displayed by many local firms and their help in this matter was greatly appreciated.

The proof of the growing success of immunisation against diphtheria and whooping cough over the last two decades was the theme of the centre dividing panel. The fifth display dealt with the problems of the prevention of infantile gastro-enteritis.

The final part of the exhibit showed the problems of tuberculosis. There were five integrated displays in this exhibit showing the tuberculosis bacteria, the diagnosis of the disease, the treatment of the disease, and prevention and after-care. In addition, with the ready co-operation of the Liverpool Regional Hospital Board, a mobile mass radiography unit was available and stationed beside the exhibit. This proved a great attraction and during the week, 1,402 persons took advantage of this and had chest X-rays during the three days of the Show.

(See Table 24.)

## INFECTIOUS DISEASE

### SUMMARY.

Number of confirmed cases of infectious diseases reported during 1957:—

|                                                   |     |     |     |     |     |     |     |     |        |
|---------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| Anthrax                                           | ... | ... | ... | ... | ... | ... | ... | ... | 1      |
| Enteric Fever (Paratyphoid Fever)                 | ... | ... | ... | ... | ... | ... | ... | ... | 2      |
| Scarlet Fever                                     | ... | ... | ... | ... | ... | ... | ... | ... | 695    |
| Measles and German Measles                        | ... | ... | ... | ... | ... | ... | ... | ... | 10,906 |
| Cerebro-Spinal Fever                              | ... | ... | ... | ... | ... | ... | ... | ... | 34     |
| Puerperal Pyrexia                                 | ... | ... | ... | ... | ... | ... | ... | ... | 712    |
| Ophthalmia Neonatorum                             | ... | ... | ... | ... | ... | ... | ... | ... | 130    |
| Erysipelas                                        | ... | ... | ... | ... | ... | ... | ... | ... | 56     |
| Poliomyelitis—Paralytic                           | ... | ... | ... | ... | ... | ... | ... | ... | 25     |
| Non-Paralytic                                     | ... | ... | ... | ... | ... | ... | ... | ... | 7      |
| Pneumonia, Acute Primary and Influenzal Pneumonia | ... | ... | ... | ... | ... | ... | ... | ... | 672    |
| Dysentery (Sonne 476, Flexner 7, Amoebic 1)       | ... | ... | ... | ... | ... | ... | ... | ... | 484    |
| Whooping Cough                                    | ... | ... | ... | ... | ... | ... | ... | ... | 1,726  |
| Food Poisoning                                    | ... | ... | ... | ... | ... | ... | ... | ... | 133    |
| Malaria (contracted abroad)                       | ... | ... | ... | ... | ... | ... | ... | ... | 5      |
| Acute infective encephalitis                      | ... | ... | ... | ... | ... | ... | ... | ... | 2      |

No cases of Plague, Smallpox, Typhus Fever or Diphtheria occurred during the year.

Throughout the year, a close and cordial co-operation has been afforded the department by Dr. A. B. Christie, Physician Superintendent and colleagues of Fazakerley Isolation Hospital, and by Professor D. T. Robinson, Dr. E. C. Armstrong and Dr. G. B. Bruce-White of the Public Health Laboratory Service, Liverpool.

#### *Anthrax.*

One case of anthrax occurred during the year. The history may be of interest:—

On the 21st December, 1957, the s.s. Interpreter arrived in Liverpool from Dar-es-Salaam and Mombasa via Avonmouth. The vessel berthed in West Huskisson Dock, and from the 24th to 30th December, the patient was employed aboard the vessel handling dry hides. These hides were loaded in both Dar-es-Salaam and Mombasa and were stowed in Nos. 2 and 4 holds. The patient worked in No. 4 hold from the 24th to 28th December, and in No. 2 hold on 29th December. No



precautions were taken by this person in handling the hides, although gloves, hot water, soap and towels were supplied for the use of all men working this type of cargo.

On 24th December, the patient, a 41-year-old docker, went home to bath and shave in preparation for the Christmas Eve festivities. Whilst shaving, he cut the head off a tiny pimple on the left side of his neck. Five days later he felt unwell, the "pimple" was sore, hard and septicaemic. The following morning he visited his doctor who sent him to Fazakerley Hospital where the clinical diagnosis of anthrax was confirmed. Under the appropriate treatment, he made a satisfactory recovery.

#### *Paratyphoid Fever.*

#### Paratyphoid Fever

Two cases of paratyphoid B were recorded during the year.

Case No. 1. A man aged 71 years, the father-in-law of a chronic case of paratyphoid B discovered in September 1956, developed enteric symptoms on the 30th January, 1957. Stool examination showed the presence of *salmonella paratyphi B*, phage type taunton. His son (a doctor) and wife (carrier) stayed with him following upon their return to England from Kuwait, where the wife had contracted *salmonella paratyphi B*, phage type taunton. Her case is recorded in last year's annual report. Although a strict personal hygiene had been recommended, it is believed that the doctor's wife had been the source of her father-in-law's infection.

No further cases occurred and at no time did the doctor develop symptoms and his bacteriological investigations were negative.

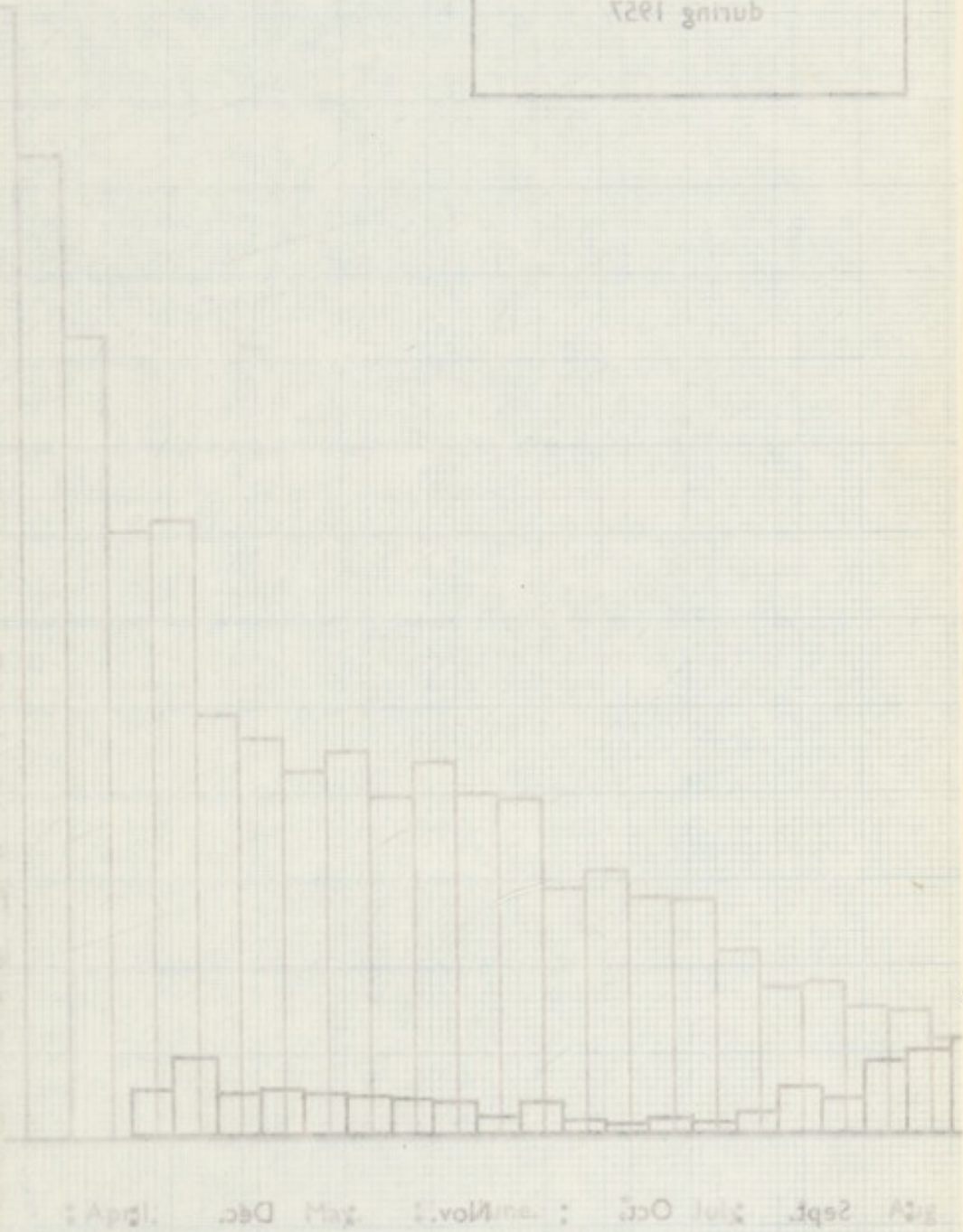
Case No. 2 occurred in a woman aged 65 years, who was admitted to Walton Hospital as a case of anxiety neurosis. She developed diarrhoea and abdominal pain on the 19th February and was transferred to Fazakerley Isolation Hospital on the 23rd February. On the 2nd March, *salmonella paratyphi B*, phage type 1 was isolated from her stools. A careful and exhaustive enquiry into all her contacts revealed no evidence as to the source of her infection. No further cases of this phage type occurred.

#### *Register of Chronic Typhoid and Paratyphoid Carriers.*

#### Register of Chronic Typhoid and Paratyphoid Carriers

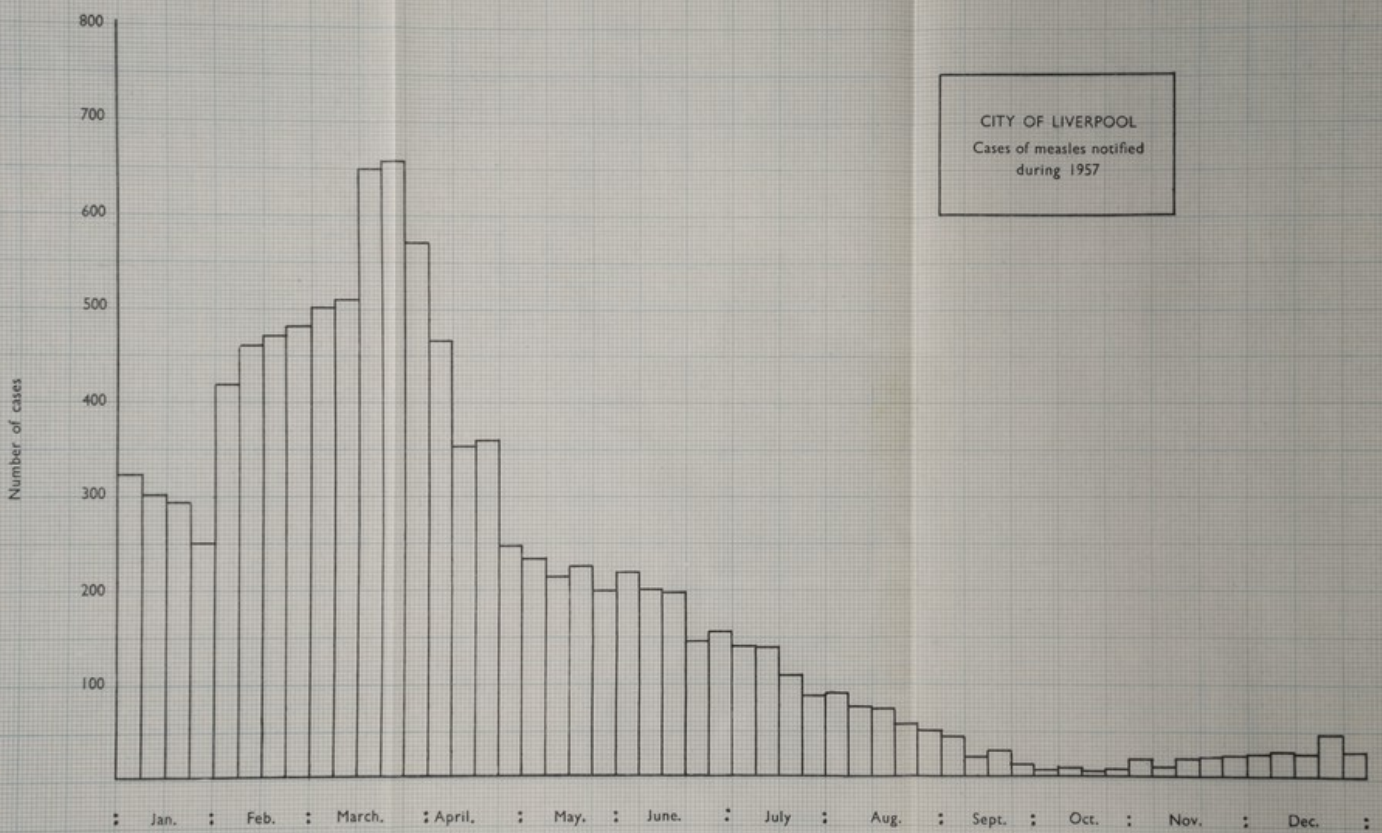
Examination of three chronic typhoid carriers and five paratyphoid carriers have continued throughout the year.

CITY OF LIVERPOOL  
Cases of measles notified  
during 1957



tis





*Whooping Cough.*

During the year, 1,726 cases of whooping cough came to the notice of the Health Department, a figure representing a case rate of 2.2 per 1,000 of the population. Two cases proved fatal, both cases under the age of one year, corresponding to a death rate of 0.0026 per 1,000 population. **Whooping Cough**

There was a reduction of 833 cases as compared with the 1956 figure of 2,559. There was also a reduction in the case fatality rate.

*Measles.*

During the year, 10,180 cases of measles were reported representing a case rate of 13.2 per 1,000 of the population. One death occurred in a child of eighteen months. **Measles**

There was an increase of 3,518 in the number of notified measles cases as compared with the 1956 figure of 6,662.

The chart illustrates the incidence of notified cases of measles during the year. It will be seen that a significant increase occurred during February, which reached its peak during the last two weeks of March. There was a steady decrease in April and the following four months, until the low post-epidemic level was reached in October. **Chart 1**

Table 1 shows the incidence of measles during the past eight years:—

TABLE 1.  
INCIDENCE OF MEASLES CASES AND RATE PER 1,000 POPULATION.

| Year ... ..                   | 1950  | 1951   | 1952  | 1953   | 1954  | 1955  | 1956  | 1957   |
|-------------------------------|-------|--------|-------|--------|-------|-------|-------|--------|
| Cases ... ..                  | 8,621 | 10,464 | 8,768 | 10,090 | 8,599 | 5,998 | 6,662 | 10,180 |
| Rate per 1,000 population ... | 10.7  | 13.3   | 11.1  | 12.8   | 10.9  | 7.7   | 8.6   | 13.2   |

*Poliomyelitis.*

Seventy-seven patients were originally notified as suffering from poliomyelitis, but in only 32 cases was the diagnosis actually confirmed. Twenty-five were paralytic cases and seven non-paralytic cases. It is interesting to note that although the total of confirmed cases is the same as in the previous year, the number of paralytic cases rose by seven and non-paralytic cases fell by the same figure. Two cases were fatal. **Poliomyelitis**



## Chart 2

The chart illustrates the incidence of confirmed cases. It will be seen that the main rise occurred during the months of June to September, decreasing in October.

The following is a summary of the age incidence of cases. There were 13 patients under the age of five years, 14 between the age group 5-14 years and five over the age of 15 years.

TABLE 2.  
Poliomyelitis 1957.

| Age                   | 0-4 | 5-9      | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ |
|-----------------------|-----|----------|-------|-------|-------|-------|-------|-----|
| <b>MALE.</b>          |     | (2 died) |       |       |       |       |       |     |
| Paralytic cases... .. | 6   | 3        | 1     | —     | 1     | —     | —     | —   |
| Non-Paralytic cases   | 1   | 1        | 1     | —     | —     | —     | 1     | —   |
| <b>FEMALE.</b>        |     |          |       |       |       |       |       |     |
| Paralytic cases... .. | 6   | 3        | 2     | —     | —     | 2     | 1     | —   |
| Non-Paralytic cases   | —   | 1        | 2     | —     | —     | —     | —     | —   |

None of these children had been immunised with poliomyelitis vaccine. (Approximately 10 per cent of children between the age of one year and eight years had been immunised by 1st July, 1957.)

### Fatal Cases of Poliomyelitis.

#### Fatal Cases of Poliomyelitis

Two fatalities occurred during 1957, both were boys aged respectively four and six years.

The elder child complained of feeling unwell on the 12th September with abdominal pain and occasional vomiting. His condition deteriorated and he was admitted to Isolation Hospital on the 15th September in a moribund state. Convulsions began to occur and increase and he died later the same day. Post mortem revealed pathological signs consistent with the diagnosis of polio-encephalitis and broncho-pneumonia.

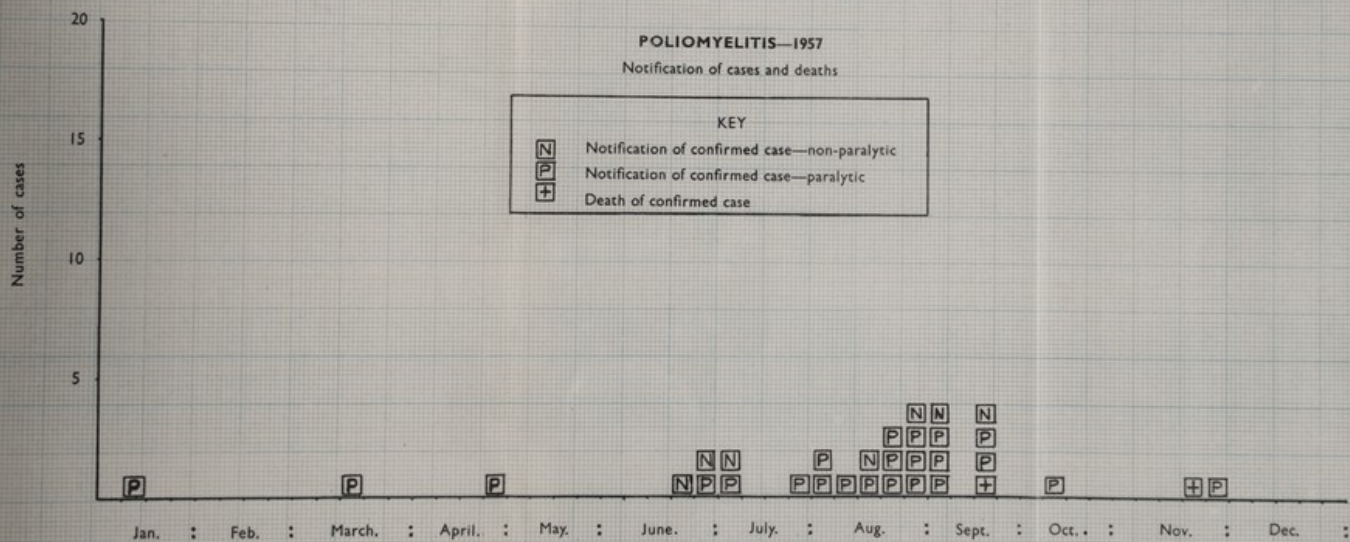
The other child was reported to have been suffering from a head cold commencing on the 6th November. On the 21st November, the child was unable to walk and a pronounced weakness in the left thigh was detected. He was admitted to Isolation Hospital, where the paralysis gradually extended to both arms and the respiratory muscles of the

# POLIOMYELITIS—1957

Notification of cases and deaths

## KEY

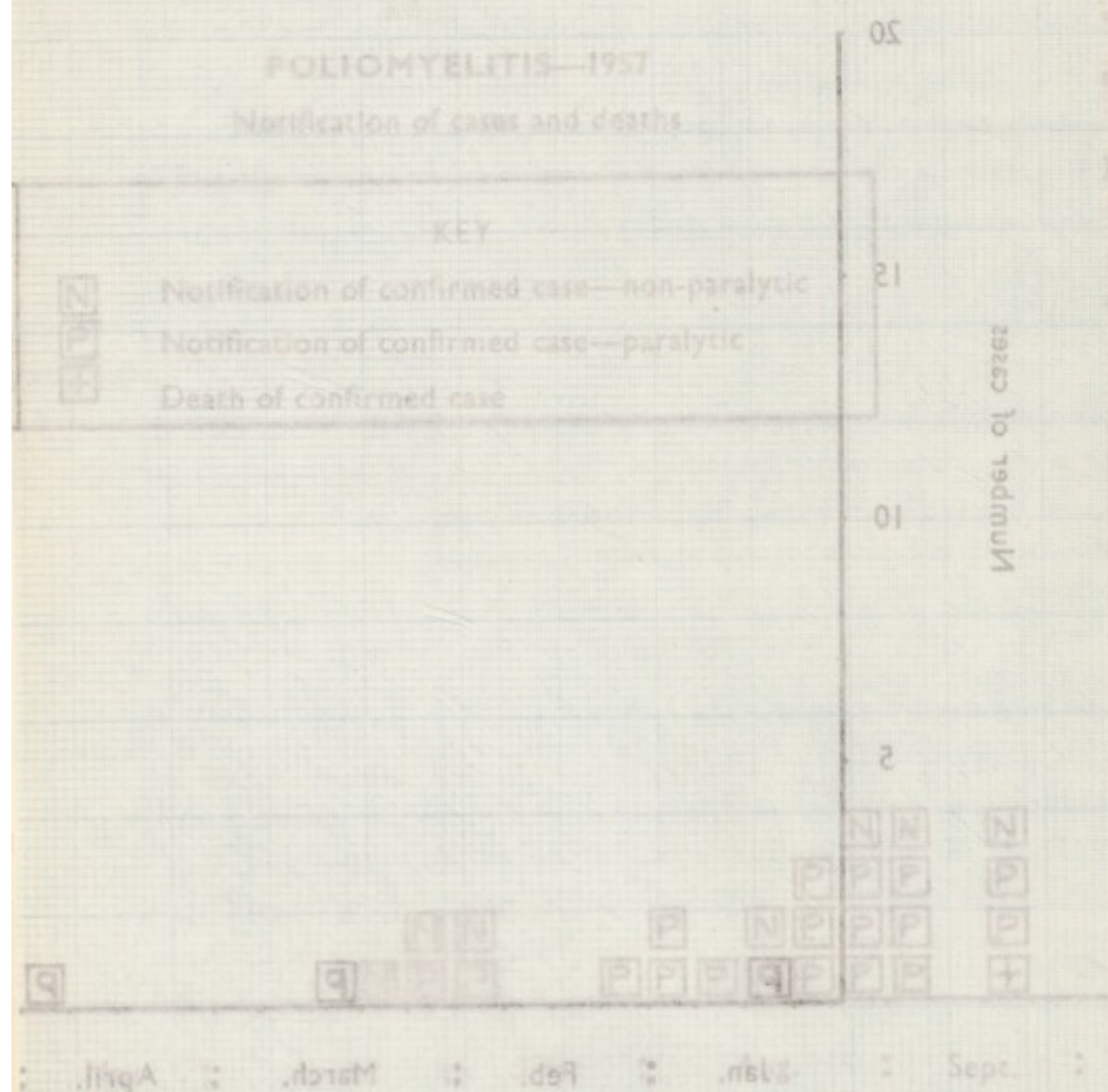
- N Notification of confirmed case—non-paralytic
- P Notification of confirmed case—paralytic
- + Death of confirmed case





# POLIOMYELITIS—1957

Notification of cases and deaths



chest. He was nursed in the iron lung from November 25th but on the 27th his respirations became embarrassed. Tracheotomy was performed but he died seven hours later.

In both these cases, as in the other poliomyelitis cases, no illnesses were recorded amongst the contacts. Unsuccessful attempts were made to establish a connection between all cases of poliomyelitis.

Cases were widespread and not localised to any one area of the City, being present in 20 of the City's 40 Wards.

#### *Food Poisoning Investigation.*

Since the Food Hygiene Regulations, 1955, came into operation on the 1st January, 1956, some 14,000 specimens from 8,713 persons have been submitted for bacteriological examination in connection with ingestion disease investigations. **Food Poisoning Investigation**

Extensive records of infected persons have now been compiled in the department and one outbreak of *Salmonella Anatum* infection was prevented from spreading by information obtained from these records.

Public health inspectors have assisted in the investigations and in the tracing and following up of contacts. To speed the investigations, specimens were collected by an assistant inspector using a motor cycle.

Talks to food handlers and extensive work carried out in food premises as a result of action taken by public health inspectors under the provisions of the Food Hygiene Regulations has resulted in an improvement in the standard of hygiene in food premises generally.

#### *Food Poisoning.*

One hundred and thirty-three cases of confirmed food poisoning occurred in Liverpool during 1957. This figure is 174 (56·7 per cent) less than the 307 cases reported in 1956. Of the 133 cases, 42 were due to *Staphylococcal* toxin and 91 were due to *Salmonella* organisms as follows:— **Food Poisoning**

|                         |     |            |
|-------------------------|-----|------------|
| Staphylococcal Pyogenes | ... | 42 (31·6%) |
| Salmonella Typhi-murium | ... | 43 (32·3%) |
| " Newport               | ... | 7          |
| " Merseyside            | ... | 1          |
| " Anatum                | ... | 33 (24·8%) |
| " Muenchen              | ... | 2          |
| " Enterides             | ... | 1          |
| " Potsdam               | ... | 1          |
| " Heidelberg            | ... | 1          |
| " Takoradi              | ... | 2          |
|                         |     | <hr/> 133  |



The reduction in the number of confirmed cases of food poisoning may be due to a number of factors, including:—

- (a) The arrangements made whereby food handlers who are contacts of ingestion disease are kept from handling food until a negative specimen has been submitted;
- (b) The exclusion of symptomless excretors discovered during routine investigations;
- (c) The education of food handlers resulting in a higher standard of personal hygiene together with improved conditions in food premises generally as a result of the work of the public health inspectors in connection with the drive for safe food.

Co-operation during the year from general practitioners, food firms, and restaurants concerned in the investigation of outbreaks have been helpful and cordial. Their increasing interest and vigilance are very satisfying.

#### *Staphylococcal Toxin Food Poisoning caused by Fried Potatoes.*

**Staphylococcal Toxin Food Poisoning caused by Fried Potatoes**

A full account of this outbreak was published in "The Lancet" on 29th March, 1958.

The main features were as follows:—

On the 21st September, 1957, eight persons developed symptoms of acute food poisoning, following a meal in a Liverpool restaurant. Two were admitted to hospital and the bacteriological examination of stools and vomit showed the presence of *staphylococcus aureus*. Enquiries showed that the food common to all victims was fried potato-chips. The methods employed by the restaurant in the preparation, part-cooking, storing and final cooking of the chips, together with the extensive *staphylococcal* infection amongst the kitchen staff indicated that the chips were the source of the poisoning.

Subsequent experiments confirmed that over a 24-hour period before final cooking, that *staphylococci* added to chips multiply a thousand fold with simultaneous production of enterotoxin. Although the final cooking would kill all *staphylococci*, there would be very little effect on the heat stable enterotoxin left in the chips giving rise to the outbreak of food poisoning.

The faults that lead up to this small outbreak are well known:—

- (1) Storage of par-cooked food in a warm condition.
- (2) Lack of realisation that subsequent heating sufficient to kill pathogenic organisms is NOT sufficient to destroy the heat stabile enterotoxin of the *staphylococcus*.
- (3) Faulty methods and hygiene in relation to infected sores, etc.

#### *Salmonella Anatum Food Poisoning.*

In my Annual Report for 1956, I reported five cases of *salmonella* **Salmonella Anatum Food Poisoning** food poisoning which occurred between the 10th and 13th July, which were finally traced to a local butcher's shop. Eleven cases of *salmonella anatum* food poisoning occurred between the 18th March, and the 2nd April, 1957, and it was established that all the victims had either eaten pig's cheek or cow's udder purchased from this same butcher's shop. Further investigation showed 12 symptomless excretors of *salmonella anatum* amongst their home contacts.

In both outbreaks there was a considerable manipulation in preparation after cooking, including the addition of a gelatin mixture, and the foods were consumed without further cooking. Considerable opportunities for contamination were present on the premises. *Salmonella anatum* was isolated from all four males at work and from knives used for slicing the foods.

A complete report and comparison of these two outbreaks was published in "The Medical Officer" on 13th September, 1957.

#### *Salmonella Newport Food Poisoning.*

On the 9th August, 1957 a neighbouring Local Health Authority **Salmonella Newport Food Poisoning** reported that an outbreak of food poisoning within their area had been traced to the consumption of cooked meats prepared by a manufacturer in that town. Samples of meat from this source were found to be infected with *salmonella newport*.

Deliveries of these cooked meats (pork and ham) had been made to a number of shops in Liverpool. These were traced and the majority of the suspected food withdrawn from sale. A small quantity had been sold prior to this information being received. Nine persons from four



families were later reported to be suffering from food poisoning symptoms following the consumption of cooked pork and ham purchased from two of the shops involved in the investigation.

Faecal specimens from these nine victims were subsequently shown to be infected with *salmonella newport*. With treatment, all made a satisfactory recovery.

The speed with which the cooked meats were withdrawn from sale undoubtedly prevented what might have been a major outbreak.

#### *Dysentery.*

#### **Dysentery**

During the year, 483 cases of confirmed bacillary dysentery were reported in Liverpool as follows:—

|         |     |     |     |     |     |     |
|---------|-----|-----|-----|-----|-----|-----|
| Sonne   | ... | ... | ... | ... | ... | 476 |
| Flexner | ... | ... | ... | ... | ... | 7   |

(One case of amoebic dysentery occurred which was contracted abroad.)

This is an increase of 115 (31·2 per cent) on the 1956 figure of 369.

#### *Dysentery in Day Nurseries.*

#### **Dysentery in Day Nurseries**

Three small outbreaks of *Sonne* dysentery occurred in two day nurseries making a total of 42 cases. Two of the outbreaks occurred in the same nursery.

This is 13 cases less than last year and the repeated low incidence of dysentery in day nurseries reflects the continued improvement since 1955 when twelve outbreaks comprising 179 cases were reported.

It is believed that the following measures first instituted in 1955 prevent and rapidly control the spread of dysentery in nurseries.

To eliminate outbreaks caused by symptomless or convalescent carriers amongst newcomers to the nursery, stool specimens are examined for a week before the child is due to enter. By this means, a considerable number of carriers are prevented from entering nurseries and starting outbreaks. Should an outbreak occur, then all children in contact with enteritis have stool specimens examined on at least three separate occasions following the initial occurrence of infection. Every case of diarrhoea (even quite mild) in a day nursery is always stoolled. Infected children are excluded and remain absent from the nursery until three consecutive negative results have been obtained. (This is



extended at discretion.) Co-operation with general practitioners is well established and cordial, and specimens from families are examined and the practitioner notified of the results.

### *Sonne Dysentery in Temporary Accommodation (Part III).*

Between the 19th and 30th October, 1957, a sudden outbreak of *sonne* dysentery occurred amongst families in the local authority temporary accommodation, Lower Breck Road. The outbreak affected 14 of the 24 families in residence during this period. From a total of 23 adults and 42 children, 6 adults and 26 children were found to be excreting *Shigella sonnei*.

**Sonne  
Dysentery in  
Temporary  
Accommoda-  
tion  
Part III**

### *History of the Outbreak.*

On the 28th September, an infant was admitted to a Children's Hospital from the temporary accommodation, Lower Breck Road, as a suspected case of dysentery. Investigations were negative, and the infant was discharged from hospital on the 9th October. Four days later (13th October) the same infant was re-admitted to hospital where a diagnosis of *sonne* dysentery was bacteriologically confirmed.

**History of  
the Outbreak**

On the 19th October, two cases of mild enteritis occurred in the children of a family who were on friendly terms with the parents of the first case and with whom the children played. The following day, two further cases of enteritis occurred amongst children of a family occupying the adjoining cubicle. Subsequent bacteriological examination showed that these cases of enteritis to be due to *Shigella sonnei*.

Between the 20th and 24th October, stool specimens were obtained from all adults and children living in the temporary accommodation. Nineteen children and two adults were discovered to be excreting *Shigella sonnei*. Five of these including the two adults (mothers) were symptomless excretors. The remainder had enteric symptoms of varying severity. Unfortunately, one of these, a child aged three years, developed further symptoms suggestive of acute appendicitis. She was admitted to a surgical ward of a children's hospital and despite an emergency operation, died of peritonitis. Post mortem findings also revealed the presence of *Shigella sonnei* in the intestines.

Two new cases occurred on the 29th October and four further symptomless excretors were discovered amongst the parents on the 29th and 30th October. After this date, no further cases were elicited.



During the investigation, a total of 390 stool specimens were bacteriologically examined, 252 belonged to the children and 138 belonged to adults.

During the outbreak, all children with positive stools whether cases or symptomless excretors, were admitted to isolation hospital. Adults with positive stools were treated with the appropriate therapy by their general practitioners who visited daily.

It is considered that the outbreak was caused by the first case who was discovered to be excreting *Shigella sonnei* on re-admission to hospital on the 13th October. The high infectivity rate amongst the children and adults was no doubt due to the absence of personal hygiene. Many were apathetic, resentful, unwilling to co-operate and had no knowledge of the rudiments of personal cleanliness.

#### *Sonne Dysentery in a Primary School.*

#### **Sonne Dysentery in a Primary School**

During November, departmental records indicated that an outbreak of *sonne* dysentery appeared to be developing in a large primary school.

It was ascertained that, during this month, 45 pupils had been ill for periods varying from 1-3 weeks with bacteriologically confirmed *sonne* dysentery.

Investigation within the school revealed the presence of 13 symptomless excretors of *Shigella sonnei*. Their presence as a continued source of infection was illustrated by the swabs taken from the handles, seats, and basins of the sanitary conveniences. They were positive for *Shigella sonnei*. After disinfection of the toilets it was decided as a further precautionary measure to recommend that all pupils should wash their hands after each break. It is interesting to record that this was considered impracticable by the school staff owing to the time involved. As an alternative, arrangements were made for a bowl of disinfectant to be placed in each classroom and pupils were required to place their hands in the bowl on entering the room. No further cases occurred within the school and all cases of *sonne* dysentery were allowed to return following three consecutive negative stools.

### *Influenza Spotting Scheme.*

The special measures for the detecting of influenza first instituted in the winter of 1954-1955 by arrangements with the Medical Research Council, were continued during the winter of 1956-1957. Seven general practitioners (one addition to the previous number) agreed to send paired blood specimens to the laboratory from two suspected cases of influenza each week from the beginning of December 1956 to the end of April 1957.

**Influenza  
Spotting  
Scheme**

Typical cases of influenza were to be chosen.

The general results from various points of the United Kingdom suggested a mild infection of influenza "A" of the Dutch 1956 group. Likewise, National Insurance and the Registrar General's statistics all pointed to a remarkably low level of respiratory illness for the 1956-1957 winter.

However, as the year progressed, a pandemic of influenza "A" (A/Singapore 1/57) spread from North China and Hong Kong through India, Africa, Europe and so to Great Britain.

### *Influenza "A" in Liverpool.*

The first influenza patient to reach Liverpool arrived in the s.s. "Clan Clatton" from Calcutta on 27th June. Four more cases arrived from India on 1st July. Twenty-seven cases arrived from South Africa on 19th August and from then until the end of October, 35 ships docked carrying a total of 455 influenza victims. The most heavily infected was the Indian Naval Ship—"Mysore"—with 252 influenza cases.

**Influenza "A"  
in Liverpool**

The outbreak in Liverpool started early in September and the peak was reached on 27th and 28th September. The virus responsible for the outbreak was isolated as A/England/660/57 and was of Asian type. An account of this outbreak and its comparison with the 1951 outbreak of influenza in Liverpool was published in "The Lancet" of the 11th January, 1958. The main features were as follows:—

Young people, especially school children, were mainly attacked. On 27th September the average sickness rate was 39.6 per cent for infants, 40.2 per cent for juniors and 50 per cent for senior schools. The influenza peak in adults occurred 10 days later to that in the children,



see chart, and the peak was reached in 5th October with a 16.6 per cent sickness rate. Influenza deaths reached their peak in the week ending 12th October when they numbered 25. Broncho-pneumonia and pneumonia deaths reached their peak in the week ending 26th October when they numbered 42 (5 in same period, 1956).

*Comparison of 1951 and 1957 Outbreak.*

**Comparison of  
1951 with  
1957  
Outbreak**

The two outbreaks were similar in size but different in effect. The first sickness claims were very similar; in the first peak weeks of the 1951 outbreak there were 49,654 claims, compared with 52,560 in 1957. The incidence in children, however, was greater in 1957. The peak of the 1951 outbreak was at the start of a school term, but the absence-rate in the first two weeks of that term (coinciding with the peak of the outbreak) in all schools in Liverpool was 17.7 per cent.

In the 1957 outbreak the maximum absence-rate for the two peak weeks was 23.1 per cent.

The difference is greater than is apparent because the epidemics were at different times of the year.

In the 1951 epidemic, the absence rate was 17.7 per cent in early January, when the normal figure would be 12.2 per cent, and in the 1957 epidemic the rate was 23.1 per cent compared with a normal figure for late September of 8.3 per cent. The most striking differences were in the death rates. The number of deaths from influenza for the six worst weeks in 1951 and 1957 were 469 and 81, respectively.

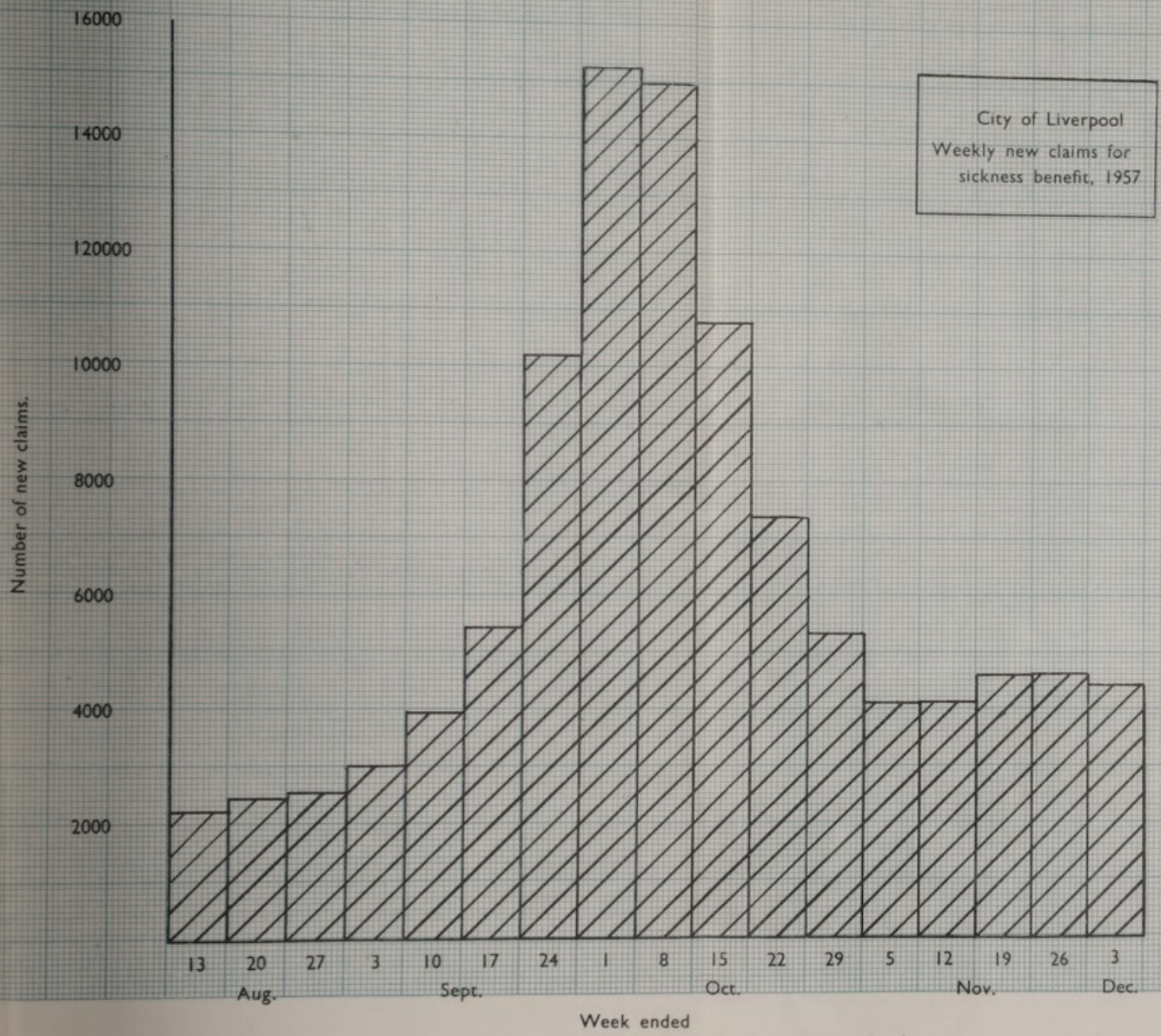
In the worst single week there were 202 deaths in 1951 compared with 25 in 1957.

These findings were repeated to a less extent with "other pneumonia" deaths, 329 in 1951 and 143 in 1957.

Furthermore, in the 1951 epidemic, a much larger proportion of older persons in the community were affected, whereas in 1957 they almost entirely escaped. This difference, together with the season, must have played a part in reducing mortality in 1957.

During this same period a pilot study of influenza "A" epidemiology and control measures within three child populations was undertaken and full details were published in "The Medical Officer" of the 31st January, 1958.

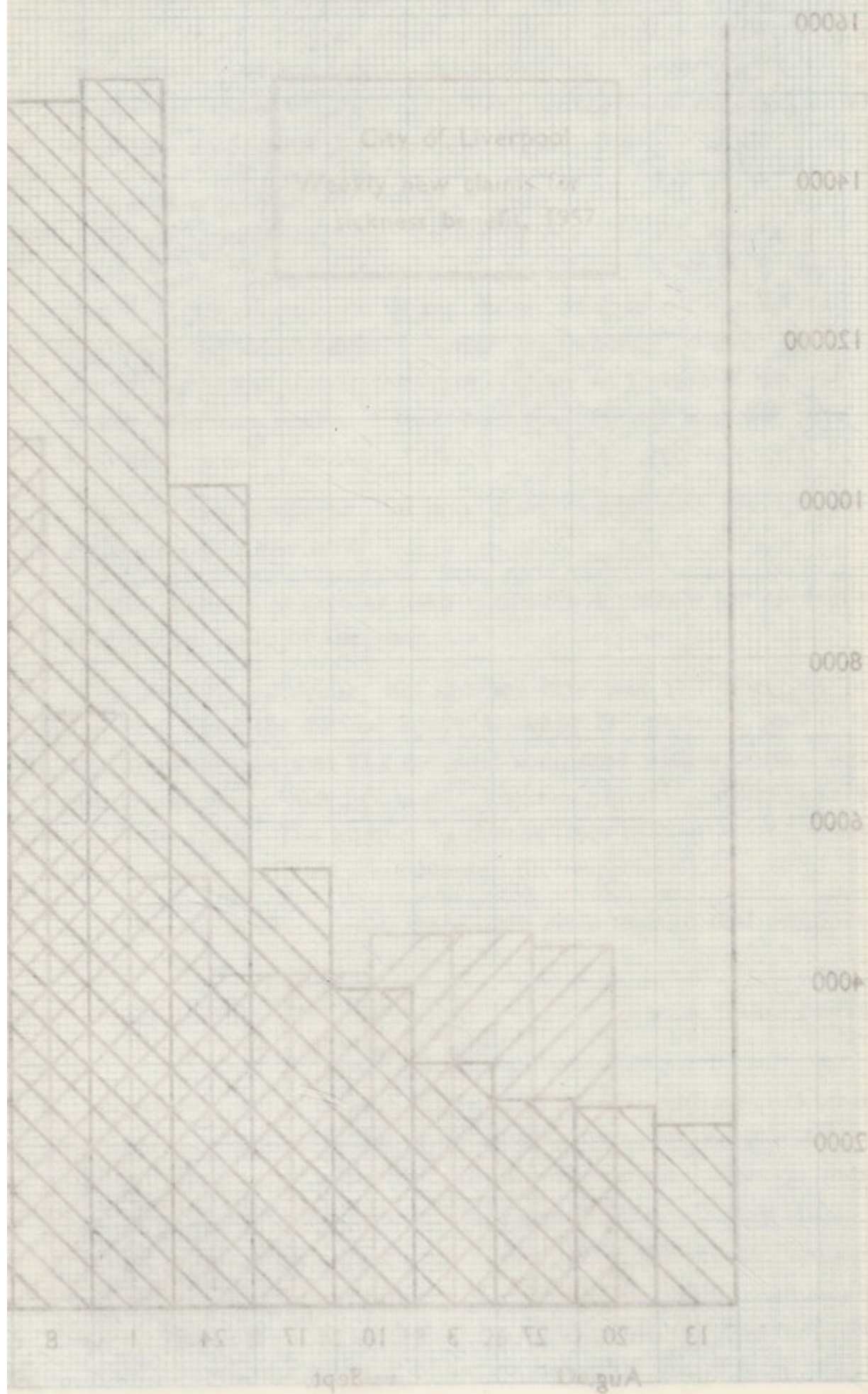






NUMBER OF NEW CLAIMS

City of Liverpool  
Weekly new claims for  
sickness benefit, 1957





By November, the epidemic had settled, although immediately after Christmas there was an increase slightly larger than normal in first sickness claims. This occurred during the first ten days of January 1958 and the figures for the week ending the 7th January were 6,895 compared with a figure averaging 3,800 for the previous three weeks. This figure fell for the week ending 14th January to 5,613 and enquiry amongst the large industrial firms showed no evidence of a "second wave". Since this date, there has been no evidence of a further "wave" of influenza.

#### *Undulant Fever (Brucellosis).*

A case of undulant fever traced to the drinking of infected raw milk from a herd in Cheshire occurred during the year.

**Undulant  
Fever  
(Brucellosis)**

#### History of the Case:—

A Liverpool consultant surgeon, aged 43, was admitted to Fazakerley Isolation Hospital for the investigation of a persistent pyrexia. His illness began in mid-February with vague backaches and headaches which appeared to occur following bouts of coughing. He experienced severe evening sweats and pyrexia. A chest X-ray excluded virus pneumonia and a blood examination showed agglutination titre from 1 in 80, to 1 in 1,280 for *Brucella abortus*.

A diagnosis of undulant fever was made and enquiries into the source of his infection undertaken by the Health Department.

Enquiry showed that the patient was in the habit of drinking a considerable quantity of raw milk supplied by a local dairyman and obtained from a Cheshire farm. This milk was bottled on the farm premises. The local Cheshire Divisional Veterinary Officer, together with the respective Health Department officials, visited the farm and examined the herd. All the herd had been vaccinated with S,19 vaccine against *brucellosis*. A total of 38 individual milk samples were examined and from these, three cows returned ring test triple positive on the 9th March. Two of these gave a positive culture for *Brucellosis* and agglutination against *Brucella abortus* serum. The third was doubtful and the tests were repeated. Complete isolation of the three infected cows was undertaken and the milk was not used for human consumption unless pasteurised (in accordance with the Milk and Dairies Regulations 1949).



Repeated examination of milks from the infected animals were undertaken and negative results were obtained from one cow at the end of March. This cow was allowed to return to the herd. Milk samples from the second cow were negative to *Brucella abortus* ring test and to the widal test on the 18th July, and the animal was allowed to return to the herd. The third cow was ring test and culture negative for *Brucella abortus* in September and the cow returned to the herd. This completed the investigation.

#### *Psittacosis.*

#### **Psittacosis**

During the year, the preliminary investigations begun in 1956 into the incidence of psittacosis amongst wild pigeons was continued and completed. The extensive serological and pathological examinations were undertaken with the co-operation of Professor D. L. Hughes of the University Department of Veterinary Pathology and Dr. G. B. Bruce White of the Public Health Laboratory Service.

#### *Investigation.*

Fifty-two homing pigeons were selected and taken by their owners for examination. These valuable birds were from aviaries within a half-mile radius of the house where two cases of human psittacosis, traced to infected wild pigeons, had occurred. A total of 320 wild pigeons, trapped under the provisions of the Liverpool Corporation Act 1955 from various selected sites within the City were taken for examination.

#### *Results.*

Fifty of the homing and 229 of the wild pigeons were examined serologically. Two hundred and thirty wild pigeons were examined post-mortem.

#### *Homing Pigeons.*

Tables 3 and 4 show that the number of birds with a titre of 1·8 or more, in one or other, or both direct and indirect complement fixation tests were 19 (38 per cent); and the number with a titre of 1·16 or more were 16 (32 per cent). No post-mortem materials were available from these birds for mouse inoculations because of their value to their owners.

## B. HOMING PIGEONS.

TABLE 3.

BIRDS FOR WHICH BOTH INDIRECT AND  
DIRECT P-L.G.V. TITRES ARE KNOWN.

INDIRECT C.F.T.

NUMBER OF BIRDS WITH A FINAL TITRE OF :—

| Direct C.F.T. Number<br>of birds with a final<br>titre of :— |                          | <8 | 8  | 16 | 32 | 64 | >128 | Totals | Cumulative<br>Totals | %  |
|--------------------------------------------------------------|--------------------------|----|----|----|----|----|------|--------|----------------------|----|
|                                                              | <8 ...                   | 31 | 2  | 6  | 2  | 3  | 2    | 46     | 46                   | 92 |
|                                                              | 8 ...                    | 1  | —  | —  | —  | —  | —    | 1      | 4                    | 8  |
|                                                              | 16 ...                   | 1  | —  | —  | —  | —  | —    | 1      | 3                    | 6  |
|                                                              | 32 ...                   | —  | —  | —  | —  | —  | —    | 0      | 2                    | 4  |
|                                                              | 64 ...                   | —  | —  | —  | 1  | —  | —    | 1      | 2                    | 4  |
|                                                              | >128 ...                 | —  | 1  | —  | —  | —  | —    | 1      | 1                    | 2  |
|                                                              | Totals ...               | 33 | 3  | 6  | 3  | 3  | 2    | 50     |                      |    |
|                                                              | Cumulative<br>Totals ... | 33 | 17 | 14 | 8  | 5  | 2    |        |                      |    |
|                                                              | % ...                    | 66 | 34 | 28 | 16 | 10 | 4    |        |                      |    |

TABLE 4.

SUMMARY OF SEROLOGICAL RESULTS ON HOMING PIGEONS

|                        | Direct<br>C.F.T. | TEST.<br>Indirect<br>C.F.T. | Either or<br>both C.F.T. |
|------------------------|------------------|-----------------------------|--------------------------|
| Number tested ...      | 50               | 50                          | 50                       |
| % Positive at 1·8 ...  | 8·0              | 34·0                        | 38·0                     |
| % Positive at 1·16 ... | 6·0              | 28·0                        | 32·0                     |

*Wild Pigeons.*

Samples taken from the wild pigeons were examined at Colindale Reference Laboratory and at the Liverpool Public Health Laboratory. As seen in Tables 5 and 6, the results obtained at Colindale and at Liverpool with wild pigeons sera are comparable. The number of birds with a titre of 1·8 or more, in one or other or both types of complement fixation tests are 88 (43·3 per cent); and with a titre of 1·16 or more are 62 (30·5 per cent).



TABLE 5

COMPARISON OF RESULTS OF DIRECT AND INDIRECT COMPLEMENT FIXATION TESTS CARRIED OUT  
AT COLINDALE AND LIVERPOOL ON WILD PIGEON SERA

|                                             | Direct Complement fixation tests |      |      |      |      |       | Indirect Complement fixation tests |      |      |      |      |       | No. of<br>birds<br>tested |
|---------------------------------------------|----------------------------------|------|------|------|------|-------|------------------------------------|------|------|------|------|-------|---------------------------|
|                                             | % birds with a titre of:—        |      |      |      |      |       | % birds with a titre of:—          |      |      |      |      |       |                           |
|                                             | <1/8                             | 1/8  | 1/16 | 1/32 | 1/64 | 1/128 | <1/8                               | 1/8  | 1/16 | 1/32 | 1/64 | 1/128 |                           |
| Birds tested at Colindale                   | 67.1                             | 32.9 | 27.3 | 20.3 | 15.4 | 7.7   | 74.4                               | 25.6 | 12   | 3.4  | —    | —     | 117                       |
| Birds tested at Liverpool                   | 72.1                             | 27.9 | 26.7 | 22.1 | 13.9 | 7     | 73.3                               | 26.7 | 16.3 | 8.1  | 3.5  | 1.2   | 86                        |
| Combined Liverpool and<br>Colindale results | 69.0                             | 31.0 | 27.1 | 21.0 | 14.8 | 7.4   | 73.9                               | 26.1 | 13.8 | 5.4  | 1.5  | 0.5   | 203                       |

TABLE 6.  
SUMMARY OF SEROLOGICAL RESULTS ON WILD PIGEONS.

|                           | TEST.         |                 |                       |
|---------------------------|---------------|-----------------|-----------------------|
|                           | Direct C.F.T. | Indirect C.F.T. | Either or both C.F.T. |
| Number tested ... ..      | 229           | 203             | 203                   |
| % Positive at 1.8 ... ..  | 31.0          | 26.1            | 43.3                  |
| % Positive at 1.16 ... .. | 27.1          | 13.8            | 30.5                  |

#### *Post-Mortem.*

Of the 230 wild pigeons examined at post-mortem, 81 presented lesions (enlarged spleens, focal hepatitis, or inflammation of serous membranes) which were suggestive of psittacosis infection. Five of the 81 birds yielded a virus on intra-cerebral inoculation of mice which in morphological appearance was typical of the psittacosis-lymphogranuloma group of virus. This gives an infection rate of 6.1 per cent.

Both serologically and pathologically, ample evidence was thus found to show that both homing and wild pigeons in Liverpool have a relatively high incidence of psittacine infection. All these birds were taken at random and the results illustrate that not only are the birds a serious nuisance because of the defacement of buildings through constant fouling, but they are also a potential and dangerous reservoir of disease within the City.

This survey, now completed, completely justifies the action which the City Council sought and obtained, under the Liverpool Corporation Act 1955, to destroy wild pigeons.

In Liverpool, a total of 884 tons of egg products were imported during 1957. This compares with 1,552 tons of egg products imported during 1956. It will be seen that there is a reduction of 668 tons (57 per cent) in the previous yearly importation.

**Imported Egg  
Albumen**

This may well be partly due to reduced importation of egg products into this country and partly due to the intensive sampling and strict control exercised in Liverpool on the investigation and final disposal of



infected egg. It was apparent during 1957 that many importers diverted, wherever possible, their egg cargoes to ports other than Liverpool where sampling and control were more relaxed.

During 1957, 3,605 samples were bacteriologically examined and 1,557 (43·2 per cent) were subsequently found to be infected with *salmonella* organisms. No *salmonella paratyphi-B* was isolated from the Liverpool imports.

The following table illustrates the various types of egg and their relative degrees of *salmonella* infection:—

TABLE 7.

| Type of Egg.                   | Total quantity (tons) | Total No. of Samples. | Result.                          | Salmonella type.                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------|-----------------------|-----------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Imported Frozen Liquid Egg ... | 827·66                | 3,543                 | 1,547 positive<br>1,996 negative | 1,290 <i>S. pullorum</i><br>173 <i>S. typhi-murium</i><br>41 <i>S. typhi-murium</i><br>and <i>S. pullorum</i><br>21 <i>S. anatum</i><br>5 <i>S. anatum</i> and<br><i>pullorum</i><br>6 <i>S. give</i><br>3 <i>S. orion</i><br>2 <i>S. meleagridis</i><br>1 <i>S. meleagridis</i> and<br><i>S. pullorum</i><br>3 <i>S. chester</i><br>2 <i>S. potsdam</i> and<br><i>S. pullorum</i> |
| Imported Egg Albumen Crystals  | 57·0                  | 62                    | 10 positive<br>52 negative       | 2 <i>S. aberdeen</i><br>8 <i>S. thompson</i>                                                                                                                                                                                                                                                                                                                                       |
| Totals ...                     | 884·66                | 3,605                 | 1,557 positive<br>2,048 negative |                                                                                                                                                                                                                                                                                                                                                                                    |

As in the previous year, *salmonella pullorum* and *salmonella typhi-murium* were the commonest organisms in the liquid frozen egg which accounted for 94 per cent of the total. *Salmonella thompson* was the commonest organism in the dried egg albumen.

During 1957, the Albumen Advisory Committee published and circulated to health authorities a recommended process for the heat treatment of crystal albumen.

This process was similar to that developed by the Liverpool Health Department during 1955 and 1956 and which was reported in the annual report for 1956.

### *Infectious Disease Consultations.*

During 1957, 43 domiciliary visits were made by the medical staff at the invitation of general practitioners as follows:—

**Infectious  
Disease  
Consultations**

|                   |     |     |     |    |
|-------------------|-----|-----|-----|----|
| Influenza "A"     | ... | ... | ... | 27 |
| Chickenpox        | ... | ... | ... | 5  |
| Poliomyelitis     | ... | ... | ... | 5  |
| Non-Poliomyelitis | ... | ... | ... | 4  |
| Rheumatic Fever   | ... | ... | ... | 2  |



## IMMUNISATION AND VACCINATION

### *Poliomyelitis Immunisation.*

#### **Poliomyelitis Immunisation**

The immunisation of children with a safe poliomyelitis vaccine commenced in 1956, continued throughout 1957. Immunisation consisted of two inoculations of 1.0 c.c. of the vaccine into the left arm at intervals of not less than three weeks and in Liverpool were carried out at the school and child welfare clinics. The supply of vaccine, of which there was a great national shortage in 1956, improved during 1957. The vaccine if stored under chill room conditions 2-10° C (36°-50° F) remained active for six months. Nine special refrigeration centres were established at child welfare clinics in strategically selected parts of the City. During the year, the vaccine was made available (for the first time) to general practitioners who were able to collect it as required from these special centres.

In 1956, only children born in the age groups 1947 to 1954 inclusive, were eligible for protection, but by July 1957, these age groups were extended to include children born in 1955 and 1956. By December 1957, the Ministry of Health further extended the child age groups to include expectant mothers, medical practitioners and ambulance staff. The families of these last two groups were also included. To enable this extended programme to be carried out, the British supply of vaccine was to be supplemented by imported American and Canadian Salk vaccine.

#### **Relation to other Immunisation Procedures**

It is recommended by the Ministry of Health that no smallpox vaccination or other immunisation should be carried out during the time when the vaccine is being administered and for two weeks after the final injection and that this should be extended to four weeks after the final injection in the case of B.C.G. and yellow fever vaccination.

#### **Statistics**

During 1957, a total of 20,803 children completed the course of inoculations. Of these, 19,536 (93.9 per cent) were inoculated at the Health Department Clinics and 1,267 (6.1 per cent) were inoculated by General Practitioners. During the year, 1,584 received only one injection. 324 of these failed to attend for the second injection despite numerous re-appointments. It is hoped that the remaining 1,260 (first injection in December 1957) will receive their second injection early in 1958.

The following table illustrates these statistics fully:—

TABLE 1  
POLIOMYELITIS INJECTIONS 1957

| Year of Birth   | ... | ... | ... | 1947  | 1948  | 1949  | 1950  | 1951  | 1952  | 1953  | 1954  | 1955  | 1956  | 1957 | Total  |
|-----------------|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| Clinics         | ... | ... | ... | 3,473 | 2,985 | 2,898 | 2,733 | 1,506 | 1,291 | 1,322 | 1,301 | 1,113 | 874   | 40   | 19,536 |
| Private Doctors | ... | ... | ... | 138   | 113   | 139   | 122   | 104   | 155   | 121   | 133   | 108   | 129   | 5    | 1,267  |
| TOTALS          | ... | ... | ... | 3,611 | 3,098 | 3,037 | 2,855 | 1,610 | 1,446 | 1,443 | 1,434 | 1,221 | 1,003 | 45   | 20,803 |

Number had 1 injection only:—1,584 (of these 324 failed to return for 2nd injection and 1,260 are awaiting 2nd injection which will be given in early 1958)



During 1957, no child who received immunisation injections developed confirmed poliomyelitis.

As a further note to the year's activities, the Department was pleased to undertake poliomyelitis vaccination of visitors to this country; in particular, a group of American Missionaries and members of the Canadian consular corps with their families. Vaccine in these instances was specially imported by the authorities concerned.

#### *Influenza Vaccine.*

#### **Influenza Vaccine**

Towards the end of the year, because of the extensive outbreaks of influenza spreading to Great Britain from the Far East, it was decided by the Ministry of Health to make a vaccine available to key personnel. This vaccine, of which there was only a limited supply, was designed to give protection against the Asian type of influenza. It was prepared by GLAXO Laboratories from the Asian strain of influenza virus "A" (A/Singapore/1/57) and protection consisted of two injections of 1 c.c. subcutaneously with an interval of three weeks between the first and second injection. The vaccine was sensitive to light and it was required to be stored at a temperature not to exceed 36-50° F. Between October and December 1957 a total of 1,710 units of this vaccine (sufficient to protect 855 persons)) was made available in Liverpool. The vaccine was distributed amongst general practitioners, local authority doctors, health visitors, school nurses, tuberculosis visitors, district nurses, midwives, home helps, ambulance drivers, public health inspectors and firemen. Hospital staffs (doctors and nurses) received a separate allocation of vaccine.

#### *Diphtheria Immunisation.*

#### **Diphtheria Immunisation**

Diphtheria immunisation has been carried out at child welfare clinics, schools, and by general practitioners in the City. The total number of children immunised for the first time during 1957 was 11,200, and 5,754 received a booster inoculation. The age groups of the children inoculated during the year and an estimate of the percentage of the child population immunised during the past five years are given in the table below:—

TABLE 2.

|                                                                              | Under<br>1 year | 1-4<br>years | 5-9<br>years | 10-14<br>years | Total<br>under<br>15 years |
|------------------------------------------------------------------------------|-----------------|--------------|--------------|----------------|----------------------------|
| Primary Inoculations completed<br>in 1957 ... ..                             | 5,322           | 3,039        | 2,629        | 210            | 11,200                     |
| Booster Inoculations completed<br>in 1957 ... ..                             | —               | 127          | 5,137        | 490            | 5,754                      |
| Percentage of child population<br>immunised during past five<br>years ... .. | 34.1%           | 45.3%        | 43.6%        |                | —                          |
| Percentage of child population<br>immunised ... ..                           | 42.9%           |              | 82.9%        |                | —                          |

It will be seen that it is now estimated that 82.9 per cent of the child population aged 5-14 years are at present protected against diphtheria by immunisation and that 42.9 per cent of the children aged 0-4 years are similarly protected.

A complete table of the number of primary immunisations carried out in the City and the exact places where these immunisations were given is below:—

TABLE 3.

## NUMBER OF PRIMARY DIPHTHERIA IMMUNISATIONS

| Where or<br>by whom<br>immunised | 1947   | 1948   | 1949   | 1950   | 1951   | 1952   | 1953   | 1954   | 1955   | 1956   | 1957   |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Immunisation Clinics             | 8,482  | 9,824  | 8,219  | 5,973  | 6,442  | 5,316  | 4,896  | 3,920  | 3,974  | 4,547  | 4,479  |
| Schools ... ..                   | 5,709  | 5,510  | 3,471  | 2,858  | 2,941  | 3,307  | 3,586  | 3,732  | 2,943  | 2,070  | 3,008  |
| Medical<br>Practitioners ...     | 40     | 688    | 1,617  | 2,066  | 2,396  | 2,579  | 2,694  | 2,973  | 3,212  | 3,702  | 3,713  |
| Other<br>Miscellaneous ...       | 269    | 208    | 228    | 322    | 283    | 109    | —      | —      | —      | —      | —      |
| TOTALS ...                       | 14,500 | 16,230 | 13,535 | 11,219 | 12,062 | 11,311 | 11,176 | 10,625 | 10,129 | 10,319 | 11,200 |

In addition to the above immunisations, 5,754 previously immunised children received a booster injection either at school or at one of the clinics during the year.



It is interesting to note that the number of children immunised against diphtheria has not only been maintained, but actually increased by 881 over the 1956 figure of 10,319. This is very encouraging, especially when parents are erroneously inclined to regard diphtheria as a "disease of the past", and when other immunising procedures (e.g. poliomyelitis) receive such nation-wide publicity.

#### Schick Testing of Nurses

During 1957, a total of 45 probationer nurses were Schick tested at the Royal Southern Hospital. Of these, 18 were Schick positive and susceptible to diphtheria and 27 were Schick negative and immune. The 18 susceptible nurses were offered protection with P.T.A.P.

#### *Whooping Cough Immunisation.*

#### Whooping Cough Immunisation

During the year the immunisation campaign against this disease was continued. The same arrangements used for diphtheria immunisation were carried out and whooping cough immunisations were offered at child welfare clinics and by general medical practitioners. During the year, 9,165 children had been immunised under this scheme. 31.6 per cent of infants under one year were protected in 1957 as against 32.6 per cent in 1956.

The increased number of children so protected was reflected in the fall in the number of whooping cough cases during the same period (cf. page 41).

#### *Smallpox Vaccination.*

#### Smallpox Vaccination

Vaccination of infants against smallpox is carried out by special clinics and by general practitioners in their own surgeries. The following table illustrates the number of births and the number of primary vaccinations given during the past three years:—

|                                             | 1955   | 1956   | 1957   |
|---------------------------------------------|--------|--------|--------|
| Births ... ..                               | 15,268 | 15,944 | 16,044 |
| Number of primary vaccinations ... ..       | 7,677  | 7,414  | 8,250  |
| Number of re-vaccinations ... ..            | 204    | 202    | 107    |
| Number insusceptible ... ..                 | —      | —      | —      |
|                                             | 7,881  | 7,616  | 8,357  |
| Number vaccinated at clinics ... ..         | 3,622  | 3,413  | 3,614  |
| Number vaccinated by private doctors ... .. | 4,259  | 4,203  | 4,743  |
|                                             | 7,881  | 7,616  | 8,357  |

Because of the fall in vaccination figures noted in 1956 an intensive vaccination drive was made both by clinics and private doctors. It is encouraging to report that the total of vaccinations increased by 741 over the 1956 figure. Although this increase is heartening, nevertheless, it still reflects a low degree of primary vaccination. This tendency, in a major sea port such as Liverpool, is not a good omen for the future. The increased travelling facilities of recent years (both by sea and air) bring ever closer those areas of the world where smallpox is still prevalent. A population with a low rate of primary vaccination runs an unnecessary risk of a smallpox outbreak.



## TUBERCULOSIS

### *Incidence of Tuberculosis.*

#### New Notifications

The number of notifications of new cases was the same as in 1956. There were 1,021 cases of respiratory tuberculosis in 1957 compared with 1,016 in 1956, but there was a compensating fall in notifications of non-respiratory disease: 96 cases as compared with 101. A detailed analysis of the 1957 figures is given in Table 56 of the statistical appendix, while the accompanying map (A) shows the manner in which new cases are related to population in each of the City's 40 wards.

#### Pattern of Notification

As in previous years, the incidence of the disease follows a definite pattern. It is heaviest in the central part of the City, with its cramped living conditions and high percentage of sub-standard and overcrowded dwellings. It then tails off, more or less gradually, towards the periphery where, in general, houses are better, standards of living higher and there is a great deal more open space and fresh air. The new housing estates are the exceptions to this rule, because here new foci of infection are constantly occurring, as large numbers of the worst cases of tuberculosis are rehoused.

#### Distribution of Tuberculosis in the City

This latter point is made very clear in the second map (B) which shows the overall distribution of the disease within the City. Gillmoss and Speke wards are seen to have the highest percentage of cases. Kirkby, which is not shown, has also a high figure. This undesirable state of affairs can in no way be avoided. The saving factor is that, in better living conditions, recovery is more swift and certain.

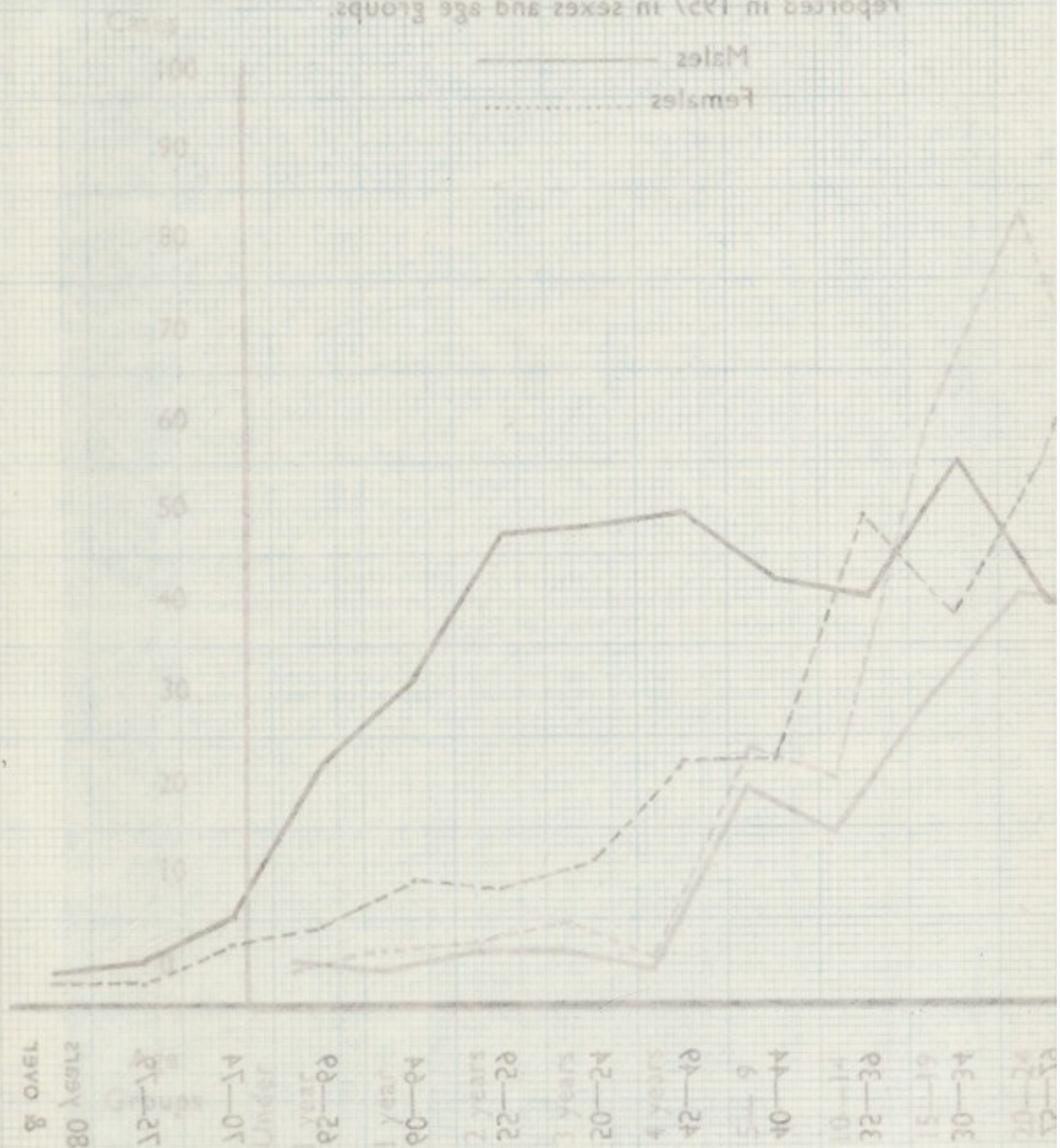
While new notifications from these estates are somewhat higher than from other suburban areas, the differences are not proportional to the higher case rates. The rehousing of patients undoubtedly reduces the total of new cases occurring in the City as a whole.

#### Relationship to Social Groups

Table 56 shows no important changes in the distribution of the disease from last year. The majority of cases are found in social group 3, which is the largest, with the next highest total in social group 5. The latter is, of course, related to poor living conditions. Once again, about one-third of all new cases occurred amongst families living in unsatisfactory houses or in rooms.

# TUBERCULOSIS—1957

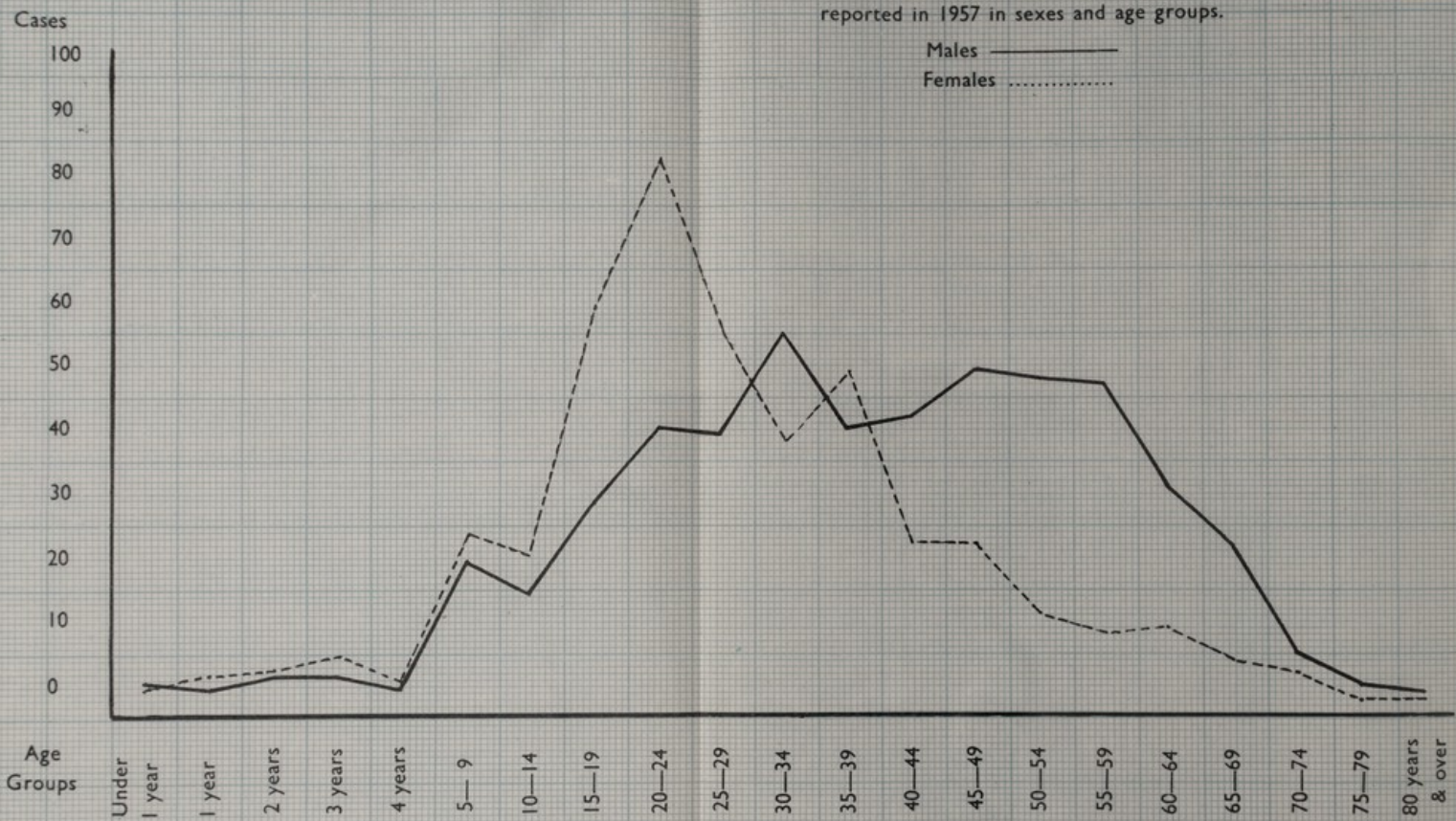
Graph showing incidence of new cases reported in 1957 in sexes and age groups.





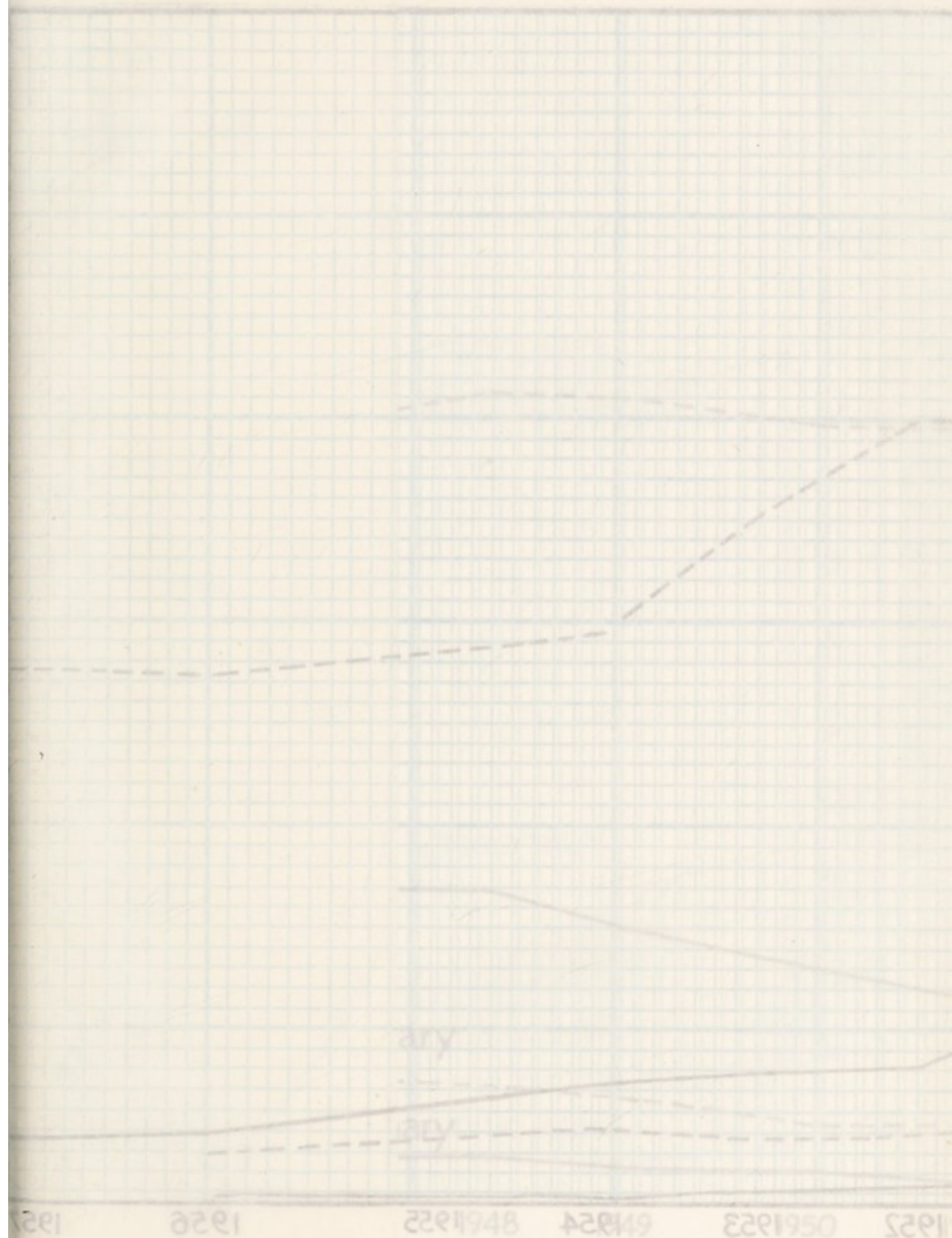
# **TUBERCULOSIS—1957**

Graph showing incidence of new cases reported in 1957 in sexes and age groups.



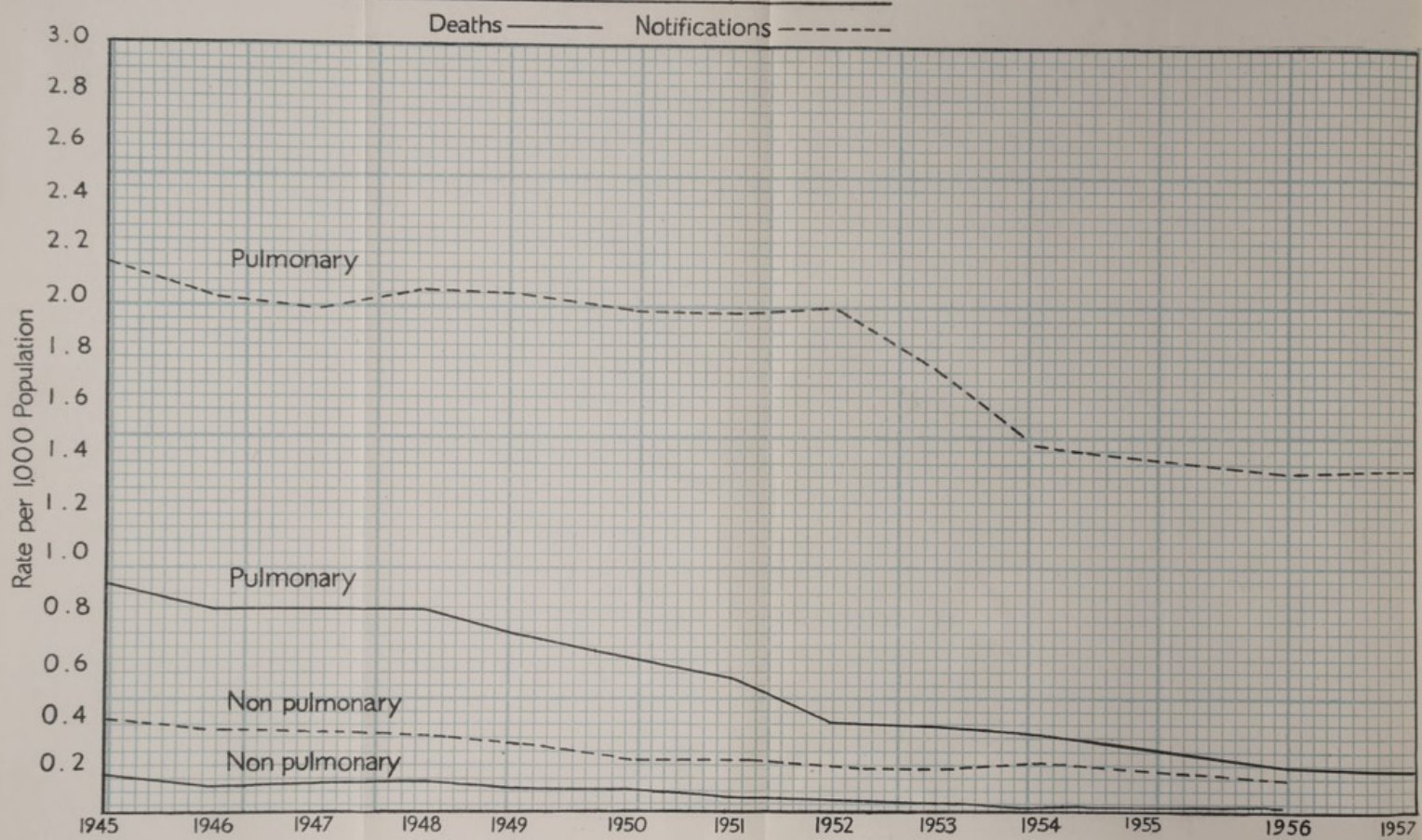
# Tuberculosis Mortality and 1927-1951

Deaths —————





Tuberculosis Mortality and Morbidity, 1945-1957.



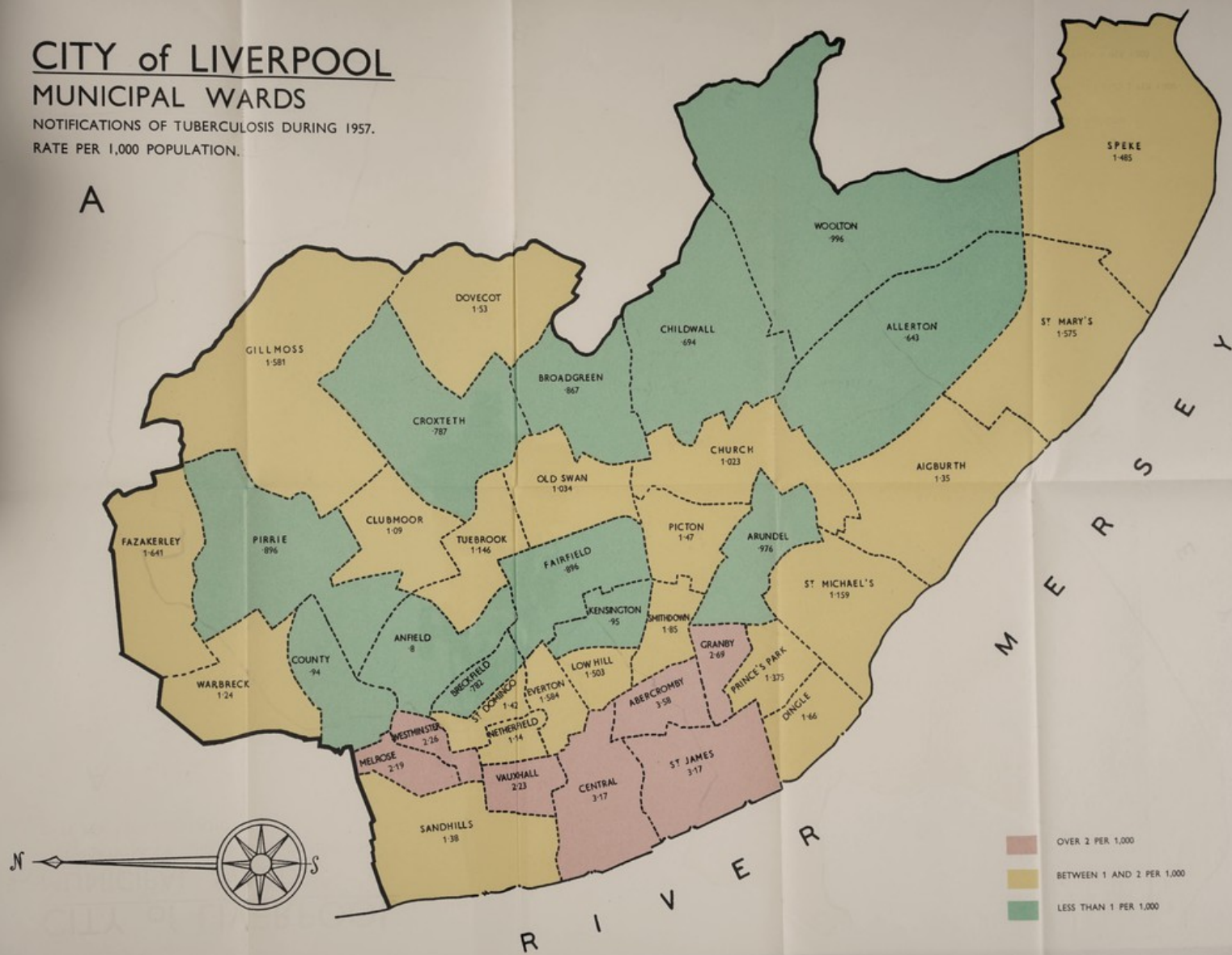
# CITY of LIVERPOOL

## MUNICIPAL WARDS

NOTIFICATIONS OF TUBERCULOSIS DURING 1957.

RATE PER 1,000 POPULATION.

A







# CITY of LIVERPOOL

## MUNICIPAL WARDS

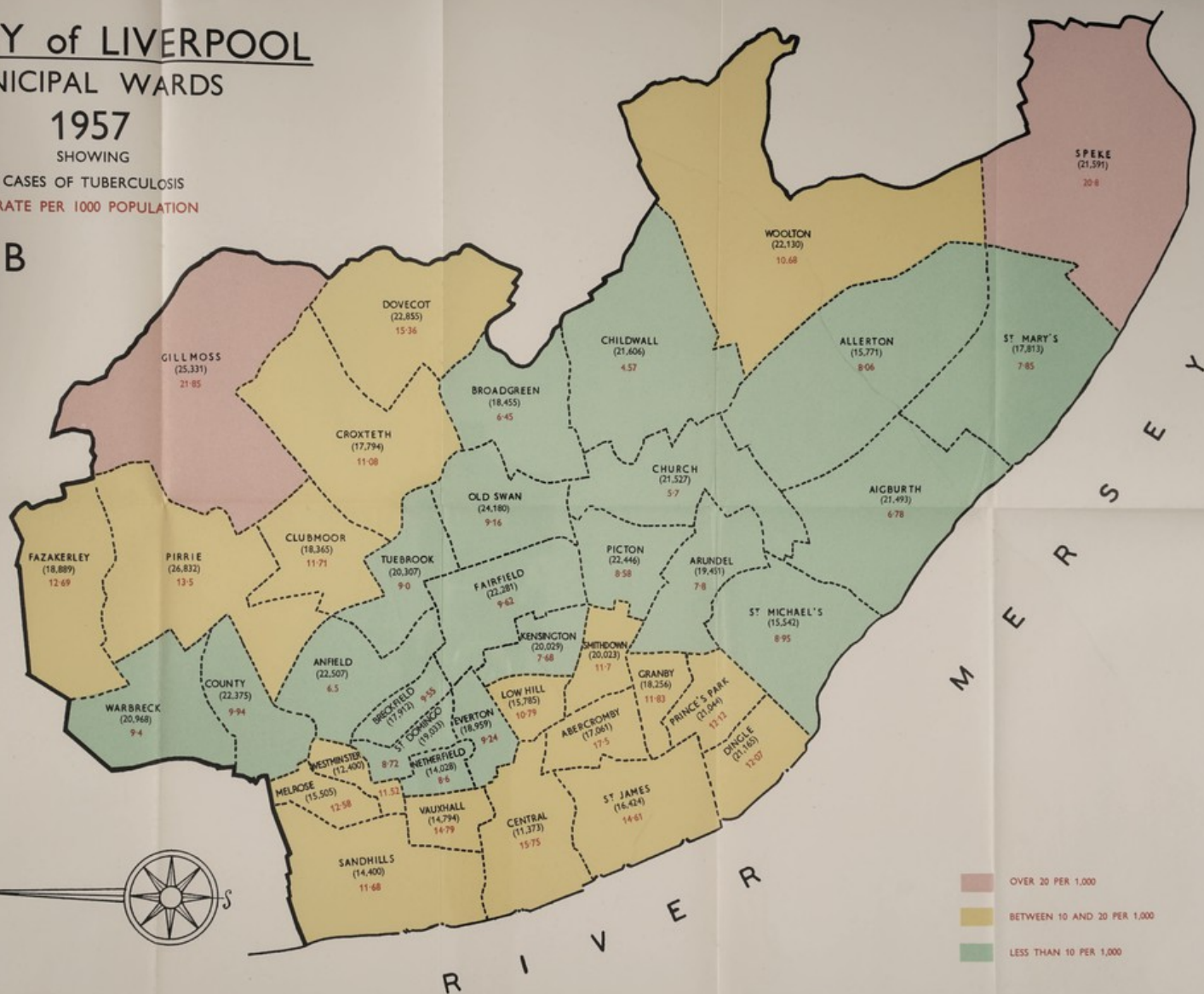
1957

SHOWING

CASES OF TUBERCULOSIS

RATE PER 1000 POPULATION

B







The majority of cases were discovered as a result of illness, but almost one-sixth were found after mass miniature radiography and about one-tenth as the result of examination of contacts. This means that almost a quarter of the total of new cases came to light as a direct result of the work of the preventive services—a not inconsiderable contribution.

**Diagnosis of  
New Cases**

It is interesting to note that some history of contact was forthcoming in only about a third of the cases. This suggests the probability of a large reservoir of as yet unsuspected cases, and confirms the desirability of having an intensive mass miniature radiography campaign in the City as soon as possible.

**Contact  
History**

The age and sex incidence of new cases on the clinic register is the same as last year. There were 601 amongst men and 516 amongst women. The peak incidence for females was in the period between 14 and 40 years, while that for males extended over the third to sixth decades. The accompanying graph illustrates this point. The age incidence for females closely follows the pattern seen in the whole country, but that for males is more spread out; the national figure shows a sharp peak in the fifth and sixth decades.

**Age and Sex  
Incidence**

#### *Deaths from Tuberculosis.*

During 1957, 123 people died from pulmonary tuberculosis and five from non-respiratory disease within the City. These figures represent 0.1599 and 0.0065 per 1,000 population respectively. Tables 21 and 22 of the appendix show how these figures compare with those for the preceding ten years. The details of death by ages from the various forms of tuberculosis are shown in Table 18.

**Tuberculosis  
Death Rate**

Morbidity and mortality from the disease are compared in the accompanying graph. This shows that while earlier diagnosis and improved treatment have reduced the death rate to much lower proportions, tuberculosis remains an important cause of disability. Even with modern chemotherapy, treatment is a long, drawn-out business and a morbidity of 1.4521 per 1,000 represents an enormous loss of working hours to the community, to say nothing of the individual difficulties inseparable from prolonged sickness in the home.

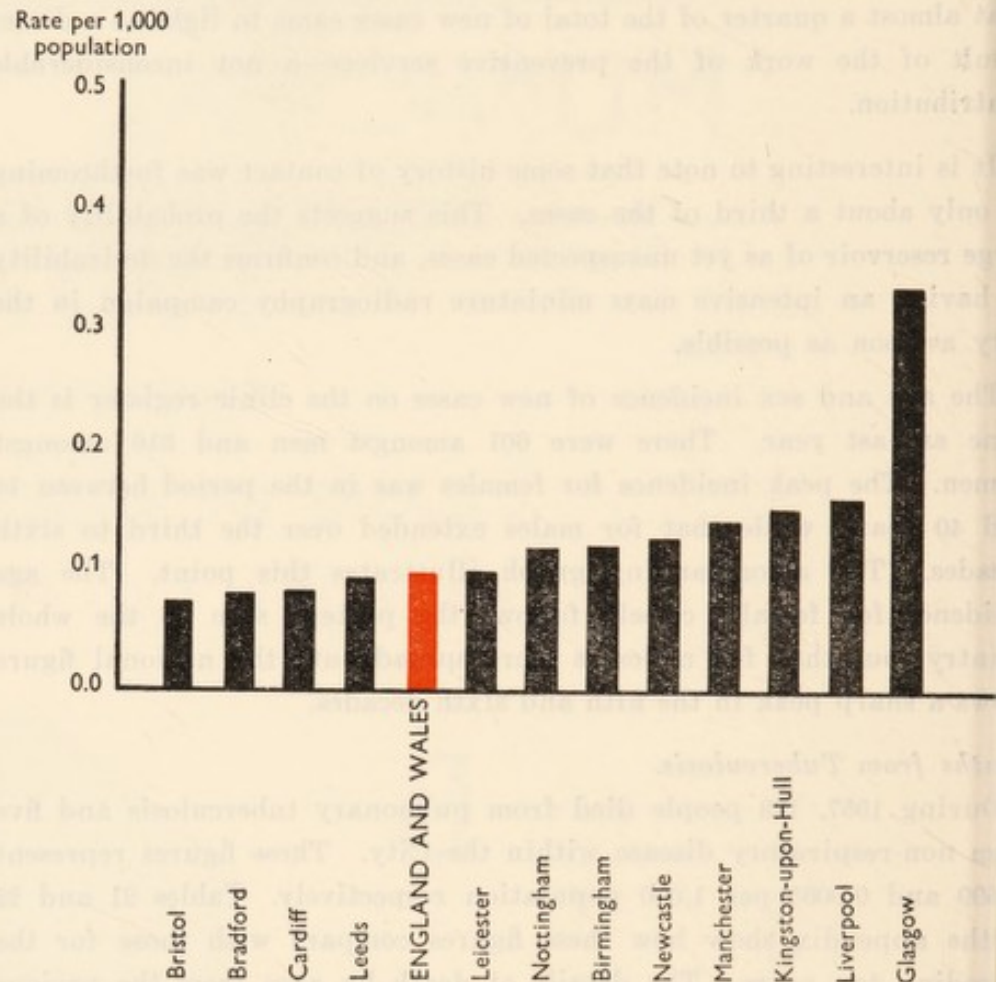
**Morbidity and  
Mortality**

Death rates from respiratory tuberculosis in Liverpool and other large cities in the United Kingdom are compared in the following chart:—

**Comparison  
with other  
Large Cities**



CHART SHOWING MORTALITY RATE FOR RESPIRATORY TUBERCULOSIS FOR A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1957



#### *Prevention of Tuberculosis.*

##### **Tuberculosis After-Care**

The staff of eighteen tuberculosis visitors has continued the same routine visiting system. Each had about 473 cases to look after, approximately two-thirds being quiescent and receiving domiciliary visits twice yearly, while the remaining third, being active cases, were visited every two months. The central allocation of visits has proved to be eminently successful. We can now be sure that all known cases are visited regularly and that time is not wasted in visiting too frequently those which are no longer active. In addition to routine visits, visitors made many special ones, for example: to contacts; following discharges from hospitals; concerning housing applications; because of non-attendance at clinics.

During the year a total of 42,063 visits were actually made, but access was not obtained in 5,400 of these. This compares very favourably with the 1956 total of 32,713. For comparison, the figures for 1953, 1954 and 1955 were 24,093, 28,252 and 29,937, respectively. The number of tuberculosis visitors was, of course, increased from 10 to 18 during this period. However, the full staff of 18 were working for almost the whole of 1956, so that last year's figure represents a very great improvement. In fact, each visitor made approximately 49 visits each working week in 1957.

Additionally, they attended contact clinics, to the extent of rather less than two sessions per week. The clinic work is very important, as the visitors maintain a very useful working contact with the chest physicians and clinic staff.

#### *Tuberculosis and Housing.*

This is a very large problem and would appear to be one which will continue to present itself for years to come. During the year, 941 tuberculosis cases applied to this department for assistance in rehousing and of these, 129 were recommended for special priority. Many more cases were rehoused without priority as the majority of the applicants are already in the allocation group, because of extra points awarded on medical grounds.

**Housing of  
Tuberculosis  
Patients**

Unfortunately the continued high notification rate, coupled with the general housing shortage within the City, means that the list of applicants never gets any shorter. However, with the co-operation of the Housing Department, a steady flow of tuberculosis cases, amongst whom are all those most urgently in need, are being rehoused. Further details on housing matters are to be found in the section on the housing points scheme.

#### *B.C.G. Vaccination.*

The vaccination scheme for school children between the ages of 13 and 14 was continued as in previous years. Vaccination was offered to 11,524 children and 8,214 accepted. These figures were rather lower than last year, when 8,921 accepted out of a total of 13,492. The percentage of acceptors was, however, higher: 71.3 per cent compared with 66.1 per cent in 1956.

**B.C.G.  
Vaccination  
in Schools**

Tuberculin jelly tests were carried out on 7,597 children and 1,413 were definitely positive. The doubtful and negative reactors to the jelly



test were Mantoux tested, and a further 224 were positive to this test. Thus 1,637 of those tested had at some time been infected by tubercle bacilli. The percentage, 21.5 per cent, was lower than in 1956 when it was 28.1 per cent.

All but 70 of those negative to the Mantoux test were vaccinated with B.C.G., a total of 5,564. This was 795 less than in 1956.

**Vaccination  
of New Born**

Vaccination was again offered to babies, delivered at Sefton General Hospital, of non-tuberculous households. Fifty-one per cent of parents availed themselves of the offer and 1,130 babies were vaccinated, 40 fewer than in 1956. The majority of these were brought back for follow-up Mantoux tests and almost 100 per cent were positive reactors after seven to ten weeks. 101 were not tested because of non-attendance at the clinic, while 23 were transferred to other local authorities before skin tests were performed. Complications were confined to a few enlarged axillary glands and persistent ulcers, but no treatment was necessary in any case.

*Compulsory Committal to Hospital.*

**Order under  
Section 172 of  
Public Health  
Act, 1936**

During the year this section of the Public Health Act was enforced in Liverpool for the first time for many years. The section permits Magistrates' Court to order the removal to and detention in hospital of a case of tuberculosis who is in an infectious state; providing that proper precautions cannot be, or are not being, taken to prevent spread of infection; that serious risk of infection is thereby caused; and that accommodation is available in a suitable hospital. The period of detention is originally for three months and extensions may be granted by the court on application by the local authority.

The particular case concerned a patient with positive sputum, living in a common lodging house. He had been in hospital on several occasions but had never stayed to complete a course of treatment. Such action made him especially dangerous, as the possibility existed of his bacilli becoming resistant to anti-tuberculous drugs. When he was threatened with compulsion he again entered hospital and no action could be taken. This happened on several occasions when he was served with notices and each time he left hospital after 2-3 days. The situation was soon reached where no Liverpool hospital would take him in again.

At this stage a bed was arranged for him at the Liverpool Hospital at Frodsham, which was named in a notice served on the patient. This



was too far for him to reach on his own before the case was heard, and on 28th October the Stipendiary Magistrate gave an order committing him to the hospital for three months.

In a case such as this, compulsion was more than justified as the patient was not only a grave danger to other people, but he was putting the staffs of the hospitals to much inconvenience, wasting a great deal of valuable time and money and making a mockery of the preventive health services.

#### *Liverpool Show.*

Tuberculosis was one of the subjects for the Public Health Exhibition at the Liverpool Show, held in the Wavertree Playground during July. Liverpool Show

One side of an 80-ft. marquee was devoted to the subject, the other side being occupied by an exhibition on infectious diseases. There were also smaller sections devoted to Maternity and Child Welfare and Port Health.

The Regional Hospital Board very kindly co-operated with the Department by bringing the No. 4 Mobile X-ray Unit to the ground, in an operational capacity, for the three days of the show.

The exhibition was divided into five sections:—

1. A general indication of the problems presented by the disease.
2. A section dealing with the modern medical treatment of tuberculosis.
3. B.C.G.
4. The work of the tuberculosis visitors and mass radiography.
5. Rehabilitation.

It was impossible adequately to cover all aspects but the material provided a general survey of the subject in terms which were intelligible to the non-medical public. Two tuberculosis visitors at a time were in attendance during the whole period of the Show to answer questions, a great many of which were asked, indicating the interest aroused by the exhibits.

The success of the exhibition was largely due to the generous manner in which all those approached assisted by lending material. Three of the larger firms, The Distillers Co., Burroughs Wellcome & Co., and Smith & Nephew Ltd., produced special exhibits at considerable trouble and expense. These lent a professional touch to the stands and were greatly appreciated.



The Liverpool Regional Hospital Board arranged for the Mobile X-ray Unit to be brought to the ground on Wednesday night and, despite last-minute difficulties, it was all ready for operation when the Show opened at 10 a.m. on Thursday morning. The office was set up at the exit from the marquee, while some large X-ray films and a projector showing miniature films were included in the exhibition to arouse public interest.

Although the response was not quite so good as had been hoped for, the figures in Table 24 in the appendix indicate that the visit was well worthwhile. Of the 1,402 supposedly healthy persons X-rayed during the three days the unit was in operation, four cases of active pulmonary tuberculosis were discovered and one case of cancer of the lungs. The abnormalities found were comparable to the findings in the public at large.

#### *Work of Chest Clinics.*

A statistical summary of the work done at the clinics, so far as all cases on the dispensary registers are concerned, is given in Table 18 in the appendix. The chest physicians and tuberculosis officers have kindly contributed the following reports:—

#### *Dr. Crawley, South Chest Clinic.*

#### **Reports of Chest Physicians**

There has been a significant decrease of 169 in the number of patients on the Clinic Register. In 1955 it appeared that there was reason to anticipate a gradual steady decline in the numbers of new patients found to be suffering from tuberculosis, but 1956 showed a 10 per cent increase to 318. This year the total was 317.

There is obviously no reason for complacency in the incidence of this disease in this area, despite the fact that tuberculosis is now more frequently detected in its earlier stages and less potentially infectious state.

A noticeable feature has been the lessening alarm with which patients receive the diagnosis of tuberculosis. Treatment nowadays may not necessitate sanatorium care, which is generally for a shorter period than formerly, and the anticipation of eventual cure is more firmly and justifiably widespread.

The number of deaths from the disease in this area fell from 58 to 37.

During the year, 1,130, i.e., 51 per cent, of the children born in the Maternity Department of Sefton General Hospital were given B.C.G. vaccination against tuberculosis, with the parents' consent.

It is hoped that the proposed scheme to do a Mass Radiography survey of the whole City population in 1959, will have the full support of the public. In this way, in a few weeks, there will be discovered as fully as possible, the unknown sufferers, who might not be diagnosed through the usual methods for some time.

*Dr. Osborne Hughes, East Chest Clinic.*

During 1957, the increase in the number of patients on our tuberculosis register was less than 100. There seems to be a general feeling that the problem of tuberculosis and its eradication is almost solved.

Our experience, however, does not bear this out in that both as regards mortality and incidence of fresh cases our figures do not show the improvement which has occurred in other parts of the country, or indeed other parts of the Liverpool Region. There must be a considerable reservoir of undiscovered infectious cases and more active measures to find these are necessary.

The continued increase in the number of children given B.C.G. vaccination is encouraging.

Housing problems still abide with us and look like doing so for some years.

*Dr. F. J. Welton, Central Chest Clinic.*

324 new cases of tuberculosis attended the Clinic for the first time in 1957, and this represents an increase of 50 cases over the corresponding figure for the previous year, which had also shown an increase of 38 over that for 1955. This suggests that, in the central area of the City at least, a high incidence of tuberculosis is likely for some years to come. This is to be expected when it is realised that in addition to people living in this densely populated dockland area, the clinic deals with a considerable number of seafarers, many of whom are from countries with a high incidence of the disease. In addition, most of the common lodging houses are to be found in this area, and among the



occupants of these the incidence of tuberculosis is always above the average. Most of the new cases were sent from general practitioners who had availed themselves of the Mass Radiography Service, our most efficient case-finding weapon.

The total attendances at the clinic remained much the same, at 7,474, but the health visitors made nearly 500 more visits to the homes of patients, the total figure for 1957 being 8,613. As a result, 812 contacts were seen at the clinic, but of these, only 19 were found to be definitely tuberculous. On the other hand, 563 B.C.G. vaccinations were carried out, mostly in children, and here again there was an increase (33) as compared with the previous year.

It is, however, quite impossible to make a full assessment of the work of case-finding and contact-tracing by figures alone. In an area such as this, a very large percentage of the work of the clinic staff, especially the health visitors, appears at the time to be unproductive and disappointing. It is only in retrospect that the value of steady persistence can be seen, and this is reflected, in part at least, in the totals already quoted. What cannot be measured in mere figures is equally important. Squalor, prejudice and ignorance need to be met with a sustained and sympathetic educative approach, never easy, and frequently very frustrating. Much help is provided by the many and varied welfare services now available, including the National Assistance and Disablement Resettlement Officers, and the Officers of the Children's and Probation Departments. 151 families were provided with extra nourishment in the form of free milk by the Health Committee during the year. The important part played by the Queen's Nurses in the care of our patients is also gratefully acknowledged. In an area such as this, treatment with anti-tuberculosis drugs at home is regarded as a second-best measure, as compared with institutional treatment, but there is always a number of patients receiving chemotherapy at home who depend on the daily visit of the Queen's Nurse for their injections and other attention.

But in spite of these many forms of help for the tuberculous patient there remains a hard core of unco-operative infectious cases, whose anti-social attitude presents a constant menace to the general population. With the increase in efficiency of treatment, it is now possible

to deal with some of these cases quite effectively, if only adequate treatment can be given for a sufficient length of time. In the absence of the co-operation of the patient, it is, therefore, anticipated that in the future, compulsory powers will be sought more readily than in the past, in order to deal with a public danger. One patient of this type was committed to hospital for a period of treatment under Court Order during the year. Such cases are a very small minority, however, and a great deal of the work of the clinic staff is successfully aimed at gaining the co-operation of patients, a considerable number of whom are at the outset far from willing to accept or act on the advice given. Education and prevention must play an increasing part in the campaign against tuberculosis—a disease whose pattern is changing rapidly both locally and nationally. As a result the liaison between the Public Health Department and the Chest Clinic is being strengthened year by year.

Since the Central Clinic is adjacent to the Chest Hospital, it had for some time retained its old title of Central Tuberculosis Clinic. During 1957, this title was changed to Central Chest Clinic, bringing it into line with the three other similar City clinics, and emphasising the fact that provision is made for the diagnosis and treatment of other respiratory disease in addition to tuberculosis. Lung cancer, bronchitis and bronchiectasis, to mention three conditions, have lately come into more prominence in the public (and medical) mind, and the clinic services aim to meet the needs arising from this widening of its scope. Here again there is a vast field of educative and preventive work to be continued, and although the national figures of incidence and mortality of tuberculosis may continue to decline, it is certain that for many years ahead there will be a great deal of work to be carried out in this Clinic.

*Dr. W. D. Gray, North Chest Clinic.*

The number of patients on the tuberculosis register at this clinic, who live in Liverpool, has fallen from 2,325 to 2,106, but there has been an increase of 191 patients on the Kirkby register, most of whom have been removed out there from Liverpool. The number of new cases notified as suffering from tuberculosis during 1957 has decreased to 230 as compared with 307 in 1956. This fall in new notifications seems now to



be an established trend. It is pleasing to report that 144 names were removed from the register as recovered as compared with 96 in 1956.

The number of attendances at the clinic has increased from 7,282 to 7,380 despite the fact that the number of attendances for refills is down to the new low record of 41. As I pointed out last year, this means in effect an improvement in follow-up care.

There has been a reduction in the number of contacts examined from Liverpool from 760 in 1956 to 642 in 1957, but of those examined in 1957 fifteen were found to be tuberculous. The reduction in the number of contacts can be compared with the reduction in the number of new cases and the contact ratio has therefore actually improved during 1957. The number of tuberculin tests done at the clinic again surpasses our previous figure, having risen from 496 in 1956 to 1,014 in 1957. Of those children tested, 252 were found suitable for vaccination which is an increase of twenty.

Visits by medical officers to patients in their homes have again dropped from 188 in 1956 to 109 in 1957. Most patients on domiciliary treatment are able to attend the clinic by ambulance for their X-rays. The number of visits by health visitors to patients in their homes shows an increase of 656 since last year, indicating a further improvement in follow-up care due to better organisation of the visiting service.

In addition to the ordinary tuberculosis work, the clinic took part in a trial for the use of influenza vaccines in the treatment of chronic bronchitis in the Autumn of 1957. There has been an increase in the number of patients with other chest diseases, referred by their general practitioners.

#### *Mass Radiography.*

#### **Mass Radiography**

The static mass radiography unit at Hood Street, Liverpool, is administered by the Liverpool Regional Hospital Board and deals mainly with persons within the City boundary. Those referred to this unit are derived from three main sources:—

- (a) From firms in the City and adjacent areas;
- (b) National Service Recruits;
- (c) Cases referred by General Practitioners.

Out of a total of 47,046 examinations made during 1957, 29,046 were referred by general practitioners, mainly within the City. The number of National Service recruits examined was 7,824, and 10,176 persons were referred from firms, chiefly in the City and adjacent areas.

The mobile units of the Regional Hospital Board continue to co-operate to the full with the Medical Officer of Health's Department by arranging visits to schools and other establishments whenever a case of tuberculosis has been discovered, with a view to the detection of contact cases. Routine examinations of secondary schools are also carried out.

As in former years, all prospective employees of the City Nursing Services are X-rayed by the static unit at Hood Street before their engagement, and members of the City Engineer and Surveyor's staff who have been exposed, by reason of their occupation, to industrial respiratory infection such as silicosis, are referred to this unit for X-ray. Candidates for employment as schoolteachers are automatically referred before appointment, and the same procedure applies in the case of recruits for the Liverpool City Police.

Arrangements were completed at the end of the year for doctors on the staff of the Health Department to undertake medical examinations of Corporation employees on entry into the service, for superannuation purposes and for extended sickness benefit. All in the first two categories and those with chest conditions from the third are to have chest X-rays and these will be done by the Hood Street Unit.

#### *Tuberculosis Welfare.*

During 1957, 586 cases have been the subject of reports to the National Assistance Board with a view to determining their eligibility for special rates applicable to cases of tuberculosis. The National Assistance Board's review survey of persons in receipt of allowances, requesting confirmation that the individuals are still receiving treatment under the supervision of the Chest Physician concerned, continues.

Liaison is maintained with the Ministry of Labour with a view to assisting in the rehabilitation of suitable cases.

#### *Rehabilitation.*

Summary of cases dealt with during the year 1957:—

Rehabilitation



|                                                                                                                                 |     |
|---------------------------------------------------------------------------------------------------------------------------------|-----|
| A. Total cases referred by Ministry of Labour to Tuberculosis Officers ...                                                      | 487 |
| (a) Examined and found fit for light, part-time or full-time employment                                                         | 474 |
| (b) Not fit for employment ... ..                                                                                               | 3   |
| (c) Failed to attend for examination ... ..                                                                                     | 3   |
| (d) Certified as non-tuberculous ... ..                                                                                         | 7   |
| B. Letters sent by Tuberculosis Welfare Section to patients, offering advice and assistance to obtain suitable employment... .. | 96  |
| Number availing themselves of this assistance and referred to Ministry of Labour ... ..                                         | 45  |
| Total number of cases dealt with under Rehabilitation Scheme by Tuberculosis Welfare Section (A + B) ... ..                     | 583 |
| Actual number of patients reported by Ministry of Labour as placed in employment ... ..                                         | 83  |

In addition to those shown above, eight patients are undergoing rehabilitation at the Tuberculosis Colony, Great Barrow; one patient colonised in 1955 has been repatriated to Hong Kong in December 1957. One patient is a colonist at Papworth Village Settlement.

#### *Notification and Deaths.*

#### **Notification and Deaths**

During the year, 15 persons within the City died from tuberculosis, 11 respiratory and 4 non-respiratory, without notification having been effected prior to death. These figures represent 8.94 per cent of the total respiratory and 80 per cent of the total non-respiratory deaths, a marked increase over last year's figures.

The result of enquiry into the reasons for such failure to notify are summarised in Table 20. The contacts of these cases were called in for examination in the usual way.

#### **Mass Miniature Radiography Survey for 1959**

During the latter part of the year much preliminary work was done, in conjunction with the Liverpool Regional Hospital Board, on the projected survey for the Spring of 1959. This would be similar to the Glasgow and Edinburgh campaigns, some thirty units taking part and operating from headquarters dispersed throughout the City. Many premises were inspected and a number of suitable ones were earmarked. Preliminary arrangements for setting up sector headquarters and publicity centres were also made. The need for such a survey has already been pointed out in an earlier paragraph. Probably in no other way can the existing pool of unknown cases be tapped.

## VENEREAL DISEASES—AFTER-CARE AND WELFARE.

Although the treatment of venereal disease is the responsibility of the Liverpool Regional Hospital Board and the Board of Governors of the United Liverpool Hospitals, the after-care and welfare work associated with these diseases is carried out by the local health authority.

The staff employed to undertake this work consists of a senior male welfare visitor and a female welfare visitor. In addition, the services of the female welfare visitor attached to the Royal Infirmary V.D. clinic are available.

The work entails the interviewing of patients, tracing of contacts, writing to and visiting defaulters from treatment, follow-up of patients for further investigation, who, having been referred to the clinics, have failed to attend, and generally assisting patients where social problems exist, especially so when these would appear to interfere with clinic attendance. At all times, close co-operation with the medical officers of the various treatment centres is maintained.

The following tables covering the immediate pre-war full year and peak year 1946, demonstrate the sustained fall in the incidence of the major disease syphilis, and fluctuation in the case of acute gonorrhoea.

It is of interest to note that of the total 1,059 males during the year under review, 363 only were locally acquired infections, furthermore, a high proportion of this figure concerned other nationals resident within the City and seafarers from other areas, temporarily resident.

### EARLY SYPHILIS

|      |     |     |     | Males | Females |
|------|-----|-----|-----|-------|---------|
| 1938 | ... | ... | ... | 147   | 32      |
| 1946 | ... | ... | ... | 655   | 331     |
| 1955 | ... | ... | ... | 62    | 15      |
| 1956 | ... | ... | ... | 51    | 8       |
| 1957 | ... | ... | ... | 45    | 3       |



## ACUTE GONORRHOEA

|             | Males | Females |
|-------------|-------|---------|
| 1938 ... .. | 1,422 | 141     |
| 1946 ... .. | 3,112 | 422     |
| 1947 ... .. | 1,134 | 272     |
| 1948 ... .. | 1,933 | 174     |
| 1949 ... .. | 1,441 | 159     |
| 1950 ... .. | 1,204 | 140     |
| 1951 ... .. | 1,240 | 113     |
| 1952 ... .. | 1,026 | 133     |
| 1953 ... .. | 910   | 128     |
| 1954 ... .. | 816   | 148     |
| 1955 ... .. | 862   | 287     |
| 1956 ... .. | 932   | 246     |
| 1957 ... .. | 1,059 | 241     |

*Contact Tracing.*

The number of contact notifications received during the year under review showed a considerable decrease on the figure for the year preceding—110 as compared with 232. Unfortunately, this fall is not reflected in the incidence of acute infection in the case of gonorrhoea.

All notifications concerned female contacts and with few exceptions were received from American service bases, principally those in the United Kingdom, but in some instances from abroad. The proportion of traced contacts remains unsatisfactory but is due mainly, as in past years, to a lack of useful information to assist tracing. In no instances did a traced contact refuse to attend for investigation, nor did any requiring treatment refuse such.

Results of Tracing are shown in Table A.

TABLE A.

|                                                                           | Notifications | Individuals |
|---------------------------------------------------------------------------|---------------|-------------|
| No. of notifications received ... ..                                      | 110           | —           |
| No. of cases traced and interviewed ... ..                                | 25            | 25          |
| No. of cases traced, not yet interviewed ... ..                           | 7             | 4           |
| No. of cases who reported for investigation ... ..                        | 25            | 25          |
| No. of cases in which information was passed on to other Authority ... .. | —             | —           |
| No. of cases already in the Register of a Liverpool Clinic ...            | 3             | 3           |
| No. of cases untraced, due mainly to insufficient information...          | 78            | —           |
| No. of cases who refused to attend for investigation ... ..               | —             | —           |

*Patient Defaulters.*

At first, or subsequent attendance, according to individual requirements, patients are advised to continue to attend the clinic until assured of effective cure, or completion of investigations where no active treatment is considered necessary. Many ignore the advice given and default, but respond, to a fair degree, following correspondence or home visit.

As in most spheres of follow-up there would appear to be a hard core of defaulters, fortunately in the sphere of venereology it comprises almost entirely patients who have received sufficient treatment to render the condition non-communicable, but lacking sufficient surveillance to satisfactorily establish effective cure.

Results of correspondence and home visits are shown in Tables B and C respectively.

TABLE B.

|                                                      | Male | Female | Con-<br>genital | Total |
|------------------------------------------------------|------|--------|-----------------|-------|
| No. of cases written to ... ..                       | 516  | 797    | 115             | 1,428 |
| No. of letters despatched ... ..                     | 547  | 1,508  | 143             | 2,198 |
| No. of cases reporting after receipt of letter... .. | 267  | 489    | 84              | 840   |
| No. of letters returned—Dead Letter Office ... ..    | 31   | 41     | 4               | 76    |
| No. of cases traced and transferred ... ..           | 5    | 7      | —               | 12    |

TABLE C.

|                                                                               | Male | Female | Con-<br>genital | Total |
|-------------------------------------------------------------------------------|------|--------|-----------------|-------|
| No. of cases visited ... ..                                                   | 189  | 302    | 22              | 513   |
| No. of visits made ... ..                                                     | 367  | 847    | 73              | 1,287 |
| No. of cases attending following visits ... ..                                | 83   | 147    | 17              | 247   |
| No. of cases promising to attend but failing to do so ... ..                  | 26   | 31     | 3               | 60    |
| No. of cases removed, or not known at address given ... ..                    | 29   | 67     | —               | 96    |
| No. of cases not contacted, no access, away from home, etc. ... ..            | 43   | 25     | 2               | 70    |
| No. of cases who refused to re-attend ... ..                                  | 6    | 17     | —               | 23    |
| No. of cases removed to other districts, and transferred for follow-up ... .. | —    | 14     | —               | 14    |
| No. of cases deceased ... ..                                                  | 2    | 1      | —               | 3     |



*Patients referred by Ante-natal Clinics.*

Of the 29 patients referred for further investigation following doubtful serology at ante-natal clinics, 13 were proved to be non-specific and discharged. Family investigation following diagnosis in one case brought to light 2 apparently healthy children, aged 9 and 2 years, suffering from congenital syphilis, who thus were brought under treatment as a result of the action taken by the ante-natal clinic in the case of their mother.

In each of 2 further cases following diagnosis, the husband was found to be suffering from latent syphilis, not previously diagnosed, and accordingly placed under treatment at a clinic. The value of case-reference by ante-natal clinics is thus clearly demonstrated for in all, 20 cases requiring treatment were brought to notice.

Classification of ante-natal patients referred are shown in Table D.

TABLE D.

|                                                                        | Congenital Syphilis | Early Syphilis | Late Syphilis | Acute Gonorrhoea | Non-Venereal |
|------------------------------------------------------------------------|---------------------|----------------|---------------|------------------|--------------|
| Cases referred by ante-natal clinics found to be suffering from ... .. | 2                   | —              | 13            | 1                | 13           |

*General After-care.*

Much time has been given over to assisting patients to resolve their various problems. In the case of contacts every encouragement has been given in an effort towards rehabilitation, and where practical assistance has been possible, it has been readily given.

This sphere of welfare work inevitably necessitates frequent contact with both statutory and voluntary organisations; at all times the maximum co-operation is given, and in the patients' interest, also sought.

## MENTAL HEALTH SERVICE

The year's outstanding event in mental health administration has been the publication of the report of the Royal Commission on the law relating to mental illness and mental deficiency and in the following pages some of its recommendations which apply specially to local health authorities are discussed in the light of our experience in Liverpool.

Royal  
Commission  
Report

The report has, with justification, received much praise, and there is at the moment, some tendency to undervalue the existing services. It is therefore opportune to state that many thousands of patients have been and are being dealt with discreetly and humanely by the Health Department's officers under the present law. It is the element of compulsion and detention now existing which is chiefly the subject of criticism, especially in the Press, and as a good deal of the Health Department's work is concerned with this element it is well to realise that the Commission does not attempt to do away with compulsion and detention but rather to shift the weight of responsibility for imposing them away from the layman. Again, the Commission feels that, under their proposals, the cases needing compulsion and detention would be greatly reduced in number and all will agree that legislation must have this aim in view, but the difficulties of informal admission and care must be fully borne in mind.

The Health Department's work falls under four headings each of which will now be considered in turn from two aspects—how it has been carried out during the year and how it might be affected if the Royal Commission's proposals became law.

### Mental Illness—Care and After-Care Duties.

At 31st December, 1,094 people, chiefly patients returned to their homes after hospital treatment for mental illness, were being visited by officers of this department. There is a continuous process of change as those newly returned to the community take the place of those who no longer need support but the overall number remains fairly constant. Visits and interviews totalled 5,462 in the year and 886 new patients were referred.



At present all discharges are notified by the hospitals. The Commission seem to suggest that such automatic notification is not desirable but it must be said that many ex-patients are helped at present who have made no request for after-care and who have no positive desire to receive it until actually being visited by a mental welfare officer.

#### Expansion of Community Work

In the words of the report "A general reorientation away from institutional care in its present form and towards community care" is one of the keystones of the Commission's policy. Specifically they suggest that many mentally disturbed people now in hospitals could be discharged and accommodated in hostels run by local health authorities, that training and social facilities should be increased, and that patients in hospital and their families also should be visited. In all this, the Commission say "the central direction of the community services . . . should be in the hands of the Medical Officer of Health".

In previous annual reports the Medical Officer has suggested that the importance of the part played by community care in recovery from mental illness, as compared with hospital treatment, has been undervalued and it is agreeable to record the Commission's emphasis on this point.

One point that seems quite certain is that, though a very substantial staff is already employed on community work in Liverpool it will need to be considerably augmented if the recommendations become law.

#### Employment

The engagement of an officer devoting his whole time to finding employment for ex-patients who meet difficulty in obtaining it through the usual channels has continued to be justified. 351 patients were on his register at the end of the year as compared with 324 at 1st January. 44 posts were found and in 15 other cases people found posts themselves following advice from this Service.

Mentally defective people are also helped but the service here suffers through the inadequacy of the present facilities for industrial training at training centres. This point is dealt with in more detail on page 86.

The following two cases exemplify particular problems:—

Miss A., aged 48, suffers from epilepsy and has been somewhat unstable mentally for several years. Following her mother's death

the instability took a violent form and she was admitted to hospital. After four months she had improved enough to be regraded as a voluntary patient and she then remained for a further year. During the latter part of this she was given leave of absence and the service was asked to try and find work for her. A post as hospital wardmaid was found and the hospital discharged her. She has retained her post for eight months and seems to have made a good recovery. The point here is that without employment it would probably not have been possible to discharge the patient into the community.

Mr. B., aged 52, was classed as mentally defective. His parents were well-to-do but apparently took little interest in him and he went to Canada when young. He was, however, deported following conviction for arson and further convictions followed on his return to England. He was at length admitted in 1928 to Rampton State Institution where he had a somewhat chequered career and remained until 1955 when he was tried on licence. The first trial failed and the Board of Control then asked Liverpool to give him a further trial (though he was not a Liverpool man) because it was felt our employment service provided special facilities. Employment and lodgings were, in fact, found and after retaining his job for over a year Mr. B. was discharged from the Order under the Mental Deficiency Acts in June, 1957.

This patient gives an impression of normality, sustaining a conversation and reading and writing well enough; on the surface it is difficult to see why he has been dealt with as mentally defective, but the supervising officer has had to spoon-feed him, make his decisions, encourage and warn him constantly. He is lacking in ordinary wisdom, foresight and sustained will. Recently he has been in difficulty with his employer, and but for the latter's understanding would have lost his job. He remains friendly with our employment officer but shows no gratitude and only visits when he has some trouble to be smoothed over. An uneasy and unsettled voluntary supervision thus continues but it would be unwise to be too optimistic about the future.

This case has been described at some length as it shows well the problems of the higher-grade defective who may even appear normal and yet is liable to fail without support.



# Review of Post- Leucotomy Cases

At the request of Rainhill Hospital a review was carried out of 58 patients who had been discharged between 1950 and 1957, following leucotomy operations and who had been referred for after-care. The results of the review were summarised as follows:—

|                                         | Males. | Females. | Total. |
|-----------------------------------------|--------|----------|--------|
| Total recovery ... ..                   | 4      | 4        | 8      |
| Social recovery ... ..                  | 9      | 6        | 15     |
| Greatly improved ... ..                 | 3      | 8        | 11     |
| Family invalid ... ..                   | 1      | 1        | 2      |
| Family burden ... ..                    | 3      | 1        | 4      |
| Not known ... ..                        | 6      | 5        | 11     |
| Not assessed yet ... ..                 | —      | 1        | 1      |
| Readmitted and still in-patients ... .. | 2      | 4        | 6      |

The categories were defined as follows:—

Total recovery:—freedom from symptoms, return to former or equivalent work and social adjustment.

Social recovery:—return to former social environment and work in spite of minor symptoms of original illness or sequelae of operation.

Greatly improved:—not amounting to social recovery but sufficient to enable patient to live outside hospital so long as financial support and some supervision is provided.

Family invalid:—showing well-marked symptoms of original illness or attributable to operation but manageable at home because of their mild quality.

Family burden:—completely dependent and needing constant care—would be in hospital but for devotion and/or financial resources of relatives.

## Prevention

Most of the many and varied causes of mental illness are outside the scope of the Health Department except in the wide sense that all health

services seek to improve the health of the population. Health education (dealt with elsewhere in the report) is at present one of the chief means by which the department can help to prevent mental illness. After-care certainly helps to prevent the recurrence of the illness and the few patients referred who know they are ill but will not accept hospital or clinic treatment are aided as much as possible and perhaps a more serious breakdown is sometimes prevented in this way.

### **Care and Training of Mentally Defective People in the Community.**

The present law relating to mental deficiency is quite different from that about mental illness. The Royal Commission propose legislation which will assimilate both in one statute and also proposes new terminology under which the term mental defective will disappear.

There is certainly confusion in the public mind at present about the two and it would be wise to be quite clear that we have two different problems to deal with; mental defectives are those who have been severely handicapped mentally generally from birth or early years, as distinct from the mentally ill who have been normal and may become so again.

At 31st December, 3,185 Liverpool people were on the register of the **Supervision** mental health service as being mentally defective, 1,320 of them in hospitals, 1,865 in the community. Those in hospital are the responsibility of the Regional Hospital Boards but a good deal of work is done on the Boards' behalf in visiting relatives, arranging holidays and reporting when the renewal of Orders falls due for consideration.

The main work is, however, among those living in the community who are visited a minimum of twice yearly and more frequently if required. 7,454 home visits were made during the year, the highest number since the service started. In 60 cases a formal decision to cease visits was made.

"Statutory supervision," under which most defectives in the community receive visits, is not an easy concept for the public to grasp. Only those defectives who have been "ascertained" as "subject to be dealt with" (i.e., liable to be admitted to a mental deficiency hospital or guardianship under certain circumstances) are placed under "statutory supervision". Other defectives can be supervised voluntarily.



But in practice it is impossible to enforce statutory supervision if parents refuse to co-operate so that the general use of voluntary supervision—as envisaged by the Royal Commission—will not create many new problems. Nevertheless the position is not satisfactory. The few unco-operative parents are often themselves mentally backward or unstable and in these cases, where the need is greatest, supervision fails, for only when a child gets into trouble is the service able to intervene. In particular the supervision of Special School leavers, a very useful service, has become very difficult—and even more so since the Board of Control, reversing previous directions, decided that these backward adolescents are only subject to be dealt with at the moment of leaving school.

It is interesting to note that only 32 children were notified as ineducable this year, the lowest number since the service started. 111 were notified as being in need of supervision after leaving school.

**Hospital Care** Paradoxically, though community care is one of the chief principles in the Royal Commission's report, the shortage of places in institutions remains one of the chief problems in mental deficiency in Liverpool.

The number of vacancies given was higher than in 1956 and the urgent section of the waiting list showed a welcome, if slight, reduction, but the shortage continues and 23 most urgent cases have been on the list over 3 years. The full figures are shown in Table 27.

The Royal Commission is concerned to do away with the formal compulsory procedure for admitting defectives to hospital and retaining them there. The year has, in fact, seen some reflection of this principle in that of the 60 admissions to mental deficiency hospitals 17 were under Section 3 of the Mental Deficiency Act, i.e., by the most informal procedure permitted under the present law. In the previous year there were no admissions of this type.

**Training** In the last annual report concern was expressed at the inadequacy of the facilities in Liverpool for training defectives. The three existing training centres were full and there was a large waiting list. It was hoped that the long standing project for new accommodation would come to fruition in 1957.

Unfortunately this hope has not been realised and the position to-day is more serious than ever. No progress has been made on the project to build a centre and though many existing buildings were viewed during the year few were found suitable. In no case could a purchase be carried through (one owner refused to sell when the purpose of the sale was made known to him).

It is a prime necessity to carry on the training of children rejected from the school system (i.e., referred as ineducable) without any delay but the needs of the adolescents and adults are no less important. Many of the higher grades are capable of simple employment and, as mentioned earlier, the department's employment officer tries to find them jobs. A special centre would greatly assist him and have as its objects:—

- (a) to fit men for work in the community.
- (b) to afford work in sheltered conditions for those not quite able to compete in the labour market.
- (c) to give less intensive training and recreation to those of lower grade who would otherwise be completely idle.

At present older boys and men are trained at Princes Road Centre which also houses younger children and adult females and though good work is turned out the results fall far short of what would be possible with more space, better classification and separate premises. The highest grade of defective would, it is hoped, then be attracted to the training and a regular flow into outside jobs might become possible.

The year has, in fact, been one of frustration and certainly the department must be open to criticism if further training provision is not made in the near future.. Fortunately at the end of the year some prospect exists that cottages at Fazakerley Cottage Homes may become available for adaptation as training centres. Acquisition of these would go a long way to solving this very serious problem.

Much excellent work has been done by the staff of the three existing centres and annual displays and exhibitions of work were evidence of the progress made by the children. At Dovecot Centre equipment was installed to enable older girls to be trained in laundering and this is now part of the curriculum at the three centres.



It is interesting to find that the Commission agrees that training should continue to be a function of the Health rather than the Education Department and that attendance should be compulsory instead of voluntary as at present.

**Guardianship** 65 patients were under guardianship at the end of the year. Of these 8 were receiving monetary allowances. During the year 2 cases ceased to receive allowances on reaching the age of 16 (when a National Assistance allowance became payable). Allowances over the year totalled £264.

The Royal Commission proposes that the principle of guardianship should be extended to enable local health authorities, as bodies, to undertake guardianship, not only of mental defectives but of mentally ill patients. This suggestion has not received much publicity but could be of considerable importance.

**A difficult case**

The following history is given to illustrate some of the difficulties of mental deficiency work in the community:—

It involves three defectives—Dora and Jean, adolescents, and Donald, aged 30. Donald was in a mental deficiency hospital from the age of 15 to 23. He had many holidays at home, then was allowed long licence and after two short periods of employment he remained at home for two years idle, feckless, dirty and irresponsible. At length he was persuaded to attend a training centre but there he adopted an aggressive "spiv" attitude which disrupted the class; after 12 months he refused to attend any longer. All this time reports were sent to the hospital about his conduct, but a year ago the Order under the Mental Deficiency Act was suddenly discharged by the Board of Control without reference to the Health Department.

Dora attended the same training centre for many years and was there when Donald attended. She is irresponsible, cannot read or write and is facile in emotional display. She is now pregnant and though he denies responsibility there are various pointers to Donald; for instance, a note in a suspiciously ill-formed hand was recently tossed into Dora's backyard saying "When we have our baby we'll teach him to rock and roll".

Jean, also very irresponsible, is a friend of Dora and got to know Donald through her. She has the mind of a child of 10 but she managed to get through a special school and was not "notified"; supervision is therefore on a voluntary basis. Her parents are divorced and her mother, remarried, is living in New York, Jean being in the care of her grandmother. She is "staying out till all hours" and is being unsettled by letters from her mother enclosing money and criticising the grandmother. At the training centre she works well under supervision but employment is considered out of the question. Recently after having been seen in a shop doorway with a man she arrived home in a dishevelled condition late at night. The man was found later to have been Donald.

It would take too much space to detail all the visits made and warnings given by officers of this department; for the same reason, the poor home backgrounds (a relevant factor in nearly all these cases) cannot be fully described. It is hoped, however, that enough has been said to show how difficult is supervision in the community where relatives do not or cannot co-operate fully. Dora with her baby, Jean with her lack of willpower and Donald with his promiscuity—there seems little cause for confidence in the future of these three and in Donald's case, particularly, the prospect of further difficulty seems obvious, now that the deterrent effect of a possible revocation of licence has been lost.

Legislation must take account of the many people similar to these—they may look normal in a crowd and they have normal instincts but they lack the ordinary insight and foresight which are necessary for true independence. They need support and often control for their own benefit as well as that of the community.

The admission of defectives to residential accommodation for short periods has continued to be of great benefit to parents, who are thus enabled to obtain temporary relief from the constant strain they are under.

Short-term  
Care

Voluntary Homes (chiefly Orchard Dene) provided a total of 109 weeks' stay for 44 patients and Regional Board Hospitals 184 weeks, also for 44 patients.



In 1956 the figures were:—Voluntary Hospitals 114 weeks for 51 patients, Regional Board Hospitals 170 weeks for 56 patients.

### Hospital admission of mentally ill people.

The duty of visiting people referred as in urgent need of attention because of mental illness is the department's responsibility under the Lunacy Act, 1890. The word "lunacy" and the age of this Act give it an archaic flavour and certainly much in it is out of date. It is contended, however, that Section 20, the important section by which duly authorised officers of the department are enabled to take patients to hospital as an emergency measure, is by no means outmoded and works very well in practice.

#### Section 20

Of 1,247 patients referred in 1957 (see Table 28 for details) Section 20 action was used in 773 cases, of whom 386 were subsequently the subject of a summary reception order made by a justice of the peace detaining them compulsorily in hospital.

The Royal Commission proposes the whole of the Lunacy Act shall be repealed, that all patients not actively unwilling to accept treatment shall be regarded as willing and admitted informally (unless they lack volition and their relatives object), and that where compulsion remains necessary it shall be by medical recommendation.

The Commission perhaps tends to underplay the term compulsion; it is felt that, whether by magisterial "certification" or medical "recommendation," compulsory procedure will remain necessary in a substantial number of cases. The high number of Section 20 admissions mentioned above exemplifies this; the duly authorised officer in every case tries to use non-compulsory procedure but the facts must be faced not only that a large number of emergency cases occur but that the medical condition is not the only factor to be considered. As an example the following case in which a duly authorised officer was commended by the Committee for his fortitude, may be cited:—Called out by a doctor, the officer was questioning the patient when the latter suddenly took out a knife and made a determined attempt to cut his own throat. The officer grappled with him and was cut on the hand and wrist. Both patient and officer bled profusely but despite weakness through loss of blood the officer rendered first-aid and probably saved the



patient's life. After arranging for an ambulance to take the patient to hospital the officer fainted and was himself also taken to hospital for necessary treatment.

It seems fairly clear that, though the responsibility of the duly authorised officer to admit patients will disappear under the Commission's recommendations, this type of work will not change very much. Under his new title of mental welfare officer he will still have, even though fortified with a medical recommendation, the physical task of dealing with the patient with its attendant dangers and need for tact and expert knowledge.

**Future of the  
D.A.O.**

A further matter affecting the work of local health authorities is the proposal that the mentally sick who are no longer under active treatment and do not need continuous hospital care but who have no home to go to, should be discharged from hospitals and become the responsibility of the local health authority in small hostels where they would not be precluded from living at least a semi-community life. It is thought there may well be many thousands of people of this kind now in mental hospitals and most people will agree wholeheartedly with the Commission's proposals in principle. Local health authorities may, however, need reassurance on two points, *viz.*, the financing of what may be very expensive building projects, and the dividing line of responsibility between their duties and those of regional hospital boards.

**Hostels**

### **Health Education (Mental Health Service).**

The most obvious need in educating public opinion in mental health matters is to rid it of the notion that dies so hard—that mental illness carries a stigma. The Royal Commission has had this need well in mind and perhaps new legislation is necessary to strike the final blow. It has been the constant aim of the department's officers to give the public a realistic view of the matter, not only in formal lectures but in conversation with patients and relatives. A brochure describing the department's work has also been circulated widely during the year.

**Health  
Education**

Workers in other branches of social service have taken part with mental welfare officers in home visiting and have seen children at training centres. These workers all encounter mental health problems



in their own fields and their experience with the mental health service should thus be useful to them. Officers of the department also participated in a discussion group sponsored by the University to consider the Royal Commission's report.

### Conclusion

It may be thought that this report has given undue space to what are as yet only proposals for changes in legislation. There are, however, indications that the Royal Commission's recommendations, unlike those of many other Commissions in the past, will not be shelved and that legislation will be introduced which will broadly follow the pattern they lay down. It is thus important to recognise the fact that the local health authority is likely to be asked to play a greatly increased part in mental health administration in the future.

In conclusion the Medical Officer would like to add his tribute to the many already paid to the Royal Commission's work. On such a controversial subject it would be impossible to please all people at all points but the broad sweep and clarity of the report and its enunciation of progressive principles towards which public opinion has been tending in recent years have made it one of the outstanding social documents of our time.

## AMBULANCE SERVICE.

For the first time for many years, the number of patients conveyed by the Ambulance Service showed a slight decrease. The monthly figures when compared with the previous year fluctuated between increase and decrease. Whilst the summer months showed an increase the winter months revealed a slight decrease. The total number of patients moved during 1957 was 213,031, a decrease of 0.3 per cent, representing 687 patients.

The ambulance vehicles travelled 959,342 miles using 69,668 gallons of petrol and 1,208 gallons of diesel oil. Since 1949, the Service has operated old vehicles which were known to be uneconomical, but it was considered wise to replace the vehicles gradually over the years. The ultimate aim being to reach the stage when only a small number of vehicles would require replacing each year. The majority of the old and high powered vehicles have now been replaced with vehicles having smaller powered engines. This has resulted in a yearly decrease in petrol consumption. The introduction of more ambulances fitted with diesel engines is also proving economical. A consumption of 30 miles per gallon is obtained as compared with 16 miles per gallon with a petrol engine. In addition a rigid system of servicing and maintenance is carried out. At regular intervals the vehicles are carefully examined by a skilled mechanic and from the report, preventative maintenance undertaken. A monthly performance record is maintained for every vehicle and is examined by the Chief Officer who takes all necessary steps to rectify any poor results.

The average mileage per patient was 4.5, a decrease of .1 on the previous year. In 1948 the average miles per patient was 8.89 and the decrease is accounted for by the volume of work, the transporting of patients in larger numbers at one time and radio telephony.

There is now every indication that maximum demand in the use of the Service is close to being reached.

The necessity for more co-operation between local health authorities is essential and much can be done by Ambulance Officers in working together without a rigid application of boundaries.



# **Communi- cations**

The Headquarters switchboard with six exchange lines has proved adequate. Four large Hospitals, the Police Control Room and Emergency Bed Bureau are connected by direct lines. One telephone Switchboard Operator and two female telephone attendants are employed to cover the message room from 7 a.m. to 11 p.m.

Radio Telephony continues to play an important part from an efficiency and economical view point. Thirty-six ambulances and two sitting case cars are equipped with mobile sets and has enabled dead mileage to be cut to a minimum. Additional equipment is on order to provide for further mobile sets and a second base transmitter/receiver.

# **Removals to Places Outside the City**

The large number of specialist hospitals in this City providing treatment to patients from distant places presents a problem when the patients are ready to return to their homes. The ambulances from contiguous authorities bring patients into Liverpool hospitals daily, and arrangements have been made for their own patients to use the returning vehicles. The return of patients to more distant places is not so easy and every effort is made to use returning vehicles. Meetings of representatives of North Wales authorities and authorities covering hospital centres have been held and a scheme of co-operation adopted. Drivers of North Wales ambulances bringing patients to Liverpool accept instructions from Liverpool Ambulance Control and the vehicles are used for patients returning to their homes, regardless as to whether the address is within the area of the authority operating the ambulances. The scheme is working successfully and 90% of the patients returning to North Wales are now conveyed in returning vehicles.

If a through service is available, arrangements are made for patients to travel by train. The co-operation of the staff of British Railways has been very much appreciated.

Transport of patients arriving from overseas and requiring transport to distant places has decreased. When required, train transport is used for this purpose.

Special reserve equipment consisting of first-aid materials, stretchers and blankets has continued to be held in reserve for any major civilian disaster.

**Major  
Civilian  
Disasters**

The transport of infectious patients continues to be dealt with by a separate staff and vehicles. The demand upon this section has decreased considerably and the main work is concerned with transport for tubercular patients.

**Infectious  
Patients**

The vehicle fleet now totals 76 vehicles, consisting of 50 stretcher ambulances, 16 sitting case ambulances and 10 sitting case cars. The staff of 118 male and 20 female drivers/attendants perform duty on a rota system covering one main station, two ambulance stations, and four accident stations, and providing a minimum of eight fully manned ambulances throughout the night and the balance between 7 a.m. to 11 p.m.

**Resources  
Available**

Whilst practically all the driver/attendants are qualified in first-aid, it was considered desirable to encourage them to a better standard. A team was entered in the Ambulance Competition organised by the National Association of Ambulance Officers.

A new depot in the North area of the City to accommodate ten vehicles has been completed and opened during the year. Further planning will provide for small accident stations in the South and East.

During the year five new stretcher ambulances and one sitting case car were purchased.

The new stretcher ambulances are fitted with B.M.C. 3.4 diesel engines. Patients have been invited to comment relative to noise and smell, but no adverse comments have been received. The machines are extremely economical in fuel consumption and require considerably less maintenance.

Provision has been made for premature babies to be carried in a heated cot. The cot consists of a strong wood box measuring 30 in. long,



18 in. wide, 15 in. deep and all inside corners are fitted with round moulded beading to facilitate cleaning. A strong canvas sling is suspended in the box from metal rods running along each side. Pockets in the sides and foot of the sling hold five hot water bottles (two at each side and one at the foot). A plastic mattress is fitted in the bottom of the sling. These cots have proved extremely valuable when dealing with special cases.

All accident ambulances are fitted with Oxygen Therapy Flowmeter Outfits and polythene masks used for each individual patient. In addition a Stephenson Minuteman Resuscitator was purchased this year and is held centrally.

#### **Liaison with Hospitals**

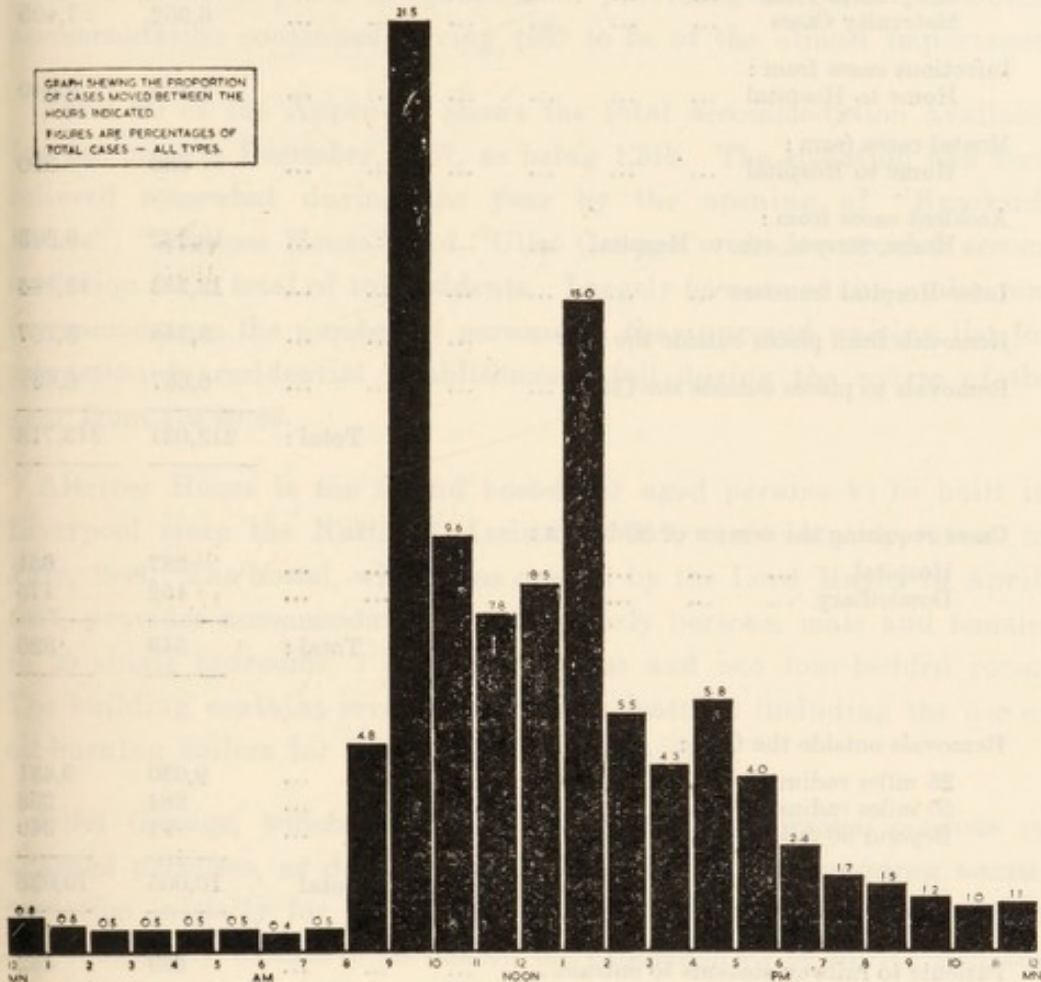
It is very essential to maintain a close liaison with hospitals. Very few of the Hospitals have appointed a Transport Officer as recommended by the Ministry of Health, and care is necessary in accepting requests from unauthorised individuals. Difficulty is still experienced in calls from the Emergency Bed Bureau indicating urgency when the degree of urgency is found to be negligible. The beds available for maternity cases would appear to be inadequate. On many occasions the Ambulance Service has been required to convey patients as far as twenty miles to a Maternity Hospital because the local ones have been full. Not only is this uneconomical, but increased the risk of a birth in the ambulance.

#### **Out-Patients**

The fleet of sixteen sitting case ambulances have been able to cope with the large numbers of persons receiving out-patient treatment. The system of collecting up to twelve patients from one district at the same time has made it possible for patients to arrive for treatment at reasonable times. The return trip to their homes is not so easy and sometimes individuals are required to wait longer than is desirable.

The hourly demand on the ambulance service work is shown in the following graph.

GRAPH SHOWING THE PROPORTION OF CASES MOVED BETWEEN THE HOURS INDICATED. FIGURES ARE PERCENTAGES OF TOTAL CASES - ALL TYPES.



A disastrous fire occurred at the Central Ambulance Station in Fire October. Seven ambulance vehicles were completely destroyed and seven others considerably damaged. The building was partially destroyed.

Many offers of assistance were received and very much appreciated.



## STATISTICAL REPORT

|                                            |     |     |     |     |     |     | YEAR<br>1957 | YEAR<br>1956 |
|--------------------------------------------|-----|-----|-----|-----|-----|-----|--------------|--------------|
| Non-infectious cases from :                |     |     |     |     |     |     |              |              |
| Home to Hospital                           | ... | ... | ... | ... | ... | ... | 92,953       | 92,347       |
| Hospital to Home                           | ... | ... | ... | ... | ... | ... | 75,507       | 75,692       |
| Maternity Cases                            | ... | ... | ... | ... | ... | ... | 6,952        | 7,405        |
| Infectious cases from :                    |     |     |     |     |     |     |              |              |
| Home to Hospital                           | ... | ... | ... | ... | ... | ... | 4,463        | 5,049        |
| Mental cases from :                        |     |     |     |     |     |     |              |              |
| Home to Hospital                           | ... | ... | ... | ... | ... | ... | 566          | 390          |
| Accident cases from :                      |     |     |     |     |     |     |              |              |
| Home, Streets, etc. to Hospital            | ... | ... | ... | ... | ... | ... | 10,202       | 9,603        |
| Inter-Hospital transfers                   | ... | ... | ... | ... | ... | ... | 12,383       | 13,194       |
| Removals from places outside the City      | ... | ... | ... | ... | ... | ... | 3,348        | 3,207        |
| Removals to places outside the City        | ... | ... | ... | ... | ... | ... | 6,657        | 6,831        |
| Total :                                    |     |     |     |     |     |     | 213,031      | 213,718      |
| Cases requiring the service of Midwives :  |     |     |     |     |     |     |              |              |
| Hospital                                   | ... | ... | ... | ... | ... | ... | 387          | 651          |
| Domiciliary                                | ... | ... | ... | ... | ... | ... | 162          | 175          |
| Total :                                    |     |     |     |     |     |     | 549          | 826          |
| Removals outside the City :                |     |     |     |     |     |     |              |              |
| 25 miles radius                            | ... | ... | ... | ... | ... | ... | 9,630        | 9,431        |
| 50 miles radius                            | ... | ... | ... | ... | ... | ... | 284          | 258          |
| Beyond 50 miles radius                     | ... | ... | ... | ... | ... | ... | 91           | 349          |
| Total                                      |     |     |     |     |     |     | 10,005       | 10,038       |
| Patients to railway stations to entrain... |     |     |     |     |     |     | 639          | 432          |

## VEHICLES

| Ambulances                 |        |     |     | Mileage<br>covered | Gallons<br>used |
|----------------------------|--------|-----|-----|--------------------|-----------------|
| Non-infectious             | Diesel | ... | ... | 32,636             | 1,208           |
|                            | Petrol | ... | ... | 435,852            | 38,774          |
| Infectious                 | ...    | ... | ... | 58,851             | 5,472           |
| Accident                   | ...    | ... | ... | 54,055             | 4,847           |
| Sitting case cars          | ...    | ... | ... | 163,864            | 7,022           |
| Sitting case ambulances... | ...    | ... | ... | 214,084            | 13,553          |
| Total                      |        |     |     | 959,342            | 70,876          |

## WELFARE SERVICES

### Residential Accommodation.

As in previous years the problem of providing adequate residential accommodation continued during 1957 to be of the utmost importance.

Table 29 of the Appendix shows the total accommodation available for use on 31st December, 1957, as being 1,312. The situation had been relieved somewhat during the year by the opening of "Brookside House", "Altcross House" and "Ullet Grange", which provided accommodation for a total of 102 residents. Largely because of this additional accommodation the number of persons on the approved waiting list for admission to residential establishments fell during the course of the year from 176 to 90.

Residential  
Accommoda-  
tion

Altcross House is the second hostel for aged persons to be built in Liverpool since the National Assistance Act came into operation in July, 1948. The hostel, which was opened by the Lord Mayor in April, 1957, provides accommodation for 57 elderly persons, male and female, in 39 single bedrooms, 7 double bedrooms and one four-bedded room. The building contains several interesting features including the use of oil-burning boilers for the central heating system.

Ullet Grange, which accommodates 27 elderly persons, consists of adapted premises, as does Brookside House which is providing accommodation initially for 18 persons. At the latter premises the grounds are sufficiently extensive to enable an extension to be built; and the proposal having been approved by the Minister of Health, the City Architect and Director of Housing has prepared plans for the construction of an annexe to accommodate 23 persons.

During the year, 508 persons were admitted to residential accommodation and from particulars contained in Table 30 it will be seen that 101 houses and flats were vacated which became available for families in urgent need of housing accommodation.

The programme of upgrading this large establishment, which had been interrupted because of the "credit squeeze", was resumed following upon the granting by the Government of a loan sanction to proceed with the adaptation of two more units known as Houses 3 and 4. The

Westminster  
House



necessary work was completed towards the end of the year and arrangements made for the installation of modern furniture and equipment.

In the meantime, the Minister of Health had expressed his willingness to sponsor an application for loan sanction in connection with the adaptations of a further unit (House 12) and the necessary administrative machinery was operating at the end of the year. It is hoped that the financial position will enable the general programme to continue without further interruption.

### Hostels

In view of the increasing infirmity of many of the residents the position was explored in regard to the provision of lifts at some of the hostels which would have the effect of providing what is the equivalent of ground floor accommodation. The only establishment which appeared suitable was Holt House, which contains a large number of stairs, but owing to the high cost of the structural alterations which would be required the project was transferred to "Lismore" and it is at present under consideration.

A further generous donation from the Merseyside Hospitals Council enabled additional amenities to be provided at some of the residential establishments, or for some worn-out items to be replaced.

The staffing of the hostels, so far as matrons and assistant matrons are concerned, continues to present a problem as it is very difficult to find suitable candidates for these posts; and at the end of the year there were three vacancies for assistant matrons. There are, however, two relief assistant matrons who undertake duties when matrons, etc. are on annual leave or sick leave and while vacant posts remain unfilled.

The facilities provided for residential accommodation by voluntary bodies are very welcome in relieving the strain on the waiting list of those needing care and attention who wish to enter homes for old people and 137 Liverpool residents are maintained in establishments administered by voluntary organisations and other local authorities. In each case, an appropriate financial contribution is made by the City Council to enable the resident to pay the agreed charge for maintenance. The admissions of such persons are all subject to prior consultation with the welfare service section of the Health Department. Particulars of the residents so maintained are contained in Table 31.

### Temporary Accommodation.

The Liaison Sub-Committee of the Health Committee has continued to deal energetically with the question of temporary accommodation and, as a measure of the success of these efforts, it should be noted that the problem is still confined within reasonable limits. Lower Breck Road

The minimum number of persons accommodated on any one occasion was 31 and the maximum 95, with an approximate daily average throughout the year of 59. The greatest number of persons ever housed in the temporary accommodation was 219, in May, 1952.

During the year, it was necessary to accommodate a number of persons of British nationality who no longer wished to remain in Burma and were accordingly sent by the authorities to England. They consisted of three families: husband, wife and three children; husband, wife and six children and husband, wife and seven children. The first family soon removed to accommodation in Birmingham where the husband obtained employment; the second family also found alternative accommodation after a short time, some of the children entering a convent, but the third family were still in the accommodation at the end of the year after a stay of some weeks.

One elderly woman, a native of Liverpool, who had married a citizen of the United States of America and reared a family there, returned to the City on becoming a widow, but as relatives declined to accommodate her she had to be provided with residential accommodation.

Since 5th July, 1948, a total of 81 persons have arrived in Liverpool from overseas and been provided with temporary and/or residential accommodation.

Particulars showing the numbers of persons admitted to and discharged from the temporary accommodation during 1957 are contained in Table 32. By a coincidence the numbers of admissions and discharges were equal.

### Hungarian Refugees.

In the previous report, mention was made of the arrangements made by the welfare service section of the Department for the welfare of large numbers of refugees from Hungary who were passing through Liverpool, Hungarian Refugees



towards the end of 1956, en route for Canada. This traffic continued until the end of February, 1957, by which time the total number of refugees dealt with was 2,514.

Early in 1957 the Lord Mayor of Liverpool convened a meeting of various bodies to discuss arrangements for helping, in the City, refugees from Hungary who wished to settle permanently in England. Eventually the kind offer of the Roman Catholic authorities was accepted to provide hostel accommodation for a number of refugees in the Leyfield School, West Derby, and the first party of 99, consisting of family units and single men and women, took up residence early in March. Voluntary bodies provided a number of amenities at the premises and once again interpreters played a useful part. The hostel was administered by the Health Department, and equipped by items supplied by the Corporation on a loan or repayment basis, or equipment from the War Office. Expenditure has been refunded by the British Council for Aid to Refugees. Most of the refugees were found work by the Ministry of Labour and generally placed away from Liverpool, and accommodations found for the families. It thus became possible to close the Hostel at the end of September by which time a total of 155 refugees had been admitted.

There were sixteen families consisting of 66 persons. Seven of the breadwinners were found employment in the cotton industry, three in farming (including one who went to Canada) and five in various trades. It had not been found possible to accommodate one of the families by the time the hostel was closed and for a brief time they were housed in the temporary accommodation. Eventually the husband obtained work as a coach builder, while continuing to live locally, and the mother and children were transferred to Cottage Homes in Manchester.

In addition to the families, there were sixteen single women who were found employment as factory hands, hotel workers, cotton operatives, etc., and 64 single men were found work in various trades and occupations, particularly in the cotton industry. Seven persons who refused work were transferred to other hostels outside Liverpool.

### **Domiciliary Welfare Services.**

Table 33 sets out details of some of the activities of the field workers, of whom there are nine, during the year. Primarily, the field workers,



or welfare visitors as they are designated, are concerned with persons needing care and attention who seek residential accommodation and the development of services for permanently handicapped persons. In actual practice their work covers a far greater field and includes the visitation of aged and handicapped persons in their own homes to give advice on personal problems to help in obtaining any necessary assistance which can be made available (e.g. domestic help, home nursing, medical services, National Assistance allowances, pensions, grants for clothing, friendly visiting, etc.), inspection of private homes for aged persons registered under the National Assistance Act, compulsory removal to hospital under Court Orders of persons needing care and attention. Visits are also made to tenants of Corporation property who are in arrears with their rent and in danger of being evicted, and reports are submitted to the Arrears Sub-Committee of the Housing Committee on the domestic circumstances. In cases where fires have caused damage to houses and their contents, the welfare visitors have helped and advised the occupiers to obtain any necessary aid from statutory and voluntary sources.

Publicity is continually being given in regard to the help which the department can give or direct to elderly persons, nevertheless there are often instances of old people sometimes living alone, where the home conditions are far from satisfactory; and occasionally the individual has to be removed to residential accommodation or dealt with under compulsory powers as referred to in a later section of this report. Some old folk are found who, unfortunately, have deteriorated to the stage where it is almost too late to be of help to them.

The following are four selections from the many problems dealt with during the year by the welfare visitors:—

1. One of the greatest problems when dealing with a rent arrears case is domestic disharmony. A welfare visitor has been visiting a couple on one of the new housing estates for over a year. They began to pay the rent more regularly after her visits but it was obvious that the wife was losing all heart. Another baby was on the way and when the wife went to hospital for the confinement the welfare visitor contacted the hospital and the Maternity and Child Welfare Department followed up. The husband was interviewed and an attempt was made to make him face up to his



responsibilities and get the house ready for his wife's return with the baby.

It was an uphill task and finally after the wife had been home for two months she left her husband and arrangements were made for her to enter temporary accommodation. Since the wife has left home, the husband has fallen into arrears again with the rent, and the findings in the court must be ascertained before the next step is known.

In all rent arrears cases the welfare visitors do as much as they can for the people concerned while at the same time trying to see that the householders realise and face up to their responsibilities.

2. An old lady has been known to the department since 1955 when her husband was alive. After his death in 1956, the house was cleaned up and disinfested and new bedding obtained. Since then it has been discovered that the old lady has hundreds of pounds hoarded away and the National Assistance Board withdrew their allowance.

The old lady has been visited regularly; usually the visitors have not been well received, the door often being slammed in their face. They were satisfied, however, that she was eating. Last year the old lady collapsed in the street and was taken to hospital where the welfare visitor saw her several times but could not persuade her to go to an old persons' home. It is felt that one of her main reasons for refusing is that she is frightened that she will not be able to have her drop of wine!

Now she is home again the welfare visitor sees the old lady regularly and is watching to make sure that if her condition deteriorates and she is in need of care and attention that she will have immediate attention. At the moment she cannot be considered for forcible removal.

3. An old lady had been known to the Welfare Service Section since 1952 and provided with temporary accommodation on two occasions during that year.

Two years later she was again provided with temporary accommodation and in the meantime she had apparently been

wandering about the country, having known to have been in North Wales, London, Birkenhead, etc.

Since 1954 she has stayed for short periods in residential accommodation but ultimately left and would not return—this resulted in her being picked up by the Police for vagrancy. After a short detention for medical observation she was returned to residential accommodation but left again within a few minutes of arrival.

4. A young epileptic who has resided for short periods in two different colonies. He left both establishments following disputes with other residents. He has been charged with drunkenness from time to time and served several prison sentences for this offence. He left Liverpool and worked as a news vendor in London for a few months, but returned to Liverpool following yet another short term of imprisonment and it has been necessary once again to provide residential accommodation.

Occasionally the Senior Welfare Visitor gives talks on request to old age pensioner clubs, particularly on the subject of residential accommodation which is of considerable interest to the members. The amenities provided and the life in hostels are described, the steps to be taken by those wishing to enter, and the charges for maintenance. Reference is also made to the domiciliary services provided by the Health Department, statutory bodies and voluntary organisations which are designed to enable elderly persons to continue to live in their own homes.

#### **Removal to Suitable Premises of Persons in Need of Care and Attention.**

During the year it was necessary to remove, compulsorily, six persons under Section 47 of the National Assistance Act, 1948. They were either suffering from grave chronic disease, or were aged, infirm, etc., and living in insanitary conditions, or a combination of these circumstances existed. All were not able to devote to themselves or were not receiving from other persons proper care and attention. Orders were obtained for compulsory removal to hospital accommodation, the period in each case being not exceeding three weeks. Three of the patients subsequently died, one was still in hospital at the end of the year, one



was transferred to a voluntary home and the other discharged home. In 1956, eighteen persons were the subject of compulsory removals and twelve in 1955.

### **Rest Centres for Elderly Persons.**

#### **River View Rest Centre**

This venture, which started in the Coronation year, still continues to be a great success and over 500 persons have attended on one day.

The premises, which are situated at the Pier Head, overlooking the River Mersey, are managed by members of the Women's Voluntary Service and are open daily from 10.30 a.m. to 4 p.m. (Sunday excepted).

The provision of two similar centres in other parts of the City with the aid of a grant from the King George VI Foundation is receiving consideration by the Health Committee. One site has been selected in Sheil Park and steps were in progress at the end of the year for transferring a suitable plot of land from the Parks and Gardens Committee to the Health Committee. The second site has been provisionally earmarked in the Sefton Park district and at the time of writing this report, planning permission was being sought for the project.

### **Mobile Meals.**

This service has continued to operate in an area within a radius of approximately one mile from Westminster House. Those participating are mainly aged people who, on the recommendation of doctors, etc., would benefit from a hot mid-day meal which they are unable to prepare themselves. Meals are supplied from Westminster House, the equipment is provided by the City Council, and the servers are members of the Women's Voluntary Service. About 68 meals are supplied on each of three days a week.

During the year a very generous offer was received from the Women's Voluntary Service to assist in the delivery of mobile meals in another area of the City. The Women's Voluntary Service have offered to supply transport, staff and equipment, the City Council to supply the food. The offer has been accepted and during 1958 it is hoped to inaugurate a service in the south-end of the City with meals from New Grafton House.

### Registration of Disabled Persons' and Old People's Homes.

At the present time there are 26 homes registered, 17 being administered by voluntary bodies and the remainder by private individuals. The homes are inspected by officers of the welfare service section at regular intervals to ensure that the standard of accommodation is being maintained in accordance with the requirements of the City Council.

It is interesting to note that in one case legal proceedings were taken on the ground that a person had carried on an old persons' home without being registered under the National Assistance Act. The Corporation's case was found to be proved and a fine was inflicted. The home in question had been previously registered but the registration cancelled because the home was not being conducted in a satisfactory manner.

### Welfare of Handicapped Persons.

The following organisations concerned with the welfare of handicapped persons still continue to make use with enthusiasm of the premises 100, Walton Village which were placed, free of charge, at their disposal, some time ago:—

Infantile Paralysis Fellowship (Merseyside Branch).  
Merseyside Hard of Hearing Club.  
Merseyside and Wirral Group of Invalid Tricycle Association.  
Liverpool Spastic Fellowship.  
War Pensioners' Handicraft Club.

Regular meetings and social gatherings, etc., are held and occasional special functions such as film shows, whist drives, rummage sales, etc. On two afternoons a week a small number of spastic children are conveyed in a brake subscribed by voluntary effort for the Spastic Fellowship and some occupational therapy is undertaken under supervision.

Members of the staff of the welfare service section still meet, at intervals, members of the various organisations to discuss matters of common interest. One member of the staff also attends, from time to time, meetings of the Council of the Liverpool Spastic Fellowship.



### Epileptics.

At the end of 1956 a small Advisory Committee on the Welfare of Epileptics was established consisting of representatives of official and voluntary bodies with the object of establishing a club for epileptics. Such a club was eventually formed and, after a start in premises which proved to be not entirely suitable, it became possible to accommodate the members at 100, Walton Village on one night each week. This is a successful venture and already a handicrafts (leatherwork) class has been started. The Advisory Committee meets from time to time when matters are discussed concerning the club and those affecting the welfare of epileptics generally.

The City Council is represented on the Committee by the Deputy Medical Officer of Health and the Chief Welfare Officer.

In the autumn, the Liverpool Council of Social Service very kindly offered to provide for the various voluntary bodies using 100, Walton Village a cinema projector, a billiard table and some stacking chairs. This offer was accepted and these amenities will be very keenly appreciated.

### Blind Welfare Statistics

During the year 185 applicants for admission to the registers of blind or partially sighted persons were examined by ophthalmic surgeons. Of these, 125 were found to be blind and 43 partially sighted, and 17 were not considered to come within either category. An observational register is maintained in respect of the partially sighted persons and similar services are made available to them as for the blind.

Particulars of the numbers of registered blind and partially sighted persons in the various age-groups are contained in Tables 34 and 36. Statistics are also given showing by age-groups the numbers of newly-blinded and partially sighted added to the registers during the year (Tables 35 and 37).

Table 38 shows a summary of the reports received during the year indicating, under the headings of cataract, glaucoma, retrolental fibroplasia in premature infants and other causes, whether treatment was recommended and, if so, whether it was medical or surgical.

### Blind Employment.

At the 31st December, 1957, the following numbers of blind persons were engaged in the various trades operated in the blind workshops:—

#### *Workshops for the Blind, Cornwallis Street.*

|                |     |     |          |
|----------------|-----|-----|----------|
| *Basket Making | ... | ... | 13       |
| Brush Making   | ... | ... | 23       |
| Mat Making     | ... | ... | 30       |
| Upholstery     | ... | ... | 9        |
|                |     |     | <hr/> 75 |

#### *Catholic Blind Institute, Brunswick Road.*

|               |     |       |          |
|---------------|-----|-------|----------|
| Basket Making | ... | ...   | 1        |
| Mat Making    | ... | ...   | 4        |
|               |     |       | <hr/> 5  |
|               |     | Total | <hr/> 80 |

\* Includes one employee, partially sighted.

### School for the Blind, Hardman Street.

The School, which had for a number of years provided a training centre for persons between the ages of 16 and 21 and also a workshop for a small number of employees, closed at the end of July, 1957.

This step had unfortunately to be taken because there had been a gradual decline in the number of trainees admitted, which was an experience shared by training schools in other parts of the country. One of the reasons for this falling-off was the increasing counter-attraction of sighted industry.

The consequential problem was that of providing alternative employment for the displaced employees, and it is pleasing to record that good results were achieved due to the efforts of the Blind Placement Officer and the co-operation of the Cornwallis Street Workshops for the Blind. The latter workshops were able to absorb six of the redundant employees, as well as another for training in a new occupation. Three were placed in sighted industry and two, at the time of writing this report, had proceeded to industrial rehabilitation. One blind person, who was considered to be fit only for employment in a sheltered workshop, had not been placed at the end of the year.



**Sighted  
Industry**

The following numbers of blind persons were engaged in sighted industry:—

|                               |     |     |       |
|-------------------------------|-----|-----|-------|
| Basket Making                 | ... | ... | 1     |
| Clerks/Typists                | ... | ... | 5     |
| Newsagents, Shopkeepers, etc. | ... | ... | 3     |
| Factory Operatives            | ... | ... | 47    |
| Home Teachers                 | ... | ... | 4     |
| Labourer...                   | ... | ... | 1     |
| Legal                         | ... | ... | 1     |
| Massage                       | ... | ... | 1     |
| Minister of Religion          | ... | ... | 1     |
| Musicians and Music Teachers  | ... | ... | 3     |
| Porters, etc.                 | ... | ... | 8     |
| School Teachers...            | ... | ... | 2     |
| Telephone Operators           | ... | ... | 15    |
| Miscellaneous                 | ... | ... | 11    |
|                               |     |     | <hr/> |
|                               |     |     | 103   |
|                               |     |     | <hr/> |

This figure is an increase of 6 over the previous year, and there are thus 23 more blind persons employed in sighted industry than sheltered workshops.

The following blind persons were engaged in the Home Workers' Scheme and their incomes supplemented by the City Council:—

|                              |     |     |       |
|------------------------------|-----|-----|-------|
| Braille Copyist              | ... | ... | 1     |
| Machine Knitters             | ... | ... | 3     |
| Musicians and Music Teachers | ... | ... | 5     |
| Newsvendor and Hawker        | ... | ... | 1     |
|                              |     |     | <hr/> |
|                              |     |     | 10    |
|                              |     |     | <hr/> |

**Sir Robert Jones Workshops.****Sir Robert  
Jones  
Workshops**

These workshops were founded in 1902 and provide sheltered employment for about 50 severely handicapped persons in the trades of book-binding, printing, boot and shoe repairing and Christmas card renovation.

The staff consists of a Manager, Traveller, Bookbinding Instructor, Printing Instructor and three clerical staff.

Most of the workers are engaged in the book-binding department (36), about nine are engaged in Christmas card renovation and the remainder in the other two sections of the workshop.

Since 1947, when the workshops were re-established after the war, 200 severely disabled men from Merseyside, who were all in need of

sheltered employment, have been afforded an opportunity to learn a trade and become self-supporting in so far as their disabilities permitted.

During the last few years the City Council has grant-aided the Workshops because of the possibility that the management might have to close down owing to continued trading losses. At the present time about £3,400 per annum is being contributed by the City Council towards the running of the workshops. The subvention paid has also included an amount to meet a revised salary and wage structure and in particular the necessity for increasing the minimum wages of the workers to a figure which would bear some relation to normal trade rates.

The City Council agreed that the amended salary structure should be conditional on the Management Committee of the Workshops being willing to allow an Organisation and Methods investigation of the Workshops. Such an investigation was carried out towards the end of the year and a report thereon submitted to the Handicapped Persons Services Sub-Committee in November. Suggestions were made which it is hoped would bring about an improvement in the financial position of the Workshops. In addition, the heads of Corporation departments were notified of the work carried out at the Workshops and requested to make use of the services whenever possible.

#### **Deaf and Dumb Welfare.**

The Liverpool Adult Deaf and Dumb Benevolent Society and the Catholic Deaf and Dumb Society of St. Vincent de Paul continued to provide efficient welfare services on behalf of the City Council to 582 Liverpool residents who were on the register at 31st December, 1957. A grant is made by the City Council at the rate of £3 10s. 0d. per head per annum allocated appropriately between the two societies, bearing in mind that some individuals are cared for by both bodies.

#### **Epileptics.**

Adult epileptics needing residential care and attention continue to be admitted, at the cost of the local authority, to colonies established for this purpose, and 21 persons were allocated vacancies during the year. Occasionally some residents fail to adapt themselves to communal life or ultimately develop an anti-social outlook, and two persons were discharged for the latter reason during 1957.



Apart from the voluntary organisations which provide residential accommodation for epileptics on a colony basis, e.g., the Maghull Homes for Epileptics and the David Lewis Colony, reference has been made in an earlier part of the report to the Local Advisory Committee on the Welfare of Epileptics. The City Council is represented on the latter Committee by the Deputy Medical Officer of Health and the Chief Welfare Officer.

There are about 3,000 epileptics in Liverpool and with the object of helping them by arranging clubs, handicraft classes, etc., a Merseyside Epileptics Association was formed early in 1957 following a public meeting organised by the Liverpool Council of Social Service, which also made a grant to start the Association's finances.

These activities are bringing together a number of organisations interested in this subject, including local authorities, hospital almoners, the Ministry of Labour, etc.

#### Spastics

As in previous years the local voluntary organisation concerned with the welfare of spastics continued to work in close co-operation with the department. At the present time the organisation is exploring the possibility of adapting former school premises for residential accommodation and also for recreational purposes.

#### Accommodation (Handicapped Persons)

At the end of the year there were 111 persons accommodated in establishments administered by other local authorities and voluntary organisations, and their incomes are supplemented by the local authority to enable the standard charge for maintenance to be paid. This procedure is similar to that adopted in regard to aged persons. Details of the various homes where handicapped persons are accommodated are contained in Table 39. The City Council intends to build in due course a special hostel to accommodate a number of handicapped persons.

#### Protection of the property of persons admitted to hospitals or residential accommodation.

#### Protection of Property

During the year, 190 cases were referred to the welfare services section where it was necessary, due to no other suitable arrangements having been made, to take steps to ensure the safety of persons' property. This is a function in which a great deal of care has to be

exercised by the officials concerned. Houses and flats are made secure, inventories taken of the contents, and any cash recovered placed in safe custody with the City Treasury. Personal documents, securities, jewellery, etc., are held for safe keeping in the Department. Those responsible for the welfare of the patient are kept informed of the action taken in each case. From time to time revisits are paid to unoccupied houses, where the keys are held by the Department, to see if the premises are still secure. The police are also notified of the absence of the tenant so they can keep the premises under observation. Where necessary, furniture is removed to store until the owner is ready to resume custody of it or authorises the Department to sell it on his behalf; in other cases the facts are placed before the Court of Protection where there is no Receiver acting and where the owner is unable to conduct his own affairs and unlikely to need the effects again, and here the Court usually agrees to the sale of the goods, after the comments of any relatives are obtained.

#### **Estates of Deceased Persons.**

In the event of the death of a person whose property is being safeguarded by the Department, the appropriate steps are taken in connection with the administration of the estate.

In 67 instances where the burial or cremation of a deceased person was undertaken by or through the agency of the Department some action was necessary in regard to the effects. Where the estates of such persons were solvent and there was no will or no next of kin who could be traced, the circumstances were referred to the Duchy of Lancaster and the instructions of that department acted upon.

Over £1,923 17s. 2d. in cash was recovered during the year from persons' effects and placed in safekeeping.

Among the total cases dealt with of all kinds were 45 referred by the police, namely, 23 of persons who had been found dead at home or elsewhere, and 22 who had been taken ill either at home or outside and removed to hospital.

Reference was made in a previous report to the fact that this work affords an insight into the social conditions of elderly persons often living alone, frequently possessing large financial assets which are either forgotten or hoarded until the final tragedy overtakes the owner.



## HOUSING POINTS SCHEME

### Statistics General

During 1957 a total of 4,203 general medical cases, 862 pulmonary tuberculosis and 79 non-pulmonary tuberculosis cases applied for assistance in rehousing, there being an increase of 138 (3·4 per cent) in the number of general medical cases, a decrease of 52 (5·7 per cent) on the pulmonary cases of tuberculosis and a decrease of 8 (11·3 per cent) on the non-pulmonary tuberculosis case figures for 1956.

### Medical

1,304 general medical cases were awarded points; 22 of these were recommended to the City Architect and Director of Housing for submission to the Allocation (Special) Sub-Committee.

### Tuberculosis

The tuberculosis cases were awarded up to 5 points each by the chest physicians. Sixteen of these were recommended to the City Architect and Director of Housing for submission to the Allocation (Special) Sub-Committee and 113 were recommended for special priority within the Allocation group, as they had sufficient points for them to be already included in this group.

### Transfers

1,269 general medical cases applied for transfers during the year. Of these, 605 (48·0 per cent) were recommended to the City Architect and Director of Housing. 108 tuberculosis cases were also recommended for transfers.

### Overcrowding

A further 470 applications were received in respect of non-medical cases and reports concerning 336 grossly overcrowded families were forwarded to the City Architect and Director of Housing.

### Method of Allocation of Points

The allocation of points is designed to enable the Medical Officer of Health to give assistance in those cases which, for reason of health, should receive some degree of priority in rehousing. There are two forms which this assistance may take:—

(1) Additional points may be awarded and added to the applicant's basic points. For general medical cases a maximum of two points can be given and for tuberculosis cases up to five points. (In many cases this brings the applicant into the allocation group and he is assured of rehousing. A close liaison exists with the Housing Department, and many such cases are given priority within the actual allocation group on the recommendation of the Medical Officer of Health.)

(2) Cases of special urgency may be brought before the Allocation (Special) Sub-Committee. If approved, they are offered rehousing within approximately one month.

In all the general cases a medical certificate (form H.1.) submitted by their medical practitioners serves as the starting point of the enquiry. Most tuberculosis cases are also initiated by a form H.1, the remainder being first brought up by the tuberculosis visitors. All cases are investigated in the first instance by a public health inspector who completes a report on the housing conditions. This report includes such details as the size of the family; type of house and number of rooms occupied; extent of overcrowding, condition of house and state of cleanliness, w.c. accommodation, etc.

In tuberculosis cases a report is also submitted by the tuberculosis visitor, giving such details as the type and extent of the disease, state of infectivity, family history of tuberculosis, etc. At this stage each case is submitted for assessment to a medical officer. Extra housing points may be awarded as already indicated, while those cases which appear to be sufficiently urgent are visited personally, with a view to submitting them to the Allocation (Special) Sub-Committee or recommending special priority within the allocation group. Special care is taken to ensure that the housing department is notified of any additional points granted for medical conditions.

Where an applicant is a sub-tenant in one of the new Liverpool housing estates outside the city boundary and is on the city housing register contact is made with the local authority concerned and a housing report and medical certificates obtained. The case is then assessed in the usual manner.

**Residents  
Outside City  
Boundary**

For housing applicants who already live in Corporation property and for medical reasons request a transfer, a close liaison exists with the Housing Department. A letter of recommendation from the medical officer is usually sufficient to obtain the necessary transfer.

**Transfers**

For statistical summary see Table 40.



## ENVIRONMENTAL HEALTH CONTROL

### Staff Recruitment

The training scheme has operated throughout the year and has continued to produce good results. Twelve assistant inspectors, after completing a four-year course obtained the qualifying certificate and are now public health inspectors. Thirteen public health inspectors obtained the certificate of the Royal Society of Health qualifying as meat and other food inspectors and they are now on the rota for meat and other food inspection duties. The total staff of the inspectorate comprises 116 qualified inspectors, assistants and trainees.

### Re- organisation

The arrangement whereby the district inspectors upon qualifying undertake all duties including food inspection, has proved successful and more qualified inspectors are becoming available for this work. Inspectors obtaining the meat and other food inspector's certificate include the abattoir and markets on a rota basis, in their duties.

### New Legislation Rent Act, 1957

The Rent Act, 1957, came into operation on the 6th July, and as anticipated thousands of enquiries were received for advice on procedure. Duties under the Rent Act were given priority, necessitating the attention of a large number of inspectors. There was also a considerable increase in clerical duties. All applications for certificates were dealt with at the weekly meetings of the Special Sub-Committee of the Health Committee.

### Clean Air Act, 1956

On the 31st December, 1956, part of the Clean Air Act, 1956, came into operation providing the machinery for the creation of Smoke Control Orders. Immediate advantage was taken of the new provisions by the creation of the City Council of Liverpool No. 1 Smoke Control Order which becomes operative on the 1st April, 1958. Arrangements have also been made for further areas of the City to be included in Smoke Control Orders. The majority of the premises included in the No. 1 Order have already been converted to smokeless combustion in readiness for the operative date.

### Wild Pigeons

Action has been taken in respect of complaints from occupiers of buildings and houses regarding nuisances caused by wild pigeons. There were 2,373 birds caught and painlessly destroyed. Arrangements have now been made for Corporation buildings to receive special attention in an effort to reduce the wild pigeon population generally.

An effect of the accident at the Windscale Nuclear Energy Reactor Station early in October was the contamination of grass with radioactive material in the surrounding areas. One consignment of milk produced by cows from farms on the borders of Lancashire and Westmoreland was sent into the city and as a precautionary measure the milk and the vehicles concerned were tested by the department in co-operation with the civil defence organisation and found to be free from contamination.

**Examination  
of Milk**

The facilities given by this department for providing speakers on various health matters are becoming more widely known, and it is very satisfactory to realise that the public through their organisations are seeking to learn more of the measures taken by the department to implement the various health services, and thereby arouse their own responsibilities in certain essential respects.

**General  
Health  
Education**

The educational activities include training of student public health inspectors and lectures to health visitors, students, officials and various private and public organisations.

Lectures on food hygiene and other public health subjects, including smoke control and slum clearance were given during the year to shop, hotel, licensed premises and catering staffs, trade associations, also youth and church organisations.

The exhibits at the Liverpool Show included good and bad housing, vividly portrayed by the use of photographs and models of old and new houses. Hygiene in the home was the theme of several of the stands, a model bathroom was exhibited and the use of detergents displayed on another stand. A model kitchen and living room showing the use of plastics in the home emphasised methods of plastic material being adapted to replace less suitable materials.

**Liverpool  
Show**

Atmospheric pollution problems were highlighted on a stand exhibiting various types of smokeless appliances.

Hygiene in food shops was illustrated by a model shop complete with stock and fittings.

The assistance of firms who provided material for the exhibits was appreciated.



**Summary of Inspection**

There were 142,800 visits made as a result of complaints received from occupiers of dwellinghouses. This type of complaint receives priority attention and as far as possible a visit is made within 24 hours of the complaint being received. The public made 1,056 complaints in respect of shops, cafes, public houses, etc. There were 385,455 visits and inspections carried out and 31,339 notices issued under the various acts and byelaws.

**Legal Proceedings**

Certain enactments provide for the local authority to take legal proceedings where an owner fails to comply with a notice, or, alternatively, they may do the work in default and recover the cost from the owner. Where property has been abandoned or where an owner is unable to pay for the cost of repairs, arrangements are made for the work to be carried out in default. This method assists occupiers who otherwise may suffer extreme discomfort over a prolonged period. During the year 128 prosecutions were taken under the Public Health Act, Shops, Food and Drugs and local Acts, and penalties amounted to £216.

**Work in Default**

In certain cases where owners failed to comply with notices arrangements were made for the local authority to carry out the work and 125 houses were repaired at a cost of approximately £3,000. In addition reports in respect of 185 premises, where choked drains existed, were submitted to the Special Sub-Committee for action under Section 19 of the Liverpool Corporation Act, 1955. The City Engineer and Surveyor's Department co-operated by clearing the drains.

**Recovery of Cost**

The cost is recovered through the procedure incorporated in the Public Health Act, 1936. The amount concerned is also registered against the property in the Local Land Charges Register in accordance with the Land Charges Act, 1925. This provides for ultimate collection and, therefore, there can be no loss to the local authority.

**Complaints**

Many of the complaints included in the total 23,322 received during the year are in respect of sub-standard properties and whilst every effort is made to relieve discomfort, many owners are, however, reluctant to carry out extensive work on property which is in process of being dealt with under the Housing Act.

**Choked Drains**

Prior to the Liverpool Corporation Act, 1955, choked drains caused considerable concern to the department as it was not possible to ensure



the clearing of drains within a relatively short period. Property owners generally, are now clearing drains without delay, as under the provisions of the 1955 Act the Corporation can clear drains after giving 48 hours' notice of their intention, and the costs reasonably incurred are recoverable from the person concerned. Notices were issued in respect of 1,874 choked drains which were cleared within the appropriate period.

The importance of the weekly meeting of the Special Sub-Committee cannot be over emphasised. This Committee authorises immediate action to clear choked drains and to remedy other urgent defects. The Committee also authorises the spending of sums of money to alleviate distress when owners default or houses are abandoned. All urgent matters under the various enactments requiring the service of notices are dealt with by this Committee. The Committee have also dealt with all applications for the various certificates under the Rent Act, 1957.

**Meeting of  
Sub-  
Committee**

Other departments have co-operated by forwarding 11,513 references in respect of various defects requiring the attention of the inspectors and 7,054 references were sent to other departments.

**Departmental  
References**

The following table indicates visits made by inspectors to houses where infectious disease has occurred and the number of enquiries made regarding contacts of infectious disease.

**Infectious  
Disease  
Enquiries**

|                                                               |       |
|---------------------------------------------------------------|-------|
| No. of investigations relating to cases of infectious disease | 2,129 |
| No. of enquiries regarding contacts of infectious disease...  | 5,354 |

Extensive work in connection with ingestion disease enquiries has required considerable time of the inspectorate. The work necessitates specialised knowledge and more men are becoming proficient in this type of work due to the operation of the training scheme. 6,422 specimens from 4,777 persons were submitted for bacteriological examination; 1,254 specimens from 718 persons proved positive. Detailed enquiries were made into all confirmed cases of Salmonella infections.

**Food  
Poisoning**

The record maps have been used throughout the year to indicate the location and extent of infections.

Outbreaks of suspected food poisoning have been investigated at 11 industrial and food establishments within the City entailing the interviewing of 158 employees and the collection of the necessary specimens.



**Moveable  
Dwellings**

There are no licensed sites in the City, but from time to time caravans have been sited on unfenced land by persons using caravans as permanent dwellings. There were 460 visits made to such sites where caravans were stationed. All the caravans were removed by appropriate statutory procedure.

**Drain  
Testing**

In connection with rodent infestations and percolations of water 1,238 drainage systems were tested. Notices were issued in respect of drains found to be defective and 718 drainage systems have been repaired. The assistance of the City Engineer and Surveyor's Department has been utilised whenever flushing has been required. A total of 20 public sewers requiring urgent attention and 7 defective public sewers were referred to the City Engineer and Surveyor's Department under the provisions of Section 24 of the Public Health Act, 1936.

**Common  
Lodging-  
Houses**

At the beginning of the year two lodging houses ceased to be registered and there are now 13 registered common lodging-houses in the City, 12 providing accommodation for 934 males and 1 providing accommodation for 94 females. Applications were received from 13 keepers for renewal of registration as keepers and granted for a further period of twelve months. The public health inspectors made 294 visits during the day and at night, resulting in 69 notices being served in respect of bye-law infringements. A total of 5,196 beds were examined, 34 were found verminous and these were cleansed by the local authority, 34 lodgers found to be verminous were also cleansed by the local authority.

**Seamen's  
Lodging-  
Houses**

There are 16 seamen's lodging-houses on the register, 7 are not licensed under the byelaws as seamen's lodging-houses. Accommodation is provided for British, Chinese, Arab, Somali and Indian seamen. The total accommodation available for seamen is 950. Public health inspectors made 202 day and night inspections. Bye-law infringements were dealt with either verbally or by the service of notice. The inspectors examined 6,766 beds and appropriate action was taken where necessary.

**Canal Boats**

The Docks and Inland Waterways Executive, North Western Division, are the proprietors of the Leeds and Liverpool Canal, the only canal having direct communication with Liverpool. The length of the waterway within the City (exclusive of the locks communicating with the Dock Estate) is approximately three miles.

Liverpool is one of several registration authorities for boats used as dwellings plying on the Canal. The details of the boats registered by this authority are indicated in Tables I and II.

TABLE I.

|                                       |     |     |     |     |     | Number of<br>Boats |
|---------------------------------------|-----|-----|-----|-----|-----|--------------------|
| Boats on register, 1st January, 1957  | ... | ... | ... | ... | 417 |                    |
| New Boats registered                  | ... | ... | ... | ... | 1   |                    |
| Boats removed from register           | ... | ... | ... | ... | 3   |                    |
| Boats on register 31st December, 1957 | ... | ... | ... | ... | 415 |                    |

Three boats ceased to be used as dwellings during the year and were removed from the register at owners' request.

TABLE II.

| Number and type of boats registered: |     |     |     |     |     | Type of<br>Boat |
|--------------------------------------|-----|-----|-----|-----|-----|-----------------|
| Motor-propelled boats                | ... | ... | ... | ... | 99  |                 |
| Steam-propelled boats                | ... | ... | ... | ... | 62  |                 |
| Motor-towed boats                    | ... | ... | ... | ... | 46  |                 |
| Steam-towed boats                    | ... | ... | ... | ... | 124 |                 |
| Horse-drawn boats                    | ... | ... | ... | ... | 84  |                 |
| Total                                | ... | ... | ... | ... | 415 |                 |

466 inspections of canal boats were made during the year and the places of registration of boats visited were as follows:—

TABLE III.

|                                                |     |     |     |     |     |
|------------------------------------------------|-----|-----|-----|-----|-----|
| Number of boats visited                        | ... | ... | ... | ... | 171 |
| Registered at Liverpool                        | ... | ... | ... | ... | 131 |
| Registered at Runcorn                          | ... | ... | ... | ... | 10  |
| Registered at Manchester                       | ... | ... | ... | ... | 5   |
| Registered at Leeds                            | ... | ... | ... | ... | 1   |
| Boats not registered and not used as dwellings | ... | ... | ... | ... | 24  |

All boats were "wide" boats, 52 being motor propelled, 8 steam propelled, 59 motor towed, 40 steam towed and 12 horse drawn.

Contraventions of the Act and Regulations were found on 33 boats of which number 2 were registered by other authorities, the contraventions being shown in the following Table:—

TABLE IV.

| Nature of contravention.                                      | Reported | Remedied |
|---------------------------------------------------------------|----------|----------|
| No certificate of registration on board                       | 14       | 8        |
| Registration lettering and numbering not legible or incorrect | 6        | 4        |
| Leaking decks                                                 | 8        | 8        |
| Defective stove or stove pipes                                | 3        | 3        |
| Cabins requiring repainting                                   | 13       | 13       |
| Defective water tanks                                         | Nil      |          |
| General—miscellaneous                                         | 2        | 2        |
| Totals                                                        | 46       | 38       |



33 written notices with respect to the contraventions were sent to the owners concerned and 27 notices have been complied with.

No informations were laid during the year against either owners or masters for infringements of the Act or Regulations.

**Inspections by Port Health Authority** The inspectors of the Port Health Authority made 284 inspections of canal boats in the docks during the year, 39 contraventions were found, 31 of which were subsequently dealt with. The figures are included in Table IV.

**Infectious Disease** No case of infectious sickness was reported as having occurred during the year on any canal boat visiting the district.

**Population of Canal Boats** The number and sex of the persons found in occupation of the 171 canal boats used as dwellings are included in the following Table:—

TABLE V.

|                                              |     |     |     |     |     |
|----------------------------------------------|-----|-----|-----|-----|-----|
| Population of Canal Boats: Men               | ... | ... | ... | ... | 342 |
| Women                                        | ... | ... | ... | ... | Nil |
| Children                                     | ... | ... | ... | ... | Nil |
| Total                                        | ... | ... | ... | ... | 342 |
| Distributed as under:—                       |     |     |     |     |     |
| Males over 14 years of age                   | ... | ... | ... | ... | 342 |
| Males over 5 years of age and under 14 years | ... | ... | ... | ... | Nil |
| Males under 5 years of age                   | ... | ... | ... | ... | Nil |
| Females over 12 years of age                 | ... | ... | ... | ... | Nil |
| Females over 5 years and under 12 years      | ... | ... | ... | ... | Nil |
| Females under 5 years                        | ... | ... | ... | ... | Nil |

NOTE: Males attaining the age of 14 years and females on attaining the age of 12 years, living on a canal boat are regarded as adults and recorded as such in the foregoing Table. No children of school age were found on canal boats during the year.

**The Hydrogen Cyanide (Fumigation of Buildings) Regulations, 1951** Official notice has been received in respect of 6 fumigations under the Hydrogen Cyanide (Fumigation of Buildings) Regulations, 1951. Inspectors attended the fumigation of the 6 premises.

**Removal of Remains** Under the terms of licences issued from the Home Office, inspectors supervised the exhumation and re-interment of 5 bodies during the year, also the remains of 4 persons were shipped abroad, 2 to Canada and 2 to America.

### Public Health Act, 1936, Section 54.

Inspections of trial holes were made on 46 filled-up sites to ascertain whether the ground was free from faecal or offensive animal or vegetable matter, and that the sites were suitable for building purposes.

Filled-up  
Ground

### Miscellaneous

There are now only 72 occupied stables in the City. This is a reduction from 85 in 1956. Stables can no longer be considered a source of fly infestation as regular inspections ensure the frequent removal of manure.

Stables

Routine visits were made to 28 marine stores and 4 poultry stores.

Marine Stores  
Poultry Stores

Schools are visited for the purpose of checking the general sanitation of the premises, also for the inspection of canteens and kitchens under the provisions of the Food Hygiene Regulations, 1955.

Schools

The number of inspections increased to 1,494 and in all cases the standard of cleanliness was found to be satisfactory.

The sanitary conveniences in parks and gardens were found to be satisfactory, 166 visits being made to the various parks throughout the City.

Parks

### Housing and Slum Clearance

Housing is an essential social service which has grown to immense proportions since the early days of the first Act of Parliament passed to deal with the housing of the labouring classes. Most of the housing evils of those days have been wiped away but much remains to be done before the ultimate aim of every person concerned with housing is achieved.

The Housing  
Problem

As the old problems of housing are resolved, so new ones arise. In the early days, land was readily available for housing development, but in these post-war years, the major preoccupation of all local authorities appears to be the discovery of suitable space and its acquisition for the purpose of erecting new housing units.

- Many authorities are experiencing difficulty in their quest for land, especially where the site chosen is some distance outside the urban area.



**The Effect of  
Changing  
Circumstances  
on Housing**

During the first slum clearance campaign of a generation ago, the financial circumstances of the families to be rehoused were far more limited, poverty was widespread and thus for economic reasons people were compelled to refuse new housing accommodation.

Standards have risen in recent years to such an extent that most families in slum clearance areas are prepared to face the additional rent they will have to pay for their new letting. The eagerness of such families to obtain a Corporation house so that they may be enabled to enjoy the higher standards of a modern house or flat has caused long waiting lists.

**Diminishing  
quantity of  
land  
available for  
redevelop-  
ment**

The tremendous number of unfit houses which still remain to be dealt with is a very serious problem when considered in relation to the question of available land for development. Indeed, before an area can be represented, the ultimate use of the land and the number of dwellings which can be erected on the cleared site is of major importance.

Since the end of the Second World War, slum clearance activity has progressively increased and, of course, the amount of land available both in the central areas of the City and the outskirts has diminished in proportion to the number of housing units built.

Various methods are being used in an attempt to alleviate this situation. One method which can be used is the decanting of population to areas outside the authority's boundary, another being the erection of multi-storey blocks within the authority's area.

**Progress of  
Slum  
Clearance  
during the  
year**

All these difficulties and problems of housing development must obviously affect the rate at which unfit properties can be represented in Clearance Areas. During this year, 2,379 houses were surveyed in detail, as to their suitability for inclusion in areas, and 24 Clearance Areas were represented to the Council. This compares with 1,640 houses surveyed during 1956.

**Orders  
Confirmed**

Twelve Compulsory Purchase Orders and one Clearance Order were submitted for confirmation to the Minister of Housing and Local Government and were subsequently confirmed.

Four public inquiries and two hearings in respect of seven of the Compulsory Purchase Orders submitted were held, the remaining five Compulsory Purchase Orders and one Clearance Order being unopposed.

A total of 1,232 houses were contained in these confirmed Orders.

It is vital that the closest liaison between the various technical officers of the departments concerned should continue to ensure that the limited land available is used to the very best advantage.

Liaison with  
other  
Departments

Many unfit houses are situated on land which is not zoned for housing or in isolated pockets which are of no value for housing redevelopment purposes, and the houses have to be closed or demolished in small numbers.

Individual  
Unfit Houses

In these circumstances, the individual unfit procedure of the Housing Act is utilised and 90 houses were represented to the Demolition and Closing Orders (Special) Sub-Committee as unfit for human habitation in accordance with the provisions of Section 16 of the Housing Act, 1957.

In consequence 9 Demolition Orders and 79 Closing Orders were made in respect of these properties and 2 owners gave undertakings not to re-let until made fit for human habitation.

Demolition  
and Closing  
Orders

Of the properties made subject to such Orders 23 houses were demolished and a further 45 houses were closed. At the end of the year the condition of the remaining houses represented to the Committee had not been considered and were, therefore, held over to the forthcoming year.

Where a basement or part of a premises are considered to be unfit for human habitation they can be dealt with by means of a Closing Order made under Section 18 of the Housing Act, 1957.

Part of  
Premises  
found to be  
Unfit

Parts of 42 premises used for human habitation were represented during the year. The condition of such lettings represented were considered by the Demolition and Closing Orders (Special) Sub-Committee, and Closing Orders were made in respect of 30 premises. The condition of 12 of the properties represented in 1957 remained to be considered at the year's close.

Parts of  
Properties  
Represented

Despite this activity, many thousands of unfit houses remain to be dealt with in the coming years.

The register compiled from the housing survey of 1954 continues to be of inestimable value in dealing with the thousands of enquiries made during the year by prospective purchasers of property.

Enquiries  
regarding  
Potential Life  
of Property



The consequences of purchasing substandard property are explained to any person buying a house which is shown to be suspect by the housing survey register, but young couples, desperate for a home of their own, often ignore the officials' advice and purchase a substandard dwelling. Some of these houses may well be declared to be unfit before the owner/occupier has completed the agreed repayments. Such a situation can only result in financial hardship and misery to the purchaser. Such a purchase made after 12th December, 1955, is not covered by the provisions of the Slum Clearance Compensation Act, 1956.

**The Rent Act 1957** In recent years legislation concerning housing has been passed by Parliament, and each Act has had its controversial aspect. Of all these recent enactments the Rent Act of 1957 appears to be causing the most controversy.

**Decontrolled Houses** Generally the Act provides for the decontrol of properties having a rateable value exceeding £30. Other houses which have become vacant since this Act has come into force even though of £30 rateable value or less, are also decontrolled.

**Controlled Tenancies** Many thousands of houses in which the present tenants were living before this Act came into force have a rateable value of £30 or less, and are subject to rent control.

The Act sets out a detailed procedure for ensuring that the tenants can require the owner to carry out repairs to the house which are reasonably necessary in consideration of an increase in rent.

As anticipated, the intricacies of this procedure have lead to a continuous stream of enquiries regarding various difficulties encountered by tenants in its application. Many thousands of calls have been made to houses by public health inspectors at the request of tenants requiring guidance.

It is obvious that the administration of this procedure, so far as the local authority are concerned, has called for the utmost vigilance.

Throughout these early months, lectures upon the procedure and specific requirements of the Act have been given to the staff. These talks have assisted the inspectors on their districts to give advice when



tenants have sought it, and has enabled the inspector to determine items which can reasonably be included in the local authority's notice of intention to issue a Certificate of Disrepair.

Notices of increase were served by the owners in respect of many thousands of houses during the first few days of the Act's operation. Naturally many tenants in turn served lists of defects which existed at their particular house at that time and were given an undertaking by the landlord that he would repair all these items within a period of six months.

In other cases no undertaking was given by the landlord within the requisite period of six weeks from the service upon him of the tenant's "G" form.

Up to 31st December, 1957, 1,966 applications for Certificates of Disrepair had been received from tenants of properties in respect of which the landlord had not given an undertaking or the undertaking did not cover all the items enumerated on the tenant's notice.

Prior to 1st July, 1957, Certificates of Disrepair were obtained in accordance with the provisions of the Housing Repairs and Rents Act, 1954, and 34 applications were received, making a total of 2,000 applications for the year.

Under the new Act, before a Certificate of Disrepair can be issued, a notice has to be served upon the landlord intimating the local authority's intention to issue a Certificate and giving three weeks in which he may give an undertaking to repair all the items listed on the local authority's "J" form. Up to 31st December, 1,802 "J" notices had been issued by the local authority and 1,241 undertakings had been given by landlords of properties concerned.

Certificates of Disrepair were issued in respect of 159 properties under the provisions of the Rent Act 1957 and a further 37 were issued in the earlier part of the year in respect of applications made before the operative date of the new Act under the provisions of the Housing Repairs and Rents Act 1954.



Applications were made prior to the operative date of the Rent Act 1957 for the revocation of Certificates by owners of 69 houses in respect of which Certificates had been issued either in the current or previous year under the Act of 1954, and revocations were granted in 68 instances.

**Applications  
for  
cancellation  
of Certificates  
of Disrepair  
under 1957 Act**

Under the provisions of the new Act the landlords of 168 houses made application for cancellation of Certificates of Disrepair and at the close of the year 135 Certificates had been cancelled.

**Improvement  
Grants**

Many of the older houses in this City are far too large for modern requirements and every effort should be made by the owners of the properties to convert them into housing units of a manageable size.

The conversion and improvement of such properties could provide good modern self-contained homes for hundreds of families now living under great difficulties in inconveniently arranged sub-let houses.

Many such conversions have been undertaken by the local authority itself and, with the active co-operation of the Ministry of Housing and Local Government, conversion and improvement of such a house has been successfully demonstrated in one of the older parts of the City during this year.

It has, however, been noticeable that the majority of applications made for improvement grants have been made by owner-occupiers. During 1957, 173 visits were made to properties in respect of which applications for grants were received and grants were approved in 87 of these cases. This compares with 95 applications received and 71 applications recommended for approval during 1956.

**Loans on  
Mortgage**

Under the provisions of the Housing Act, 1949, the local authority are enabled to make a loan on mortgage to a prospective purchaser of a dwellinghouse.

Before such a loan is made, however, the local authority must be satisfied that the property is in all respects fit for human habitation, and is indeed a reasonable financial proposition.

It is necessary, therefore, for a public health inspector to examine each of these premises and detail any defects existing. The Schedule of Repairs considered necessary must be complied with before a loan is given.

During the year, 574 houses were visited for this purpose.

The present housing shortage causes existing housing accommodation to be overcrowded and visits must be made to such premises as frequently as possible. Where gross overcrowding is discovered, action must be taken to alleviate the conditions.

During the year 3,199 visits were made for this purpose and in 336 instances of gross overcrowding the matter was made the subject of an urgent request to the City Architect and Director of Housing to consider the expeditious rehousing of the families concerned under the provisions of Section 85 of the Housing Act, 1957.

Since the introduction in 1921 of a measure to prohibit the use of cellars as sleeping rooms, the number of such lettings has been progressively reduced. At the present time, the number of such dwellings has been reduced to a comparatively small figure.

Cellar  
Dwellings  
Section 469  
Liverpool  
Corporation  
Act 1921

The remaining families living in cellar dwellings is steadily being decreased by the service of notices upon the owners and occupiers of these lettings under Section 469 of the Liverpool Corporation Act, 1921.

During the course of visits to dwellinghouses inspectors examine the rent books to ensure that the requirements of Sections 8 and 81 of the Housing Act, 1957, are fulfilled.

These sections require that the name and address of the Medical Officer of Health be inscribed in the rent book and that the summary of the legislation concerning overcrowding is also set out, together with the number of persons permitted to occupy the premises.

Where any contravention was found, formal action was taken to have the matter rectified.

The total number of houses and flats owned by the local authority at 31st December, 1957 (excluding 19 houses built under the Housing Acts and subsequently sold, and 3,500 temporary bungalows) is 66,593.

Houses  
Owned by  
the Local  
Authority

The number of houses built in the last 3 years under the Housing Act, 1957, Part V, is 6,824, and the number of houses built under the provisions of the Housing Subsidies Act, 1956, is 1,272.



### Slum Clearance Statistics

During the year 24 Clearance Areas were represented under Section 42 of the Housing Act, 1957, which included 780 houses containing 3,513 persons. Orders in respect of 525 houses containing 2,182 persons were made and 13 Confirmation Orders in respect of 12 Compulsory Purchase Orders and one Clearance Order comprising 1,232 dwellings and 5,206 persons were received from the Minister.

#### COMPULSORY PURCHASE ORDERS AND CLEARANCE ORDERS CONFIRMED DURING 1957

| Date<br>Con-<br>firmed. | Order.                                                             | Houses. | Popu-<br>lation. |
|-------------------------|--------------------------------------------------------------------|---------|------------------|
| 7.2.57                  | Salisbury Street Compulsory Purchase Order ... ..                  | 549     | 2,330            |
| 19.2.57                 | Watmough Street No. 2 Compulsory Purchase Order ... ..             | 4       | 12               |
| 27.3.57                 | Cubbin Street Compulsory Purchase Order ... ..                     | 59      | 267              |
| 29.4.57                 | Every Street Compulsory Purchase Order ... ..                      | 122     | 442              |
| 6.6.57                  | Beaufort Street No. 8 Compulsory Purchase Order ... ..             | 12      | 92               |
| 20.6.57                 | Boundary Street (Peel Terrace) Compulsory Purchase<br>Order ... .. | 10      | 40               |
| 24.7.57                 | Anderton Terrace Clearance Order ... ..                            | 12      | 32               |
| 24.7.57                 | Beaufort Street No. 9 Compulsory Purchase Order ... ..             | 5       | 31               |
| 6.8.57                  | Vescock Street Compulsory Purchase Order ... ..                    | 10      | 37               |
| 21.8.57                 | Devonshire Place No. 2 Compulsory Purchase Order ... ..            | 3       | 9                |
| 4.9.57                  | Sessions Road No. 1 Compulsory Purchase Order ... ..               | 66      | 286              |
| 4.12.57                 | Warwick Street No. 3 Compulsory Purchase Order ... ..              | 4       | 8                |
| 9.12.57                 | Rose Vale No. 1 Compulsory Purchase Order ... ..                   | 376     | 1,620            |
|                         |                                                                    | 1,232   | 5,206            |

#### CLEARANCE AREAS IN ABEYANCE

| Area.                                              | Houses. | Population. |
|----------------------------------------------------|---------|-------------|
| Rose Vale No. 2 Clearance Area 1955 ... ..         | 243     | 1,042       |
| Rose Vale No. 3 Clearance Area 1955 ... ..         | 95      | 416         |
| Upper Beau Street No. 1 Clearance Area 1956 ... .. | 72      | 373         |
| Upper Beau Street No. 2 Clearance Area 1956 ... .. | 40      | 196         |
| Upper Beau Street No. 3 Clearance Area 1956 ... .. | 273     | 1,097       |
| Kinglake Street Clearance Area 1956 ... ..         | 67      | 291         |
| China Street No. 1 Clearance Area 1956 ... ..      | 184     | 803         |
| China Street No. 2 Clearance Area 1956 ... ..      | 9       | 83          |
| China Street No. 3 Clearance Area 1956 ... ..      | 3       | 11          |
| China Street No. 4 Clearance Area 1956 ... ..      | 3       | 12          |
| Carried forward ...                                | 989     | 4,324       |

| Area.                                               | House. | Population. |
|-----------------------------------------------------|--------|-------------|
| Brought forward ...                                 | 989    | 4,324       |
| Darnley Street No. 1 Clearance Area 1956 ...        | 6      | 23          |
| Darnley Street No. 2 Clearance Area 1956 ...        | 51     | 208         |
| Wellington Grove Clearance Area 1956 ...            | 52     | 201         |
| Braemar Street Clearance Area 1956 ...              | 226    | 907         |
| St. George's Hill Clearance Area 1956 ...           | 140    | 774         |
| Lante Street Clearance Area 1956 ...                | 282    | 1,341       |
| Potter Street Clearance Area 1957 ...               | 82     | 475         |
| Anderson Street Clearance Area 1957 ...             | 53     | 194         |
| Eden Street Clearance Area 1957 ...                 | 80     | 293         |
| Windsor View Clearance Area 1957 ...                | 3      | 11          |
| Deysbrook Lane No. 1 Clearance Area 1957 ...        | 19     | 45          |
| Deysbrook Lane No. 2 Clearance Area 1957 ...        | 11     | 34          |
| Deysbrook Lane No. 3 Clearance Area 1957 ...        | 11     | 19          |
| Deysbrook Lane No. 4 Clearance Area 1957 ...        | 8      | 26          |
| Windsor Street No. 5 Clearance Area 1957 ...        | 4      | 34          |
| Upper Stanhope Street Clearance Area 1957 ...       | 45     | 359         |
| Eden Street No. 2 Clearance Area 1957 ...           | 51     | 228         |
| Darwen Street Clearance Area 1957 ...               | 33     | 144         |
| Paget Street Clearance Area 1957 ...                | 5      | 22          |
| Dris Street Clearance Area 1957 ...                 | 7      | 34          |
| Snowdon Street Clearance Area 1957 ...              | 2      | 6           |
| Deaneas Street Clearance Area ...                   | 43     | 183         |
| Barmouth Street Clearance Area 1957 ...             | 71     | 377         |
| Boundary Street No. 5 Clearance Area 1957 ...       | 2      | 10          |
| Boundary Street No. 6 Clearance Area 1957 ...       | 3      | 15          |
| King Street (Garston) No. 1 Clearance Area 1957 ... | 71     | 328         |
| King Street (Garston) No. 2 Clearance Area 1957 ... | 7      | 28          |
| Eden Street No. 3 Clearance Area 1957 ...           | 59     | 259         |
| Barlow Street No. 1 Clearance Area 1957 ...         | 99     | 361         |
| Barlow Street No. 2 Clearance Area ...              | 11     | 28          |
|                                                     | 2,526  | 11,291      |

### Offices and Workplaces

The environmental condition in which many clerical workers are employed in this City is deplorable, particularly in the older buildings. There is often a lack of basic welfare requirements such as washing facilities, drinking water and privacy for females, and difficulties in providing adequate and satisfactory heating and ventilation without discomforting draughts.

Unsatisfactory  
Conditions in  
Offices

Although everything possible is done by inspectors in these cases to ameliorate conditions of this nature by resorting to means of persuasion, progress is hampered by the absence of effective powers of enforcement.



Excellent office accommodation is available in many of the new commercial buildings which have been erected during the past few years, but the comparatively low rents of rooms and suites in out-of-date buildings remain an attraction to many businessmen who are willing to accept the accompanying environmental disadvantages.

#### Heating of Workrooms

A facet of our domestic and business life which never fails to surprise most foreign visitors to this country is the spartan like attitude we adopt towards the maintenance of a warm and comfortable environment in homes and workrooms during the colder months of the year.

It is true that we notice and grumble about chilly, draughty and uncomfortable conditions as and when they occur, but as a general rule relatively little thought and consideration is given to the matter once the weather has improved and no determined effort is made to take permanent and effective steps to prevent a recurrence of the situation.

This is particularly noticeable in the case of offices and workplaces and many requests are received from non-industrial workers for the assistance of the department to rectify unsatisfactory conditions of this nature.

#### Temperature and Efficiency

It is a matter of commonsense that individuals can accomplish sedentary tasks much easier and concentrate more readily when the environmental air temperature is comfortable and it is to an employer's advantage to see that this is achieved.

The sight of typists endeavouring to cope with work in a temperature of 50° F. is most disturbing and this was found to be the state of affairs in one office when the inspector visited at 3 o'clock in the afternoon on a day in February. In this case the owner of the business was absent most of the time and did not appreciate the plight of his young assistants until his attention was drawn to the fact by the inspector.

Experience has shown that under normal conditions a minimum space temperature of 65° F. is needed to provide a reasonably comfortable working environment where persons are engaged in clerical tasks.

This temperature was attained in this particular office without difficulty by the use of portable electric heating apparatus which gave convected and radiant heat.

It is a curious fact that whereas it is a legal requirement to secure and maintain a satisfactory temperature in shops and factory work-rooms there is no similar protective or welfare measures in the case of non-industrial employment such as in offices and improvement can only be effected by inspectors resorting to means of persuasion and convincing employers that well planned heating arrangements are an asset to business efficiency as well as to the well being of employees.

**The Legal  
Position**

In the construction of the new office buildings the architects have invariably taken environmental problems of this nature into account and there is little doubt that this modern accommodation will meet the requirements of future legislation.

**New Office  
Buildings**

#### **Administration of the Shops' Act, 1950 and Young Persons (Employment) Act, 1938.**

The review of the work carried out during the past year, in the sphere of shop workers' welfare under the existing legislation, must include some reference to legislative weaknesses.

It will be recalled that there has been in existence for the past ten years a document known as the Gowers Report, which is intended to be a factual guide in the process of modernising the present inadequate legislation affecting workers in many non-industrial employments, and the closing hours of shops.

**Inadequate  
Legislation**

The value of this document may be assessed not only by noting the distinguished persons who were appointed to the Committee, but more particularly by the fact that they received and considered ninety-eight memoranda and took oral evidence from fifty-one organisations.

In spite of this valuable evidence, gleaned, sifted and compiled into relevant sections over a period of two years, little progress has been made to implement the findings. This is a matter for serious concern by workers and enforcement officials.



**Shops Bill,  
1956**

At the beginning of the year a proposed Shops Bill was debated strenuously and finally shelved. It is true the measure was not the simplified document anticipated, nor were many of the anomalies in the existing Act effectively dealt with, but there were some proposals, such as the inclusion of street trading and more satisfactory arrangements for Christmas closing and the employment of assistants during this season, which would have been most helpful.

**Prospect of  
New Law**

The prospects of the framing and approval of new legislation are now as remote as ever. There was no reference to shops' law of any kind in the Queen's speech opening the present session of Parliament, and whilst it is appreciated that there are many matters of varying degrees of urgency demanding the attention of Parliament, it is deeply regretted that a long delay may occur before this question will be reconsidered.

**Economic  
considerations**

Some indication of an important reason for prolonged delay may be obtained from the opening remarks on page seven of the Gowers Report (Cmd. 7664)—

"The gravity of Britain's economic difficulties during the years that we have been sitting has imported a certain unreality into our proceedings. We are considering conditions of employment in Shops and Offices at a time when labour and materials necessary to improve them are not sufficiently available. We are considering proposals for shortening hours of work for juveniles at a time when industry must devote all its energies to increasing output . . ."

**Financial  
Restrictions**

The situation is very little changed after ten years, in fact, added to this are the present financial restrictions which are imposing a serious limitation upon expenditure for structural improvements, thus affecting welfare measures.

**Unprotected  
Workers**

The fact that existing provisions affecting work people are being enforced reasonably smoothly does not indicate that all is well and the present legislation can continue indefinitely as an inadequate shield for the many thousands of workers within its scope, nor can the thousands who are in unregulated employments go on unprotected, in some cases, with serious effects.

### Administration.

In accordance with the practice of some forty-five years the duties imposed upon the local authority by the Shops Act have been carried out by public health inspectors and, in certain instances, by assistant inspectors, with the guidance of inspectors with special experience in this particular work. **Inspectorate**

The complicated nature of this legislation is already well known, but it cannot be over-stressed that these complications require the utmost care and forethought in dealing with its provisions. Staff are obliged to exercise considerable tact, patience and perseverance, and possess a wide understanding of the problems associated with the distributive trade in so far as they affect shopkeepers and their employees. **The task of Inspectors**

There is in this City a good relationship between tradesmen and this department, and this can only be maintained by co-operation based on a sound understanding of responsibility. **Co-operation between Shopkeepers and Department**

Complaints are promptly dealt with and every endeavour is made, even under the most difficult conditions, to secure evidence that will enable appropriate action to be taken where necessary. **Complaints**

The reorganisation of the inspectional staff whereby each district inspector is responsible for carrying out the duties delegated to the department in all types of premises has resulted in a marked increase in the number of visits to retail and wholesale shops. **Inspections**

The new arrangement of staff means that individual inspectors cover manageable and smaller areas which makes for more efficient control and closer supervision and this is a distinct advantage in Shops Act administration where it is necessary to observe such matters as times of closing and hours of employment and in respect of details relating to bye-laws regulating the conduct of certain businesses such as food, pet shops and hairdressing establishments.

The number of routine visits to retail and wholesale shops, cafes, clubs, hairdressers, pet shops and places of entertainment was 53,454 and in addition 142,049 visits were made to shops at night, on the early closing day, and on Sundays, as compared to 16,940 inspections and 128,952 observations last year.



|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Half-holiday Closing</b> | Trading on the early closing day is generally confined to permitted hours, but there is limited illegal selling, particularly during the evenings in small general shops.                                                                                                                                                                                                                                                                                                                  |
| <b>Evening Closing</b>      | Contraventions of the evening closing provisions also occur in the small back-street shops and in many cases the shopkeepers see that their customers conceal the purchases either in bags or, if possible, in pockets under coats. A regular warning system exists in some localities, and it is not uncommon for an inspector to find himself being announced by a "runner" who has beaten the inspector to a shop by a "short head."                                                    |
| <b>Subsequent action</b>    | Law abiding shopkeepers should be given as great a measure of protection as is possible, but there are many difficulties in carrying out effective observations and securing essential evidence. Nevertheless, inspectors are on duty each evening of the week and on Sundays, and when infringements are found warning letters are sent or court proceedings instituted. In those cases taken to court convictions were obtained and fines imposed as indicated in the statistical index. |
| <b>Street Trading</b>       | The present anomalous position of trading from carts and vans on thoroughfares is creating increased resentment among shopkeepers and considerable action has been taken within the restricted legislation.                                                                                                                                                                                                                                                                                |
| <b>Useful Service</b>       | The essential service which many of the more well founded mobile shops have supplied on large housing estates where shopping facilities have not been fully developed must not be overlooked. Shopkeepers, however, are finding that some street traders are taking unfair advantage of the difficulties in applying to them the existing law, by parking their vehicles near to the shops all day and evening, in some cases seven days a week.                                           |
| <b>Dissatisfaction</b>      | Shop traders are not very impressed when the implications of existing law are explained to them and inspectors are embarrassed by having to explain their apparent inaction.                                                                                                                                                                                                                                                                                                               |
| <b>Legislation Required</b> | It is to be hoped, therefore, that this unfavourable situation will be dealt with by the legislators at an early date, if necessary by a special amending measure to regulate street trading until time can be given to further consideration of a Shops Bill.                                                                                                                                                                                                                             |

### Assistants' Entitlements

The Shops Act makes compulsory a weekly half-holiday for assistants, **Weekly Half-holiday** commencing not later than 1-30 p.m. on the day specified in the prescribed notice. This is intended as a time of recreation or rest and it is not, therefore, permissible for an assistant to be employed on this half-day and to receive payment in lieu of time off.

This provision is well observed and only occasionally are employees found to be working on their half-day, often behind closed doors engaged on stocktaking or work of that nature.

Complaints are occasionally received about assistants not receiving **Meal Times** proper intervals for meals, but there is no reason to believe that there is any wilful disregard of this important requirement.

All persons employed in a shop open on Sundays for the serving of **Sunday Employment** customers must be given compensatory holidays appropriate to the length of time they were so employed. To regulate this requirement a Record of Sunday Employment (Form VII) is required to be kept in the shop.

This provision is given careful attention by inspectors who carry out **Infringements** a regular widespread check on shops on Sundays. Infringements are generally of a technical nature and action by warning letter is usually sufficient to ensure compliance with the Act.

The hours of employment of young persons (under 18 years of age) is considered an essential matter for special attention. The records **Employment of Young Persons** required to be kept are always examined and when necessary the assistants are questioned to ensure that the records are correct and conditions of employment are being observed.

The employment of young persons in cinemas, theatres and **Night Employment of Young Persons** restaurants is also checked periodically in order to ensure that they are not employed later than permitted by the Act.

### Welfare Arrangements

The work of inspectors under the welfare provisions of the Act is **Inspections** mainly confined to seeing that sanitary conveniences, washing facilities, heating, lighting, ventilation and the facilities for taking meals in the



shop are properly maintained. Occasions arise when additional and new facilities are found to be required to meet changes of occupation or increase of staff.

**Problems of Old Premises**

Problems still arise in connection with aged properties and with premises affected by proposed road widening schemes which are not likely to be accomplished for an indefinite number of years. Owners of such properties are very reluctant to spend money on work which may be of only a limited life. However, ways and means are usually found for an agreed programme of improvement.

### **Hairdressers and Barbers**

**General**

Work in connection with the provisions of the Liverpool Corporation Act, 1955, in respect of hairdressers has now evolved into routine inspections and the registration of new businesses or transfers to new owners.

**Issue of Byelaws**

In March copies of the new Hairdressers' Bye-laws and Certificates of Registration were circularised to 599 registered hairdressers, following which 717 inspections were carried out to check on conditions.

**Infringements**

This action resulted in warning letters being served in respect of 22 premises, mainly in regard to minor matters.

**Hairdressing in Houses**

Only one complaint was received during the year of hairdressing being done in a dwellinghouse. Observations and enquiries were made and as a result the business was required to cease until adequate and satisfactory facilities could be provided to meet the bye-laws and to enable the premises to be registered. This business has not functioned since.

### **Places of Entertainment.**

**Routine Supervision**

Day and evening visits to cinemas, theatres, dance halls and other places of entertainment have been maintained during the year in accordance with the arrangements with the licensing justices.

Attention has been given to the general cleanliness of the auditoria, seats, sanitary conveniences, staff and projection rooms and the maintenance of a suitable temperature and adequate ventilation.

Managers and licensees are not assisted in their endeavour to maintain clean conditions because of the serious amount of damage and gross misuse which occurs in most of their premises. In spite of this the general standard is commendably high, and a marked degree of co-operation is extended to inspectors.

**Problem of  
Wilful  
Damage**

Inspectors also give attention to the conditions under which sweets, ice cream and refreshments are sold in places of entertainment. The standard is quite satisfactory, particularly as most of these commodities are pre-wrapped.

**Food  
Hygiene**

During the year 369 visits were made to these establishments and 36 defects were found and satisfactorily dealt with by the management.

**Inspections**

### **Pet Animals Act, 1951.**

There were 69 licences issued to persons carrying on business as dealers in pets, and during the year 359 visits were made to ensure that the provisions of this enactment were complied with satisfactorily and in only 2 cases was action necessary and suitably dealt with.

**Licensing**

The requirements of the Act with respect to fire precautions are dealt with by the Liverpool Fire Service who recommend measures for reducing fire risk and action to be taken in case of fire. These recommendations were made special conditions on the licences affected and steps were taken to ensure compliance.

**Fire  
Precautions**

In accordance with the instructions of the Health Committee action is now being taken to have external sun blinds fitted to pet shops not already possessing them, and this matter is also being made a subject of a special condition on the licence.

**Sun Blinds**

### **Factories**

The effect of the increasing use of mechanical power in factories is seen in many ways; changes in the character and type of personnel employed, reduction in the number of workers engaged on particular processes and the replacement of male by female labour with the consequential problems of providing suitable welfare, canteen and sanitary facilities.

**The  
Hygienic  
Effect of  
Mechanisa-  
tion**



The adoption of automatic machines in many cases has affected an upgrading in environmental conditions particularly in respect of cleanliness and this has encouraged firms to undertake improvements in the structure and decoration of workrooms.

One factory, for example, where only men had been employed for many years decided to introduce female labour to operate a group of new machines for repetitive work. This revolutionary change had the effect of brightening up the factory in more ways than one. A rather shabby and neglected messroom was replaced by a comfortable canteen where meals are supplied at reasonable cost under hygienic conditions. New cloakrooms and lavatories were built for the use of both sexes and in general the men have become tidier in their work and present a smarter personal appearance.

In another case a firm of manual woodworkers installed electrically powered plant for planing and cutting and as this incorporated a dust extraction system the floors are now free from accumulations of sawdust and dirt, the walls and windows are cleaner and the work room is now an example of order and tidiness. It also had the effect of abating the nuisance of the encroachment of sawdust on the surface adjoining the public footwalk and street.

#### **Food Factories**

Although the powers under the Factories Act for securing satisfactory health and welfare standards for workers rest mainly with H.M. Inspector of Factories, the responsibility for seeing that food manufacturers and their employees conform with legislation governing the production of clean and safe food and the operation of canteens is the concern of the local authority. In these circumstances overlapping duties are occasionally unavoidable but in practice so far as this City is concerned, co-operation between the factory and public health inspectorate has been a distinctive feature for several years and this policy has proved to be a great asset in the control of food factories and works canteens.

#### **Industrial Nuisance**

The investigation of nuisances arising during the course of manufacturing and other industrial activities take up an appreciable amount of the time of the department and inspectors who possess special technical knowledge of certain offending processes are frequently called



up by manufacturers to advise as to measures needed to secure abatement. Most of the complaints received during the year related to excessive noise, dust and effluvia.

Mechanisation has certainly had the effect of creating noisy Noise conditions which on occasions become a source of annoyance and irritation to the residential public. Nuisances of this nature are dealt with under powers provided by the Liverpool Corporation Act, 1955. Action has been taken in respect of a noisy travelling gantry crane, circular saws, dust extraction equipment, metal drum reconditioning, careless handling of structural steelwork and gas cylinders, etc. Statutory notices have been served in some cases but in general the abatement or mitigation of this type of nuisance has been achieved by discussion and the co-operation of the proprietors of the offending business.

It is to the benefit of workers engaged on processes which give rise Dust to dusty conditions that the dust particles should be collected and controlled by a suction system at the points where the work is done. It is not, however, good practice when the dust is transferred from the work via the extraction system into the open air and thence into the living rooms of nearby houses or on to a line of household washing. This type of nuisance was however dealt with during the year and appropriate action was taken by the firm concerned immediately on being approached by the inspector. Other complaints dealt with include dust caused by the cleaning of empty flour sacks, loading and unloading of amorphous material and from a brick crushing plant.

It is axiomatic that people who reside in industrial areas are subject Industrial to the risk of certain types of nuisances associated with manufacturing Effluvia processes and activities and in particular those which manifest themselves by objectionable odours.

The emission of offensive gases into the atmosphere is usually due to mechanical breakdowns, careless plant operation, ineffective deodorising apparatus or experimental work in which the release of foul smelling gases is not foreseen.

As effluvia is invariably ephemeral in character an appreciable amount of the inspectors' time is spent in tracing the source and cause



of the trouble. Regard must also be made to individual personal reactions to odours which only irritate because some person is very sensitive to certain smells. This was exemplified by a complaint of the smell of a tobacco factory which did not worry other local residents; in other cases the smell of pine disinfectant and strawberry jam were quoted as being sickly and abnoxious.

**By-products  
plants at  
Stanley  
Abattoir**

The treatment of animal waste however continues to be a major offender in the emission of effluvia and special attention has been given to plants both inside and outside the abattoir which process this material. The foul smelling gases which are often evolved during this work are trapped and rendered innocuous by suitable condensers but in some cases the apparatus is not always successful in completely deodorising the gases. The reasons for this depend very much on the human element and it is doubtful if this type of plant can be made foolproof.

The causes of the emissions of offensive smells from the by-product plants at Stanley Abattoir referred to in last year's report were determined and remedial measures have been taken to obviate the trouble.

In the case of one fat melting plant it was found that the quantity of raw material being treated on occasions was in excess of what the plant could deal with at a temperature capable of extracting the fat without the release of a rather sickly vapour. This plant has now been fitted with a special type of deodoriser which dissolves the vapour and discharges it into the drainage system. In another case a detailed examination of a fat extractor plant showed certain defects in the deodorising apparatus which were not obvious until it had been dismantled.

A significant feature was the fact that there was no nuisance from the by-products plants during the treatment of over 200 carcasses of animals slaughtered at the abattoir during the period of an outbreak of foot and mouth disease at the end of the year.

**Offensive  
Trades**

Applications were received during the year from the General Manager of the Markets Department for consent to establish the trades of a fat extractor and blood drier at Stanley Abattoir and also by another person



in respect of the establishment of the business of fat melting. Consent was granted by the City Council in each case.

There are 74 offensive trades in operation and frequent visits are made by inspectors to ensure that they are conducted in a satisfactory manner.

In accordance with the provisions of the Factories Acts, 1937 and **Outworkers** 1948, outworkers returns are received twice yearly and the premises referred to in the returns are visited to find out whether work is carried on in any place which is, in the opinion of the local authority, injurious or dangerous to the health of the persons employed therein.

The returns received during the year indicated that 496 outworkers were employed during the year.

The premises where outworkers carried on the work were examined and found to be satisfactory. Outworkers whose names were included in the returns which were employed in districts outside the City totalled 131 and these were referred to the authorities concerned while 10 names of local outworkers were referred to this department by other authorities.

Under Section 128(3) of the Factories Act, 1937, the Medical Officer of Health is required to furnish the Minister of Labour and National Service each year, information relating to the administration of the Act by the local authority.

**Annual  
Report to  
Minister of  
Labour and  
National  
Service**

The prescribed particulars are given in the Tables on Form 572 (revised) issued by the Ministry and a copy of this is included in the statistical appendix.

#### **Rag Flock and Other Fillings Act, 1951.**

This Act provides for the registration and licensing of premises used in the manufacturing, storing and selling of specified filling materials enumerated in the Regulations.

A standard of cleanliness to which all filling materials must conform is laid down in the Regulations, and powers are given to take samples at any time for the purpose of testing by a prescribed analyst.



At the end of the year the number of premises licensed and registered was :—

|                                                    |    |
|----------------------------------------------------|----|
| No. licensed to manufacture rag flock ... ..       | 1  |
| No. licensed to store and sell rag flock ... ..    | 9  |
| No. registered in which filling materials are used | 82 |

37 samples of filling materials were taken during the year :—

|                             |    |
|-----------------------------|----|
| Rag Flock ... ..            | 22 |
| Coir Fibre ... ..           | 6  |
| Layered Cotton Felt ... ..  | 3  |
| Woollen Felt ... ..         | 2  |
| Woollen Mixture Felt ... .. | 2  |
| Algerian Fibre ... ..       | 1  |
| Kapok ... ..                | 1  |

1 sample of Rag Flock did not conform with the Regulations and a letter was sent to the manufacturers drawing their attention to the offence.

#### Employment Agencies

There were 36 licensed employment agencies on the register at the end of the year. Visits were made by authorised officers to ensure that the requirements of the Bye-laws were carried out in all premises licensed under the Liverpool Corporation Act, 1927, and no infringements were recorded.

### Atmospheric Pollution

#### Administration

The detailed duties of smoke abatement are growing to considerable magnitude and it has been found that a small section is insufficient to cope with the volume of work both legislative and technical.

The administration is rapidly assuming large proportions as each smoke control area is surveyed, completed and presented to the Minister for confirmation. The final completion may involve structural alterations and adaptations to comply with the requirements which may occasionally require enforcement.

As the problems of the conversion of premises, including technical difficulties and advice to people desiring to co-operate all take time, this work has been spread amongst the general inspectorate. Gradually, as these men are trained, they can contribute more within the sphere of the smoke abatement work. They still need some degree of supervision by highly technical and administrative experts in this field.

The original team of smoke inspectors of three years ago has now been considerably extended by the addition of all the inspectors in the south end of the City, who have undertaken, in addition to their normal duties, the survey of all premises.

The survey of the premises in the City has been completed by the general inspectorate working under the guidance and control of the senior inspector and as more men qualify, so each division is assuming the responsibility for its own smoke abatement duties. This, besides making it possible to survey large areas of the City, also means there is continual action being taken against the individual persistent offender who thinks he is secure in the knowledge that a specialised inspector cannot be everywhere at the one time.

The problem of atmospheric pollution is now being tackled with the help of the Clean Air Act which empowers the making of Smoke Control Orders. During the year the City Council's (No. 1) Smoke Control Order was confirmed by the Minister of Housing and Local Government. As a result, Liverpool will be the first City to have a Smoke Control Area made under the new legislation.

The effect of a Smoke Control Order, is to prohibit the emission of smoke from chimneys in any specified area, but the provisions of the Act are flexible and allow for adaptations to local circumstances. The establishment of smoke control areas will necessarily be gradual over a period of years. Progress will be governed by the supply of smokeless fuels, the rate at which appliances can be converted or replaced and above all the support of the public and their readiness to co-operate.

In addition to the making of Smoke Control Areas the Act requires **New Installations** that all new furnaces should be capable of smokeless operation and it requires all persons installing new plant to advise the department prior to the work being commenced.

The progress in reducing pollution of the atmosphere in Liverpool **Progress** is such that during the year it was found necessary to issue only 47 abatement notices, compared with 100 such notices in 1956.

Following the issue of notices a number of the persistent offenders have converted their plant to modern mechanical stokers thus ensuring



a considerable reduction in smoke emission and a corresponding reduction in fuel consumed.

#### Shipping

The shipping using the Port still continues to be a problem but it is pleasing to record that during the year eight new oil fired tugs have replaced old coal fired tugs making a total of 54 oil fired vessels using the river daily. A further 102 hand fired coal vessels including tugs, dredgers and hoppers are still in use within the port. A number of these are due for conversion or replacement within the coming months.

#### Causes of Pollution

During the burning of raw coal there are two forms of smoke which may be emitted to pollute the atmosphere—black smoke—this is usually industrial—and brown smoke—which is given off when coal is placed on a low temperature fire, such as a domestic or office open fire.

#### Domestic and Commercial

The remedy for the immediate domestic problem lies in the provision of ample supplies of smokeless fuels. It is necessary to convert housewives in the use of smokeless fuels as they do not take readily to this class of fuel, missing the traditional flickering flame and cheerful glow, although often aware of the waste of heat and poor return for their money.

#### Industrial Smoke Pollution

It was found that much of Liverpool's industrial smoke pollution was caused by one or more of the following:—

(1) Overloaded boilers when the fires were forced beyond their capacity in an effort to maintain steam.

(2) Defective and worn out plant.

(3) Unsuitable grade of fuel which, in certain plant, although care may be exercised, will always produce smoke—for example, a vertical boiler with a mechanical underfeed stoker was being fired with a weak slack, requiring constant attention and causing frequent bursts of black smoke.

(4) Careless firing—this is the most common cause of smoke emissions often due to the lack of knowledge on the part of the fireman, or lack of training in the principles of firing and efficient combustion.

### Smoke Abatement.

Smoke Control Areas will eventually solve the domestic problem and although the (No. 1) Smoke Control Area only includes 63 domestic premises the first step has been taken to tackle this formidable problem. Remedies—  
Domestic

The necessary machinery has now been set up regarding grant aid and adaptations to premises based on the experience gained in establishing the first area, and will now extend to further areas.

What are the remedies for the industrialist whose plant causes a considerable percentage of the total pollutants emitted into the atmosphere? Industrial

(1) Take the first one—overload. The remedy is of course to reduce the load or provide more boiler power.

(2) Worn out or defective plant frequently makes it very difficult to secure satisfactory results without, in many cases, the expenditure of large sums of money. However, it must be remembered that the initial cost of modern plant capable of smokeless and efficient combustion will be offset by the saving in fuel.

(3) Unsuitable fuel is an aftermath of the last war, and unfortunately management in industry is still in the unhappy position of not being able to choose the fuels they prefer or need for their respective plants. We are frequently required to deal with smoke nuisances resulting from the poor fuel being supplied for use on underfeed mechanical stokers, which, by reason of their design, require a selected fuel which cannot be obtained locally.

This problem is undoubtedly connected with financial considerations as unfortunately fuels causing smoke nuisances are easily obtained and better grades of coal require greater transport. It has, therefore, been necessary to attempt to minimise the smoke emission without being able to change the grade of fuel.

(4) Carelessness or lack of knowledge on the part of the operator is unfortunately a common cause of smoke emission.

Since industry began to use raw coal the common practice has been to rely on unskilled labour for most stoking operations. Even to-day,



when so much publicity is given to the need for fuel economy, far too often the excuse given is that the regular fireman has been temporarily replaced by a general labourer from the factory or workplace who has very little or no prior instruction in the correct firing technique, so that smoke emissions may be avoided.

### Smoke Control.

#### Legislation

The control of industrial smoke is subject generally to certain sections of the Public Health Act, 1936, and local authorities are required to inspect their areas to find out the extent of "smoke nuisances."

During the year, as a result of special complaints, observations were carried out and volumes of excess smoke recorded. In addition, 2,264 routine observations resulted in further emissions of excessive smoke being observed.

#### Industrial Boilers

Following complaints to the owners of a number of industrial boilers, of excessive smoke nuisance from their factory chimney, it was recommended that modern mechanical chain grate stokers should be fitted. This has resulted in a complete absence of smoke and a considerable reduction in the fuel burnt.

#### Shipping

There is almost always a certain amount of atmospheric pollution caused by little ships plying to and fro daily on the river. The large liners, many oil fired, mechanically controlled, present little or no difficulty, smoke being either the evidence of careless supervision or as a result of breakdown which is quickly obviated by a visit to the offending vessel.

The busy tug and the hard working dredger, however, require different treatment. During the year, following the receipt of special complaints, observations were made and volumes of excess smoke reported. Some 3,180 routine observations of shipping in the docks and moving on the river resulted in excessive smoke being noted.

Many of these observations have to be carried out over long periods from the quayside or dock walls, often in icy wintry conditions, and due to many offenders being under way, it is not possible to board the vessel at the time of the nuisance. It therefore follows that progress in this operational sphere is extremely slow.

During the year statutory action was taken in respect of many **Legal Action** shipping companies and on a number of occasions it was necessary to send warning letters advising owners to ensure the stokers exercise more care in firing the boilers to avoid undue smoke emission.

### **Clean Air Act.**

The procedure laid down in the Clean Air Act requires that details **Smoke Control Area** be forwarded to the Minister of Housing and Local Government prior to the making of a Smoke Control Order.

On the 3rd July, 1957, the City Council of Liverpool (No. 1) Smoke Control Order, 1957, was made and submitted to the Minister for confirmation on the 12th July, 1957.

It was duly confirmed on the 27th September, 1957, thus making history in that Liverpool was the first City to have an Order confirmed, the operative date being 1st April, 1958.

The area covers approximately 100 acres and is bounded by the Pier Head, St. Nicholas Place, Chapel Street, Tithebarn Street, Hatton Garden, Manchester Street, Whitechapel, Lord Street, James Street and Mann Island.

It contains 53 industrial premises, 1,770 commercial premises, 63 **Statistics** dwellings and 34 other premises including the Town Hall, Municipal Buildings and many other public and Crown properties.

During the year progress in adaptation has been considerable, many occupiers have converted their old fashioned open grates to approved coke grates, with gas ignition in order that the authorized fuel can be ignited smokelessly.

In 27 of the dwellings within the area it was necessary to adapt the **Cost of Adaptation** existing fireplaces to avoid the emission of smoke. Owners or occupiers will be reimbursed to the extent of seven-tenths of the expenditure, provided the adaptation is carried out after the confirmation of the Order and to the satisfaction of the department.

The installation of new heating apparatus need not be an elaborate **Installation Work** or costly job. There is a wide variation in the purchase price for each type of heating appliance.



Smokeless fuels may be more expensive initially than house coal, but are more efficient. Occupiers find they get nearly twice as much heat from the new appliance and smokeless fuel than was previously felt when ordinary house coal was burnt on open fires.

It is important to use not only the right type of fuel but also the right size. The official list of recommended appliances gives appropriate fuel sizes.

#### **Prior Approval**

For a number of years a voluntary system of prior approval has operated with considerable success. New legislation has provided that all new boilers or furnaces must be notified to the department prior to the work of installation, also the specification showing the details of the plant to be installed may be forwarded for prior approval.

#### **Special Problems.**

#### **Clarence Dock Power Station**

The department has for some time been considerably perturbed by the smoke nuisance caused by the Clarence Dock Power Station.

Consultations on this matter have taken place between responsible officers of the Central Electricity Generating Board, the Ministry of Power and the Local Authority.

#### **Plant in use**

The plant at the Power Station is divided into three sections. Two sections use chain grate mechanical stokers and the latest section is connected to the Western chimney, using pulverised fuel together with electrostatic precipitators for the removal of very fine dust particles from the flue gases. This chimney emits very little smoke under normal conditions and consequently it rarely constitutes a nuisance.

#### **Smoke Plume descends to Sea Level**

On the 18th June, 1957, an observation was made of the smoke emitting from No. 2 chimney which was seen to descend to sea-level approximately mid-river, blow toward Wallasey Town Hall and envelop the Municipal Buildings and Promenade in a smoke cloud.

#### **Report received from C.E.A.**

On the 19th June, 1957, a progress report was received from the Central Electricity Generating Board, North West Merseyside and North Wales Division, as follows:—

#### **Extracts from Report**

"The problem of the smoke emission from Clarence Dock Power Station has been causing the Division concern for some considerable



time, and with a view in the first place to reducing the density and cutting down the persistence of the smoke plume from No. 2 chimney, certain tests involving the injection of liquid ammonia have been carried out.

"Visual observation of the plume at the point of emission from the chimney showed practically no change even when the injection rates were varied, theoretically it would require four gallons per hour per boiler to effectually neutralise the  $\text{SO}_2$  content of the flue gases.

"Unfortunately, throughout the test the smoke was comparatively light in quantity and white in colour, and this coupled with a cloudy background, made assessment very difficult.

"Further experiments will be made in the near future using larger injection quantities over a longer period, and the effect assessed by observers stationed throughout the City in the track of the smoke plume. Before installing the equipment at Clarence Dock Power Station to enable further experiments to be carried out, however, it is felt desirable first of all to complete similar injection tests at another power station in the division."

**Summary of  
Results so far  
achieved**

On the 27th August a special report was submitted to the Minister of Housing and Local Government expressing the concern of the City Council and requesting the Ministers in charge of, or exercising control over the Central Electricity Generating Board to investigate the matter, and if necessary to receive a deputation of representatives of the City Council to discuss the matter and to endeavour to seek a solution to the problem.

**Report to  
Minister of  
Housing and  
Local  
Government**

An extract from a report submitted by the Controller of the North West, Merseyside and North Wales Division indicated that the remedial measures being taken included some 400 tons per week of a low sulphur coal from the Midlands. The sulphur content of the fuel is 0.7 per cent. as against 1.8 per cent. of the previous supply, and this, it is hoped, will show some improvement in the total sulphur oxide emitted.

**Remedial  
Measures  
Adopted**

The Ministry of Power Engineers and Technical Officers of the Central Electricity Generating Board are still trying to seek a solution to the problem of the smoke plume at Clarence Dock Power Station and



further experiments are to be carried out with chemical additives to reduce the sulphur content in the smoke emission, and thereby reduce the persistence of the smoke plume.

There is now a working party with power to spend money within specified limits concentrating on solving this problem.

**Crown  
Property**

The number of complaints received in connection with Crown properties have reduced in number during the year, although on occasions considerable black smoke emissions have been observed from various hospital chimneys.

Investigations following observation of excessive black smoke emissions from hospital chimneys, have frequently resulted in the cause of the nuisance being due to a lack of care by personnel employed in the boiler house.

**Report to  
Minister**

During the year it was necessary to inform the Minister of Health through the appropriate channel of the concern of the City Council over the excessive black smoke emission from a number of hospitals.

As a result of this action modern plant is being installed at a number of hospitals, also smoke density alarms to aid the firemen in their duties are being fitted.

Sefton General Hospital has now been provided with new boiler plant and the nuisance is solved.

A central boiler house is to be constructed to serve the Maternity Hospital, Royal Liverpool Children's Hospital, Ear, Nose and Throat Infirmary and the Women's Hospital.

**Corporation  
Baths**

The Corporation Baths Department has tackled its problem vigorously and the following baths have new plants working:—Burroughs Gardens, Netherfield Road, Kensington, Lodge Lane, Donaldson Street, Picton Road, with Steble Street and Minshull Street in the process of being converted to modern smokeless combustion.

The total cost involved in converting all these premises is some £120,000.

Complaints received of smoke and fumes from a gas works were investigated by the department and the nuisance was found to be aggravated by the difficulty of charging the horizontal retorts and ineffectual sealing of the doors. This particular gas works is now closing down. Other difficulties at gas works are associated with dust and fumes from the handling of coal and quenching of hot coke but by the co-operation of the North Western Gas Board, these nuisances have almost completely disappeared.

Complaints of coal dust and ash entering houses in the vicinity of a coaling and watering depot were investigated.

**Railway  
Engines**

The nuisance was caused by the tipping of coal from wagons into the refuelling bunker, and the dropping of ash on to the tracks from the firebox and smokebox of engines during the cleaning and refuelling operation.

It was recommended that a suitable water spray be fitted over the coal bunker and alternate arrangement be made to collect the ash and soot from engines without depositing it on to the track. British Railways officials expressed concern and assured this department that steps would be taken to investigate the nuisance.

**Co-operation**

Work is now in progress on the installation of a water spray over the coal bunker, and authority has been given for the purchase of a mechanical grab to obviate the manual handling of ash and soot from the railway track after removal from the railway engines.

British Railways intend to modernise the main line services running into Liverpool Termini. Engineering work is already in progress on the Liverpool to Crewe section. The conversion of other routes to diesel traction has also commenced in this area with the introduction of diesel services to Warrington. It is understood this will shortly be extended.

### **Atmospheric Pollution Measurement.**

Impurity in the atmosphere can take the form of solid or liquid particles which may be so large that they settle out rapidly or so small that they remain in suspension for a very long time.

**Effects of  
Atmospheric  
Pollution**

Effective action to reduce pollution in the atmosphere must be based on reliable knowledge.



The reduction in atmospheric pollution would make a major contribution to improved health. As the soot and dust is removed so there is a reduction in the risk hazard associated with respiratory disorders, especially bronchitis, which causes so much illness. Furthermore, the intensity of the sun's rays would be increased, promoting hygienic conditions and a sense of well-being in the population.

**Vegetation  
and  
Buildings**

Soot clogs the pores of leaves and stunts the growth of trees and vegetables—it covers the stonework of buildings with a sticky coating of dirt, it causes corrosion of iron and erosion of stonework of all our commercial and public buildings, thus adding to the cost of preservation and restoration.

**Scientific  
Investigation**

The compiling of information about the nature and extent of atmospheric pollution by the proper use of the scientific instruments which have been developed is the best way to tackle the problem and ascertain the degree of pollution in any area for a specified period.

The special investigation at the eight stations located in the City has continued during the year.

The instruments consist of electrically driven pumps drawing measured quantities of air continuously through filter papers. After removal the papers are despatched to the Fuel Research Station and examined photometrically for total smoke and then sent to the Dunn Laboratory, St. Bartholomew's Hospital for analysis in respect of hydrocarbons suspected to be carcinogenic. In addition, a series of filter papers was aggregated for spectrographic determination of trace elements, such as arsenic, antimony, nickel, cobalt, chromium, manganese, zinc and lead.

**Department  
of Scientific  
and  
Industrial  
Research**

Co-operation with the Department of Scientific and Industrial Research in atmospheric pollution recording has continued and the results obtained forwarded each month.

**British  
Empire  
Cancer  
Campaign**

In connection with the special survey and research in neoplasms this work has proceeded satisfactorily, the filter papers being forwarded each week or when required for examination by specialists. The results of the sulphur content of the atmosphere were sent monthly to the British Empire Cancer Campaign.

The Standard Deposit Gauge is an instrument which has been developed for the purpose of making observations of atmospheric pollution.

Standard  
Deposit  
Gauge

There are three gauges sited by the department, so placed as to collect the ash and grit which fall from the industrial chimneys.

In addition to the three sites operated by the department a further seven instruments are maintained by the Central Electricity Authority.

Co-operation  
with the  
Central  
Electricity  
Authority

The results of these stations are forwarded each month to the department through the co-operation of the Divisional Controller for the North West Area.

The automatic filter is designed to take regular samples of smoky matter from the air at intervals of an hour or less. By visual comparison with the standard scale of shades an estimate of the intensity of each smoke stain is made.

Owen  
Automatic  
Filter

The measurement of sulphur oxides has continued during the year at five selected sites.

Sulphur Gas  
Pollution by  
Lead  
Peroxide  
Method

The instrument consists of a louvred box with a support for a porcelain cylinder on to which is fixed a piece of fabric coated with special lead peroxide paste. After exposure for one month the cylinder is removed to the laboratory of the City Analyst where the exposed fabric is tested and the result published in milligrammes of sulphur trioxide per 100 square centimetres.

### Inspectors' Visits.

Some 2,196 visits have been made during the year in connection with the surveys in preparation for Smoke Control Areas. These surveys involved the examination of 9,442 appliances.

Survey

As a result of special complaints, 160 visits were made by inspectors to ascertain the causes of smoke nuisances and a further 336 revisits had to be made, as a follow up procedure.

Special  
Complaints

In connection with various matters relating to the work of the section, it was necessary to make 1,274 incidental calls, these included the weekly visits made to the various stations used to measure atmospheric pollution.



**Advisory Visits** At the request of owners or engineers, 68 visits were made by specialist inspectors to boiler installations to discuss and advise on the many and varied problems associated with the burning of fuel efficiently.

**District Inspectors** The district inspectors have made routine observations in their districts on Crown properties and persistent offenders to ensure that all nuisances are quickly reported and remedial action taken.

**Informal Action** Informal action in respect of Crown property such as hospitals, power stations, gas works, etc., as well as local authority premises, continues to account for much of the inspectors' time.

**Conclusion** The new Clean Air Act, in addition to strengthening control over industrial smoke, is the first general law to provide for the prevention of smoke from domestic houses. The Act provided the necessary legislation to restrict dark smoke, authorise new plants, and control the emission of domestic smoke.

The reduction in these emissions from this concerted attack will eventually contribute to clearing the air over the City and ensure a general improvement in environmental conditions.

#### **Rodent Control.**

The year has seen a considerable reduction in the rodent population in the City, and the methods adopted have been improved, particularly with regard to sewer infestation, to combat the groups of rats which have been found to be strongly resistant to treatments.

The problem of the rodent population in the central sewerage system has been formidable, but the adoption of baits carefully prepared with an additive anti-mould chemical has permitted the baits to be laid over longer periods. Consequently this problem, which has baffled the experts for so long, is slowly being removed, the bait being still attractive to sewer rats after several days, and they are therefore responding to treatment and being gradually killed off.

The Ministry of Agriculture, Fisheries and Food wrote to the department commending the personnel engaged in the work for the progress made so far in dealing with the problem of sewer infestation. The considerable fall in baits taken by rats during the annual maintenance treatments, compared with the initial treatment in 1953, would signify that the work is being carried out with very satisfactory results.



It must always be remembered that rodent control technique should never be allowed to become static, and as more scientific and technical knowledge is acquired, so each problem is tackled more vigorously, and although many have still to be solved, particularly with regard to the transportation of rodents, progress is being maintained.

Although every local authority is required under the Prevention of Damage by Pests Act, 1949, to take steps to secure, so far as practicable, that their district is kept free from rats and mice, and to enforce the duties of owners and occupiers under its provisions, the Act should not be entirely credited with the cause of the remarkable reduction of the rat population in the City during recent years. The fullest co-operation of the public is primarily the most important essential to achieve success in a rodent campaign. Many thousands of requests to the department for assistance have been received from occupiers of business premises and dwelling houses since special action was taken from 1943, without the slightest recourse to formal action. The credit for this achievement must be given to the tactful approach and good advice given by the rodent control staff.

Duties of  
Local  
Authorities  
and  
Occupiers

The publicity stressing the importance of rodent destruction, together with the continuous visitation of premises over the years to detect the presence of rats and mice, has been well worth while. The public generally have become most rodent conscious, even to the extent of notifying the department when a stray rat or mouse is seen. One requirement of the Act is that the local authority must be notified by occupiers when rats or mice are living on or resorting to buildings and lands in substantial numbers. Occupiers of premises readily avail themselves of the service provided not only for assistance in the destruction of the pests, but also for advice to prevent infestation.

The complaints received are gradually shifting in their emphasis, and more and more time is being spent by the staff on mouse infestation, particularly in dwelling houses. It may be possible in future years to estimate the improvement in this particular aspect of rodent control by the gradual decrease in the number of complaints.

The co-ordination of public health inspectors and rodent control personnel has led to action being taken systematically as a complete public health operation. Thus any particular disease-bearing factors



noticed during treatments have been given special attention, particularly in relation to Weil's Disease. The possibility of food contamination by rats and mice has always to be considered, and routine survey was carried out of food factories, warehouses, retail food shops and catering establishments as a preventative measure, and immediate steps taken to remedy any infestation found, however slight, by co-ordinated, concerted action by all concerned.

There is no doubt that the continuous attention to tracing defective drains and sewers, together with the carrying out of immediate repairs, in conjunction with systematic treatments of lands, buildings and sewers, must eventually over years tend to remove the health dangers from rodents and the risk of food contamination.

Surveys have revealed that many sites have remained free from rodents since they were successfully treated some years ago, and this amplifies the effectiveness of the block system of control applied by the rodent control staff to remedy all infestations found.

Any slackening of effort would soon result in a build up of the rodent population, and this underlines the importance of systematic inspection to detect and remedy infestation before it develops to serious proportions.

It is also pleasing to note that the rat infestations detected during the year were generally very minor in degree.

#### PRECAUTIONS TAKEN AGAINST THE SPREAD OF DISEASE.

##### *General Rodent Control Precautions.*

Action  
against  
Plague

Precautions are taken against the spread of plague, a disease which may be brought into the port by rats, and specimens of rats and mice collected are sent to the Public Health Laboratory for examination. It is satisfactory to report that all rodents submitted during the year were found to be free from plague.

Precautions  
against  
Weil's  
Disease

Rodents are carriers of the organism *leptospira icterohaemorrhagiae*, causing Weil's disease, and in order to safeguard not only the public but the sewer worker, who is required to enter the sewers where he may become infected by this disease, specimens of rats caught in sewers and on the surface were submitted for examination. Therefore, although poisoning is the chief agent used for rat destruction in sewers



in the city, spot trapping was employed in advance of poisoning treatments to obtain specimens for examination as a further precautionary measure against the spread of infection.

During the year 27 rats, 16 from sewers and 11 from buildings and lands, were submitted for examination, and one rat only from a sewer was found to be a positive carrier of the organism. Immediate action was taken and the buildings and lands in the area concerned were inspected and found to be free from rats. It was only necessary, therefore, to apply a special treatment for the destruction of the rats in the sewers.

The rodent control staff examined 31,320 sites during the year in connection with the systematic survey and investigation of complaints. **Systematic Survey**  
A further 71,463 visits were made entailing operational work and re-examination of buildings and lands following treatment. Public health inspectors also made, in conjunction with other matters, 176,528 inspections under the Act.

Complaints relating to rats and mice to the total of 4,805 were received during the year, which shows a slight decrease from the previous year, and were promptly investigated. Where evidence of rats or mice was found, the circumjacent sites were also visited and appropriate action taken to remedy all infestations by uniform treatment with the minimum of delay.

The survey work continually applied throughout the vulnerable areas of the City is of primary importance for the detection of rodent infestation before it is allowed to develop to serious proportions, and has been one of the major reasons for Liverpool being in the forefront of rodent control.

### **Rodent Infestation.**

#### *Infestations—Buildings and Lands.*

During the year 31,320 buildings and lands were examined. 4,870 **Buildings and Land**  
were found to be infested, the majority very slightly, and the details are shown in the statistical appendix.

The principal sites affected were warehouses and factories within the dockside wards, whilst the central area continues to maintain a remarkable decrease in rodent infestation as the result of rodent control measures taken during past years.



**Transportation in Goods**

There was further evidence during the year of the transportation of rats and mice from time to time in goods delivered to premises. Infestation by such means would account for ship rats being found in buildings situate some distance away from the dockside wards, and also be the cause of reinfestation by rats and mice of buildings successfully cleared of rodents, particularly when the circumjacent sites are free from infestation.

This aspect of rodent infestation is receiving the serious attention of the department. In all cases, as a preventative measure, enquiries were made relating to the consigner of the goods so that appropriate action could be taken at the source.

The middle belt of the City was again subject in the main to only slight rat infestations, for the most part confined to yards and public passages. The rats generally had escaped from the sewers through defects in drainage systems in search of food, often supplied by careless persons throwing away food waste, particularly into public passages. References to the total of 1,101 were sent to the public health inspectors for drainage tests on such sites to further investigation into the source of rat infestation, 835 relating to dwelling houses and 266 to business premises. Defective drains were subsequently reported in 445 and 133 cases respectively, and the necessary action was taken to remedy the defects found.

**Infestation of land and ditches**

Infestations in the outer belt of the City were also generally of very slight degree and mainly due to rats living in their natural surroundings in banks of brooks, ditches and embankments, and attracted to near-by dwelling houses in search of food, the food often being supplied, quite unwittingly by persons throwing bread into the gardens for birds.

In some cases rats and mice disturbed from their natural harbourage on land developed for new housing estates entered the houses during or after construction.

Another attraction for rodents exists on sites where poultry are kept, and temporary cover for them in the form of compost heaps in gardens is often provided quite unintentionally by occupiers.

Although it is noted that the presence of rats was reported in connection with a large number of dwelling houses, the majority by far

were small external infestations. The limited supply of food and facilities for harbourage in such places available for rats necessitates their taking a wide range of movement in search of food, thereby increasing the number of sites showing traces of the pests without concentrated areas of infestation.

The prompt action by occupiers in reporting the presence of rodents enabled the district rodent operatives to take the necessary steps to remedy the infestations before they developed to serious proportions.

A report of the conditions and extent of infestation was made in each case, including the prescribed treatment to effect a speedy remedy, together with any reasonable recommendations for preventing a recurrence.

Details of infestations and disinfestations are shown in the statistical appendix.

### **Rodent Disinfestation.**

#### *Disinfestation of buildings and lands.*

The aim of the Rodent Control Section is to destroy all rats and mice within the area of infestation within the shortest possible time, preferably within three or four weeks from the commencement of the treatment. By so doing, the danger of the infestation being maintained by the invasion of rodents from neighbouring buildings and lands, and the natural increase of rodents by breeding, is reduced to a minimum.

**Methods of  
Disin-  
festation**

Remedial treatment was prescribed and applied in accordance with the approved methods of rodent destruction, which means that all infested sites within each area were dealt with at one and the same time to a pre-arranged timetable under the block system of control. Whilst disinfestation was proceeding, the non-infested sites bounding those under treatment were periodically re-examined as a precautionary measure.

Occupiers readily agreed to the recommendations of the department for the actual destruction of rats and mice, and it was therefore not necessary to serve notices for treatments under the Act.



Infestations are not considered remedied until there has been no further trace of rodents for a period of at least three to four weeks after treatment has been applied.

During the year 4,951 buildings and lands were disinfested.

**Dwelling-  
houses**

The practice of providing free assistance to the occupiers of dwelling-houses was continued during the year, with a slight decrease in the number requiring attention for the destruction of both rats and mice.

**Business  
Premises**

Owners or occupiers of buildings or lands other than private dwellings who desire the department's assistance for the destruction of rats or mice are required to reimburse the local authority for the expenditure incurred. The demand for such assistance is still quite appreciable, and 1,888 requests were received during the year.

Many occupiers in addition requested the department to examine their premises at regular intervals in order to maintain a constant and expert supervision so that the slightest indication of any rodent activity can be speedily and skilfully dealt with. The full cost of this special inspection and operational service was also charged to the occupier concerned.

### **Methods of Destruction.**

#### *Buildings and Lands—Poisoning.*

The principal and most effective method employed for rat and mouse destruction is by the use of both quick and slow acting poisons.

The quick acting poisons used are zinc phosphide and arsenious oxide for both species of rats and for mice, and Antu (alpha naphthyl thiourea) for the common rat. The use of these poisons for rats and, to a much lesser degree, for mice necessitates pre-baiting the site undergoing treatment with unpoisoned food in the form of token bait for several days before poison is applied. In this way rodents are conditioned to take a lethal amount when the unpoisoned bait has been replaced by poison bait.

Red squill poison is not now recommended for use in rodent destruction on account of its unreliability of toxicity.

Modern science has produced for rodent destruction a slow acting poison known as Warfarin, a blood anti-coagulant which, when ingested regularly in small doses over a period of days, causes fatal haemorrhage in rats and mice. The major advantages of this slow acting poison are the low concentration of poison required to be effective, which induces little or no bait shyness by taste or smell and enables it to be used without the need for conditioning the rodents beforehand to feed from unpoisoned bait, and its comparative safety for application in dwelling houses and schools.

However, certain precautions are necessary when laying any type of poison bait, and where it would be dangerous to humans, animals or birds to leave the poison unprotected, the bait is placed in containers accessible only to rodents as a safety measure.

Of the 5,191 infestations and reinfestations remedied during the year, 4,652 were treated by the department. Of these, 4,636 were cleared by the use of poisons and the remaining 16 were remedied by trapping only.

It may be interesting to know that of the 4,636 infestations remedied by poisoning, 3,939 were remedied by one treatment, 578 by two treatments, 98 by three treatments, and 21 by four or more treatments.

Trapping is generally used for very slight infestations, or as a secondary treatment to deal with a residual number of two or three rats or mice which have survived a poisoning treatment. Breakback traps of the treadle type are used and, to a much lesser extent, sticky trays where conditions are favourable for this form of treatment.

The remaining 539 infestations were remedied either by the occupiers applying approved treatment prescribed and supervised by the rodent control inspectors, or by drainage systems being repaired under the supervision of the public health inspectors.

#### *Calculating the Kill.*

It is estimated, using the appropriate formula for calculating the kill, that at least 12,614 rats in buildings and on lands were destroyed during the year as a result of poisoning treatments. 2,459 dead rats were collected after poisoning and a further 237 were caught in traps. Thus the total number of rats destroyed by poisoning and trapping in buildings and on lands was estimated to be 12,851.

Estimated  
number of  
rats killed



The species of rats collected were 1,507 *rattus norvegicus* ("brown" or "common" rat) and 1,189 *rattus rattus* ("black" or "ship" rat).

A percentage of rodents collected, 419 rats and 14 mice, were sent to the Public Health Laboratory for examination and the remainder burnt.

#### Destruction of mice

Although there is no reliable formula available for calculating the kill in relation to the poisoning of mice, there can be no doubt that the number of mice destroyed by this method is considerable when taking into account the amount of poison bait consumed, namely, 11,090 ounces.

1,766 dead mice were collected as a result of poisoning and trapping operations.

### Rat Destruction in Sewers.

#### Sewer treatment

The popular belief that rats found in sewers are fundamentally different from the "common" or "brown" rat found in buildings is incorrect. Sewer rats are of the same species (*rattus norvegicus*) and can use the sewers as the means of traverse from one building to another through defects in the drainage systems. Therefore there is a definite link between sewer and surface infestation and in order to maintain a high standard of rodent control in the City the work of rat destruction on the surface and in the sewers is closely co-ordinated.

With a view to eliminating infestations of buildings and lands having their source from the sewers, maintenance treatments for the destruction of rats have been applied during the year with satisfactory results, as indicated in the tables in the statistical appendix. There is evidence that as the result of the action taken during recent years the breeding and migration of rats through the sewers and drains has been considerably reduced.

#### Modification of control methods

Baiting for rats in sewers is limited to the number of baitable man-holes available, and where they are situate a long distance apart rats may only very infrequently visit them. This especially applies where rats are able to traverse between the sewer and the surface, due to underground defects. In addition they may have ample facilities for harbourage and a plentiful supply of food, all of which may result in their escaping a poisoning treatment or not eating test baits laid. Therefore with a view to overcoming these factors the extended period

of baiting as now recommended was adopted in the last two maintenance treatments and plain bait was left down for seven days instead of four days as hitherto. The modified technique was also used for the annual test baiting of manholes in sewer divisions previously found to be free from rats.

Extended baiting had previously not been applied because damp baits especially became sour and mouldy after being laid for two or three days, and quite unacceptable to rats. This handicap has now been overcome by the addition to the bait of paranitrophenol at 0.25 per cent, which acts as a mould inhibitor without any appreciable loss of palatability of the bait so far as rats living under sewer conditions are concerned.

A comparison of the total bait takes of 3,953 recorded during the first modified treatment and 2,101 during the preceding treatment when extended baiting was not applied shows a substantial increase in bait takes. The second maintenance treatment compared with the first shows a decrease of 316 manholes with bait takes. It would appear that the change of technique has fulfilled its purpose of dealing with rats normally living between sewer manholes.

There are 25,772 sewer manholes in the City and the last maintenance treatment applied during the year showed that 3,367 manholes had takes of bait compared with 9,329 during the initial treatment in the year 1953, which is a reduction of 63.9 per cent.

In order to observe the strictest economy in the work without impairing adequate rat destruction, revisits are not normally made to manholes, after treatment has been applied, for the purpose of recording poison takes to estimate the kill. An exception to this rule, however, was made for the first modified treatment, and the manholes were revisited at least three days after poison baiting to note the effect of the changed technique. It is estimated that as the result of this treatment at least 15,000 rats were destroyed.

In the outer belt of the city, where sewers had been previously found to have little or no rat infestation, and in the divisions in which sewers had been disinfested by maintenance treatments, the annual test baiting was applied as a precautionary measure to discover whether

**Annual  
Test Baiting**



there had been any change or migration of the rat population into these areas, and details are shown in the statistical appendix. Where evidence of rats was found during test baiting, treatments to remedy the localised infestations were subsequently applied.

Of the 85 divisions wholly or partly test baited, no takes were recorded in 53 divisions containing a total of 9,216 manholes.

#### *Preventative Measures.*

Co-ordinated action by the public health inspectors and the rodent control staff was taken where required in relation to preventative measures. Conditions likely to lead to infestation were at once brought to the notice of the owner or occupier of the building or land.

Preventative measures and works of proofing were carried out during or immediately following disinfestation, as required.

The immediate measures taken included the provision of suitable containers with tight fitting lids for the storage of waste food at cafes and other premises in order to remove a readily accessible food supply for both rats and mice and thereby assist the work of rodent destruction.

The more permanent work executed was the proofing of food stores, the repair of defective drains, the fixing of metal plates to the bases of doors, providing windows and ventilators in external walls and on roofs with small mesh wire guards, bricking up openings in walls and around waste pipes, overflows, service pipes, etc., thereby preventing means of ingress for rodents, and the abolition of unnecessary harbourages.

Occupiers of premises generally showed readiness to comply with suggestions and good advice given to them by the rodent control staff, but where they failed to co-operate statutory action was taken by the public health inspectors and 35 notices were served under the Act, 8 for business premises and 27 for dwelling-houses. It is pleasing to note that during the year it was not necessary to institute legal proceedings.

#### **Pigeons and Starlings.**

The specialised knowledge of the senior inspectors and operatives in the field of rodent control, gained by long experience, has developed



a team highly skilled in pest destruction. This experience has proved of inestimable value in formulating a policy regarding the destruction of wild pigeons.

The work has many of the problems and hazards associated with rodents and, though perhaps elevated in its application, requires the same skill in the undertaking. Consequently, rodent operatives seconded to this work in the experimental stages having proved their worth, an all out drive during the ensuing months is contemplated.

It may be possible by similar technique, especially by the application of block control methods, for industrial undertakings and, where necessary, dwelling houses to be treated to effect a similar reduction in the wild pigeon population to that which has been so successfully achieved in the rodent campaign.

Whilst rat and mouse destruction is universally accepted, this is not the case as far as the destruction of bird life is concerned. Some persons are almost fanatical in their attitude to the preservation of birds without regard to the extreme nuisance and annoyance that may be caused to other members of the public by having too many of them.

Investigation of complaints during the year in some cases reveals that householders are almost driven to distraction by nuisance from wild pigeons attracted to the neighbourhood by near-by bird lovers throwing out large amounts of food for them several times daily. In such cases the experience of the rodent control staff is of great value in obtaining, by tactful approach and gentle persuasion, the co-operation of the persons concerned to discontinue the practice.

To cite an example, the occupier of a dwelling house was persuaded to allow the department to reduce the number of wild pigeons roosting on the premises, and a total of 113 were caught, removed from the site and painlessly destroyed.

In another instance it was found that members of the public visit a pet food shop daily to pay the shopkeeper for him to feed wild pigeons in a near-by plantation with corn, with a resultant nuisance to other shopkeepers in the vicinity from the daily congregation of birds to the premises waiting to be fed.

The unrestricted breeding of wild pigeons and starlings has developed to such an extent over the years as to become a serious nuisance in the City. Public buildings, office buildings, many large industrial



buildings, food factories, other sites, and dwelling houses in all districts are affected in varying degree by the problem, particularly in relation to wild pigeons.

The constant fouling by pigeons of footwalks, steps and entrances to buildings, particularly in the central area, is extensive and the cleansing of approaches to premises several times daily has to be carried out to remove the danger to persons who might slip, fall and injure themselves.

They also enter premises necessary to be kept open due to the nature of the trade being carried on, and cause much additional work to the staff in the covering over of food to prevent fouling, and the cleansing of goods and equipment after their visitation.

Another very important factor that has been taken into consideration is the concern expressed by the Liverpool branch of the National Farmers' Union at the daily visitation to farms by flocks of wild pigeons which they allege are coming out of Liverpool. They say that very considerable damage is being done to crops by these birds, and feel that they must continue to press the local authority for their systematic destruction.

It is therefore acknowledged, without any thought of the indiscriminate destruction of wild birds, that the situation can only be relieved by a substantial reduction in their population.

The local authority have been empowered under the Liverpool Corporation Act, 1955, to take the necessary action for abating or mitigating any nuisance, annoyance or damage caused in the City by house doves, pigeons or starlings believed by the Corporation to have no owner. In this connection the birds may be seized and humanely destroyed in excess of such number as the Corporation may consider reasonable.

The local authority, however, are not authorised under the Act to enter upon any premises other than a public highway without the consent of the occupier or person having control or management of the premises or land.

Complaints of nuisance and annoyance from feral pigeons were received during the year in connection with 128 premises.

A total of 2,373 wild pigeons were caught and painlessly destroyed during the year, also a large number of eggs and nests were removed and destroyed, and the work was carried out chiefly at night and early morning.

**Destruction  
of Wild  
Pigeons**

Many of the pigeons were caught on public buildings, but work has also been done on a variety of other premises, including commercial, industrial properties and private dwelling houses, at the request of the occupiers. The work is undertaken at dwelling houses free of charge, but for all other premises the full cost is charged to the occupier concerned.

The methods employed are confined to trapping the pigeons alive, removal of the birds from roosting and nesting points by hand, and to a lesser degree by the use of nets. Much of the work is executed from ladders both inside and outside of very high buildings.

The number of birds that can be destroyed by these methods, however, is extremely limited. The regular practice of feeding pigeons by members of the public renders the work of trapping very difficult and necessitates drawing the birds on to the roofs of buildings and conditioning them to feed before trapping can be accomplished.

The Protection of Birds Act, 1954, makes provision for the destruction of certain wild birds, including feral pigeons, in the interests of public health, etc. The Act also empowers the Minister of Agriculture, Fisheries and Food to grant licences to any duly authorised person to use poison or stupefying bait of any description so specified for this purpose. Experimental work with narcotics against feral pigeons is being conducted by the Ministry, but the question of issuing licences even for restricted operations is still under consideration.

Recommendations were made, wherever reasonable and practicable, relating to the proofing of premises to prevent the entry of wild birds. With regard to public buildings and other large premises in the City, building out the birds to prevent them from perching and nesting in recesses and on ledges is considered generally to be impracticable and the cost prohibitive. The reduction of their population, therefore, to a reasonable number would appear to be the only solution to the problem.

**Preventative  
Measures**

Although considerable numbers of starlings fly into the central area at dusk to perch on large buildings for shelter at night, they are not such a serious nuisance as pigeons. During the day they spend their

**Starlings**



time and obtain their food on numerous sites in the green belt on the outskirts of the City. The trapping of starlings would necessarily have to be carried out on many different sites to have any effect in reducing their number. The trapping of these birds, therefore, is considered to be impracticable.

### **Supervision of Food Supply.**

#### **City Markets**

The year has seen considerable changes in the inspection and supervision of the food supplies in transit through the markets which include St. John's Retail Market, the Wholesale Fish Market and the Wholesale Fruit and Vegetable Market at the north end of the City.

The gradual decrease in the special food inspection section by resignations and retirements made it imperative for the general public health inspectors to be incorporated into the scheme of training, consequently, the responsibility for this important aspect of environmental health became part of the duties of the public health inspectors qualified as meat and food inspectors.

A senior inspector is in charge of 15 qualified inspectors who operate mainly from the central office at Hatton Garden and the branch office situated in St. John's Market. This team has handled all the complaints received during the year together with the routine inspections of fish, fruit and vegetables. They have also carried out a complete inspection of all premises situated within the central City area.

The work, besides the duties of food inspection, has included also all the general food duties regarding hygiene, storage and transportation. This has resulted in the reduction of the overlapping of inspectors and ensured that there is one man doing all the duties in a certain area.

There has been a rota maintained so that each public health inspector does one full month in the markets and then takes his turn on the outside districts. This has guaranteed at least three full-time inspectors each month detailed for all the work arising in the branch office at St. John's Market.

The markets have been patrolled every morning between the hours of 8.00 and 10.30 a.m. and periodically throughout the day. Wholesalers' and retailers' complaints have been investigated immediately while the food is present and many consignments have been condemned during this period.



There is, of course, considerable opinion as to whether inspectors should devote all their time to this work continuously throughout many years or whether the practice of a full month in the market is an advantage to the trade. Although there is no doubt inspectors doing this work full time for many years become extremely competent, the constant change of personnel brings fresh impetus and enthusiasm each month, as, of course, repetitive work often dulls the senses of the keenest men and frequently matters might be overlooked as the work sinks into a dull routine.

The traders have found the young inspectors, continually coming in, a source of constant interest and often pay tribute to their efficiency. There is no doubt the scheme has worked excellently for both trade and official personnel.

During the past year a number of stalls have been designed on modern lines in St. John's Market and Market Street to accommodate tenants from the Retail Fish Market, which is a decided improvement from a public health point of view. **Retail Fish Market**

A survey of St. John's Market has been carried out during the year. Recommendations for certain improvements concerning structure of stalls, provision of washing facilities, water supply and heating have been submitted to the General Manager of the City Markets. It is felt that the recommendations submitted for approval could do much to improve the hygienic conditions at present prevailing, and raise the standards to those required by the Food Hygiene Regulations. **St. John's Market**

All poultry is examined on arrival at the markets prior to sale, and in addition, during the year 147 boxes of sub-standard poultry from Northern Ireland were subject to a special detailed examination. This resulted in 976 head of poultry at a weight of  $1\frac{1}{2}$  tons being rejected for reasons set out as follows:— **Poultry Inspection**

|                     |     |     |     |     |     |
|---------------------|-----|-----|-----|-----|-----|
| Ascites             | ... | ... | ... | ... | 118 |
| Arthritis           | ... | ... | ... | ... | 22  |
| Decomposition       | ... | ... | ... | ... | 141 |
| Emaciation          | ... | ... | ... | ... | 300 |
| Epithelioma         | ... | ... | ... | ... | 56  |
| Ill bleeding        | ... | ... | ... | ... | 45  |
| Injury              | ... | ... | ... | ... | 125 |
| Lymphadenoma        | ... | ... | ... | ... | 120 |
| Oedematous Oviducts | ... | ... | ... | ... | 49  |
| Total               | ... | ... | ... | ... | 976 |



It has been obvious that as a result of the special attention paid to the examination of sub-standard grade poultry, the incoming supply of this type of bird to the markets has dropped considerably during the year with a steady decline in the shipping of inferior quality birds.

In addition, 1,725 head of high grade poultry were rejected, mainly for reasons of decomposition.

#### Fish Inspection

The Wholesale Fish Market supplies an extensive population throughout Merseyside. During the year, 994,204 packages, at a total weight of 13,169 tons of fish were handled in addition to some 42,672 packages of rabbits, poultry and game.

The inspection of fish, game, poultry and rabbits resulted in the rejection of some 7,336 packages at a weight of 58 tons as unfit for human consumption (see statistical appendix). The number of visits paid to the various wholesale traders in the Fish Market totalled 9,899.

Many interesting specimens of fish were found affected with sarcoma, carcinoma or melanotic sarcoma lesions or growths.

On one occasion an identification was requested of a furry animal which had been brought into the market. It was found that the animal was a mink, and it was eventually presented to the Zoology Department of the Liverpool University.

#### Fruit and Vegetable Inspection

The inspection of fruit and vegetables at the North Market, Queen Square, and the various wholesale storage warehouses throughout the City has been maintained during the year. The number of visits made by public health visitors to these premises amounted to 12,365. The daily inspection of fruit and vegetables resulted in 20,591 packages at a total weight of 314 tons being rejected as unfit for human consumption. (see statistical appendix).

474 cases of Italian apples were detained after chemical analysis indicated that the skin of the apples was contaminated with up to 6 parts arsenic and 15 parts lead per million. The apples were subsequently dealt with at a cleansing station in the south of England.

Departures from the inspectors' normal duties have been caused by requests from traders to identify certain exotic spiders or beetles.

imported into this country in consignments of tropical fruits. The task of identification has been undertaken, mainly as a matter of interest, and the City's Natural History Museum is richer by at least one exhibition specimen.

The examination of canned goods has been maintained throughout the year. The actual inspection has involved visits to warehouses and shops as well as inspection at the office in St. John's Market. A small amount of the rejected foodstuffs have gone to pig feeders but the greater proportion is still disposed of at the tip at Sefton Meadows, being unfit for further processing and totally unfit for human consumption. **Canned Goods**

The main reasons for the rejection of canned goods as unfit for human consumption are, decomposition, general spoilage, flat-sour and sulphide spoilage.

The examination of these goods resulted in the rejection of 39,509 cans at a total weight of 43 tons (see statistical appendix). Altogether 8,608 certificates of condemnation were issued to wholesalers and retailers in respect of the rejected tins.

In addition to the daily routine inspections of fish, fruit and vegetables at the wholesale and retail markets, special examination is given to foodstuffs submitted by contractors for the School Meals Service. Samples which are submitted on tender are inspected and advice is given as to the quality of the commodities to the School Meals Departments. Cooking fats, margarine, sausages and general groceries are subjected to a physical examination in addition to a chemical analysis. **Council Food Contracts**

Advice is also given with regard to the selection of potato samples submitted bi-weekly on tender.

During the year 35 complaints were received from the School Meals Service. The nature of the complaints covered fitness, quality adulteration, foreign bodies, and false labelling of foodstuffs delivered to canteen kitchens of the Education Committee. **School Meals Service—Complaints**

Each complaint received a thorough investigation and reports were submitted to the Director of Education. In all instances the suppliers



of the commodities giving rise to the complaints were interviewed and factories or storage places inspected under the Food Hygiene Regulations, 1955. A general high standard of compliance with the Regulations was observed on these investigations, but, in certain cases where infringements were found, statutory action was taken.

#### Food Complaints

During the year 293 complaints were received from members of the public in respect of foodstuffs which had been purchased. The nature of the complaints varied considerably, covering such matters as decomposition, damage, mould formations, false labelling, vermin affected foods and foreign bodies in food.

In many instances the aggrieved persons who brought official attention to bear on the complaints were mainly concerned in preventing a recurrence of the conditions causing the contamination; this feature was particularly noticeable in families with young children.

Each complaint received full consideration and detailed enquiries and inspections were carried out to seek a satisfactory conclusion. The complaints were traced back via the retailers to the manufacturers or importers of the commodities under investigation. Wherever possible the production stages involved in the preparing of the article for sale were checked in operation. In many cases this visual inspection carried out by the inspectors enabled them to make suggestions which would safeguard against the possible repetition of a complaint of like nature. Where it was not possible to carry out an inspection, the manufacturers concerned were contacted and their representatives interviewed, often at the firm's request.

It appears that on the whole the advice and suggestions offered to food concerns is genuinely appreciated, and they do endeavour to prevent the causes of possible future complaints. On other occasions, however, a lack of co-operation has been obvious and it has been necessary to demand rather than request that certain steps be taken for the benefit of the general public.

A wide diversity of foreign bodies in food were encountered throughout the year, ranging from vegetable oil in bread, a four ounce metal weight in a slab cake, to various types of insects found in canned meats and fruit. Many causes of complaints are, of course, accidental,



although it is difficult to understand how someone could accidentally lose the leather sole of their shoe and for a member of the public to find it upon opening a can of peas.

Statutory action was taken in all cases considered necessary.

Manufacturers of preserved meat, fish and sausages, and makers and vendors of ice cream or lolly ices are required to be registered with the local authority under the provisions of the Liverpool Corporation Act, 1936, both as regards themselves and the premises in which they conduct their businesses. **Preserved Meat and Ice Cream**

The 213 premises which are registered in respect of sausages and preserved meat include 54 new registrations and 516 visits have been made during the year.

There are 2,105 premises registered for the making or sale of ice cream and inspectors have carried out a total of 5,081 visits to such premises, which, in the main, are small retail shops.

Cooked meats, sausages and ice cream have been the source of many outbreaks of food poisoning and it is essential that premises used for their manufacture should be known and compulsory registration is required so that investigation can proceed without delay when an incident of this nature occurs.

Frequent visits are made by inspectors for the purpose of ensuring that the food is prepared and sold under hygienic conditions.

The sale of shellfish in or from any premises cannot be carried on unless the proprietor of the business and the premises are registered by the local authority under Section 40 of the Liverpool Corporation Act, 1955. This figure now stands at 156 which includes 17 new registrations granted during the year. **Shellfish**

### **Meat Inspection.**

In January of this year, the scheme approved by the Health Committee and City Council, for the training of meat inspectors, was begun. Four assistant public health inspectors started work in Stanley Abattoir for a period of six months training. At the end of three **Meat Inspection**



months they were joined by another four selected assistants, so that eight were undergoing training at one time. At the end of six months the first batch returned to general public health work in the department, and to the team at Stanley Abattoir, another four were sent to train.

#### Training Scheme

By the end of the year, twelve assistants had each served for six months, and another four for three months. The value of this training to the assistants can hardly be over-estimated. The annual slaughter at Stanley Abattoir, 378,049 animals during the year, affords opportunity of seeing most of the pathological conditions likely to be met with in this country, and taken with the imported frozen meat, and the fresh meat, offal and poultry from Ireland passing through the meat market, provides the young inspector with unsurpassed opportunities to learn his craft.

On the other hand, the department has benefited too; the additional staff available meant that a more even spread-over of routine work could be made, as the following example shows:—

“Liverpool Abattoir Utility Company, working on behalf of 16 wholesale fresh meat firms, killed a total of 3,786 pigs at Stanley Abattoir in the three days 16th to 18th December. On each of these three days four gangs using four machines were at work in the piggery. During 27 working hours each gang killed an average of 35 pigs per hour, the total output per hour being 140 pigs. These figures are believed to have established a post-control record for pig killing at Stanley on three consecutive days.” The quotation was from the Meat Trades Journal for 9th January, 1958.

The routine inspection of this concentrated slaughter of pigs was taken in its stride by a senior inspector and his team of four assistants who had been carefully trained for such an emergency, whilst the remainder of the staff were able to cope with the peak kill on the cattle and sheep units, as well as with the usual Christmas pitchings of poultry and imported meats in the Meat Market.

One interesting sidelight on the work of the year was the remarkable rise in the accident book reports. The efficient examination and cutting of carcasses requires the use of a very sharp knife and in the course of a year, the average number of cut fingers or hands is approximately

five or six; last year the number of cuts reported rose to forty-six, indeed the name of one assistant appears six times in three months, but he completed his training without loss of a finger.

The staff engaged on meat inspection consists of a chief inspector **Staff** and his deputy, four senior inspectors, three inspectors and eight assistant inspectors.

### Private Slaughterhouses

There are two private slaughterhouses in the City, but during the year only one was in constant use, and 27,323 pigs were slaughtered there. All carcasses and offals were inspected before removal to a food factory or for sale in the meat market at Stanley. Slaughtering took place on 23 Sundays as well as on other weekdays and some Bank Holidays. **Private slaughtering**

### Knackers' Yard.

There is one licensed knackers' yard in the City where 261 animals or carcasses comprised of 45 horses, 29 ponies, 7 donkeys, 114 cattle, and 66 pigs were dealt with during the year. **Knackers' yard**

The premises are maintained in a satisfactory condition.

### Stanley Abattoir.

The number of animals slaughtered here during the year was 378,049, all of which were inspected at the time of slaughter, and are detailed in the following Table:— **City Abattoir slaughtering**

TABLE 1.

| Bulls. | Bullocks. | Cows.  | Heifers. | Calves. | Sheep and Lambs. | Pigs.  |
|--------|-----------|--------|----------|---------|------------------|--------|
| 596    | 28,369    | 41,175 | 1,949    | 28,673  | 211,816          | 65,471 |

Routine Sunday slaughter at Stanley Abattoir commenced in June and ended in December, during which period 26 consecutive Sundays were worked. Easter, Whit, and August Bank Holidays were also working days. **Sunday slaughter**

The number of animals slaughtered on Sundays only was 52,262 or 13·8 per cent. of the total kill.



### Diseased Conditions.

#### Diseased meat

The carcasses of 60,810 animals, approximately 15 per cent. of the total 405,372 slaughtered and inspected, showed diseased conditions and a detailed examination was made in each case. 1,441 carcasses were totally rejected as unfit for human consumption, together with portions of 4,590 other diseased carcasses. The weight of meat rejected during the year was 237 tons, and in addition 589 tons of offals comprised of diseased organs, were also rejected. The total weight of diseased meat and offals found to be unfit for human consumption during the year was 826 tons. All this meat and offal was voluntarily surrendered and in no case was it necessary to apply for a magistrate's order for formal condemnation. This reflects the confidence of the wholesalers in the fair judgment of the inspection staff, and the highest standard of protection for the meat consuming public. Table 52, statistical appendix.

### Custody of Detained Meat.

#### Detained meat

Carcasses which require part rejection, for example, chest walls, forequarters, hindquarters cut off, are dealt with after cooling and setting. They are kept overnight in a specially constructed wired-off enclosure, securely locked. Next day they are quartered or cut up and the diseased portion weighed and sent for disposal.

#### Disposal of unfit meat and offal

All diseased or unfit meat and offal is taken to the Council's new by-product plant in the Abattoir, and is there rendered down to produce valuable inedible tallow and meat meal.

### Pharmaceutical Products.

#### Medicinal products

In addition to the various organs and glands which are normally used for the making of medicinal extracts—for example, thyroids, adrenals, ovaries, pancreas, pituitaries—a considerable quantity of bovine liver affected by distomatosis was sent for chemical manufacture. The amount of liver utilised in this way during the year was 89½ tons.

### Boneless Fresh Meat.

#### Boneless meat

The requirements of manufacturers for lean meat during the year have maintained the demand for boned-out cow and bull carcasses. Sides of beef are sawn into forequarters and hindquarters, and the bones cut out, the resulting meat being subsequently sold in white stockinette

bags. It is estimated that approximately one quarter of the 41,175 cows slaughtered were dealt with in this way. In addition, much of the meat brought in from outside areas was similarly utilised.

### Stanley Meat Market.

The frozen or chilled meat "pitched" daily on the meat market is subjected to inspection, on a percentage basis, for brine damage, decomposition, mould or other conditions, and the meat slaughtered outside the Abattoir is re-inspected.

Carcases and meat dealt with at the City Meat Market:—

Stanley  
Meat  
Market

TABLE 2.

|                                         |        | Beef.<br>(quarters) | Beef.<br>(pieces) | Veal. | Mutton. | Lamb.   | Pork.  |
|-----------------------------------------|--------|---------------------|-------------------|-------|---------|---------|--------|
| Imported frozen/chilled                 | ...    | 204,248             | 19,180            | 31    | 126,007 | 702,582 | 1,866  |
| Slaughtered outside<br>Stanley Abattoir | ... .. | 70,700              | 10,019            | 1,989 | 3,373   | 92,967  | 53,000 |

In addition to the above meat brought into the Meat Market, 138,498 packages or boxes of meat, poultry, and offals were dealt with.

The amount found to be diseased or otherwise unfit for human consumption was:—beef 20,874 lbs., mutton 946 lbs., pork 3,787 lbs., poultry 239 lbs.

### Tuberculosis Order, 1938.

### Tuberculosis (Slaughter of Reactors) Order, 1950.

Post-mortem examinations were made on 63 cows sent for slaughter under the above Orders, in Stanley Abattoir during the year. Eight carcasses were totally rejected, and parts of another ten carcasses (comprised of chest walls, middles, fore-quarters), were rejected for tubercular infection together with various organs.

Bovine  
reactors  
(T.B.)

The animals were sent in from Caernarvonshire, Flintshire, and Lancashire, by the Ministry of Agriculture, Fisheries and Food.



### Export of Fresh Meat to the Continent.

**Export Meat** During the year, beef and veal was exported to France and Italy from Stanley Abattoir. Some 44 sides, 350 hindquarters, and 200 veal carcasses were stamped, certified for export, and then railed in specially-fitted railway wagons to the Continent.

The meat is reported to have arrived in excellent condition, and future trade of this description may well increase.

### Trichina Spiralis.

**Trichina examination** Routine samples of pork snippets taken from the diaphragm, legs, neck, shoulders are submitted each week to the Public Health Laboratory Service, who have developed a special technique for this purpose. In the 1,650 specimens examined no trichinella were found.

### Slaughter of Animals Acts, 1933-1954.

**Slaughter licences** The Acts require that no person may proceed to slaughter or stun an animal in a slaughterhouse or knackers' yard unless he holds a licence granted by the Local Authority. During the year, 151 licences were issued to slaughtermen and in addition 335 licences were issued to Mohammedans, mainly seamen, for the slaughter of sheep, for consumption aboard ships.

### Windscale Plutonium Factory.

Sheep, pigs, and calves totalling 456 were sent from the affected area around Windscale for slaughter at Stanley Abattoir following the incident. In accordance with a recommendation from the Ministry of Agriculture, Fisheries and Food, passed on by the health authority of the combined districts of Ulverston, the animals were slaughtered separately, and the trachea, thyroid gland, and neck muscles trimmed out from each carcass and destroyed.

### Foot and Mouth Disease Outbreak at Stanley Abattoir on 27th December, 1957.

In the ten days prior to Xmas, the daily slaughterings at Stanley were heavy. A total of 14,335 animals were slaughtered and inspected. Included in this total were 38 cattle from an area where foot and mouth disease restrictions were in force, quite near Liverpool. When these

cattle were brought in for killing, some argument ensued as to the price to be paid for slaughter, and the matter was subsequently settled between employers and slaughtermen.

The importance of this incident was that every man in the Abattoir became aware of the implications of foot and mouth disease being found in Stanley, not least the inspectorial staff who were instructed to keep a vigilant check on heads and tongues for ulcers, epithelial blisters or the like.

However, nothing suspicious was found and killing proceeded apace till Xmas. On Friday, 27th December, the mornings kill consisted of 883 animals. Immediately after dinner when eight cows were slaughtered, the inspector on duty in Slaughterhouses No. 5 and 6, in the cattle hall, whilst inspecting heads and tongues found that the tongues showed ulcers, vesicles and epithelial sloughing, and four heads showed ulcers in the palate. The slaughter was completed and all the sixteen sides of beef and offals, together with the knives and other appliances were isolated. Meanwhile, a telephone call had been made to the Preston Headquarters of the Ministry of Agriculture veterinary officers advising that it was suspected that foot and mouth disease had been detected in the slaughterhouse at Stanley Abattoir.

**Foot and  
Mouth  
lesions**

The veterinary inspector arrived from Preston shortly after 3.30 p.m., and after further consultations, a senior officer of the Ministry confirmed, later that evening, that foot and mouth disease existed, and that the usual restrictions would operate. Subsequently, 10 more live cattle in the lairage were found to be infected and shot. The next day, Saturday, 28th December, all animals which, after veterinary inspection were found free of foot and mouth symptoms, were allowed to go for immediate slaughter. Killing commenced at 8 a.m. and went on till 8 p.m. that night. The meat inspectors, keeping pace with the kill, examined each of the 2,266 carcasses and offals, which were hastily railed into the meat market to provide for the Monday trade.

**Total  
slaughter of  
of Live Stock**

At the end of the day the market was completely full of meat. On nearly every available hook, meat was hung, carcasses of beef, mutton, lamb, pork, in orderly rows as far as the eye could see; every door shut, padlocked, enclosing an ominous silence save for the occasional distant



lowing in the lairage of some of the last remaining infected cattle destined for slaughter and destruction on the morrow, when 223 cattle were slaughtered and destroyed.

Following the market on Monday, 30th December, when all the meat was sold and removed, the meat market was thoroughly cleansed and disinfected, in order that carcasses slaughtered in outside areas could be brought in to maintain trade and supplies. This close-down lasted until 6th January, when the meat market re-opened, stocked with meat slaughtered outside Liverpool.

Much of this meat was not inspected before arrival in the market, and a full inspection was made each day of the incoming meat and offals.

Full scale slaughter commenced again at Stanley Abattoir on 20th January.

### **Meat and Food Inspection Classes.**

#### **Food inspection classes**

The course of instruction for persons preparing for the examinations in meat and food inspection or food hygiene was well attended. Thirty-five students received a sound grounding in the theory and practice of meat inspection, control of food and milk supplies and the law relating thereto. The course commences in September and carries on till May on two evenings per week, one of which is devoted to practical instruction at the Abattoir; during the latter part of the course students visit food factories, cold stores, pasteurising plants in addition to attending the Abattoir during routine slaughtering operations. As well as local students, many come from the county areas of Lancashire, Cheshire and North Wales, whilst in addition, there were also colonial students in attendance.

Morbid specimens are prepared for examinations conducted by the Royal Society of Health and the Veterinary School of Liverpool University.

### **Supply of Specimens.**

#### **Specimens**

Specimens of blood, intestines, pancreas, uteri, spleens, hearts, cysts, and meat have also been provided for research work and use in various departments of the University and hospital laboratories.

### The adulteration of food and drugs.

The importance of a pure food supply cannot be over-estimated. The Medical Officer of Health is responsible for ensuring that foodstuffs offered for sale in his area are pure and wholesome. This entails the vigilance of sampling officers who purchase or take samples of drugs and foodstuffs, and after analysis by the public analyst (whose duty is to test for adulteration or impurities), appropriate action is taken.

Food and  
Drugs  
Sampling

In some cases legal proceedings are instituted, in others, advice is offered to the vendor, particularly in regard to milk which proves deficient of milk fat or other solids, and although genuine, is of abnormal composition, whilst in other instances the manufacturer or packer is advised of irregularity or of technical offences in regard to labelling.

During the year, 3,614 samples of food and drugs were taken or purchased and of this number, 122 or 3.37 per cent were found not to be genuine or otherwise giving rise to irregularity. This figure represents an improvement on last year when the figure was 4.7 per cent.

Of the 3,614 samples obtained 330 were "formal" and 3,284 "informal". An informal sample is one purchased without intimation to the vendor that it is to be analysed.

Valuable information as to irregularities is obtained in this way and a wide field of foodstuffs and drug preparations checked.

### Legal Proceedings.

Prosecutions were instituted in respect of four samples of milk found to contain added water. Convictions were obtained and fines and costs totalling £25 5s. 0d. were imposed.

Prosecutions

### Ice cream and water ices.

During the year, 180 ice creams, water ices, and frozen confections were submitted for chemical analysis or bacteriological examination. Of these, 110 ice creams were examined bacteriologically and 86 samples (78.1 per cent) were grade 1; 14 grade 2; 6 grade 3, and 4 grade 4.

Ice Cream

Analysis of 43 ice creams proved only one to be slightly below standard by reason of fat deficiency; all other samples complied with the requirements of the Food Standards (Ice Cream) Order 1953.



### Bacteriological Examination of Foodstuffs.

#### Bacterial quality of foods

In addition to the bacteriological examination of milk and ice cream during the year 68 samples of other foods were examined for suitability for human consumption, including examination for food poisoning organisms.

The types of food selected were those exposed for sale in shops for display, and included meat pies, cooked meat, custards, trifles, cream filled pastries, fruit jellies, cockles, shrimps, fish and meat pastes.

The results as a whole were satisfactory, but in a number of cases bacterial contamination was noted and appropriate action taken.

### Bacteriological Examination of Milk.

The standard of cleanliness of milk coming into the City dairies for processing has been very satisfactory. Regular routine samples were taken from producers within the City and from the milk brought in daily from the county areas of Cheshire, Lancashire, Shropshire and Derbyshire.

#### Milk examinations

The total number of milk samples submitted to the Public Health Laboratory for examination was 2,424, comprised of 2,065 heat-treated milks, 264 tuberculin-tested milks and 95 undesignated raw milks. The results of the various examinations which are satisfactory, can be summarised as follows:—

Of the 2,065 heat-treated milks only 4 failed to satisfy the phosphatase test for efficient treatment. Forty-three tuberculin-tested milks were unsatisfactory on methylene blue test (for bacterial quality), and the result of guinea pig inoculation of the 359 milks tested for the presence of tubercle bacilli proved only one sample—a raw undesignated milk—to be positive.

### Milk supply to Hospitals and Aged Persons' Hostels.

#### Hospital Milk

The milk supplied by contractors to hospitals and aged persons' hostels is regularly sampled at the time of delivery and 91 samples were tested chemically and bacteriologically. All but one sample proved satisfactory, and in this case, an inefficiently pasteurised milk, the processing dairy was situated outside Liverpool. Appropriate action was taken by the Medical Officer concerned after notification of the incident.

### Milk Supply to Schools, Day Nurseries and School Canteens.

248 samples taken at these establishments at the time of delivery **School Milk** proved satisfactory on all tests.

### Milk and Dairies Regulations, 1949.

#### *Brucella abortus.*

The whole area of the City is a specified area in which only heat- **Infected Milk** treated milks or raw milk of tuberculin tested designation may be legally sold to the public, and a small percentage of the daily consumption consists of this raw milk.

Of the 264 tuberculin tested milks sampled, 215 were specially tested for *brucella abortus* infection. These milks were taken each month from producers in the City and from milk sent from outside areas where it had been bottled on the farm.

The milk from six City herds and from two country herds was found infected with *brucella abortus*.

So far as country herds were concerned, the appropriate authorities were notified forthwith, and in the case of City herds, immediate measures were taken to isolate the infected cows by further individual sampling, and clinical veterinary inspection, which included blood tests of suspected cows in the herd. By these means, the milk from suspect cows was isolated at once, and in each case, at the request of the producer, tipped down the drain.

This co-operation between health department, producer, and veterinarian meant that in no case was it necessary to send notices requiring heat treatment of the bulk milk produced at a particular farm; it obviated considerable expense to the producer, whilst safeguarding the milk consumer, from the medical viewpoint.

In all, five cows were slaughtered and ten cows sold to dealers or farmers whose milk production was normally pasteurised before sale to the public.

One case of undulant fever (*brucellosis*) was reported during the year, caused by consuming infected milk produced outside the City. A detailed report of the case is set out in the section of the annual report dealing with infectious diseases. (See page 51.)



During the year one case of milk infected with mycobacterium tuberculosis was found as a result of routine inoculation of milk samples taken from dairy herds in the City. It was not necessary to serve any notices under Article 20 of the Regulations as the milk was sold for pasteurisation.

Following veterinary investigation the particular cow concerned was slaughtered at Stanley Abattoir.

### **Fertilisers and Feeding Stuffs Act, 1926.**

#### **Animal Feeding Stuffs and Fertilisers**

Liverpool is a centre for the milling of foodstuffs intended for cattle and poultry. The manufacture of fertilisers is also carried on. During the year, 50 samples of feeding stuffs and fertilisers were obtained for analysis.

All samples, with minor exceptions, were found to conform with the manufacturer's statutory statement.

### **Pharmacy and Poisons Act, 1933.**

#### **Poisons registration**

The Act, together with the Poisons Rules regulates the sale of poisons. It is the duty of a Local Authority to carry out Part II of this Act, which deals with the registration of persons selling poisons mentioned in the Poisons List. The number of persons' names entered in the current register is 706. It was not necessary to take any legal proceedings for contravention of the legal enactments.

### **Milk Supplies.**

The delegation of duties relating to the supervision and inspection of food to the public health inspectorial staff has included the administration of legislation governing the distribution, treatment and sale of milk, also the issue of 2,764 licences.

#### **Milk distribution**

Measures concerned with securing a clean milk supply are most important in view of the vital nature of this article of food, and careful supervision is essential at every stage between the factory where it is received, treated and bottled and the consumers who may be in the home, school or canteen.

Under the present departmental arrangement it is now possible with a staff of sixty inspectors to keep a close watch on all links in the chain

of milk distribution as each inspector is entrusted with the duty of seeing that the requirements of the Milk and Dairies Regulations, 1949 and the Milk (Special Designation) Regulations are being complied with at all times.

Although all milk is produced under the supervision of the Ministry of Agriculture, Fisheries and Food, the handling, treatment and distribution of milk, other than that which is produced and distributed direct by a dairy farmer, is controlled by the local authority with whom the dealers and premises must be registered.

Registration  
of Dairies

This entails a frequent check of registered premises, and routine visitation during the year revealed that 36 dairies had ceased to operate. The number of new businesses registered in this period was 58. All premises were inspected and made to comply with the requirements of the department before registration was approved.

All milk is distributed under specially designated descriptions according to its treatment and distributors in specified areas must hold a licence in respect of the particular designation handled.

Designated  
Milks

These licences are renewable annually and are collected endorsed and re-issued by the inspectors who examine the premises to ensure that conditions are satisfactory for the sale or storage of milk.

During the year 8,084 visits were made to premises where milk is handled.

|                                                                                                                 |     |     |     |     |     |                       |
|-----------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----------------------|
| Number of registered dairies                                                                                    | ... | ... | ... | ... | 496 | Registered<br>Dairies |
| Number of registered dairymen                                                                                   | ... | ... | ... | ... | 522 |                       |
| Number of dairies which ceased to operate                                                                       | ... | ... | ... | ... | 36  |                       |
| Number of dairies newly registered                                                                              | ... | ... | ... | ... | 58  |                       |
| Number of hawkers newly registered                                                                              | ... | ... | ... | ... | 1   |                       |
| Number of hawkers operating                                                                                     | ... | ... | ... | ... | 7   |                       |
| Number of distributors registered (who have no premises in<br>Liverpool but bring daily supplies into the City) | ... | ... | ... | ... | 9   |                       |
| Number of registered dairies transferred from one person<br>to another                                          | ... | ... | ... | ... | 45  |                       |
| Number of distributors of cream as distinct from registered<br>dairymen                                         | ... | ... | ... | ... | 145 |                       |

### Inspection of Dairies.

During the year 334 visits were made to pasteurising plants when the installations were in operation and at periods when they had been dismantled for cleansing.

Heat  
Treatment of  
Milk



In each instance temperature recorders and indicating thermometers were checked and in the 4 instances where inaccuracies were found the instruments were immediately corrected. In one instance the inaccuracy was of such a character that the whole of the thermograph recorder was replaced by a new one.

During the year 64 visits were made to milk sterilising establishments.

**Pasteurisation  
and  
Sterilisation  
of Milk**

There are 6 high temperature short time pasteurising plants operating in the city consisting of 17 separate units of capacities varying from 750 gallons per hour to 2,500 per hour.

Each unit is coupled with mechanical washing plant, automatic fillers and cappers and conveyors to cold storage rooms.

In addition to the above, 6 establishments are fitted with holder type or batch pasteurisers of capacities of from 75 gallons to 200 gallons. There are 13 separate units of this type of plant, together with mechanical washers, automatic fillers and cappers. In three instances automatic fillers have been replaced by larger and more efficient units.

In the above milk processing establishments approximately 350,000 gallons of milk are heat treated daily, the balance over the local daily consumption being for distribution in adjoining areas.

**Cartons**

There is one separately housed machine being operated for the manufacture (from the sheet) of polythene lined cartons. These are made, filled and sealed in this machine at the rate of 4,500  $\frac{1}{2}$ -pint cartons per hour. These cartons are used mainly for supplies to factories and workplaces to eliminate bottle losses and misuse of bottles. One of the larger dairies has been equipped with the new de-crating and re-crating and stacking system. This is operating quite efficiently.

One dairy in the city is responsible for the treatment, packing and shipping of a considerable quantity of sterilised milk in 1-pint bottles to the West Coast of Africa where the steady demand for this commodity is still maintained.

**Frozen Milk**

A new establishment has been fitted with deep freeze equipment in which carton milk in half-pint and one-pint blocks are frozen for export to the East and for the use of ships during voyages. None of the milk is distributed in the City.

Approximately 100 gallons of milk are handled daily by this establishment.

**Milk (Special Designation) (Pasteurised and Sterilised Milk)  
Regulations 1949 and the  
Milk (Special Designation) (Raw Milk) Regulations, 1949.**

A person who is registered as a milk distributor in a specified area **Designated Milk** must also hold a licence in respect of each designation of milk which he handles and any person selling sterilised milk only must hold a licence as a vendor of this particular type of designated milk.

Licences issued during the year totalled 1,605, as follows:—

|                                                      |     |     |     |     |     |     |     |
|------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Dealer pasteurisers                                  | ... | ... | ... | ... | ... | ... | 12  |
| Dealer sterilisers                                   | ... | ... | ... | ... | ... | ... | 3   |
| Vendors of tuberculin tested milk raw                | ... | ... | ... | ... | ... | ... | 16  |
| Vendors of tuberculin tested milk raw (farm bottled) | ... | ... | ... | ... | ... | ... | 92  |
| Vendors of tuberculin tested milk pasteurised        | ... | ... | ... | ... | ... | ... | 508 |
| Vendors of pasteurised milk                          | ... | ... | ... | ... | ... | ... | 496 |
| Vendors of sterilised milk                           | ... | ... | ... | ... | ... | ... | 478 |

In addition, 1,159 licences were issued in respect of sterilised milk **Licensing of Distributors of Designated Milk** only to vendors who were mainly small shopkeepers.

199 businesses were transferred during the year from one person to another. These transfers involved 315 licences.

| Daily consumption of milk in Liverpool. |     |     |     |     |     |     | Gallons. | Total Milk Consumption in City |
|-----------------------------------------|-----|-----|-----|-----|-----|-----|----------|--------------------------------|
| Tuberculin tested milk (farm bottled)   | ... | ... | ... | ... | ... | ... | 707      |                                |
| Tuberculin tested milk (bulk)           | ... | ... | ... | ... | ... | ... | 1,047    |                                |
| Tuberculin tested milk (pasteurised)    | ... | ... | ... | ... | ... | ... | 26,523   |                                |
| Pasteurised milk                        | ... | ... | ... | ... | ... | ... | 43,558   |                                |
| Sterilised milk                         | ... | ... | ... | ... | ... | ... | 18,047   |                                |
| Total gallonage                         |     |     |     |     |     |     | 89,882   |                                |

There are some 1,250 gallons of milk produced daily in the City of which about 495 gallons are tuberculin tested (farm bottled).

Approximately 305 gallons of cream are produced daily in the City. **Cream**



### Liverpool Corporation Act, 1921, Sections 475-483.

Premises  
where cattle  
are kept

This Act empowers the Liverpool Corporation to grant licences to all persons keeping store cattle, dairy cows and pigs subject to the premises being suitable.

At the end of 1957 the following table of licences was operative for the keeping of cattle and/or pigs:—

|                                                 |     |     |     |     |     |       |
|-------------------------------------------------|-----|-----|-----|-----|-----|-------|
| Licences to keep cattle...                      | ... | ... | ... | ... | ... | 42    |
| Licences to keep pigs                           | ... | ... | ... | ... | ... | 67    |
| Number of dairy cows permitted on licences      | ... | ... | ... | ... | ... | 931   |
| Average number kept                             | ... | ... | ... | ... | ... | 416   |
| Number of store cattle permitted on licences    | ... | ... | ... | ... | ... | 419   |
| Average number kept                             | ... | ... | ... | ... | ... | 320   |
| Number of pigs permitted on licences            | ... | ... | ... | ... | ... | 3,920 |
| Average number kept                             | ... | ... | ... | ... | ... | 2,600 |
| Number of licences forfeited on ceasing to keep | ... | ... | ... | ... | ... | 9     |
| Number of licences granted for additional stock | ... | ... | ... | ... | ... | 1     |
| Number of new licences granted                  | ... | ... | ... | ... | ... | 1     |

Routine visits to these premises were maintained during the year and all infringements dealt with either verbally or by the issues of notices.

### Food Hygiene.

Co-operation  
of public

The promotion of improved standards of hygiene would be materially assisted if there was more active participation on the part of the public, for without this help official efforts in pressing for clean food practices are not likely to be wholly successful.

If buyers would only refuse to accept food which was not carefully handled or properly covered in shops, and if customers in catering establishments complained on every occasion when soiled cutlery or eating and drinking utensils were served, there is little doubt that this action would have a marked effect on hygienic practices in retail establishments and open air food stalls and vehicles.

Observation has, however, shown that this desirable state of affairs has not yet been attained and that, notwithstanding the wide propaganda over the past few years, the public conscience has yet to be fully awakened in respect of clean food.

Effect of  
case law

Recent court decisions have revealed some weaknesses in legislation so far as the protection of food is concerned and it is evident that the Food Hygiene Regulations require strengthening if public health aims are to be achieved and the public are to be protected against the sale of contaminated food.

Information gained during investigations into the cause of many outbreaks of food poisoning has shown that the greatest risk of bacterial contamination is in the period when food is being processed. It is for this reason that special attention has been paid to food factories and catering establishments and in particular those in which cooked meats and similar commodities are prepared.

Food  
processing  
premises

As a general rule it is not difficult to see that proprietors maintain their premises in a clean condition as this is simply a matter of good housekeeping, but the major problem is concerned with the human element.

Legislation and advice from inspectors will not in itself ensure that the basic principles of hygiene will always be observed by food handlers at all times, and as the responsibility for producing safe food rests with the respective trades every effort is made to press proprietors of food premises to have efficient supervision, and to take steps to train and educate employees in the need for scrupulous personal cleanliness when handling food of this nature.

Food  
producers'  
responsibility

The idea that cleanliness in food handling is an important health safeguard and not merely an aesthetic advantage is becoming a more familiar part of food production policy, and evidence shows that with effective training many employees do inculcate habits which considerably reduce the risk of contamination.

Personal  
hygiene

It is not necessary for all persons in the food trade to have a deep and technical knowledge of the basic concepts of food hygiene but a proper understanding of the need for personal cleanliness is a great advantage to enable the food handler to appreciate the reasons for co-operation in this respect.

Sources of food contamination may be classified under three general headings:—

Sources of  
contamina-  
tion

- (a) bacterial infection
- (b) parasitical
- (c) surface contamination.

In the first two groups the contamination occurs invisibly and therefore becomes increasingly dangerous as awareness of the contamination

Invisible  
attack



- Defence measure** is delayed. It is for this reason that personal conscientiousness in scrupulous care and cleanliness is so essential. This can be the only defence measure against an undeclared attack by bacteria.
- Visible contamination** Now whilst there may be some extenuation of their responsibility for those who are unwittingly the cause of contaminating food, there can be no pardon for those who permit the surface contamination of food through wilful neglect.
- There are still far too many food handlers and persons of authority in the food trades who look upon personal precautions as a fad of the capricious, and fail to acknowledge the obvious and serious medical aspect of these essentials.
- Tobacco smoking** One of the most widespread practices contributing to this problem of food contamination is the hard-to-break habit of smoking tobacco. We are not concerned here with the question of the risks to the health of the smoker, but only with the consequences to other people through food contamination.
- Insufficient publicity** Sufficient publicity has not been given to the way in which smokers may convey danger to food, so that general ignorance is proving a serious hazard in the advancement of hygiene in food handling.
- Pride in present day achievement** Any pride we may feel in the present day conception of clean food production, handling and service is put into true perspective when we learn something of the opinions of those of earlier generations.
- Future action** Whatever has already been achieved, and that is very considerable, the task is still before us. Many factors, such as economic restrictions, staff problems, lack of personal enthusiasm, peak-hour pressure of trade, and trading in premises too small for the purpose, have yet to be overcome. With continued co-operation between representatives of the trade and officials the obstacles may yet be set aside.
- Co-operation**
- Inspection of Food Businesses** The distribution and sale of clean and safe food is so important that it is expedient for the department to be assured that a sound standard of hygiene is maintained at all times and that periodical inspections should be frequent but not at regular intervals. The district inspectors are now entrusted with this work, and it has been possible for 25,645 visits to be made during the year to retail food shops, stores, bakehouses, licenced premises, food factories, street traders, etc.



Although many of the infringements of the Food Hygiene Regulations 1955, were of a minor nature, 2,183 warning letters were sent in respect of these premises.

Careful attention has continued to be given to cafes, restaurants, etc., in order to ensure the continuance of good hygiene practices, and 1,234 routine visits have been made to these premises, apart from general observations during the course of other duties.

Included among the many proceedings taken in court were those concerning infringements of the Food Hygiene Regulations, 1955, in shops, restaurants and a mobile shop. Fines totalling £57 were imposed by the stipendiary magistrate.

**Court  
Proceedings**

There are approximately 320 clubs in the City, including licensed establishments. In view of the application of the Food Hygiene Regulations to this class of premises inspections were intensified and 1,406 visits were made to them during the year. Much of this work has been associated with the specifications of requirements previously issued, and where club secretaries and committees sought advice in dealing with these requirements.

**Clubs**

Generally the standard has greatly improved, particularly in respect of cleanliness, but matters affecting financial outlay are the cause of some concern to a number of the clubs. For this reason delay occurs in carrying out these works because of their dependance upon voluntary labour by club members. It is, however, gratifying to record that there is an earnest endeavour to meet the requirements of the Regulations in spite of the many difficulties, which are particularly serious in some of the very old and somewhat dilapidated buildings used by certain types of clubs.

**Financial  
difficulties**

The systematic and regular inspection of these premises is essentially a matter of importance, and it is the policy of this department to give the maximum possible attention to it. It is not our desire to cause embarrassment or annoyance to proprietors or workers, but it cannot be denied that unless a careful supervision is maintained by inspectors the advancement already gained will be lost through the factor of human failure.

**Restaurants,  
Cafes, Snack  
Bars and  
Dining  
Rooms**

**Need for  
supervision**



It must be recorded, however, that the general standard remains good, and no doubt, there is a wider understanding of what this question of hygiene is all about by even the most lowly of food workers. Unfortunately it is not the degree of understanding that tends to retard progress, but the absence of a practical application of that understanding.

**Food  
handlers'  
responsi-  
bilities**

Food handlers must face up to their individual responsibilities and certain proprietors of catering businesses must cease to depend only on the visits of inspectors to keep them advised of the recurring faults found in their establishments, arising from failures of their employees and themselves.

**Co-operation  
appreciated**

Nevertheless, praise is readily expressed of those who are tackling their problems conscientiously, and their close co-operation with this department is fully appreciated. Consultations are welcomed, and guidance will be readily given to those who request it.

**Food Shops**

Considerable attention has also been given to some 7,000 retail food shops throughout the City, and again whilst there is good reason to feel a reasonable satisfaction in the gradual improvement, it must be emphasised that this is greatly due to the supervisory work of the inspectors.

**Insufficient  
accommo-  
dation**

**Restricted  
use of  
washing  
facilities**

A factor which still retards some progress is the inadequate accommodation for the storage of stock and empty containers. Inspectors find that even hand washing basins are isolated behind boxes and sacks to an extent that personnel cannot make use of these facilities unless they are sufficiently diligent, or have the necessary time to clear a passageway.

**Daily  
cleaning**

**Untidiness**

This factor is also the cause of neglected daily cleaning, and it is quite common to find unsatisfactory storage rooms behind good and attractive shops. In this, of course, staff are sometimes at fault, because the accommodation is not carefully used, and, partly due to the hurly-burly of busy periods, extreme untidiness occurs.

**Hand  
washing  
facilities**

Progress is being made in the provision of satisfactory hand washing facilities, and in spite of many objections from shopkeepers wash hand basins are gradually replacing the more unsatisfactory facilities.

hitherto provided. The desire to use portable bowls in existing sinks, dies hard, and only in a limited number of shops, where special difficulties exist through lack of space, are these bowls found to be used satisfactorily. **Portable bowls**

This unsatisfactory arrangement is well illustrated by the following instances:— **Misuse of portable bowls**

- (a) in a grocer's shop the inspector found the bowl on the floor. It was being used to receive water draining from a large refrigerator which was faulty.
- (b) in a greengrocer's shop the bowl was also on the floor and was full of potatoes which were to be peeled for the staff's dinner.
- (c) in another grocer's shop the bowl was empty but was standing in a box which was full of floor sweepings and waste paper.

In these instances, and in others, wash hand basins were required to be installed, much to the dissatisfaction of the shopkeepers. **Remedy**

To assist shopkeepers and owners of food businesses generally, books of addressed notification certificates were distributed free of charge to the food traders in the City. This was done to encourage compliance with Regulation 11, and during the year 245 notifications were received by the department. **Infectious Disease notifications**

### **Fried Fish Shops.**

In keeping with the intention of giving every possible attention to food premises, inspections of fish frying establishments have continued during the year. Following the intensive programme in the previous year the present report is mainly concerned with follow-up visits which totalled 643, when it was found that the progress hitherto achieved is being well maintained. **Inspections**

As in other food premises the problem of lack of space is a primary one, and is extremely difficult to overcome. The majority of these businesses are carried on in small shops with dwelling houses attached, usually occupied by the shopkeeper. **Lack of space**

The dividing line between the food preparation quarters and the domestic accommodation is in some instances rather obscure, thus **Economic restrictions**



retarding the development desired by the trader and the department. Because of the present economic position and the serious lack of housing accommodation it is impossible to envisage a complete solution to the problem within a given period.

However, such innovations and alternatives as may be devised are applied wherever possible, and positive progress is recorded.

**Transfer to  
Chinese  
ownership**

It is interesting, and perhaps significant of their national changes, to note the remarkable number of Chinese who have in very recent years taken over fried fish businesses which were previously owned by local people, and it must be said to their credit that they have modernized the premises and improved the hygienic standard after seeking the guidance of this department.

### **Ice Cream Retail Trade.**

**Inspections**

It has been the turn of the ice cream vendors to be given special attention during the year, and a check on the registrations has been

**Improve-  
ments**

progressing in step with the application of the Food Hygiene Regulations to these particular premises. This has resulted in many improvements being made to the shops and in some cases the installation of more suitable washing facilities and the provision of water heating appliances.

**Premises**

There are some 2,105 premises where ice cream and lolly ices are sold, apart from establishments where these commodities are sold for consumption on the premises. 351 new applications for registration were received during the year and subsequently approved, in certain cases, after cleaning and improvement works had been carried out in accordance with the Regulations.

**New  
registrations**

**Changes of  
ownership**

It will be appreciated that almost all of these applications were in respect of premises which had been previously registered under former occupiers, and it is rather surprising to note the frequency with which some of these businesses change ownership.

### **Street Trading.**

**Street  
trading**

Hygiene conditions in stalls, handcarts and mobile shops present a problem which is peculiar to this class of food retailing and has exercised the concern of this department very considerably.

Unlike shops, this class of trade has in the past been slow to appreciate the need for hygienic standards, due partly, of course, to the conditions under which it is carried on, and the occasional as well as seasonal character of the trading periods.

The Food Hygiene Regulations brought into its scope these businesses and set a standard similar to that in food premises. The regulations deal with structure, protection of food from the risk of contamination, personal cleanliness of the food handlers and the provision of certain facilities for hand washing, and where applicable, the installation of sinks and means for supplying hot water.

These requirements are basically essential and, under the circumstances, somewhat idealistic, because the problems in many instances are practically beyond solution.

However, a special survey was carried out to ascertain an approximation of the number of traders in this trade. This was no easy task because these traders, especially in the suburbs, are rarely in the same location from one day to another.

The total of 107 barrows and carts, and 102 mobile shops is now recorded in the department's register and 4,177 inspections and observations were made during the year, as the result of which 1,267 infringements of the regulations were reported. Warning letters were sent requiring these contraventions to be remedied and a great deal of work has been completed.

This work has included repairs to, or the replacement of barrows or vehicles, the cleaning of structure and equipment, the provision of towels, soap, nail brushes, and some form of washing utensil in certain mobile shops, the protection of open food, also the provision and wearing of protective clothing, and means for storing trade waste.

Many of these traders are anxious to do all they can to meet these requirements and progress has been achieved.

It was necessary to take court proceedings in respect of the dirty conditions and unsatisfactory structure of one mobile shop. This resulted in the conviction of the trader who was fined £3. Proceedings



are also pending against a "hot dog" trader who operates from a box-tricycle, which was found to be in an extremely unsatisfactory condition.

**Food storage** Many traders purchase their stocks daily from the North Market or Queen Square, and the question of storage does not usually arise. In instances where it has been found that traders are buying for a period, a special investigation of their storage premises has been carried out with a view to ensuring that the storage facilities available are suitable for the type of commodity which is being sold.

### **Licensed Premises.**

**Licensed Premises** The reconditioning of older public houses has proceeded steadily during the year and this work has given certain proprietors the opportunity to modernise bars and equipment.

Improved types of beer engines have been installed in many houses recently but curiously enough the system of delivering the liquor to the service bar by compressed air in the casks has not found favour in this district although this hygienic method is popular in other parts of the country.

**Beer Pipe Lines** The old type of tin-lined lead pipes have all been replaced by stainless steel, monel metal or by a type of translucent plastic pipe which is becoming widely used and from a hygienic view point is eminently satisfactory.

**Cleanliness** The 2,583 visits to licensed premises showed that in general the standard of environmental cleanliness has certainly advanced in the last few years. This upgrading is mainly due to supervision within the trade where the policy is to foster a "house-proud" spirit among employees, but there is no doubt that the application of the Food Hygiene Regulations has had a good effect. The courses promoted by the National Trade Development Association for the training of licensees and bartenders have also played a useful part.

**Risk of contamination** In view of the methods employed in the manufacture of beer there is little risk of bacterial growth and contamination is more or less confined to the use of drinking vessels which have not been thoroughly cleansed after use.

Special attention has therefore been given to the methods employed in washing glasses and during a pilot survey, 150 busy public houses were visited in different parts of the City in the evenings. **Washing of Drinking Glasses**

In the majority of cases the standard was found to be satisfactory and was particularly good in houses where all the washing was done by one or two employees. In other cases where the entire staff took part, the operation was done in a haphazard manner and was not considered to be effective. This was very noticeable during the busy periods and at the weekends. **Satisfactory methods**  
**Unsatisfactory methods**

In 28 premises the licensees and staff were warned that the standard must be improved and the appropriate brewery companies were advised. Arrangements were made for the inspectors to visit these premises with the supervisors and as a result a marked improvement was observed on subsequent visits. **Warnings given**

It was, however, evident that as many of the employees who were cautioned were part-time workers, constant supervision is necessary to see that a good standard is maintained in public houses where this class of bartender is employed. **Need for supervision**

### **Bakehouses.**

The progress and marked improvement in the standard of cleanliness noticed in bakehouses since the advent of the Food Hygiene Regulations has continued in a steady but unspectacular manner during the past year. **Hygienic progress in trade**

There were 739 visits made to bakeries during the year and in certain cases action was necessary to secure structural improvements, the replacement of worn out and unsuitable equipment which were not conducive to the maintenance of cleanly conditions and provide a risk of contamination of baked products.

In general, however, the trade has tackled the problem of complying with the spirit and the letter of regulations and has been most co-operative in implementing recommendations on the advice of the inspectors who have a wide experience of bakery hygiene.



The application of the principles of hygiene to this complex food industry is undoubtedly a problem of some magnitude and calls for a realistic approach on the part of officials whose duty it is to secure compliance with the statutory rules and at the same time to ensure that bakers are constantly alive to the public health hazards associated with this type of trade.

**Complex  
nature of  
industry**

The fact that the industry is built up of concerns varying in size from the small one man unit to large factories employing many hundreds of workers engaged in a multitude of activities involving the handling of food does present difficult and unusual features. Again, when we consider the speed of production, the infinite variety of bakery lines and the unavoidable manual handling of raw materials, it is little wonder that many bakers considered that the problem of harnessing the techniques of hygiene and production was to all intents and purposes insoluble.

Nevertheless members of the trade have applied their energies to the task with commendable success.

**Types of con-  
tamination**

The baking industry is not entirely concerned with bacterial contamination but for obvious reasons must aim at the elimination of mould development, the eradication of insects and larval and the production of articles which are free from foreign substances. This visible contamination is a constant menace to the food trade which the introduction of mechanical aids has not eliminated entirely, indeed although various ingenious devices are employed to detect and isolate foreign bodies from raw materials the use of machines often introduces new risks in the form of scraps of metal, oil and grease. It can be truthfully said that the majority of bakers take extraordinary care to avoid contamination of this nature and more often than not the presence of foreign substances in finished articles is a sheer accident.

**Moulds**

Investigation into complaints has shown that more often than not mould formations are due to retailers failing to appreciate the fact that certain pastry and confectionery lines cannot be kept for days in fluctuating temperatures and exposed to shop conditions without the risk of mould growth in the interior of the article.

### Types of Food Premises.

The number of food premises subject to visits by public health inspectors for the purpose of securing compliance with the requirements of the Food Hygiene Regulations, 1955, and Local Bye-laws are as follows:—

#### FOOD PREPARATION PREMISES

|                                          |     |     |     |     |     |     |     |     |     |     |
|------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Bakehouses                               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 192 |
| Industrial canteens                      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 205 |
| School kitchens                          | ... | ... | ... | ... | ... | ... | ... | ... | ... | 258 |
| Brewing, beer and mineral water bottling | ... | ... | ... | ... | ... | ... | ... | ... | ... | 44  |
| Spice manufacturers                      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4   |
| Bacon curing                             | ... | ... | ... | ... | ... | ... | ... | ... | ... | 11  |
| Preserved meat and sausage manufacturers | ... | ... | ... | ... | ... | ... | ... | ... | ... | 213 |
| Biscuit manufacturers                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5   |
| Jam manufacturers                        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6   |
| Fruit cleaning                           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9   |
| Custard and meal powders                 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4   |
| Millers, flour and rice                  | ... | ... | ... | ... | ... | ... | ... | ... | ... | 17  |
| Pickles                                  | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3   |
| Sweet confectionery                      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 13  |
| Coffee and tea packing                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 20  |
| Sugar refiners                           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8   |
| Tripe dressers                           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8   |
| Edible fat manufacturers...              | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4   |
| Miscellaneous food products              | ... | ... | ... | ... | ... | ... | ... | ... | ... | 32  |
| Ice cream and ice lolly makers           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 43  |

#### RETAIL FOOD BUSINESSES

|                            |     |     |     |     |     |     |     |     |     |       |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Licensed premises          | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1,152 |
| Off license premises       | ... | ... | ... | ... | ... | ... | ... | ... | ... | 94    |
| Ice cream vendors...       | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2,105 |
| Bread and confectionery    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 451   |
| Butchers                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 626   |
| Cafes, snack bars, etc.    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 287   |
| Cooked meats               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 53    |
| Dairies                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 205   |
| Fishmongers and poulterers | ... | ... | ... | ... | ... | ... | ... | ... | ... | 237   |
| General                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1,259 |
| Greengrocers               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 792   |
| Grocery and provisions     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 876   |
| Sweets, minerals, etc.     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1,189 |
| Fish frying establishments | ... | ... | ... | ... | ... | ... | ... | ... | ... | 417   |

### Transport of Food.

The conditions under which food is transported during the various stages of its distribution is a matter of equal importance to that of other aspects of clean food handling, and one which is being given an increasing amount of attention by the department. <sup>Important feature</sup>

Attention is being directed to the transport of meat, fish, poultry, fruit and vegetables, bread and confectionery and other open foods, <sup>Attention given</sup>



and inspections and observations have revealed some disquieting conditions and practices in this branch of the food trade.

**Special problems**

There are, of course, special problems which, as in the case of street trading, are associated with the high cost of equipping vehicles, the rather rapid deterioration of the structure through heavy and careless usage, the difficulties or absence of supervision after the vans have left the depots, the speed with which deliveries have to be maintained in order to avoid late arrivals, particularly in the case of daily supplies to retail shops.

**Transport essential in distribution**

When it is realised that almost every commodity of food sold in shops in urban districts particularly, must be delivered by some form of transport during its progress from the producer to the consumer, the extreme importance of scrupulous care by every person engaged in food transport is paramount.

**Retailers' deliveries**

The practice by retailers to deliver to customers goods which have been previously ordered is not so extensive as it was before the last war, but there is a tendency for carelessness in food handling after the food has left the shop and before it reaches the consumer. In this way the value of the care taken in the shop may be lost through the unsatisfactory condition of the van, or of the basket or other containers used on a carrier bicycle, and by the thoughtless actions of the persons delivering the goods.

**Unsuitable methods of delivery**

This is an extremely difficult aspect to control, but its importance is essential.

**Delivery of Bread and Confectionery**

Although the type and construction of vehicles used for the conveyance of bread and confectionery in the retail and wholesale trades have improved during recent years, there are some aspects of delivery in this trade which bear criticism and must be checked by food traders.

Among matters which warrant action by the department are cases where the loading doors of vans are left open for an unnecessary length of time. This is particularly important in inclement weather when unwrapped bread and confectionery is carried.

Some vanmen have a habit of leaving empty trays against the side of the vehicles when conducting their business, a practice which attracts the interests of dogs and cats and also causes dirt and dust to be picked up from the surface of the road and footwalk. Although the trays may be carefully cleansed and washed when they are returned to the factory they must of necessity be placed in the vehicles with food until the round is completed.

It is obviously difficult in practice for mobile retail bread salesmen to keep their hands clean at all times even when the vehicle is provided with personal washing facilities. In these circumstances it is imperative that the trade should take steps to see that only wrapped confectionery is delivered or sold from retail vans, or by boys on bicycles, and until public demand is sufficient to justify the sale of wrapped bread only, loaves should be conveyed in clean covered containers from vehicles or shops to the customers in all cases.

Wrapped  
Bread and  
Confectionery

Some of the methods employed in conveying meat to retailers' premises still leaves much to be desired and is frequently the subject of public criticism and comment.

Transport of  
Meat

It is true that although there has been a marked improvement in the construction of meat vehicles used by some of the large hauliers who specialise in the transportation of meat, there is far too much conveyed in small vans not designed or properly adapted for the purpose of carrying this class of food.

Improvement

Unsuitable  
vehicles

It is also the practice of many small traders who buy their supplies at the abattoir or from wholesalers to convey the food in private cars where it is often placed on the floor after the removal of some of the seating of the car.

Use of  
private cars

This practice is strongly discouraged by the inspectors and when it is observed the attention of the trader is drawn to the necessity of complying with the requirements of the Food Hygiene Regulations which apply to the transport of meat and offal. This action has often had the effect of persuading the retailers concerned to employ the services of experienced meat transport organisations.

Action  
by the  
Department



# Structure of vehicles

The interior of well constructed and hygienic food vehicles are invariably lined with non-corrodible metal, but notwithstanding the fact that liquids drain from some carcasses many vehicles are unsuitably lined with timber. On several occasions it has been necessary to complain to proprietors of the fractured or worn and absorbent condition of the floors of meat vans, and on two occasions it was observed that dust thrown up by the rear wheels was being forced into the interior owing to the perforated and worn state of the wooden floors, a condition which was remedied in each case by the repair and lining of the whole of the inside of the vans with light-alloy metal.

## DISINFECTION AND DISINFESTATION

This section of the department with its varied duties is connected in a greater or lesser degree with almost all of the services for which the Health Department is responsible, duties which are expanding as the functions of the department continue to grow.

A list of the duties carried out by this section are given herewith, followed by a brief summary containing more detail.

1. Inspection of premises for verminous condition.
2. Disinfestation treatment of verminous premises.
3. Disinfestation treatment of verminous furniture, etc.
4. Disinfestation and disinfection stations.
5. Disinfection of infectious premises.
6. City Mortuary.
7. Burial Service.
8. Storage, distribution and collection of Home Nursing equipment.
9. Mobile meals service.
10. Food and general store.
11. Welfare Foods service.
12. Poliomyelitis Immunisation—Transport.
13. Miscellaneous services.
14. The Liverpool Show.

### 1. *Inspection of Premises for Verminous Condition.*

Inspections of dwelling houses, hospital premises, canteens, cafe kitchens, locker rooms and various factory premises originate from a number of sources, and may be divided into the following categories:—

- (a) The majority of inspections of dwelling houses are made on behalf of the Housing Department and they are carried out with the intention of obtaining information regarding the verminous condition of furniture and effects belonging to those families who are recommended for re-housing. These inspections are carried out on all housing estates irrespective of their location, inside or outside the City boundaries.



- (b) Public interest in the cleanliness of dwelling houses is reflected in the growing number of requests which are received from owners or occupiers who suspect that the premises are vermin infested. If, in fact, these premises are found to be verminous and disinfestation treatment is requested, the cost of such treatment is debited to the complainant.
- (c) Hospital Management Committees are increasing their requests for inspections and treatment of those hospital premises where cockroach or steam-fly infestation is suspected.
- (d) Inspection of staff canteens is a regular feature of this branch of the service, as these premises frequently become infested with steam-flies or cockroaches. The cost of any treatment required is debited to the owner of the premises.
- (e) Food manufacturers frequently call upon the services of this section when it is suspected that minor infestations of vermin are occurring in the premises.

The department occasionally receives complaints of insect infestation but on investigation it is sometimes difficult to identify the type of insect. For the purpose of classification in these cases, the local office of the Ministry of Agriculture has given very useful advice.

Although the number of visits made, and the number of verminous premises treated shows an increase on the previous year, it is not to be assumed that the incidence of vermin infestation is increasing, but rather that members of the general public are becoming more aware of their duties in this direction and are making greater use of the services of the department.

The number of inspections during the year in all these connections was 7,861, of which 2,708 were found to be vermin infested. The 1956 figures were 6,369 and 2,285, respectively.

## 2. *Disinfestation treatment of Verminous Premises.*

As a result of the inspections detailed in the previous paragraphs, disinfestation treatment was carried out in the following cases:—

- (a) 551 dwelling houses treated at the request of the Housing Department.

(b) 440 dwelling houses treated at the request of owners or occupiers.

(c) 248 treatments of hospitals, staff canteens, factory premises, etc.

a total of 1,239 treatments. This compared with 1,096 treatments undertaken in 1956.

### 3. *Disinfestation treatment of Verminous Furniture, etc.*

The disinfestation of dwelling houses usually necessitates the treatment of furniture, bedding and personal effects. The method of treatment is for furniture, bedsteads, pictures, etc., to be treated on the premises, but it is necessary for mattresses, bedding and soft furnishings to be removed to a disinfestation station for adequate treatment. The latter process is carried out with the minimum amount of inconvenience to the occupants of the premises. The furniture and effects of 1,469 families were treated in this manner during the year.

### *Welfare Cases.*

On behalf of the Welfare Section of the Health Department, an increasing number of dwelling houses and apartment rooms are disinfested. These are premises in which the occupants have been removed to hospital or are unfit to clean the premises unaided.

### 4. *Disinfestation and Disinfection Stations.*

There are two stations in continual use, one is at Smithdown Road and the other at Charters Street. They are used primarily for the disinfestation of verminous articles from premises in course of treatment and the disinfection of articles removed from premises and ships in which infectious disease has occurred.

They also derive an income from the precautionary disinfection of various articles intended for export. This work is performed on behalf of various undertakings who are prepared to defray the cost of such treatment.

The amount of work carried out in this connection is:—

5,016 verminous articles disinfested.

20,580 infectious articles disinfected.



122 infectious library books disinfected and returned to circulation.

3,757 articles disinfected as a precautionary chargeable measure.

834 tons of miscellaneous goods, the outer wrappers of which are disinfected as a precautionary chargeable measure.

#### 5. *Disinfection of Infectious Premises.*

In the event of infectious disease occurring in any premises, the necessary disinfection is carried out by staff from this section and infectious bedding and personal effects are removed to the disinfection stations for treatment.

In this connection, 1,445 infectious premises were disinfected during the year.

Requests are frequently made for treatment of premises in which disease of a non-infectious nature has occurred and in these cases, treatment is carried out, the cost being debited to the person requesting such treatment.

#### 6. *City Mortuary.*

The control of the City Mortuary is the responsibility of the Health Department. It is used for the reception from the City and the river of the bodies of persons who have died in unusual circumstances.

During the year, 510 bodies were received and on the instruction of the Coroner, 448 post-mortem examinations were held. In 1956, 399 bodies were received and 356 post-mortems carried out.

#### 7. *Burials Service.*

Section 50 of the National Assistance Act, 1948, imposes a duty on the Local Authority to arrange for the burial or cremation of persons found dead in the City, where it appears that no suitable arrangements are being made by relatives or friends.

During the year, this service arranged for the burial or cremation of 138 adults and children and 6 stillborn babies.

It is the policy of the Department whenever possible to arrange for the cremation of these bodies. It is, however, very important to

institute careful enquiries from friends or relatives regarding the wishes of the deceased before any arrangements are made.

As an auxiliary to this service, the Health Department has an arrangement with local Hospital Management Committees for the transfer of bodies between hospitals. Under this arrangement, 130 bodies were transferred during 1957.

#### 8. *Storage, Distribution and Collection of Home Nursing Equipment.*

The provision of equipment suitable for the nursing of persons who are ill at home is a service provided by the department. The number of items in use is growing continually as evidenced by the fact that 4,127 visits were made during the year for the purpose of providing or collecting equipment.

The storage, distribution, collection and maintenance of the varied types of equipment now in use is handled by this section of the department.

#### 9. *Mobile Meals Service.*

Two vans are still in use in this service, and during the year, 9,297 visits were made to the homes of persons who were in need of the benefits to be derived from the provision of cooked meals.

The meals are provided on Monday, Wednesday, and Friday of each week in a limited area within easy reach of Westminster House, from the kitchens of which the meals are obtained.

#### 10. *Food and General Store.*

This store, which is situated at Gascoyne Street Depot, continues to function in a satisfactory manner despite accommodation difficulties. The value and volume of goods handled continues to increase each year. The actual value of the turnover in 1951 was £9,000, whereas the value during 1957 was £20,000. Food, chandlery and general stores are supplied to 148 establishments, the majority of which are those under the control of the Health Department, but included in this number are several establishments belonging to the Children's Department, School Medical Department and one Police establishment.



The complete list of establishments which are supplied from this store is :—

- 25 Maternity and Child Welfare Centres.
- 12 Day Nurseries.
- 61 Domiciliary Midwives.
- 14 Aged Persons Hostels.
- 5 Mental Health Establishments.
- 9 Children's Department Establishments.
- Police Training College.

11. *Welfare Foods Service.*

Please see page 29.

12. *Poliomyelitis Immunisation—Transport.*

The Poliomyelitis Immunisation scheme, the scope of which is now considerably increased depends on urgent transport of the necessary vaccine. This is provided at short notice by the section.

13. *Miscellaneous Services.*

Miscellaneous services include:—

- (a) The collection and removal of furniture and equipment to and from Aged Persons Hostels.
- (b) Collection, repair and delivery of Day Nursery equipment and furniture.
- (c) Transport of equipment on behalf of the Mental Health Service.
- (d) Various transport duties on behalf of the Children's Department.
- (e) On behalf of the Midwifery Service, gas and air machines are delivered without delay to the homes of patients.
- (f) Transport required from home to hospital of milk required for the feeding of babies who are patients in hospital.
- (g) The movable property of persons admitted to hospital or to accommodation provided under Part III of the National Assistance Act, 1948, is conveyed where necessary to and from store.

- (h) The residents in Aged Persons Hostels are provided with facilities for obtaining books from public libraries. The transport required for this service is provided by this section.
- (j) At the latter end of the year a scheme for the transport of Port Health personnel to and from their places of work was inaugurated by a vehicle from this section.
- (k) A variety of other transport duties necessary for establishments under the control of the Health Department.

#### 14. *Liverpool Show—July 1957.*

The increased accommodation which was placed at the disposal of the Health Department at the 1957 Show facilitated an even greater display of the functions of the department. This section played a considerable part in "behind the scenes" efforts to make this part of the Show an unqualified success. Most of the stands used in the marquees were constructed and erected by the staff of this section. These stands are available for future shows or exhibitions and it is hoped that with suitable additions, they will be used at the 1958 Show.

#### *Summary.*

##### STAFF.

With the exception of the Welfare Foods Service, the foregoing variety of duties for which this section is responsible are performed by a total staff of 44, comprising:—

##### ADMINISTRATIVE STAFF.

- 1 Chief Inspector.
- 4 Inspectors.
- 2 Clerks.
- 3 Foremen.
- 1 Storekeeper.

##### OPERATIONAL STAFF.

- 2 Mortuary Attendants.
- 1 Mechanic.
- 1 Joiner.
- 2 Boiler Attendants.
- 11 Drivers.
- 16 Disinfestors, Disinfectors, etc.

#### *Vehicles and Maintenance.*

Sixteen motor vehicles are in continual daily use and during the year have covered 110,105 miles and consumed 8,352 gallons of petrol. The complete maintenance of these vehicles is carried out by the staff at Gascoyne Street Depot.



## CIVIL DEFENCE

### Ambulance and Casualty Collecting Section

Members of the Ambulance and Casualty Collecting Section of the Liverpool Civil Defence Corps undertook extensive training during the year. The training syllabus extends over 24 weeks and covers all aspects of Civil Defence, including Elementary Rescue and First Aid. Six training courses were arranged and 188 persons attended. In accordance with Ministry circulars, advanced training was carried out and 177 members of the Section qualified for the Silver Star.

The Ambulance and Casualty Collecting Section Team competed at the North West Civil Defence Regional Tourney at Manchester, was successful in gaining first place in the Competition and was awarded the plaque.

Two members of the staff attended at the Home Office Civil Defence School, Falfied, Glos., and qualified as Section Instructors.

A Bedford Civil Defence Ambulance issued by the Ministry of Health on loan to the Liverpool Civil Defence Corps has been used extensively by this and other authorities for training. The Driving School continued training drivers throughout the year and 10 trainees passed the official driving test. Personnel who have previously passed through the school and qualified, rendered valuable assistance in giving driving practice to trainees.

### Welfare Section

During 1957, courses have been continued in the Welfare Section, Civil Defence Corps, on "Evacuation and Care of the Homeless," whilst First Aid Courses have also been continued. Refresher Courses have also been commenced and one class is still meeting weekly.

A team from the Welfare Section (Evacuation and Care of the Homeless) participated in a Civil Defence Corps Regional Tourney held at Belle Vue, Manchester, on 21st September, 1957. This team was successful in obtaining third place amongst the competing teams. Training for this Tourney took place during the summer months.

Certificates and "Silver Star" proficiency badges were issued to members of the Corps who were entitled to same.

The following courses were held during 1957:—

|                                            |   |
|--------------------------------------------|---|
| First Aid ... ..                           | 3 |
| Evacuation and Care of the Homeless ... .. | 3 |
| Conversion Course ... ..                   | 1 |
| Refresher Course ... ..                    | 2 |

Due to the small number of volunteers coming forward for training in Shelter Welfare it has not been possible to arrange a course of lectures on this subject during the year. No effort has been spared to attract volunteers to this essential part of the service.

Shelter  
Welfare



## CREMATION.

The Medical Officer of Health has been appointed by the Home Office to be Medical Referee to the Liverpool Crematorium. The Deputy Medical Officer of Health and a Senior Medical Officer act as deputy Medical Referees. The statutory documents connected with cremations are scrutinised at the central offices of the Health Department before the Medical Referee gives authority to cremate.

Cremations as a means of disposal are growing steadily amongst all classes of the community, and in recent years notable improvements have been effected at the crematorium itself. The number of cremations both locally and nationally increases year by year. So far as Liverpool is concerned, since 1940 for example, when there were 482 cremations the number has now grown to 3,082 in 1957, despite the opening of new crematoria in adjacent areas.

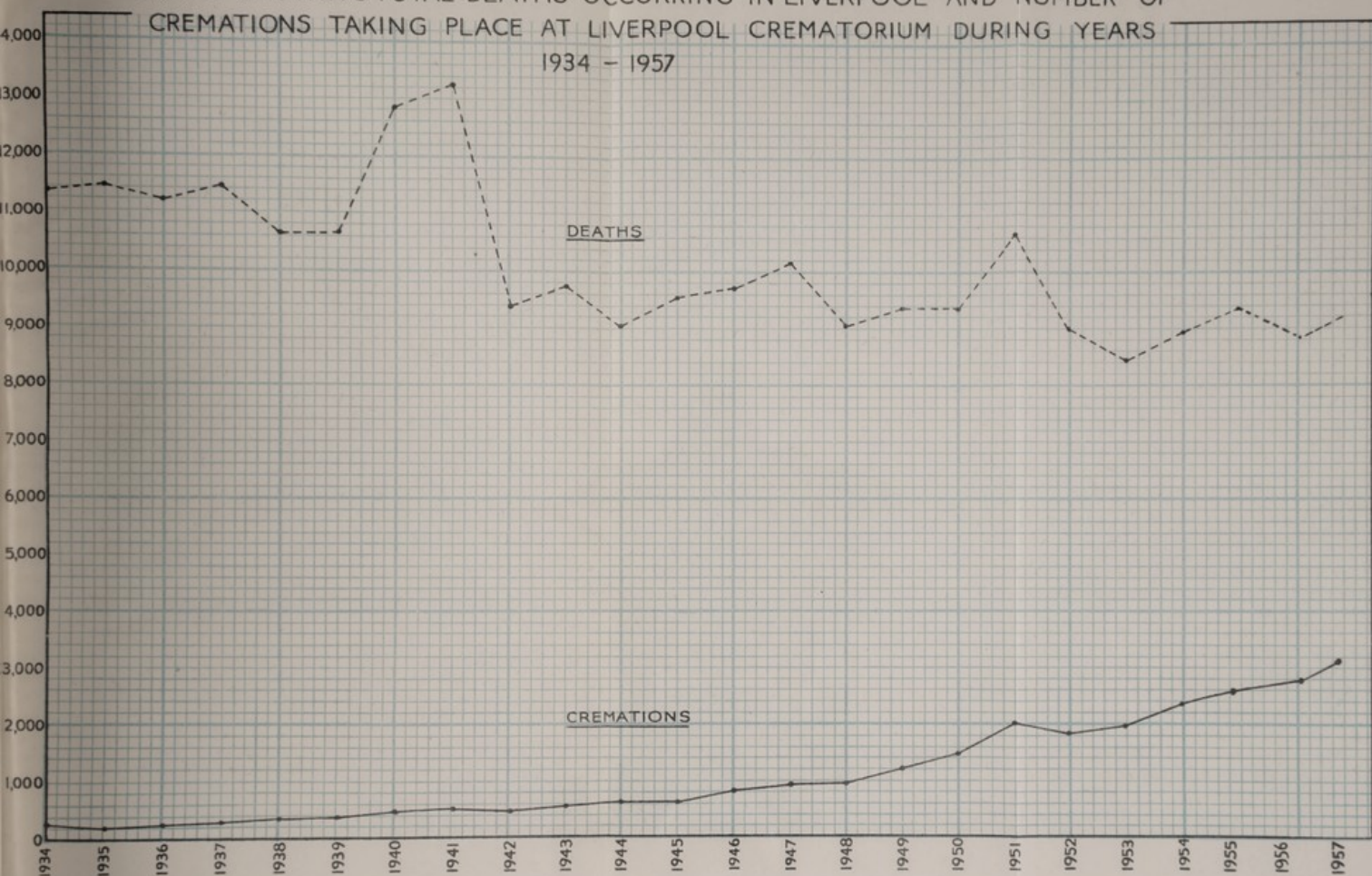
The more common mistakes made on the forms required for cremation during the year were:—

- (1) Doctors omitting to enter the date upon which they last saw the deceased alive before death.
- (2) Registrars not completing their certificates for disposal correctly.
- (3) Relatives giving incorrect answers on form "A" which is the form of application for cremation.
- (4) Persons signing for "A" as witnesses but who are not eligible to do so.

It will be appreciated, therefore, that in handling 3,082 cremations, the rectifying of these errors requires considerable time and attention.

The graph facing shows the increase in cremations taking place at the Liverpool Crematorium since 1934, together with the number of deaths occurring in Liverpool over the same period. It must be borne in mind, however, that the number of cremations at the Liverpool Crematorium includes cases brought in from outside areas such as Bootle, Crosby, St. Helens, etc., as there is still no other crematorium in South West Lancashire. During the year, quite a number of cremations were received from as far afield as Ireland and the Isle of Man.

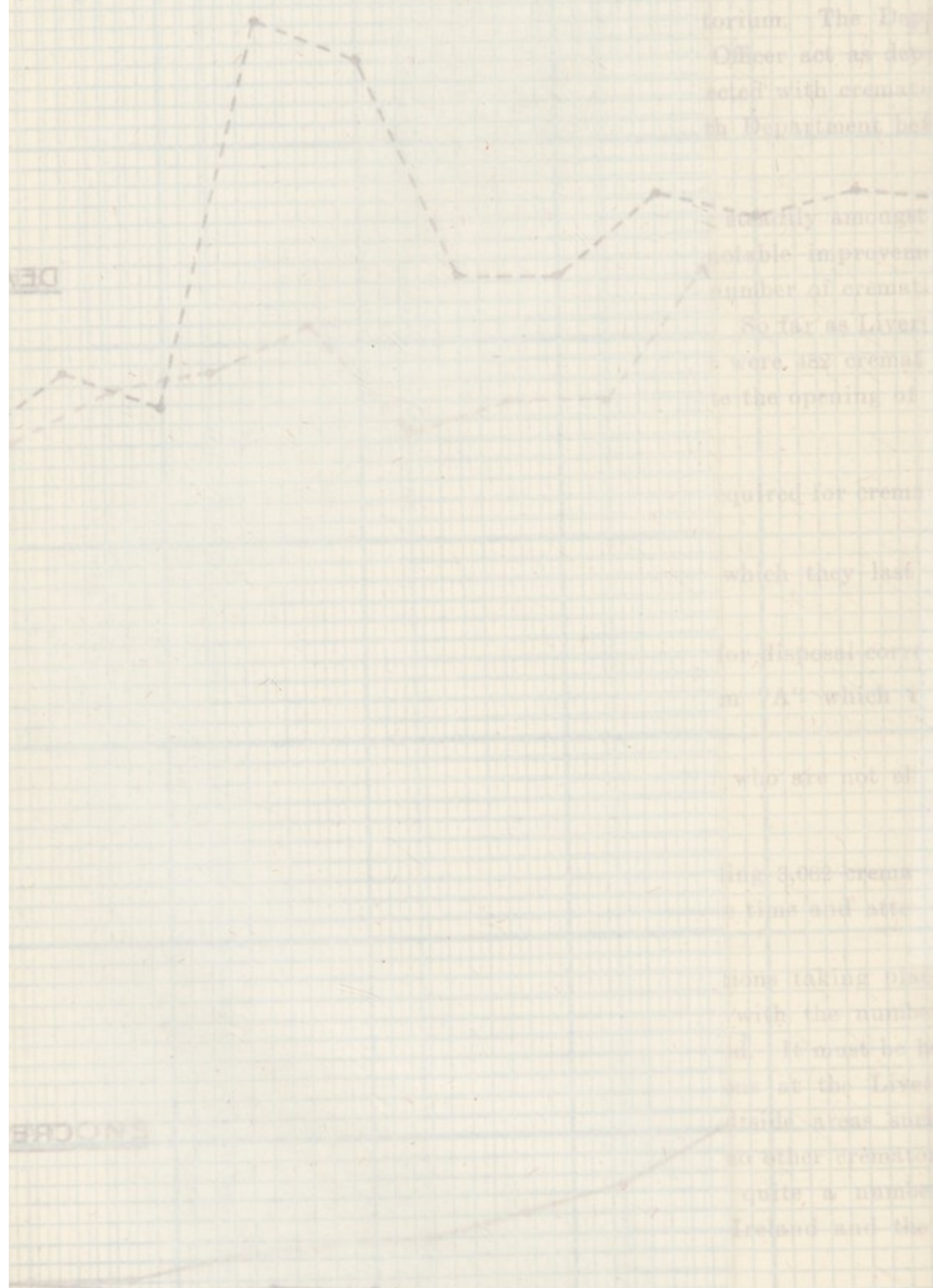
GRAPH SHOWING TOTAL DEATHS OCCURRING IN LIVERPOOL AND NUMBER OF  
CREMATIONS TAKING PLACE AT LIVERPOOL CREMATORIUM DURING YEARS  
1934 - 1957





# GRAPH SHOWING TOTAL DEATHS CREMATIONS TAKING PLACE

1934



## WATER SUPPLY

The water supply in the area during 1957 was satisfactory both in quality and quantity.

Bacteriological examinations of the waters were made regularly by the Public Health Laboratory Service, samples for these examinations being taken both in the City and at Prescott Storage Reservoirs.

The number of samples examined bacteriologically was considerably increased in comparison with earlier years.

For some time it had been realised that with the continual spread of development in the area of supply and the consequent wider ramifications of the distribution mains, the old sampling points from which routine samples were drawn needed to be supplemented by others. Also, to keep a more continuous watch on the bacterial condition of the water supplied by the Corporation's undertaking it was considered that the frequency of sampling should be increased.

The supplies from both Rivington and Lake Vyrnwy are filtered through slow sand filters, and chlorinated; they are also limed in order to raise the pH value. Further chlorination is carried out at the Prescott Reservoirs.

There are no parts of the area dependent upon standpipes for a supply.



## WATER SUPPLY

The water supply in the area during 1961 was satisfactory both in quality and quantity.

Bacteriological examinations of the water were made regularly by the Public Health Laboratory Service, samples for these examinations being taken both in the City and at Forest Storage Reservoir.

The number of samples examined bacteriologically was considerably increased in comparison with earlier years.

For some time it had been realised that with the continued spread of development in the area of supply and the consequent wider contamination of the distribution mains, the old sampling points from which routine samples were drawn needed to be supplemented by others. Also, to keep a more continuous watch on the bacteriological condition of the water supplied by the Corporation's undertaking it was considered that the frequency of sampling should be increased.

The samples from both Livingston and Lake View are taken through slow sand filters and chlorinated; they are also fixed in order to make the pH value. Further examination is carried out at the Forest Reservoir.

There are no parts of the area dependent upon standpipes for a supply.

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| 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352 | 2353 | 2354 | 2355 | 2356 | 2357 | 2358 | 2359 | 2360 | 2361 | 2362 | 2363 | 2364 | 2365 | 2366 | 2367 | 2368 | 2369 | 2370 | 2371 | 2372 | 2373 | 2374 | 2375 | 2376 | 2377 | 2378 | 2379 | 2380 | 2381 | 2382 | 2383 | 2384 | 2385 | 2386 | 2387 | 2388 | 2389 | 2390 | 2391 | 2392 | 2393 | 2394 | 2395 | 2396 | 2397 | 2398 | 2399 | 2400 | 2401 | 2402 | 2403 | 2404 | 2405 | 2406 | 2407 | 2408 | 2409 | 2410 | 2411 | 2412 | 2413 | 2414 | 2415 | 2416 | 2417 | 2418 | 2419 | 2420 | 2421 | 2422 | 2423 | 2424 | 2425 | 2426 | 2427 | 2428 | 2429 | 2430 | 2431 | 2432 | 2433 | 2434 | 2435 | 2436 | 2437 | 2438 | 2439 | 2440 | 2441 | 2442 | 2443 | 2444 | 2445 | 2446 | 2447 | 2448 | 2449 | 2450 | 2451 | 2452 | 2453 | 2454 | 2455 | 2456 | 2457 | 2458 | 2459 | 2460 | 2461 | 2462 | 2463 | 2464 | 2465 | 2466 | 2467 | 2468 | 2469 | 2470 | 2471 | 2472 | 2473 | 2474 | 2475 | 2476 | 2477 | 2478 | 2479 | 2480 | 2481 | 2482 | 2483 | 2484 | 2485 | 2486 | 2487 | 2488 | 2489 | 2490 | 2491 | 2492 | 2493 | 2494 | 2495 | 2496 | 2497 | 2498 | 2499 | 2500 | 2501 | 2502 | 2503 | 2504 | 2505 | 2506 | 2507 | 2508 | 2509 | 2510 | 2511 | 2512 | 2513 | 2514 | 2515 | 2516 | 2517 | 2518 | 2519 | 2520 | 2521 | 2522 | 2523 | 2524 | 2525 | 2526 | 2527 | 2528 | 2529 | 2530 | 2531 | 2532 | 2533 | 2534 | 2535 | 2536 | 2537 | 2538 | 2539 | 2540 | 2541 | 2542 | 2543 | 2544 | 2545 | 2546 | 2547 | 2548 | 2549 | 2550 | 2551 | 2552 | 2553 | 2554 | 2555 | 2556 | 2557 | 2558 | 2559 | 2560 | 2561 | 2562 | 2563 | 2564 | 2565 | 2566 | 2567 | 2568 | 2569 | 2570 | 2571 | 2572 | 2573 | 2574 | 2575 | 2576 | 2577 | 2578 | 2579 | 2580 | 2581 | 2582 | 2583 | 2584 | 2585 | 2586 | 2587 | 2588 | 2589 | 2590 | 2591 | 2592 | 2593 | 2594 | 2595 | 2596 | 2597 | 2598 | 2599 | 2600 | 2601 | 2602 | 2603 | 2604 | 2605 | 2606 | 2607 | 2608 | 2609 | 2610 | 2611 | 2612 | 2613 | 2614 | 2615 | 2616 | 2617 | 2618 | 2619 | 2620 | 2621 | 2622 | 2623 | 2624 | 2625 | 2626 | 2627 | 2628 | 2629 | 2630 | 2631 | 2632 | 2633 | 2634 | 2635 | 2636 | 2637 | 2638 | 2639 | 2640 | 2641 | 2642 | 2643 | 2644 | 2645 | 2646 | 2647 | 2648 | 2649 | 2650 | 2651 | 2652 | 2653 | 2654 | 2655 | 2656 | 2657 | 2658 | 2659 | 2660 | 2661 | 2662 | 2663 | 2664 | 2665 | 2666 | 2667 | 2668 | 2669 | 2670 | 2671 | 2672 | 2673 | 2674 | 2675 | 2676 | 2677 | 2678 | 2679 | 2680 | 2681 | 2682 | 2683 | 2684 | 2685 | 2686 | 2687 | 2688 | 2689 | 2690 | 2691 | 2692 | 2693 | 2694 | 2695 | 2696 | 2697 | 2698 | 2699 | 2700 | 2701 | 2702 | 2703 | 2704 | 2705 | 2706 | 2707 | 2708 | 2709 | 2710 | 2711 | 2712 | 2713 | 2714 | 2715 | 2716 | 2717 | 2718 | 2719 | 2720 | 2721 | 2722 | 2723 | 2724 | 2725 | 2726 | 2727 | 2728 | 2729 | 2730 | 2731 | 2732 | 2733 | 2734 | 2735 | 2736 | 2737 | 2738 | 2739 | 2740 | 2741 | 2742 | 2743 | 2744 | 2745 | 2746 | 2747 | 2748 | 2749 | 2750 | 2751 | 2752 | 2753 | 2754 | 2755 | 2756 | 2757 | 2758 | 2759 | 2760 | 2761 | 2762 | 2763 | 2764 | 2765 | 2766 | 2767 | 2768 | 2769 | 2770 | 2771 | 2772 | 2773 | 2774 | 2775 | 2776 | 2777 | 2778 | 2779 | 2780 | 2781 | 2782 | 2783 | 2784 | 2785 | 2786 | 2787 | 2788 | 2789 | 2790 | 2791 | 2792 | 2793 | 2794 | 2795 | 2796 | 2797 | 2798 | 2799 | 2800 | 2801 | 2802 | 2803 | 2804 | 2805 | 2806 | 2807 | 2808 | 2809 | 2810 | 2811 | 2812 | 2813 | 2814 | 2815 | 2816 | 2817 | 2818 | 2819 | 2820 | 2821 | 2822 | 2823 | 2824 | 2825 | 2826 | 2827 | 2828 | 2829 | 2830 | 2831 | 2832 | 2833 | 2834 | 2835 | 2836 | 2837 | 2838 | 2839 | 2840 | 2841 | 2842 | 2843 | 2844 | 2845 | 2846 | 2847 | 2848 | 2849 | 2850 | 2851 | 2852 | 2853 | 2854 | 2855 | 2856 | 2857 | 2858 | 2859 | 2860 | 2861 | 2862 | 2863 | 2864 | 2865 | 2866 | 2867 | 2868 | 2869 | 2870 | 2871 | 2872 | 2873 | 2874 | 2875 | 2876 | 2877 | 2878 | 2879 | 2880 | 2881 | 2882 | 2883 | 2884 | 2885 | 2886 | 2887 | 2888 | 2889 | 2890 | 2891 | 2892 | 2893 | 2894 | 2895 | 2896 | 2897 | 2898 | 2899 | 2900 | 2901 | 2902 | 2903 | 2904 | 2905 | 2906 | 2907 | 2908 | 2909 | 2910 | 2911 | 2912 | 2913 | 2914 | 2915 | 2916 | 2917 | 2918 | 2919 | 2920 | 2921 | 2922 | 2923 | 2924 | 2925 | 2926 | 2927 | 2928 | 2929 | 2930 | 2931 | 2932 | 2933 | 2934 | 2935 | 2936 | 2937 | 2938 | 2939 | 2940 | 2941 | 2942 | 2943 | 2944 | 2945 | 2946 | 2947 | 2948 | 2949 | 2950 | 2951 | 2952 | 2953 | 2954 | 2955 | 2956 | 2957 | 2958 | 2959 | 2960 | 2961 | 2962 | 2963 | 2964 | 2965 | 2966 | 2967 | 2968 | 2969 | 2970 | 2971 | 2972 | 2973 | 2974 | 2975 | 2976 | 2977 | 2978 | 2979 | 2980 | 2981 | 2982 | 2983 | 2984 | 2985 | 2986 | 2987 | 2988 | 2989 | 2990 | 2991 | 2992 | 2993 | 2994 | 2995 | 2996 | 2997 | 2998 | 2999 | 3000 | 3001 | 3002 | 3003 | 3004 | 3005 | 3006 | 3007 | 3008 | 3009 | 3010 | 3011 | 3012 | 3013 | 3014 | 3015 | 3016 | 3017 | 3018 | 3019 | 3020 | 3021 | 3022 | 3023 | 3024 | 3025 | 3026 | 3027 | 3028 | 3029 | 3030 | 3031 | 3032 | 3033 | 3034 | 3035 | 3036 | 3037 | 3038 | 3039 | 3040 | 3041 | 3042 | 3043 | 3044 | 3045 | 3046 | 3047 | 3048 | 3049 | 3050 | 3051 | 3052 | 3053 | 3054 | 3055 | 3056 | 3057 | 3058 | 3059 | 3060 | 3061 | 3062 | 3063 | 3064 | 3065 | 3066 | 3067 | 3068 | 3069 | 3070 | 3071 | 3072 | 3073 | 3074 | 3075 | 3076 | 3077 | 3078 | 3079 | 3080 | 3081 | 3082 | 3083 | 3084 | 3085 | 3086 | 3087 | 3088 | 3089 | 3090 | 3091 | 3092 | 3093 | 3094 | 3095 | 3096 | 3097 | 3098 | 3099 | 3100 | 3101 | 3102 | 3103 | 3104 | 3105 | 3106 | 3107 | 3108 | 3109 | 3110 | 3111 | 3112 | 3113 | 3114 | 3115 | 3116 | 3117 | 3118 | 3119 | 3120 | 3121 | 3122 | 3123 | 3124 | 3125 | 3126 | 3127 | 3128 | 3129 | 3130 | 3131 | 3132 | 3133 | 3134 | 3135 | 3136 | 3137 | 3138 | 3139 | 3140 | 3141 | 3142 | 3143 | 3144 | 3145 | 3146 | 3147 | 3148 | 3149 | 3150 | 3151 | 3152 | 3153 | 3154 | 3155 | 3156 | 3157 | 3158 | 3159 | 3160 | 3161 | 3162 | 3163 | 3164 | 3165 | 3166 | 3167 | 3168 | 3169 | 3170 | 3171 | 3172 | 3173 | 3174 | 3175 | 3176 | 3177 | 3178 | 3179 | 3180 | 3181 | 3182 | 3183 | 3184 | 3185 | 3186 | 3187 | 3188 | 3189 | 3190 | 3191 | 3192 | 3193 | 3194 | 3195 | 3196 | 3197 | 3198 | 3199 | 3200 | 3201 | 3202 | 3203 | 3204 | 3205 | 3206 | 3207 | 3208 | 3209 | 3210 | 3211 | 3212 | 3213 | 3214 | 3215 | 3216 | 3217 | 3218 | 3219 | 3220 | 3221 | 3222 | 3223 | 3224 | 3225 | 3226 | 3227 | 3228 | 3229 | 3230 | 3231 | 3232 | 3233 | 3234 | 3235 | 3236 | 3237 | 3238 | 3239 | 3240 | 3241 | 3242 | 3243 | 3244 | 3245 | 3246 | 3247 | 3248 | 3249 | 3250 | 3251 | 3252 | 3253 | 3254 | 3255 | 3256 | 3257 | 3258 | 3259 | 3260 | 3261 | 3262 | 3263 | 3264 | 3265 | 3266 | 3267 | 3268 | 3269 | 3270 | 3271 | 3272 | 3273 | 3274 | 3275 | 3276 | 3277 | 3278 | 3279 | 3280 | 3281 | 3282 | 3283 | 3284 | 3285 | 3286 | 3287 | 3288 | 3289 | 3290 | 3291 | 3292 | 3293 | 3294 | 3295 | 3296 | 3297 | 3298 | 3299 | 3300 | 3301 | 3302 | 3303 | 3304 | 3305 | 3306 | 3307 | 3308 | 3309 | 3310 | 3311</ |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-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# STATISTICAL APPENDIX.

TABLE 1.  
BIRTH STATISTICS.

|                  | LIVE BIRTHS. |          |        | STILLBIRTHS. |          |        |
|------------------|--------------|----------|--------|--------------|----------|--------|
|                  | Males.       | Females. | Total. | Males.       | Females. | Total. |
| Legitimate ...   | 7,819        | 7,371    | 15,190 | 181          | 200      | 381    |
| Illegitimate ... | 421          | 433      | 854    | 15           | 13       | 28     |
|                  | 8,240        | 7,804    | 16,044 | 196          | 213      | 409    |

| Year | Births | Birth Rate | Illegitimate Births | % of Births |
|------|--------|------------|---------------------|-------------|
| 1938 | 16,175 | 18·7       | 771                 | 4·8         |
| 1942 | 13,729 | 20·5       | 871                 | 6·3         |
| 1943 | 14,432 | 21·8       | 1,030               | 7·1         |
| 1944 | 15,412 | 23·1       | 1,274               | 8·3         |
| 1945 | 14,784 | 21·7       | 1,582               | 10·7        |
| 1946 | 18,528 | 25·2       | 1,351               | 7·3         |
| 1947 | 19,904 | 26·4       | 1,151               | 5·8         |
| 1948 | 17,695 | 22·3       | 1,009               | 5·7         |
| 1949 | 16,551 | 20·7       | 943                 | 5·7         |
| 1950 | 16,110 | 20·1       | 968                 | 6·0         |
| 1951 | 15,593 | 19·9       | 859                 | 5·5         |
| 1952 | 15,839 | 20·0       | 876                 | 5·5         |
| 1953 | 16,022 | 20·3       | 873                 | 5·4         |
| 1954 | 15,742 | 20·5       | 847                 | 5·4         |
| 1955 | 15,268 | 19·6       | 785                 | 5·1         |
| 1956 | 15,944 | 20·6       | 801                 | 5·0         |
| 1957 | 16,044 | 20·9       | 854                 | 5·3         |

| Year      | Registered Live Births. | Registered Stillbirths. | Total Births. | Stillbirths per 1,000 Live and Stillbirths. |
|-----------|-------------------------|-------------------------|---------------|---------------------------------------------|
| 1935..... | 17,347                  | 749                     | 18,096        | 41·4                                        |
| 1936..... | 17,403                  | 708                     | 18,111        | 39·1                                        |
| 1937..... | 16,728                  | 618                     | 17,346        | 35·6                                        |
| 1938..... | 16,175                  | 639                     | 16,814        | 38·0                                        |
| 1939..... | 15,614                  | 631                     | 16,245        | 38·9                                        |
| 1940..... | 15,016                  | 519                     | 15,535        | 33·4                                        |
| 1941..... | 13,291                  | 508                     | 13,799        | 36·8                                        |
| 1942..... | 13,729                  | 552                     | 14,281        | 38·6                                        |
| 1943..... | 14,432                  | 485                     | 14,917        | 32·5                                        |
| 1944..... | 15,412                  | 492                     | 15,904        | 30·9                                        |
| 1945..... | 14,784                  | 431                     | 15,215        | 28·3                                        |
| 1946..... | 18,528                  | 539                     | 19,067        | 28·3                                        |
| 1947..... | 19,904                  | 514                     | 20,418        | 25·2                                        |
| 1948..... | 17,695                  | 479                     | 18,174        | 26·3                                        |
| 1949..... | 16,551                  | 358                     | 16,909        | 21·2                                        |
| 1950..... | 16,110                  | 375                     | 16,485        | 22·7                                        |
| 1951..... | 15,593                  | 396                     | 15,989        | 24·8                                        |
| 1952..... | 15,839                  | 400                     | 16,239        | 24·6                                        |
| 1953..... | 16,022                  | 394                     | 16,416        | 24·0                                        |
| 1954..... | 15,742                  | 400                     | 16,142        | 24·8                                        |
| 1955..... | 15,268                  | 408                     | 15,676        | 26·0                                        |
| 1956..... | 15,944                  | 394                     | 16,338        | 24·1                                        |
| 1957..... | 16,044                  | 409                     | 16,453        | 24·9                                        |



TABLE 2.  
Analysis of causes of Infant Mortality in successive quinquennia 1896-1955,  
and the years 1956 and 1957.

(A.)—Recorded Deaths.

| Years.    | 1<br>Total<br>Births. | 2<br>Total<br>Deaths<br>Under<br>1 Year<br>of Age. | 3<br>General<br>Diseases<br>(excluding<br>Tubercu-<br>losis). | 4<br>Tubercular<br>Diseases. | 5<br>Nervous<br>Diseases | 6<br>Respira-<br>tory<br>Diseases | 7<br>Digestive<br>Diseases<br>(including<br>Diarrhoea.) | 8<br>Malforma-<br>tions<br>Premature<br>Birth,<br>Maras-<br>mus &c. | Ext<br>Ca |
|-----------|-----------------------|----------------------------------------------------|---------------------------------------------------------------|------------------------------|--------------------------|-----------------------------------|---------------------------------------------------------|---------------------------------------------------------------------|-----------|
| 1896/1900 | 111,700               | 21,160                                             | 1,508                                                         | 698                          | 2,476                    | 3,575                             | 6,376                                                   | 5,698                                                               |           |
| 1901/1905 | 118,801               | 20,353                                             | 1,546                                                         | 644                          | 2,516                    | 3,484                             | 5,187                                                   | 5,732                                                               |           |
| 1906/1910 | 118,313               | 17,739                                             | 1,613                                                         | 465                          | 2,052                    | 3,146                             | 3,902                                                   | 5,520                                                               |           |
| 1911/1915 | 111,872               | 15,458                                             | 1,309                                                         | 345                          | 1,432                    | 2,916                             | 3,635                                                   | 4,953                                                               |           |
| 1916/1920 | 99,451                | 11,510                                             | 1,116                                                         | 202                          | 1,083                    | 2,821                             | 1,872                                                   | 4,107                                                               |           |
| 1921/1925 | 104,217               | 10,497                                             | 1,066                                                         | 200                          | 573                      | 2,776                             | 1,786                                                   | 3,764                                                               |           |
| 1926/1930 | 95,701                | 9,002                                              | 978                                                           | 109                          | 401                      | 2,553                             | 1,670                                                   | 2,981                                                               |           |
| 1931/1935 | 88,644                | 7,904                                              | 902                                                           | 82                           | 368                      | 2,050                             | 1,184                                                   | 3,125                                                               |           |
| 1936/1940 | 80,936                | 6,226                                              | 573                                                           | 74                           | 519                      | 1,457                             | 698                                                     | 2,691                                                               |           |
| 1941/1945 | 71,648                | 5,512                                              | 341                                                           | 71                           | 403                      | 1,704                             | 548                                                     | 2,193                                                               |           |
| 1946/1950 | 88,788                | 5,034                                              | 311                                                           | 47                           | 213                      | 1,109                             | 963                                                     | 2,226                                                               |           |
| 1951/1955 | 78,464                | 2,626                                              | 83                                                            | 10                           | 28                       | 480                               | 132                                                     | 1,792                                                               |           |
| 1956      | 15,944                | 413                                                | 8                                                             | —                            | 6                        | 75                                | 9                                                       | 300                                                                 |           |
| 1957      | 16,044                | 423                                                | 6                                                             | —                            | 8                        | 80                                | 15                                                      | 302                                                                 |           |

(B.)—Death Rates per 1,000 Births.

|           |       |     |      |     |      |      |      |      |
|-----------|-------|-----|------|-----|------|------|------|------|
| 1896/1900 | *33.4 | 189 | 12.7 | 6.2 | 22.1 | 32.0 | 57.1 | 51.0 |
| 1901/1905 | 33.4  | 172 | 13.0 | 5.5 | 21.2 | 29.3 | 43.7 | 48.1 |
| 1906/1910 | 32.2  | 149 | 13.6 | 3.9 | 17.4 | 26.6 | 33.0 | 46.7 |
| 1911/1915 | 29.3  | 137 | 11.6 | 3.1 | 12.8 | 26.1 | 32.5 | 43.1 |
| 1916/1920 | 24.9  | 116 | 11.1 | 2.0 | 10.9 | 28.4 | 18.8 | 42.0 |
| 1921/1925 | 25.1  | 100 | 10.2 | 1.9 | 5.5  | 26.6 | 17.1 | 36.1 |
| 1926/1930 | 22.1  | 94  | 10.2 | 1.1 | 4.2  | 26.7 | 17.4 | 31.1 |
| 1931/1935 | 20.5  | 89  | 10.1 | 0.9 | 4.2  | 23.1 | 13.4 | 35.3 |
| 1936/1940 | 19.4  | 77  | 7.0  | 0.9 | 6.4  | 17.9 | 8.8  | 32.9 |
| 1941/1945 | 21.3  | 78  | 4.8  | 1.0 | 5.6  | 24.1 | 7.7  | 30.7 |
| 1946/1950 | 22.9  | 56  | 3.4  | 0.5 | 2.3  | 12.3 | 10.5 | 25.1 |
| 1951/1955 | 20.1  | 33  | 1.0  | 0.1 | 0.3  | 6.1  | 1.7  | 22.8 |
| 1956      | 20.6  | 26  | 0.5  | —   | 0.4  | 4.7  | 0.6  | 18.8 |
| 1957      | 20.9  | 26  | 0.4  | —   | 0.5  | 5.0  | 0.9  | 18.8 |

\*In column 1 the rates indicate the number of births per 1,000 of the population.

(C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.

|           |       |       |       |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1896/1900 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1901/1905 | 100.0 | 91.0  | 102.3 | 89.3  | 95.9  | 91.5  | 76.5  | 94.0  |
| 1906/1910 | 93.0  | 78.6  | 107.1 | 62.9  | 78.6  | 83.1  | 57.8  | 91.0  |
| 1911/1915 | 87.0  | 72.5  | 91.9  | 50.0  | 57.9  | 81.5  | 56.9  | 84.0  |
| 1916/1920 | 76.0  | 61.4  | 87.4  | 32.2  | 49.3  | 88.7  | 32.7  | 82.0  |
| 1921/1925 | 75.1  | 54.9  | 80.3  | 30.6  | 24.9  | 84.7  | 29.9  | 70.8  |
| 1926/1930 | 66.2  | 49.7  | 80.3  | 17.7  | 18.9  | 83.5  | 30.4  | 60.9  |
| 1931/1935 | 61.4  | 47.2  | 79.5  | 14.8  | 18.9  | 72.2  | 23.4  | 69.2  |
| 1936/1940 | 58.1  | 40.7  | 55.1  | 14.5  | 29.0  | 55.9  | 15.4  | 64.5  |
| 1941/1945 | 63.8  | 41.3  | 37.8  | 16.1  | 25.3  | 75.3  | 13.5  | 62.0  |
| 1946/1950 | 68.7  | 29.4  | 26.9  | 8.0   | 10.6  | 38.5  | 18.3  | 48.8  |
| 1951/1955 | 60.1  | 17.6  | 8.2   | 1.9   | 1.5   | 19.0  | 2.9   | 44.7  |
| 1956      | 61.7  | 13.8  | 3.9   | —     | 1.8   | 14.7  | 1.1   | 36.9  |
| 1957      | 62.6  | 13.8  | 3.1   | —     | 2.3   | 15.6  | 1.6   | 36.9  |

TABLE 3

## ANALYSIS OF CAUSES OF MORTALITY.

| Years.    | (a)<br>Infective<br>diseases<br>(less Diarrhoea<br>and Influenza). | (b)<br>Tubercular<br>diseases. | (c)<br>Respiratory<br>diseases<br>(including<br>Influenza). | (d)<br>Digestive<br>diseases<br>(including<br>Diarrhoea). | Total Deaths<br>from<br>(a), (b), (c) & (d) | (e)<br>Cancer. | Total Deaths<br>from all causes. |
|-----------|--------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------|----------------|----------------------------------|
| 1871-1880 | 27,205                                                             | 19,869                         | 29,763                                                      | 14,747                                                    | 91,584                                      | 2,015          | 147,005                          |
| 1881-1890 | 19,748                                                             | 17,870                         | 32,507                                                      | 13,186                                                    | 86,311                                      | 2,820          | 146,195                          |
| 1891-1900 | 13,515                                                             | 16,714                         | 35,819                                                      | 18,491                                                    | 84,539                                      | 4,223          | 145,522                          |
| 1901-1910 | 13,967                                                             | 16,054                         | 32,995                                                      | 18,163                                                    | 81,179                                      | 6,480          | 150,962                          |
| 1911-1920 | 10,417                                                             | 14,946                         | 36,480                                                      | 12,282                                                    | 74,125                                      | 7,603          | 137,223                          |
| 1921-1930 | 7,831                                                              | 12,664                         | 29,447                                                      | 8,184                                                     | 58,126                                      | 9,852          | 117,756                          |
| 1931-1940 | 6,473                                                              | 9,413                          | 18,196                                                      | 5,987                                                     | 40,069                                      | 12,619         | 115,632                          |
| 1941-1950 | 2,645                                                              | 6,987                          | 15,728                                                      | 4,328                                                     | 29,723                                      | 13,265         | 98,347                           |
| 1951      | 111                                                                | 449                            | 2,339                                                       | 310                                                       | 3,209                                       | 1,559          | 10,648                           |
| 1952      | 91                                                                 | 305                            | 1,229                                                       | 292                                                       | 1,917                                       | 1,591          | 8,994                            |
| 1953      | 69                                                                 | 284                            | 1,142                                                       | 271                                                       | 1,766                                       | 1,553          | 8,422                            |
| 1954      | 66                                                                 | 244                            | 1,251                                                       | 275                                                       | 1,836                                       | 1,582          | 8,946                            |
| 1955      | 65                                                                 | 204                            | 1,589                                                       | 245                                                       | 2,103                                       | 1,601          | 9,289                            |
| 1956      | 56                                                                 | 144                            | 1,458                                                       | 215                                                       | 1,873                                       | 1,590          | 8,842                            |
| 1957      | 42                                                                 | 128                            | 1,558                                                       | 236                                                       | 1,964                                       | 1,603          | 9,093                            |

| Deaths expressed as a percentage of total deaths from all causes (Proportionate Mortality). |      |      |      |      |      |      |
|---------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| 1871-1880                                                                                   | 19.2 | 13.5 | 20.2 | 10.0 | 62.9 | 1.4  |
| 1881-1890                                                                                   | 14.1 | 12.7 | 23.2 | 9.4  | 59.4 | 2.0  |
| 1891-1900                                                                                   | 9.3  | 10.8 | 24.6 | 12.7 | 57.4 | 2.9  |
| 1901-1910                                                                                   | 8.6  | 10.6 | 21.8 | 12.0 | 53.0 | 4.3  |
| 1911-1920                                                                                   | 7.9  | 10.9 | 27.3 | 8.9  | 55.0 | 5.5  |
| 1921-1930                                                                                   | 6.6  | 10.7 | 25.0 | 6.9  | 49.4 | 8.4  |
| 1931-1940                                                                                   | 5.6  | 8.1  | 15.7 | 5.2  | 34.7 | 10.9 |
| 1941-1950                                                                                   | 2.6  | 7.1  | 15.9 | 4.4  | 30.1 | 13.7 |
| 1951                                                                                        | 1.0  | 4.2  | 22.0 | 2.9  | 30.1 | 14.6 |
| 1952                                                                                        | 1.0  | 3.4  | 13.7 | 3.2  | 21.3 | 17.7 |
| 1953                                                                                        | 0.8  | 3.4  | 13.6 | 3.2  | 21.0 | 18.4 |
| 1954                                                                                        | 0.7  | 2.7  | 14.0 | 3.1  | 20.5 | 17.7 |
| 1955                                                                                        | 0.7  | 2.2  | 17.1 | 2.6  | 22.6 | 17.2 |
| 1956                                                                                        | 0.6  | 1.6  | 16.5 | 2.4  | 21.2 | 18.0 |
| 1957                                                                                        | 0.5  | 1.4  | 17.1 | 2.6  | 21.6 | 17.6 |



TABLE 4.  
DEATHS FROM CANCER  
1946—1957

| Organs Affected           | 1946  | 1947  | 1948  | 1949  | 1950  | 1951  | 1952  | 1953  | 1954  | 1955  | 1956  |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Buc. Cavity               | 42    | 39    | 43    | 35    | 46    | 44    | 31    | 29    | 46    | 32    | 36    |
| Digestive Organs ...      | 650   | 610   | 642   | 603   | 651   | 687   | 677   | 620   | 636   | 662   | 594   |
| Respiratory System ...    | 234   | 235   | 252   | 320   | 331   | 344   | 346   | 432   | 383   | 408   | 448   |
| Female Genital Organs ... | 86    | 97    | 97    | 91    | 105   | 110   | 102   | 98    | 93    | 110   | 96    |
| Breast ...                | 126   | 130   | 133   | 107   | 108   | 122   | 120   | 114   | 121   | 117   | 122   |
| Other Organs              | 174   | 203   | 262   | 226   | 315*  | 218   | 264   | 215   | 252   | 235   | 252   |
| Leukæmia ...              | —     | —     | —     | —     | —     | 34    | 51    | 45    | 51    | 37    | 42    |
| Total ...                 | 1,312 | 1,314 | 1,429 | 1,382 | 1,556 | 1,559 | 1,591 | 1,553 | 1,582 | 1,601 | 1,596 |

\*Including Leukæmia.

TABLE 5.  
MATERNAL MORTALITY.

| Year.       | BIRTHS REGISTERED. |              |               | MATERNAL MORTALITY. |                                 |
|-------------|--------------------|--------------|---------------|---------------------|---------------------------------|
|             | Live Births.       | Stillbirths. | Total Births. | Deaths.             | Rate per 1,000<br>Total Births. |
| 1930 ... .. | 18,881             | 774          | 19,655        | 75                  | 3.81                            |
| 1931 ... .. | 18,626             | 722          | 19,348        | 55                  | 2.84                            |
| 1932 ... .. | 18,149             | 827          | 18,976        | 51                  | 2.69                            |
| 1933 ... .. | 16,929             | 680          | 17,609        | 60                  | 3.41                            |
| 1934 ... .. | 17,593             | 685          | 18,278        | 51                  | 2.79                            |
| 1935 ... .. | 17,347             | 749          | 18,096        | 59                  | 3.26                            |
| 1936 ... .. | 17,403             | 708          | 18,111        | 64                  | 3.52                            |
| 1937 ... .. | 16,728             | 618          | 17,346        | 40                  | 2.31                            |
| 1938 ... .. | 16,175             | 639          | 16,814        | 33                  | 1.96                            |
| 1939 ... .. | 15,614             | 631          | 16,245        | 29                  | 1.86                            |
| 1940 ... .. | 15,016             | 519          | 15,535        | 31                  | 2.01                            |
| 1941 ... .. | 13,291             | 508          | 13,799        | 32                  | 2.42                            |
| 1942 ... .. | 13,729             | 552          | 14,281        | 34                  | 2.38                            |
| 1943 ... .. | 14,432             | 485          | 14,917        | 34                  | 2.27                            |
| 1944 ... .. | 15,412             | 492          | 15,904        | 31                  | 1.95                            |
| 1945 ... .. | 14,784             | 431          | 15,215        | 23                  | 1.51                            |
| 1946 ... .. | 18,528             | 539          | 19,067        | 19                  | 0.99                            |
| 1947 ... .. | 19,904             | 514          | 20,418        | 17                  | 0.83                            |
| 1948 ... .. | 17,695             | 479          | 18,174        | 14                  | 0.77                            |
| 1949 ... .. | 16,551             | 358          | 16,909        | 9                   | 0.53                            |
| 1950 ... .. | 16,110             | 375          | 16,485        | 7                   | 0.42                            |
| 1951 ... .. | 15,593             | 396          | 15,989        | 10                  | 0.62                            |
| 1952 ... .. | 15,839             | 400          | 16,289        | 7                   | 0.43                            |
| 1953 ... .. | 16,022             | 394          | 16,416        | 5                   | 0.30                            |
| 1954 ... .. | 15,742             | 400          | 16,142        | 8                   | 0.49                            |
| 1955 ... .. | 15,268             | 408          | 15,676        | 9                   | 0.57                            |
| 1956 ... .. | 15,944             | 394          | 16,338        | 7                   | 0.43                            |
| 1957 ... .. | 16,044             | 409          | 16,453        | 7                   | 0.42                            |

TABLE 6.  
ANTE-NATAL CLINICS.

|                                                                     | 1956   | 1957   |
|---------------------------------------------------------------------|--------|--------|
| Total number of centres at which ante-natal clinics were held ...   | 24     | 22     |
| Number of clinic sessions held per week ... ..                      | 36     | 29     |
| Number of new cases attending ante-natal clinics ... ..             | 3,053  | 2,397  |
| Total attendances at ante-natal clinics ... ..                      | 17,692 | 14,079 |
| Total attendances at post-natal clinics ... ..                      | 492    | 463    |
| CHILD WELFARE CLINICS.                                              |        |        |
| Total number of centres at which child welfare clinics were held... | 24     | 24     |
| Number of clinic sessions per week ... ..                           | 52     | 52     |
| Number of new cases : Under 1 year of age ... ..                    | 8,209  | 8,460  |
| Aged 1-5 years ... ..                                               | 267    | 252    |
| Total attendances : Under 1 year of age ... ..                      | 74,756 | 80,784 |
| Aged 1-2 years ... ..                                               | 7,140  | 7,698  |
| Aged 2-5 years ... ..                                               | 7,893  | 9,805  |
| Total under 5 years ... ..                                          | 89,789 | 98,287 |



TABLE 7.  
CAUSES OF STILLBIRTHS.

| Cause.                                 | BORN. |                | PREMATURE. |                | MACERATED. |                | P.M. | Total. |
|----------------------------------------|-------|----------------|------------|----------------|------------|----------------|------|--------|
|                                        | Hosp. | Home N.H. Amb. | Hosp.      | Home N.H. Amb. | Hosp.      | Home N.H. Amb. |      |        |
| Placental insufficiency ...            | 12    | 6              | 8          | 3              | 10         | 6              | 3    | 18     |
| Placental infarcts post mature         | 1     | 2              | —          | —              | 1          | —              | —    | 3      |
| Bilat. tentorial tear, Breech ...      | 2     | —              | 1          | —              | —          | —              | 2    | 2      |
| Intra cranial haemorrhage ...          | 3     | —              | 2          | —              | —          | —              | 3    | 3      |
| Anencephalic ...                       | 45    | 6              | 38         | 4              | 10         | 2              | 7    | 51     |
| Hydrocephalis ...                      | 10    | 1              | 4          | —              | 2          | —              | 4    | 11     |
| Multiple abnormalities ...             | 3     | —              | 2          | —              | —          | —              | 2    | 3      |
| Meningocele ...                        | 2     | —              | 2          | —              | 1          | —              | 1    | 2      |
| Exomphalos ...                         | —     | 1              | —          | —              | —          | —              | —    | 1      |
| Rhesus incompatibility ...             | 21    | —              | 14         | —              | 17         | —              | 5    | 21     |
| Asphyxia ...                           | 7     | 9              | 1          | —              | 1          | —              | —    | 16     |
| Stillborn twin ...                     | 7     | 1              | 7          | 1              | 7          | 1              | —    | 8      |
| Premature 28 weeks ...                 | —     | 1              | —          | 1              | —          | —              | —    | 1      |
| Post mature macerated ...              | 2     | 1              | —          | —              | 2          | 1              | —    | 3      |
| B.B.A. ...                             | —     | 3              | —          | 2              | —          | —              | —    | 3      |
| Premature ...                          | 42    | 13             | 30         | 11             | 33         | 11             | 3    | 55     |
| Found in street ...                    | —     | —              | —          | —              | —          | —              | —    | 1      |
| <b>Chronic Diseases of the Mother.</b> |       |                |            |                |            |                |      |        |
| Diabetes Mellitus ...                  | 4     | —              | 3          | —              | 4          | —              | 1    | 4      |
| Mitral Stenosis... ..                  | 1     | —              | —          | —              | 1          | —              | —    | 1      |
| Thyrototoxicosis ...                   | 1     | —              | —          | —              | —          | —              | —    | 1      |
| Megaloblastic anaemia ...              | 1     | —              | —          | —              | —          | —              | —    | 1      |
| Chronic nephritis ...                  | 3     | —              | 3          | —              | 2          | —              | —    | 3      |
| Ante partum haemorrhage ...            | 65    | 7              | 50         | 4              | 24         | —              | —    | 72     |
| Eclampsia ...                          | 4     | —              | 4          | —              | 4          | —              | —    | 4      |
| P.E.T. ...                             | 39    | 1              | 25         | 1              | 24         | 1              | 4    | 40     |
| Essential hypertension ...             | 7     | 1              | 4          | —              | 6          | —              | —    | 8      |
| Pyelitis ...                           | 1     | —              | —          | —              | —          | —              | —    | 1      |
| Breech ...                             | 4     | 6              | 3          | 2              | 1          | —              | 1    | 10     |
| I.U.D. following fall ...              | —     | 1              | —          | —              | —          | —              | —    | 1      |
| Cord round neck ...                    | 11    | 4              | 4          | 1              | 6          | 1              | 4    | 15     |
| Prolapse cord ...                      | 8     | 3              | 5          | 1              | 3          | —              | 2    | 11     |
| Abnormally short cord ...              | —     | 3              | —          | 1              | —          | —              | —    | 3      |
| True Knot ...                          | 1     | 1              | —          | —              | —          | 1              | —    | 2      |
| Placenta praevia ...                   | 4     | —              | 4          | —              | 1          | —              | —    | 4      |
| Disproportion ...                      | 2     | —              | —          | —              | 1          | —              | 1    | 2      |
| Shoulder presentation ...              | 1     | —              | 1          | —              | 1          | —              | —    | 1      |
| Deep transverse arrest FD. ...         | 1     | —              | —          | —              | —          | —              | —    | 1      |
| Prolonged labour ...                   | 2     | —              | —          | —              | 1          | —              | —    | 2      |
| Ruptured uterus hysterectomy           | 1     | —              | —          | —              | —          | —              | —    | 1      |
| Forceps delivery, asphyxia ...         | 6     | 1              | —          | 1              | —          | —              | 4    | 7      |

TABLE 8.  
ANALGESIA.

|                                              | Year. | Doctor present<br>at delivery. | Doctor not<br>present at<br>delivery. | Total. |
|----------------------------------------------|-------|--------------------------------|---------------------------------------|--------|
| Liverpool Maternity District Homes<br>(Six). |       |                                |                                       |        |
| Gas/Air ... ..                               | 1955  | 10                             | 699                                   | 709    |
|                                              | 1956  | 27                             | 877                                   | 904    |
|                                              | 1957  | 28                             | 869                                   | 897    |
| Pethidine ... ..                             | 1955  | 8                              | 535                                   | 543    |
|                                              | 1956  | 23                             | 641                                   | 664    |
|                                              | 1957  | 17                             | 605                                   | 622    |
| Municipal Midwives.                          |       |                                |                                       |        |
| Gas/Air ... ..                               | 1955  | 392                            | 2,696                                 | 3,088  |
|                                              | 1956  | 307                            | 2,969                                 | 3,276  |
|                                              | 1957  | 276                            | 3,118                                 | 3,394  |
| Pethidine ... ..                             | 1955  | 248                            | 2,179                                 | 2,427  |
|                                              | 1956  | 248                            | 2,310                                 | 2,558  |
|                                              | 1957  | 239                            | 2,577                                 | 2,816  |

TABLE 9.

MIDWIVES ENGAGED IN BOTH DOMICILIARY AND INSTITUTIONAL  
PRACTICE AT THE END OF THE YEAR.

|                                                                                                                                        | Domiciliary<br>Midwives. | Midwives in<br>Institutions. | Total. |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------|--------|
| Midwives employed by the Authority ... ..                                                                                              | 57                       | —                            | 57     |
| Midwives employed by Hospital Management<br>Committees or Boards of Governors under<br>the National Health Service Act :—              |                          |                              |        |
| Under arrangements with the Local<br>Health Authority in pursuance of Section<br>23 of the National Health Service Act,<br>1946 ... .. | 12                       | 171                          | 183    |
| Midwives in private practice (including mid-<br>wives employed in nursing homes) ... ..                                                | 9                        | 11                           | 20     |
| Totals ... ..                                                                                                                          | 78                       | 182                          | 260    |



TABLE 10.  
ANALYSIS OF CONFINEMENTS.

|                                                                                                                     | Domiciliary Cases.                  |                                         |                                                                           |                                         | Totals. | Cases in Institutions. |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------|---------------------------------------------------------------------------|-----------------------------------------|---------|------------------------|
|                                                                                                                     | Doctor not booked.                  |                                         | Doctor booked.                                                            |                                         |         |                        |
|                                                                                                                     | Doctor present at time of delivery. | Doctor not present at time of delivery. | Doctor present at time of delivery (either the doctor booked or another). | Doctor not present at time of delivery. |         |                        |
| Midwives employed by Hospital Management Committees or Boards of Governors under the National Health Service Act... | 5                                   | 232                                     | 34                                                                        | 758                                     | 1,029   | 13,101                 |
| Midwives in private practice (including midwives employed in nursing homes) ...                                     | 1                                   | —                                       | 19                                                                        | 2                                       | 22      | 432                    |
| Midwives employed by the Local Authority                                                                            |                                     |                                         |                                                                           |                                         |         |                        |
| Year 1955 ...                                                                                                       | 18                                  | 753                                     | 328                                                                       | 2,739                                   | 3,838   |                        |
| Year 1956 ...                                                                                                       | 26                                  | 672                                     | 341                                                                       | 2,910                                   | 3,949   |                        |
| Year 1957 ...                                                                                                       | 18                                  | 590                                     | 307                                                                       | 3,173                                   | 4,088   |                        |

TABLE 11.  
HOME NURSING EQUIPMENT—LOANS DURING 1957.

| Articles               | Total Stock | Duration of Loan. |             |             |              |                 | Totals |
|------------------------|-------------|-------------------|-------------|-------------|--------------|-----------------|--------|
|                        |             | Under 3 months.   | 3-6 months. | 6-9 months. | 9-12 months. | Over 12 months. |        |
| Air Bed ...            | 12          | 10                | 1           | —           | 1            | —               |        |
| Air Ring ...           | 174         | 313               | 76          | 13          | 12           | 40              |        |
| Back Rest ...          | 190         | 329               | 101         | 26          | 19           | 60              |        |
| Bed Cradle ...         | 24          | 37                | 9           | 4           | —            | 6               |        |
| Bed Pan ...            | 213         | 413               | 104         | 31          | 23           | 46              |        |
| Commode ...            | 37          | 39                | 12          | 4           | 6            | 12              |        |
| Foam Mattress ...      | 30          | 25                | 6           | 2           | 4            | 11              |        |
| Sectional Mattress ... | 3           | —                 | —           | —           | —            | 2               |        |
| Foam Pillow ...        | 1           | —                 | —           | —           | —            | 1               |        |
| Lifting Pole ...       | 16          | 7                 | 3           | —           | —            | 13              |        |
| Nelson Bed ...         | 14          | 5                 | 1           | 1           | —            | 9               |        |
| Rubber Sheet ...       | 160         | 280               | 75          | 21          | 28           | 54              |        |
| Urinal (male) ...      | 84          | 115               | 19          | 12          | 7            | 15              |        |
| Urinal (female) ...    | 6           | —                 | 2           | —           | —            | 2               |        |
| Wheel Chair ...        | 67          | 21                | 17          | 10          | 20           | 26              |        |
| Totals ...             | 1,031       | 1,594             | 426         | 125         | 120          | 297             | 2,959  |

**TABLE 19.**  
**TUBERCULOSIS CASES ON DISPENSARY REGISTER.**

| DIAGNOSIS                                                                                          | RESPIRATORY |       |          | NON-RESPIRATORY                                                                               |     |          | TOTAL   |       |           | GRAND TOTAL |
|----------------------------------------------------------------------------------------------------|-------------|-------|----------|-----------------------------------------------------------------------------------------------|-----|----------|---------|-------|-----------|-------------|
|                                                                                                    | Adults.     |       | Children | Adults.                                                                                       |     | Children | Adults. |       | Children. |             |
|                                                                                                    | M.          | F.    |          | M.                                                                                            | F.  |          | M.      | F.    |           |             |
| NEW CASES examined during the year (excluding contacts): (Definitely Tuberculous)                  | 503         | 392   | 129      | 36                                                                                            | 38  | 19       | 539     | 430   | 148       | 1,117       |
| CONTACTS examined during the year :                                                                |             |       |          |                                                                                               |     |          |         |       |           |             |
| Definitely tuberculous ...                                                                         | 8           | 26    | 36       | —                                                                                             | —   | 1        | 8       | 26    | 37        | 71          |
| Diagnosis not completed ...                                                                        | 6           | 7     | 28       | —                                                                                             | —   | —        | 6       | 7     | 28        | 41          |
| Non-tuberculous ...                                                                                | 508         | 835   | 2,361    | —                                                                                             | —   | —        | 508     | 835   | 2,361     | 3,704       |
| CASES written off the Dispensary Register as recovered ...                                         | 180         | 202   | 47       | 21                                                                                            | 28  | 27       | 201     | 230   | 74        | 505         |
| NUMBER OF CASES ON Dispensary Register on Dec. 31st 1957 :—                                        |             |       |          |                                                                                               |     |          |         |       |           |             |
| Definitely tuberculous ...                                                                         | 4,102       | 3,684 | 834      | 261                                                                                           | 297 | 202      | 4,263   | 3,981 | 1,036     | 9,280       |
| Diagnosis not completed ...                                                                        | 35          | 26    | 7        | —                                                                                             | —   | —        | 35      | 26    | 7         | 68          |
|                                                                                                    |             |       |          |                                                                                               |     |          |         |       |           |             |
| Number of attendances of patients at the dispensaries during the year 1957 ...                     | 33,179      |       |          | Number of patients under medical treatment at home on 31st December, 1957...                  |     |          |         |       |           | 1,228       |
| Number of visits paid by the Tuberculosis Medical Officer to the homes of patients during 1957 ... | 1,201       |       |          |                                                                                               |     |          |         |       |           |             |
| Total number of cases vaccinated with B.C.G. during 1957 :—                                        |             |       |          | Total number of visits paid to the homes of patients by Tuberculosis Visitors during 1957 ... |     |          |         |       |           | 42,063      |
| Children ...                                                                                       | 3,036*      |       |          |                                                                                               |     |          |         |       |           |             |
| Others ...                                                                                         | 72 }        |       |          |                                                                                               |     |          |         |       |           |             |

\* Includes 1,130 newly born babies in Maternity Wards in Sefton General Hospital.

**TABLE 20.**  
**Analysis of non-notified Tuberculosis cases 1957.**

| DISEASE.            | Reasons for non-notification. |                                         |                                                                          |                                                   |                                                                |                         |                                                     |
|---------------------|-------------------------------|-----------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------|-------------------------|-----------------------------------------------------|
|                     | No. of Deaths.                | No. of cases not notified before death. | Diagnosis made at a post-mortem examination. (Includes Coroner's Cases.) | Diagnosis delayed owing to clinical difficulties. | Doctor thought case had been notified by another Practitioner. | Notification forgotten. | Patient died before notification could be effected. |
| Respiratory ...     | 123                           | 11                                      | 3                                                                        | —                                                 | —                                                              | —                       | 8                                                   |
| Non-respiratory ... | 5                             | 4                                       | —                                                                        | —                                                 | —                                                              | —                       | 4                                                   |



TABLE 21.

## DEATHS FROM RESPIRATORY TUBERCULOSIS.

| Years.      | Cases notified. | Case rate<br>per 1,000<br>population. | Number<br>of<br>deaths. | Death rate<br>per 1,000<br>Liverpool. | Death rate<br>per 1,000<br>England and<br>Wales. |
|-------------|-----------------|---------------------------------------|-------------------------|---------------------------------------|--------------------------------------------------|
| 1948 ... .. | 1,618           | 2.04                                  | 630                     | 0.79                                  | 0.44                                             |
| 1949 ... .. | 1,619           | 2.02                                  | 542                     | 0.68                                  | 0.40                                             |
| 1950 ... .. | 1,572           | 1.96                                  | 481                     | 0.60                                  | 0.32                                             |
| 1951 ... .. | 1,531           | 1.95                                  | 406                     | 0.52                                  | 0.27                                             |
| 1952 ... .. | 1,569           | 1.98                                  | 269                     | 0.34                                  | 0.21                                             |
| 1953 ... .. | 1,382           | 1.75                                  | 258                     | 0.33                                  | 0.18                                             |
| 1954 ... .. | 1,135           | 1.44                                  | 232                     | 0.29                                  | 0.16                                             |
| 1955 ... .. | 1,082           | 1.39                                  | 185                     | 0.24                                  | 0.13                                             |
| 1956 ... .. | 1,016           | 1.31                                  | 137                     | 0.177                                 | 0.109                                            |
| 1957 ... .. | 1,021           | 1.33                                  | 123                     | 0.160                                 | 0.095                                            |

TABLE 22.

## DEATHS FROM NON-RESPIRATORY TUBERCULOSIS.

| Years.      | Cases notified. | Case rate<br>per 1,000<br>population. | Number<br>of<br>deaths. | Death rate<br>per 1,000<br>Liverpool. | Death rate<br>per 1,000<br>England and<br>Wales. |
|-------------|-----------------|---------------------------------------|-------------------------|---------------------------------------|--------------------------------------------------|
| 1948 ... .. | 228             | 0.29                                  | 85                      | 0.11                                  | 0.07                                             |
| 1949 ... .. | 211             | 0.26                                  | 68                      | 0.08                                  | 0.05                                             |
| 1950 ... .. | 164             | 0.20                                  | 64                      | 0.08                                  | 0.04                                             |
| 1951 ... .. | 160             | 0.20                                  | 43                      | 0.05                                  | 0.04                                             |
| 1952 ... .. | 139             | 0.17                                  | 36                      | 0.04                                  | 0.03                                             |
| 1953 ... .. | 123             | 0.16                                  | 26                      | 0.03                                  | 0.02                                             |
| 1954 ... .. | 147             | 0.19                                  | 12                      | 0.01                                  | 0.02                                             |
| 1955 ... .. | 118             | 0.15                                  | 19                      | 0.02                                  | 0.01                                             |
| 1956 ... .. | 101             | 0.13                                  | 7                       | 0.009                                 | 0.012                                            |
| 1957 ... .. | 96              | 0.12                                  | 5                       | 0.006                                 | 0.012                                            |

TABLE 12.  
HOME NURSING—VISITS TO PATIENTS.

|                                    | Cases. | Visits. |
|------------------------------------|--------|---------|
| Medical ... ..                     | 12,544 | 277,886 |
| Surgical ... ..                    | 2,189  | 46,462  |
| Tuberculosis ... ..                | 528    | 26,625  |
| Maternity and Child Welfare ... .. | 1,487  | 10,268  |
| Infectious ... ..                  | 28     | 187     |
| Others ... ..                      | —      | 527     |
| Totals ... ..                      | 16,776 | 361,955 |

TABLE 13.  
HOME NURSING—ANALYSIS OF DISEASES  
BABIES 0—1 MONTH.

|                              | Cases. | Visits. |
|------------------------------|--------|---------|
| Spina Bifida ... ..          | 7      | 142     |
| Bronchitis ... ..            | 6      | 50      |
| Constipation ... ..          | 1      | 5       |
| Pemphigus ... ..             | 14     | 113     |
| Septic Fingers ... ..        | 2      | 8       |
| Septic Toe ... ..            | 1      | 5       |
| Septic Spots ... ..          | 27     | 170     |
| Discharging Eyes ... ..      | 14     | 133     |
| Mastitis ... ..              | 7      | 59      |
| Breast Abscess ... ..        | 1      | 4       |
| Pneumonia ... ..             | 6      | 47      |
| Septic Umbilicus ... ..      | 5      | 26      |
| Protruding Umbilicus ... ..  | 1      | 6       |
| Ophthalmia Neonatorum ... .. | 13     | 78      |
| Haemorrhagic Disease ... ..  | —      | —       |
| Abscess of Buttocks ... ..   | 1      | 7       |
| Abscess of Shoulder ... ..   | 1      | 13      |
| Sore Buttocks ... ..         | 3      | 11      |
| Stomatitis ... ..            | —      | —       |
| Otitis Media ... ..          | 2      | 9       |
| Anaemia ... ..               | 1      | 9       |
| Circumcision ... ..          | 1      | 7       |
| Meningocele ... ..           | 1      | 11      |
| Healthy Babies ... ..        | 10     | 81      |
| Pyrexia (undiagnosed) ... .. | 1      | 3       |
| Otorrhoea ... ..             | 2      | 6       |
| Totals ... ..                | 128    | 1,003   |



TABLE 14.

HOME NURSING—ANALYSIS OF DISEASES  
BABIES 1 MONTH—1 YEAR.

|                                          | Cases. | Visits. |
|------------------------------------------|--------|---------|
| Pneumonia ... ..                         | 48     | 271     |
| Bronchitis ... ..                        | 143    | 870     |
| Undiagnosed Respiratory Infection ... .. | 9      | 41      |
| Pyrexia (undiagnosed) ... ..             | 3      | 10      |
| Scalds ... ..                            | 1      | 26      |
| Burns ... ..                             | 4      | 22      |
| Constipation ... ..                      | 6      | 19      |
| Circumcision ... ..                      | 15     | 86      |
| Whooping Cough... ..                     | 1      | 13      |
| Measles ... ..                           | 2      | 15      |
| Septic Spots ... ..                      | 7      | 48      |
| Septic Throat ... ..                     | 2      | 8       |
| Abscesses ... ..                         | 11     | 65      |
| Lachrymal Abscess ... ..                 | —      | —       |
| Gastro Enteritis ... ..                  | 5      | 21      |
| Removal of Naevus ... ..                 | —      | —       |
| Conjunctivitis ... ..                    | 6      | 104     |
| Stomatitis ... ..                        | 23     | 129     |
| Sore Buttocks ... ..                     | 3      | 12      |
| Boils ... ..                             | —      | —       |
| Tuberculosis ... ..                      | 1      | 57      |
| Cervical Adenitis ... ..                 | 1      | 1       |
| Otorrhoea ... ..                         | 2      | 8       |
| Otitis Media ... ..                      | 106    | 456     |
| Spina Bifida ... ..                      | 7      | 468     |
| Tonsillitis... ..                        | 1      | 7       |
| Eczema ... ..                            | —      | —       |
| Septic Umbilicus ... ..                  | 1      | 5       |
| Septic Infection ... ..                  | 1      | 5       |
| Impetigo ... ..                          | —      | —       |
| Mastitis ... ..                          | 11     | 102     |
| Osteomyelitis ... ..                     | 1      | 2       |
| Ectopic Viscera ... ..                   | 1      | 16      |
| Bath ... ..                              | 1      | 7       |
| Anaemia ... ..                           | 1      | 4       |
| Totals ... ..                            | 424    | 2,898   |

TABLE 15.  
HOME NURSING—CLINIC ATTENDANCES, CENTRAL HOME.

|                                             | Cases. | Visits. |
|---------------------------------------------|--------|---------|
| Diabetes ... ..                             | 20     | 3,599   |
| Anaemia ... ..                              | 85     | 1,417   |
| Cardiac ... ..                              | 26     | 448     |
| Sinusitis ... ..                            | 32     | 212     |
| Tonsillitis ... ..                          | 3      | 10      |
| Bronchitis... ..                            | 11     | 50      |
| Bronchiectasis ... ..                       | 1      | 2       |
| Respiratory Infections (undiagnosed) ... .. | 7      | 49      |
| Asthma ... ..                               | 4      | 29      |
| Boils ... ..                                | 44     | 179     |
| Abscesses ... ..                            | 17     | 50      |
| Breast Abscess ... ..                       | 3      | 30      |
| Carbuncles ... ..                           | 4      | 19      |
| Septic (Hands, Fingers, etc.) ... ..        | 15     | 57      |
| Septic Spots ... ..                         | 5      | 26      |
| Dermatitis ... ..                           | 2      | 2       |
| Cellulitis (Leg and Face) ... ..            | 2      | 6       |
| Styes ... ..                                | 7      | 46      |
| Otitis Media ... ..                         | 60     | 283     |
| Dental Infections ... ..                    | 8      | 31      |
| Gynaecological ... ..                       | 4      | 12      |
| Ante natal Measles contact ... ..           | 2      | 2       |
| Lymphangitis ... ..                         | 5      | 27      |
| Neuritis ... ..                             | 1      | 4       |
| Arthritis ... ..                            | 1      | 4       |
| Tuberculosis ... ..                         | 3      | 103     |
| Syphilis ... ..                             | 3      | 37      |
| Totals ... ..                               | 375    | 6,734   |

TABLE 16.  
NUMBER OF CASES OF CERTAIN INFECTIOUS DISEASES REPORTED DURING 1957.

|                                   | January | February | March | April | May  | June | July | August | September | October | November | December | TOTALS |
|-----------------------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|--------|
| Scarlet Fever ...                 | 69      | 101      | 97    | 78    | 53   | 32   | 60   | 22     | 20        | 39      | 62       | 62       | 695    |
| Measles and German Measles ... .. | 1528    | 1946     | 2740  | 1669  | 1072 | 744  | 544  | 295    | 103       | 46      | 76       | 143      | 10,906 |
| Diphtheria ... ..                 | —       | —        | —     | —     | —    | —    | —    | —      | —         | —       | —        | —        | —      |
| Cerebro-spinal Fever              | 6       | 5        | —     | 4     | 3    | —    | 1    | 2      | 2         | 3       | 2        | 6        | 34     |
| Poliomyelitis                     |         |          |       |       |      |      |      |        |           |         |          |          |        |
| Paralytic ... ..                  | 1       | —        | 1     | 1     | —    | 2    | 3    | 8      | 6         | 1       | 2        | —        | 25     |
| Non-paralytic ... ..              | —       | —        | —     | —     | —    | 2    | 1    | 2      | 2         | —       | —        | —        | 7      |
| Pneumonia & Influenzal Pneumonia  | 70      | 49       | 40    | 30    | 25   | 13   | 15   | 22     | 82        | 219     | 47       | 60       | 672    |
| Dysentery ... ..                  | 27      | 22       | 46    | 30    | 70   | 43   | 23   | 19     | 21        | 45      | 61       | 77       | 484    |
| Whooping Cough ...                | 270     | 234      | 273   | 206   | 230  | 161  | 155  | 71     | 56        | 23      | 29       | 18       | 1,726  |
| Food Poisoning ...                | 7       | 6        | 18    | 25    | 13   | 8    | 9    | 14     | 12        | 4       | 7        | 10       | 133    |



TABLE 17.  
County Borough of Liverpool, 1957.  
*Food Poisoning.*

| 1st Quarter | 2nd Quarter. | 3rd Quarter. | 4th Quarter. | TOTAL |
|-------------|--------------|--------------|--------------|-------|
| 31          | 46           | 35           | 21           | 133   |

*Outbreaks due to Identified Agents.*

| Outbreaks due to :—                   | Total Outbreaks. | Total Cases. |
|---------------------------------------|------------------|--------------|
| (a) Chemical poisons ... ..           | —                | —            |
| (b) Salmonella organisms ... ..       | 2                | 36           |
| (c) Staphylococci (inc. toxin) ... .. | 1                | 4            |
| (d) C.I. Botulinum ... ..             | —                | —            |
| (e) Other bacteria ... ..             | —                | —            |
|                                       | 3                | 40           |

*Outbreaks due to Undiscovered Cause.*

Total outbreaks—nil.                      Total cases—nil.

*Single Cases.*

| Agent identified. | Unknown cause. | Total cases. |
|-------------------|----------------|--------------|
| 93                | —              | 93           |

TABLE 18.  
AGE PERIODS OF DEATHS FROM TUBERCULOSIS DURING 1957.

| Age Periods. | RESPIRATORY |          | MENINGES AND C.N.S. |          | OTHER FORMS |          |
|--------------|-------------|----------|---------------------|----------|-------------|----------|
|              | Males.      | Females. | Males.              | Females. | Males.      | Females. |
| 0—1          | —           | —        | —                   | —        | —           | —        |
| 1—4          | —           | —        | 1                   | —        | —           | —        |
| 5—9          | —           | —        | —                   | —        | —           | —        |
| 10—14        | —           | —        | 1                   | —        | —           | —        |
| 15—19        | —           | —        | —                   | —        | —           | —        |
| 20—24        | —           | 1        | —                   | 1        | —           | —        |
| 25—34        | 5           | 13       | —                   | —        | —           | —        |
| 35—44        | 11          | 13       | —                   | —        | —           | 1        |
| 45—54        | 21          | 5        | —                   | —        | —           | —        |
| 55—64        | 19          | 3        | —                   | 1        | —           | —        |
| 65—over      | 29          | 3        | —                   | —        | —           | —        |
| TOTALS ...   | 85          | 38       | 2                   | 2        | —           | 1        |

TABLE 23.  
NUMBER OF NEW CASES OF TUBERCULOSIS FOR 1957.

| Age Periods            | Under<br>5 yrs. | 5-14<br>yrs. | 15-24<br>yrs. | 25-44<br>yrs. | 45-64<br>yrs. | 65 yrs.<br>& over | Total | Total<br>Respiratory     |
|------------------------|-----------------|--------------|---------------|---------------|---------------|-------------------|-------|--------------------------|
| Respiratory—           |                 |              |               |               |               |                   |       |                          |
| Males ...              | 24              | 32           | 67            | 193           | 202           | 43                | 561   | } 1,021                  |
| Females ...            | 26              | 47           | 145           | 164           | 65            | 13                | 460   |                          |
| Meninges and<br>C.N.S. |                 |              |               |               |               |                   |       | Total<br>Non-respiratory |
| Males ...              | 1               | 2            | 2             | 1             | —             | —                 | 6     | } 96                     |
| Females ...            | 3               | 1            | 2             | —             | —             | —                 | 6     |                          |
| Other Forms            |                 |              |               |               |               |                   |       |                          |
| Males ...              | 1               | 7            | 6             | 13            | 4             | 2                 | 33    | } 96                     |
| Females ...            | 4               | 2            | 16            | 18            | 8             | 3                 | 51    |                          |

TABLE 24.  
MASS RADIOGRAPHY.  
RESULT OF SURVEY AT THE LIVERPOOL SHOW ON 18TH, 19TH, 20TH JULY, 1957.

|                                                                   | Males. | Females. | Total. |
|-------------------------------------------------------------------|--------|----------|--------|
| Number of persons X-rayed ...                                     | 743    | 659      | 1,402  |
| Number recalled for large film examination ...                    | 75     | 46       | 121    |
| Number failing to attend for large film examination ...           | 6      | 1        | 7      |
| FINDINGS—                                                         |        |          |        |
| (a) Tuberculosis presumed healed. No further action<br>needed ... | 15     | 11       | 26     |
| (b) Suspect Tuberculosis. Not yet confirmed ...                   | 1      | —        | 1      |
| (c) Tuberculosis. Occasional supervision only needed ...          | 16     | 13       | 29     |
| (d) Tuberculosis. Close clinic supervision needed ...             | 3      | —        | 3      |
| (e) Tuberculosis. Requiring immediate treatment ...               | 1      | —        | 1      |
| Already known to the Chest Clinic (Included in above)—            |        |          |        |
| Section (a) ...                                                   | 1      | 1        | 2      |
| Section (c) ...                                                   | 3      | 2        | 5      |
| Section (d) ...                                                   | 1      | —        | 1      |
| Section (e) ...                                                   | 1      | —        | 1      |
| Bronchiectasis ...                                                | 3      | 2        | 5      |
| Pneumoconiosis ...                                                | —      | —        | —      |
| Carcinoma of lungs and mediastinum ...                            | 1      | —        | 1      |
| Cardiac abnormalities (Congenital and acquired) ...               | 25     | 29       | 54     |



TABLE 25.

## MENTAL DEFICIENCY.

## HOSPITAL ADMISSIONS AND DISCHARGES IN 1957.

|                                                  | ADMISSIONS. |        |                |        |         |                              | Discharges<br>(all types)<br>to community. |
|--------------------------------------------------|-------------|--------|----------------|--------|---------|------------------------------|--------------------------------------------|
|                                                  | Sec. 3      | Sec. 6 | Sec. 8 (1) (b) | Sec. 9 | Sec. 15 | Other<br>accommo-<br>dation. | Total                                      |
| LIVERPOOL REGIONAL HOSPITAL<br>BOARD HOSPITALS—  |             |        |                |        |         |                              |                                            |
| Newchurch ...                                    | —           | 1      | —              | —      | —       | —                            | 1                                          |
| Ashton House ...                                 | —           | 3      | —              | —      | —       | —                            | 3                                          |
| The Manor ...                                    | 1           | —      | —              | —      | —       | —                            | 1                                          |
| Greaves Hall ...                                 | 5           | —      | —              | —      | —       | —                            | 5                                          |
| Whitecross ...                                   | —           | —      | —              | —      | 3       | —                            | 3                                          |
| Olive Mount ...                                  | —           | —      | —              | —      | —       | 4                            | 4                                          |
| St. Joseph's ...                                 | —           | —      | —              | —      | —       | 2                            | 2                                          |
| MANCHESTER REGIONAL<br>HOSPITAL BOARD HOSPITALS— |             |        |                |        |         |                              |                                            |
| Calderstones ...                                 | 1           | 2      | 6              | 1      | —       | —                            | 10                                         |
| Brockhall ...                                    | 1           | 3      | 1              | —      | —       | —                            | 5                                          |
| Cranage Hall ...                                 | —           | —      | 1              | —      | —       | —                            | 1                                          |
| Mary Dendy ...                                   | 5           | 4      | —              | 1      | —       | —                            | 10                                         |
| Royal Albert ...                                 | 4           | 7      | 2              | —      | —       | —                            | 13                                         |
| Lisieux Hall ...                                 | —           | 1      | —              | —      | —       | —                            | 1                                          |
| STATE INSTITUTIONS—                              |             |        |                |        |         |                              |                                            |
| Rampton ...                                      | —           | 1      | —              | —      | —       | —                            | 1                                          |
| OTHER REGIONAL HOSPITAL<br>BOARD HOSPITALS ...   | —           | —      | —              | —      | —       | —                            | —                                          |
| TOTALS 1957 ...                                  | 17†         | 22     | 10             | 2      | 3       | 6                            | 60                                         |
| TOTALS 1956 ...                                  | —           | 27     | 4              | —      | 5       | 13                           | 49                                         |
|                                                  |             |        |                |        |         |                              | 45*                                        |
|                                                  |             |        |                |        |         |                              | —                                          |

TABLE 26.  
MENTAL DEFICIENCY

LIVERPOOL PATIENTS IN REGIONAL HOSPITAL BOARD ACCOMMODATION  
AT 31ST DECEMBER, 1957

|                                      | Males    |         | Females  |         | Total |
|--------------------------------------|----------|---------|----------|---------|-------|
|                                      | Under 16 | Over 16 | Under 16 | Over 16 |       |
| LIVERPOOL REGIONAL HOSPITAL          |          |         |          |         |       |
| BOARD HOSPITALS—                     |          |         |          |         |       |
| Newchurch ... ..                     | —        | —       | 10       | 98      | 108   |
| Greaves Hall ... ..                  | 4        | 63      | —        | —       | 67    |
| Ashton House ... ..                  | —        | —       | 1        | 29      | 30    |
| The Manor ... ..                     | —        | —       | —        | 15      | 15    |
| St. Catherine's ... ..               | —        | 5       | —        | —       | 5     |
| (1) Whitecross ... ..                | 11       | 3       | 12       | 3       | 29    |
| (1) Sefton ... ..                    | —        | 1       | —        | 2       | 3     |
| (1) Whiston ... ..                   | —        | —       | —        | 1       | 1     |
| (2) Olive Mount ... ..               | 16       | —       | 2        | —       | 18    |
| (2) Ormskirk ... ..                  | 2        | —       | —        | —       | 2     |
| (2) Crow Wood ... ..                 | 1        | —       | 2        | —       | 3     |
| (2) Westminster House ... ..         | —        | 12      | —        | —       | 12    |
| (2) St. Joseph's Children's Hospital | —        | —       | 2        | —       | 2     |
| TOTAL ... ..                         | 34       | 84      | 29       | 148     | 295   |
| MANCHESTER REGIONAL HOSPITAL         |          |         |          |         |       |
| BOARD HOSPITALS—                     |          |         |          |         |       |
| Calderstones ... ..                  | 2        | 289     | —        | 185     | 476   |
| Brockhall ... ..                     | 13       | 188     | 10       | 180     | 391   |
| Cranage Hall ... ..                  | 2        | 9       | —        | 3       | 14    |
| Mary Dendy ... ..                    | —        | 18      | —        | 6       | 24    |
| Royal Albert ... ..                  | 4        | 24      | 1        | 3       | 32    |
| Swinton ... ..                       | 4        | —       | 8        | —       | 12    |
| Lisieux Hall ... ..                  | —        | 46      | —        | —       | 46    |
| Gillibrand Hall ... ..               | —        | —       | —        | 16      | 16    |
| Chorley ... ..                       | —        | 1       | —        | 19      | 20    |
| Ulverston ... ..                     | —        | —       | —        | 1       | 1     |
| Clitheroe ... ..                     | —        | 1       | —        | —       | 1     |
| (1) Atherleigh ... ..                | —        | —       | 1        | —       | 1     |
| TOTAL ... ..                         | 25       | 576     | 20       | 413     | 1,034 |
| OTHER REGIONAL HOSPITAL              |          |         |          |         |       |
| BOARD HOSPITALS—                     |          |         |          |         |       |
| TOTAL ... ..                         | —        | 4       | —        | 4       | 8     |
| STATE INSTITUTIONS—                  |          |         |          |         |       |
| Moss Side ... ..                     | —        | 4       | —        | 4       | 8     |
| Rampton ... ..                       | 1        | 4       | —        | 9       | 14    |
| TOTAL ... ..                         | 1        | 8       | —        | 13      | 22    |
| GRAND TOTAL                          | 60       | 672     | 49       | 578     | 1,359 |

NOTES : (1) Places of safety.

(2) Not Mental Deficiency Act accommodation.

Figures do not include 22 patients on licence and 4 escaped but still under Order.



TABLE 27.

## Mental Defectives.

*Waiting List for Institutional Care.*

|                          |     |     |     |                |
|--------------------------|-----|-----|-----|----------------|
| Waiting list at 31.12.57 | ... | ... | ... | 107 comprising |
| Urgency 3 (highest)      | ... | ... | ... | 56             |
| Urgency 2                | ... | ... | ... | 22             |
| Urgency 1                | ... | ... | ... | 11             |
| Urgency 0                | ... | ... | ... | 18             |

These figures can be classified as follows :—

## (a) In age and sex groups.

| Urgency | Under 6 |        | 6—16 |        | 16 and over |        | Total |
|---------|---------|--------|------|--------|-------------|--------|-------|
|         | male    | female | male | female | male        | female |       |
| 3       | 1       | 2      | 11   | 11     | 15          | 16     | 56    |
| 2       | —       | —      | 8    | 1      | 5           | 8      | 22    |
| 1       | 2       | —      | 5    | —      | 1           | 3      | 11    |
| 0       | 1       | —      | 2    | 4      | 6           | 5      | 18    |
|         | 4       | 2      | 26   | 16     | 27          | 32     | 107   |

## (b) Time on waiting list.

| Urgency | Over<br>3 yrs. | 2—3 yrs. | 1—2 yrs. | 6 mths—<br>1 yr. | Under<br>6 mths. | Total |
|---------|----------------|----------|----------|------------------|------------------|-------|
| 3       | 23             | 6        | 9        | 8                | 10               | 56    |
| 2       | 9              | 2        | 3        | 3                | 5                | 22    |
| 1       | 3              | 1        | 1        | 1                | 5                | 11    |
| 0       | 6              | 1        | 1        | 2                | 8                | 18    |
|         | 41             | 10       | 14       | 14               | 28               | 107   |

## (c) Classification of defectives.

| Urgency | High grade | Medium<br>Grade | Ambulant low<br>Grade | Cot & Chair | Total |
|---------|------------|-----------------|-----------------------|-------------|-------|
| 3       | 5          | 23              | 20                    | 8           | 56    |
| 2       | 3          | 12              | 7                     | —           | 22    |
| 1       | —          | 8               | 1                     | 2           | 11    |
| 0       | 3          | 13              | 1                     | 1           | 18    |
|         | 11         | 56              | 29                    | 11          | 107   |

NOTE :—Waiting list figures do not include the following :—

|                                                                                 |     |     |     |    |
|---------------------------------------------------------------------------------|-----|-----|-----|----|
| In places of safety                                                             | ... | ... | ... | 34 |
| In Regional Hospital Board accommodation<br>other than certified M.D. hospitals | ... | ... | ... | 46 |

TABLE 28.

**MENTAL ILLNESS.****PATIENTS REFERRED IN 1957 AND ACTION TAKEN.**

|                                                       |     |     |       |                                |     |     |     |      |       |
|-------------------------------------------------------|-----|-----|-------|--------------------------------|-----|-----|-----|------|-------|
| Total cases referred                                  | ... | ... | 1,247 |                                |     |     |     |      |       |
| Referred by :—                                        |     |     |       |                                |     |     |     |      |       |
| General Practitioners                                 | ... | ... | 632   | Shipping firms                 | ... | ... | ... | 14   |       |
| Hospitals                                             | ... | ... | 234   | Other Corporation sections and |     |     |     |      |       |
| Psychiatrists                                         | ... | ... | 93    | departments                    | ... | ... | ... | 14   |       |
| Police                                                | ... | ... | 139   | From pre- or after-care        | ... | ... | ... | 13   |       |
| Relatives                                             | ... | ... | 64    | H.M. Prisons                   | ... | ... | ... | 7    |       |
|                                                       |     |     |       | Other sources                  | ... | ... | ... | 37   |       |
| How dealt with :—                                     |     |     |       |                                |     |     |     |      |       |
| Admitted to hospital (Section 20 Lunacy Act)          | ... | ... | ...   | ...                            | ... | ... | ... | *773 |       |
| Admitted to hospital (Section 21 Lunacy Act)          | ... | ... | ...   | ...                            | ... | ... | ... | 1    |       |
| Admitted to hospital (Mental Treatment Act—Voluntary) | ... | ... | ...   | ...                            | ... | ... | ... | 13   |       |
| Admitted to hospital (Magistrates' Court Act)         | ... | ... | ...   | ...                            | ... | ... | ... | 7    |       |
| Admitted to hospital other than mental hospital       | ... | ... | ...   | ...                            | ... | ... | ... | 6    |       |
| Referred to J.P. (Section 14 Lunacy Act)              | ... | ... | ...   | ...                            | ... | ... | ... | 41   |       |
| Referred to Psychiatric Clinic...                     | ... | ... | ...   | ...                            | ... | ... | ... | 32   |       |
| Referred to Welfare Services Section                  | ... | ... | ...   | ...                            | ... | ... | ... | 56   |       |
| Referred for pre- or after-care                       | ... | ... | ...   | ...                            | ... | ... | ... | 59   |       |
| Referred back to patient's doctor                     | ... | ... | ...   | ...                            | ... | ... | ... | 90   |       |
| No further action needed                              | ... | ... | ...   | ...                            | ... | ... | ... | 169  |       |
|                                                       |     |     |       |                                |     |     |     |      | 1,247 |

\* Of whom 386 subsequently subject to summary Reception Order (Section 16 Lunacy Act).

TABLE 29.

**RESIDENTIAL ACCOMMODATION.**

The total accommodation available for use on 31st December, 1957, was as follows :—

| Establishment.      | No. of Beds. | Date of Opening. |
|---------------------|--------------|------------------|
| Westminster House   | 794          | 5. 7.1948*       |
| Aigburth House      | 52           | 16. 7.1953       |
| Altcross House      | 57           | 11. 4.1957       |
| Beechley            | 43           | 9.11.1950        |
| Brookfield          | 19           | 21. 1.1952       |
| Brookside House     | 18           | 5. 3.1957        |
| Croxteth Lodge      | 31           | 17.12.1956       |
| Holt House          | 58           | 24. 9.1953       |
| Lismore             | 36           | 10.12.1951       |
| Moreno House        | 34           | 14. 1.1949       |
| New Grafton House   | 96           | 5. 7.1948*       |
| New Parkfield House | 27           | 18.12.1950       |
| Park House          | 20           | 30.12.1949       |
| Ullet Grange        | 27           | 13.11.1957       |
|                     | 1,312        |                  |

\* In occupation by the Local Authority prior to 5th July, 1948.



TABLE 30.  
PARTICULARS OF PERSONS ADMITTED TO RESIDENTIAL ACCOMMODATION  
AND DESCRIPTION OF THE PREMISES FROM WHICH THEY WERE  
ADMITTED.

| 1957         | 1                           | 1A                                   | 2    | 3                           | 4           | 5                                           |       |
|--------------|-----------------------------|--------------------------------------|------|-----------------------------|-------------|---------------------------------------------|-------|
|              | Vacated<br>Private<br>House | Vacated<br>Corpora-<br>tion<br>House | Flat | Living<br>with<br>Relatives | One<br>Room | Misc.<br>Lodgings<br>Res.<br>Accom.<br>etc. | Total |
| January ...  | 5                           | 1                                    | 1    | 9                           | 22          | 11                                          | 49    |
| February ... | 6                           | —                                    | 1    | 21                          | 16          | 10                                          | 54    |
| March ...    | 9                           | 1                                    | 2    | 8                           | 13          | 8                                           | 41    |
| April ...    | 10                          | 3                                    | —    | 24                          | 6           | 15                                          | 58    |
| May ...      | 18                          | —                                    | 1    | 10                          | 8           | 8                                           | 45    |
| June ...     | 4                           | 2                                    | 1    | 8                           | 11          | 8                                           | 34    |
| July ...     | 8                           | —                                    | —    | 13                          | 13          | 7                                           | 41    |
| August ...   | 3                           | —                                    | 3    | 19                          | 2           | 9                                           | 36    |
| September    | 1                           | —                                    | —    | 1                           | 14          | 6                                           | 22    |
| October ...  | 3                           | —                                    | 3    | 11                          | 14          | 11                                          | 42    |
| November ... | 7                           | —                                    | 1    | 10                          | 10          | 16                                          | 44    |
| December ... | 6                           | —                                    | 1    | 15                          | 13          | 7                                           | 42    |
| TOTAL ...    | 80                          | 7                                    | 14   | 149                         | 142         | 116                                         | 508   |

TABLE 31.

AGED PERSONS MAINTAINED IN ESTABLISHMENTS PROVIDED BY OTHER  
LOCAL AUTHORITIES AND BY VOLUNTARY ORGANISATIONS.  
STATEMENT OF ADMISSIONS, DISCHARGES AND DEATHS.

| Authority or Organisation                                                      | Remaining<br>31.12.56 | Admitted | Discharged | Died | Remaining<br>31.12.57 |
|--------------------------------------------------------------------------------|-----------------------|----------|------------|------|-----------------------|
| British Legion Home, Ripon ...                                                 | 2                     | —        | —          | —    | 2                     |
| British Legion Home, Bwlch ...                                                 | 1                     | —        | —          | —    | 1                     |
| Christadelphian Homes, Southport ...                                           | 1                     | —        | —          | —    | 1                     |
| Church Army Home, Bootle ...                                                   | 4                     | 1        | —          | 1    | 4                     |
| Convent of the Good Shepherd,<br>Liverpool ...                                 | 6                     | —        | 1          | —    | 5                     |
| 52/54, Croxteth Road, Liverpool<br>(Old People's Hostels Associa-<br>tion) ... | 9                     | —        | 2          | 1    | 6                     |
| "Maryland," Formby ...                                                         | 3                     | 2        | 2          | —    | 3                     |
| Methodist Home, Liverpool ...                                                  | 8                     | 2        | —          | —    | 10                    |
| Methodist Home, Colwyn Bay ...                                                 | 1                     | —        | —          | —    | 1                     |
| Red Cross Home, Portmadoc ...                                                  | 1                     | —        | —          | —    | 1                     |
| Redhill Bethesda Home ...                                                      | 1                     | —        | —          | —    | 1                     |
| Salvation Army Home, Bootle ...                                                | 6                     | 1        | 1          | 1    | 5                     |
| Salvation Army Home, Liverpool ...                                             | 18                    | 2        | 1          | 4    | 15                    |
| Salvation Army Home, Penketh ...                                               | 3                     | —        | —          | 1    | 2                     |
| Salvation Army Home, West Kirby ...                                            | 1                     | —        | —          | 1    | —                     |
| Salvation Army Home, Wicksted ...                                              | 1                     | —        | 1          | —    | —                     |
| 25, Sefton Drive, Liverpool (Old<br>People's Hostel Association) ...           | 13                    | 2        | 4          | —    | 11                    |
| "Stapely," Home for Aged Jews,<br>Liverpool ...                                | 26                    | 11       | 13         | 1    | 23                    |
| "Sundale," Linnet Lane, Liver-<br>pool ...                                     | 4                     | 1        | 2          | —    | 3                     |
| Turner Memorial Home, Liverpool ...                                            | 16                    | 5        | 5          | 2    | 14                    |
| W.V.S., "St. Michael's Mount,"<br>Liverpool ...                                | 8                     | 9        | 8          | —    | 9                     |
| W.V.S., "Warriston," Liverpool ...                                             | —                     | 10       | 1          | —    | 9                     |
| Home and Hospital for Jewish<br>Incurables ...                                 | 1                     | —        | —          | —    | 1                     |
| Charles Best House, Parkgate ...                                               | 2                     | 1        | 2          | —    | 1                     |
| Birkenhead Corporation ...                                                     | —                     | 1        | 1          | —    | —                     |
| Bootle Corporation ...                                                         | —                     | 2        | —          | —    | 2                     |
| Bristol Corporation ...                                                        | 1                     | —        | —          | —    | 1                     |
| Leicester Corporation ...                                                      | —                     | 1        | 1          | —    | —                     |
| Portsmouth Corporation ...                                                     | 1                     | —        | —          | —    | 1                     |
| Clackmannann County Council ...                                                | —                     | 1        | —          | —    | 1                     |
| Cumberland County Council ...                                                  | 1                     | —        | —          | —    | 1                     |
| Flintshire County Council ...                                                  | 1                     | —        | —          | —    | 1                     |
| Glamorganshire County Council ...                                              | 1                     | —        | —          | —    | 1                     |
| Staffordshire County Council ...                                               | 1                     | —        | —          | —    | 1                     |
| TOTALS ...                                                                     | 142                   | 52       | 45         | 12   | 137                   |



**TABLE 32.**  
**TEMPORARY ACCOMMODATION PROVIDED AT LOWER BRECK ROAD**  
**UNDER SECTION 21 (1) (b) OF THE NATIONAL ASSISTANCE ACT**

| Remaining<br>31.12.56 | Admitted | Discharged | Remaining<br>31.12.57 |
|-----------------------|----------|------------|-----------------------|
| 68                    | 893      | 893        | 68                    |

**TABLE 33.**  
**WELFARE VISITORS**

The following Table includes details of some of the work of the welfare visitors and the property officer during the year :—

|                                                                                                                                                                       |        |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|
| Number of personal applications for advice and help                                                                                                                   | ...    | 367   |
| Number of visits paid (including 5 visits to handicapped persons)                                                                                                     | ... .. | 1,628 |
| Number of re-visits (including 15 re-visits to handicapped persons)                                                                                                   | ... .. | 9,052 |
| Number of persons admitted to :—                                                                                                                                      |        |       |
| (a) residential accommodation                                                                                                                                         | ... .. | 508   |
| (b) hospital                                                                                                                                                          | ... .. | 46    |
| Number of visits in connection with the protection of the property of persons admitted to hospital, etc., and the effects of deceased persons with no known relatives | ...    | 1,172 |
| Requests for assistance, either by letter or telephone, during the year numbered                                                                                      | ... .. | 1,695 |

**TABLE 34.**  
**REGISTERED BLIND PERSONS.**

The following Table shows the number of registered blind persons in Liverpool :—

| Age      |     |     |     | Males | Females | Total |
|----------|-----|-----|-----|-------|---------|-------|
| 0        | ... | ... | ... | —     | —       | —     |
| 1        | ... | ... | ... | 1     | 1       | 2     |
| 2        | ... | ... | ... | 1     | —       | 1     |
| 3        | ... | ... | ... | 7     | —       | 7     |
| 4        | ... | ... | ... | —     | 3       | 3     |
| 5—10...  | ... | ... | ... | 12    | 18      | 30    |
| 11—15... | ... | ... | ... | 9     | 4       | 13    |
| 16—20... | ... | ... | ... | 6     | 12      | 18    |
| 21—29... | ... | ... | ... | 32    | 27      | 59    |
| 30—39... | ... | ... | ... | 48    | 29      | 77    |
| 40—49... | ... | ... | ... | 77    | 74      | 151   |
| 50—59... | ... | ... | ... | 115   | 86      | 201   |
| 60—64... | ... | ... | ... | 68    | 74      | 142   |
| 65—69... | ... | ... | ... | 83    | 110     | 193   |
| 70—79... | ... | ... | ... | 135   | 281     | 416   |
| 80—84... | ... | ... | ... | 48    | 125     | 173   |
| 85—89... | ... | ... | ... | 25    | 76      | 101   |
| 90 +     | ... | ... | ... | 10    | 17      | 27    |
| TOTALS   |     |     |     | 677   | 937     | 1,614 |

TABLE 35.

## REGISTERED BLIND PERSONS (NEW CASES).

The following Table shows by age groups the number of newly-blinded added to the register during 1957 :—

| Age Groups.  | Males. | Females. | Total. |
|--------------|--------|----------|--------|
| 0 ... ..     | 1      | —        | 1      |
| 1 ... ..     | —      | 1        | 1      |
| 2 ... ..     | 2      | —        | 2      |
| 3 ... ..     | —      | —        | —      |
| 4 ... ..     | —      | —        | —      |
| 5—10 ... ..  | —      | 1        | 1      |
| 11—15 ... .. | —      | —        | —      |
| 16—20 ... .. | —      | —        | —      |
| 21—29 ... .. | —      | —        | —      |
| 30—39 ... .. | 1      | 2        | 3      |
| 40—49 ... .. | 5      | 1        | 6      |
| 50—59 ... .. | 4      | 3        | 7      |
| 60—64 ... .. | 2      | 6        | 8      |
| 65—69 ... .. | 3      | 12       | 15     |
| 70—79 ... .. | 16     | 29       | 45     |
| 80—84 ... .. | 6      | 16       | 22     |
| 85—89 ... .. | 2      | 12       | 14     |
| 90+ ... ..   | 1      | 1        | 2      |
| TOTALS ...   | 43     | 84       | 127    |

TABLE 36.

## PARTIALLY-SIGHTED PERSONS.

The following Table shows the number of registered partially-sighted persons in Liverpool :—

| Age Groups      | Males | Females | Total |
|-----------------|-------|---------|-------|
| 0—1 ... ..      | —     | —       | —     |
| 2—4 ... ..      | —     | —       | —     |
| 5—15 ... ..     | 46    | 26      | 72    |
| 16—20 ... ..    | 11    | 15      | 26    |
| 21—49 ... ..    | 16    | 12      | 28    |
| 50—64 ... ..    | 15    | 18      | 33    |
| 65 and over ... | 24    | 104     | 128   |
| TOTALS ...      | 112   | 175     | 287   |



TABLE 37.

## PARTIALLY-SIGHTED PERSONS (NEW CASES).

The following Table shows by age groups the number of new cases of partially sighted persons added to the register during 1957 :—

| Age Group.      | Males. | Females. | Total. |
|-----------------|--------|----------|--------|
| 0—1 ... ..      | —      | —        | —      |
| 2—4 ... ..      | 1      | —        | 1      |
| 5—15 ... ..     | 5      | 3        | 8      |
| 16—20 ... ..    | —      | —        | —      |
| 21—49 ... ..    | 1      | 2        | 3      |
| 50—64 ... ..    | 6      | 3        | 9      |
| 65 and over ... | 6      | 25       | 31     |
| TOTALS ...      | 19     | 33       | 52     |

TABLE 38.

FOLLOW-UP OF REGISTERED BLIND AND  
PARTIALLY SIGHTED PERSONS

| (i) Number of cases registered during the year in respect of which Section F of Form B.D.8 recommends :— | Cause of Disability |          |                         |       |
|----------------------------------------------------------------------------------------------------------|---------------------|----------|-------------------------|-------|
|                                                                                                          | Cataract            | Glaucoma | Retrolental Fibroplasia | Other |
| (a) No treatment ... ..                                                                                  | 27                  | 10       | 1                       | 36    |
| (b) Treatment (medical, surgical or optical) ...                                                         | 27                  | 13       | —                       | 61    |
| (ii) Number of cases at (i) (b) above which on follow-up action have received treatment ... ..           | 15                  | 13       | —                       | 56    |

TABLE 39.

HANDICAPPED PERSONS MAINTAINED IN ESTABLISHMENTS PROVIDED  
BY OTHER LOCAL AUTHORITIES AND VOLUNTARY ORGANISATIONS.

## STATEMENT OF ADMISSIONS, DISCHARGES AND DEATHS.

| Authority or Organisation                                 | Remaining<br>31.12.56 | Admitted | Discharged | Died | Remaining<br>31.12.57 |
|-----------------------------------------------------------|-----------------------|----------|------------|------|-----------------------|
| Catholic Blind Institute, Liverpool                       | 17                    | 7        | 5          | —    | 19                    |
| Herefordshire County Association<br>for the Blind ... ..  | 1                     | —        | —          | —    | 1                     |
| Jewish Blind Home, Surrey ...                             | 2                     | 1        | —          | —    | 3                     |
| Manchester & Salford Blind Aid<br>Society ... ..          | 1                     | —        | —          | —    | 1                     |
| Royal National Institute for the<br>Blind, Hoylake ... .. | 1                     | —        | —          | —    | 1                     |
| Royal National School for the<br>Blind, Leatherhead... .. | —                     | 2        | —          | —    | 2                     |
| David Lewis Epileptic Colony ...                          | 10                    | 5        | 3          | —    | 12                    |
| Langho Epileptic Colony ... ..                            | 17                    | 4        | 2          | —    | 19                    |
| Maghull Homes for Epileptics ...                          | 44                    | 12       | 12         | 2    | 42                    |
| St. Elizabeth's Home for<br>Epileptics, Much Hadham ...   | 2                     | —        | —          | —    | 2                     |
| Cotebrook Home for Cripples ...                           | 1                     | —        | —          | —    | 1                     |
| Hostels for Invalid Women,<br>London ... ..               | 1                     | —        | —          | —    | 1                     |
| Amphill Cheshire Home... ..                               | —                     | 1        | —          | —    | 1                     |
| British Council for Welfare of<br>Spastics ... ..         | —                     | 1        | —          | —    | 1                     |
| Ernest Ayliffe Home for the Deaf                          | 2                     | —        | —          | —    | 2                     |
| National Institute for the Deaf,<br>Barrowford ... ..     | 1                     | —        | —          | —    | 1                     |
| National Institute for the Deaf,<br>Bath ... ..           | 1                     | —        | —          | —    | 1                     |
| Embankment Fellowship, London                             | —                     | 1        | —          | —    | 1                     |
| TOTALS ... ..                                             | 101                   | 34       | 22         | 2    | 111                   |



TABLE 40.  
AWARDING OF POINTS FOR MEDICAL CONDITIONS OTHER  
THAN TUBERCULOSIS  
Housing Points Scheme.

SUMMARY OF ANNUAL STATISTICS FOR THE YEAR ENDED 31ST DECEMBER, 1957

|                                            | Nos.<br>Dealt With | Nos.<br>Awarded<br>Points | Nos.<br>Awarded<br>No Points |
|--------------------------------------------|--------------------|---------------------------|------------------------------|
| RESPIRATORY SYSTEM—                        |                    |                           |                              |
| Upper Respiratory Tract Infections ... ..  | 174                | 12                        | 162                          |
| Bronchitis/Emphysema ... ..                | 349                | 297                       | 52                           |
| Asthma ... ..                              | 122                | 114                       | 8                            |
| Bronchiectasis ... ..                      | 69                 | 69                        | —                            |
| Pneumonia ... ..                           | 14                 | 10                        | 4                            |
| Bronchial Carcinoma ... ..                 | 2                  | 2                         | —                            |
| CARDIOVASCULAR SYSTEM AND BLOOD DISORDERS— |                    |                           |                              |
| Acute Rheumatic Fever ... ..               | 6                  | 6                         | —                            |
| Angina ... ..                              | 7                  | 7                         | —                            |
| Coronary Thrombosis ... ..                 | 38                 | 38                        | —                            |
| Hypertension ... ..                        | 63                 | 63                        | —                            |
| Valv. Disease of Heart ... ..              | 105                | 105                       | —                            |
| Varicose Veins/Ulcers ... ..               | 18                 | 11                        | 7                            |
| Pernicious Anaemia ... ..                  | 17                 | 11                        | 6                            |
| Anaemia ... ..                             | 43                 | 26                        | 17                           |
| DIGESTIVE SYSTEM—                          |                    |                           |                              |
| Gastric Ulcer ... ..                       | 33                 | 24                        | 9                            |
| Diabetes ... ..                            | 12                 | 11                        | 1                            |
| Gastro Enteritis and Colitis ... ..        | 3                  | 3                         | —                            |
| Gastric Carcinoma ... ..                   | 4                  | 4                         | —                            |
| GENITAL URINARY SYSTEM—                    |                    |                           |                              |
| Nephritis ... ..                           | 7                  | 6                         | 1                            |
| Kidney Removal ... ..                      | 1                  | 1                         | —                            |
| FEMALE GENITO URINARY SYSTEM—              |                    |                           |                              |
| Urino Genital Carcinoma ... ..             | 2                  | 2                         | —                            |
| ENDOCRINE SYSTEM—                          |                    |                           |                              |
| Thyrotoxicosis ... ..                      | 15                 | 13                        | 2                            |
| C.N.S.—                                    |                    |                           |                              |
| Disseminated Sclerosis ... ..              | 17                 | 17                        | —                            |
| Poliomyelitis ... ..                       | 13                 | 13                        | —                            |
| Spastic Paraplegia ... ..                  | 29                 | 29                        | —                            |
| MUSCULO SKELETAL SYSTEM—                   |                    |                           |                              |
| Arthritis ... ..                           | 85                 | 77                        | 8                            |
| Rheumatism ... ..                          | 43                 | 37                        | 6                            |
| Amputation ... ..                          | 11                 | 11                        | —                            |
| Muscular Dystrophy/Spondylitis ... ..      | 2                  | 2                         | —                            |
| MENTAL DISEASES—                           |                    |                           |                              |
| Anxiety State and Nervous Debility ... ..  | 324                | 61                        | 263                          |
| Neurasthenia ... ..                        | 16                 | 4                         | 12                           |
| Mental Defectives ... ..                   | 42                 | 34                        | 8                            |
| OTHERS ... ..                              | 491                | 184                       | 307                          |
| TOTAL ... ..                               |                    |                           |                              |
| Transfers—Recommended 605 } TOTAL ... ..   | 2,177              | 1,304                     | 873                          |
| Not Recommended 664 }                      | 1,269              |                           |                              |
| Cases recommended to Allocation(Special)   |                    |                           |                              |
| Sub-Committee ... ..                       | 22                 |                           |                              |
| Cases pending completion ... ..            | 735                |                           |                              |
| GRAND TOTAL ... ..                         |                    |                           |                              |
|                                            | 4,203              |                           |                              |

TABLE 41.  
PARTICULARS OF SHOPS INSPECTIONS  
TOTAL NUMBER OF SHOPS—17,000 (APPROX.)

| INSPECTIONS                  |        |        | NOTICES                                        |        |          |
|------------------------------|--------|--------|------------------------------------------------|--------|----------|
|                              |        |        |                                                | Issued | Remedied |
| Retail food shops            | ...    | 24,595 |                                                |        |          |
| Retail non-food shops        | ...    | 4,746  |                                                |        |          |
| Cafes, restaurants, etc.     | ...    | 1,234  | <b>Shops Act, 1950.</b>                        |        |          |
| Fried fish shops             | ...    | 643    | Welfare                                        | 1,211  | 1,033    |
| Clubs                        | ...    | 1,406  | Closing, etc.                                  | 3,358  | 3,349    |
| Hairdressers                 | ...    | 717    | Food Hygiene Regulations, 1955                 | 1,810  | 764      |
| Pet Stores                   | ...    | 359    | Food Byelaws                                   | 121    | 50       |
| Wholesale shops              | ...    | 18,156 | Public Health Act, 1936                        | 270    | 138      |
| Wholesale warehouses         | ...    | 655    | Pet Animals Act                                | 2      | 2        |
| Street traders               | ...    | 574    | Prevention of Damage by Pests Act, 1949        | 28     | 23       |
| Places of entertainment      | ...    | 369    | Liverpool Corporation Act, 1956 (Hairdressers) | 22     | 16       |
| <b>Half-holiday Closing.</b> |        |        | Milk and Dairies Regulations                   | 1      | 1        |
| Visits to shops after 1 p.m. | 71,556 |        | Merchandise Marks Act                          | 69     | 69       |
| <b>Evening Closing.</b>      |        |        |                                                |        |          |
| Visits to shops              | 65,261 |        |                                                |        |          |
| <b>Sunday Closing.</b>       |        |        |                                                |        |          |
| Visits to shops on Sunday    | 5,232  |        |                                                |        |          |

TABLE 42.  
**Factories Acts, 1937 and 1948.**

**Part I of the Act.**

1. INSPECTIONS for purpose of provisions as to health (including inspections made by the public health inspectors).

| Premises<br>(1)                                                                                             | M/c.<br>Line<br>No.<br>(2) | Number<br>on<br>Register<br>(3) | Number of         |                           |                                | M/c.<br>Line<br>No.<br>(7) |
|-------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|-------------------|---------------------------|--------------------------------|----------------------------|
|                                                                                                             |                            |                                 | Inspection<br>(4) | Written<br>Notices<br>(5) | Occupiers<br>prosecuted<br>(6) |                            |
| (i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by local authorities                   | 1                          | 1,351                           | 978               | 80                        | —                              | 1                          |
| (ii) Factories not included in (i) in which Section 7 is enforced by local authority                        | 2                          | 3,796                           | 5,652             | 134                       | —                              | 2                          |
| (iii) Other premises in which Section 7 is enforced by the local authority (excluding out-workers premises) | 3                          | 66                              | 170               | 8                         | —                              | 3                          |
| <b>TOTAL</b>                                                                                                | ...                        | 5,213                           | 6,800             | 222                       | —                              |                            |



TABLE 43.

## 2. Cases in which DEFECTS were found.

| Particulars.<br>(1)                                                                            | M/c.<br>Line<br>No.<br>(2) | Found.<br>(3) | Number of Cases in which<br>Defects were found. |                              |                                          | Number of<br>Cases<br>in which<br>Prosecu-<br>tions were<br>instituted.<br>(7) | M/c<br>Line<br>No.<br>(8) |
|------------------------------------------------------------------------------------------------|----------------------------|---------------|-------------------------------------------------|------------------------------|------------------------------------------|--------------------------------------------------------------------------------|---------------------------|
|                                                                                                |                            |               | Remedied.<br>(4)                                | To H.M.<br>Inspector.<br>(5) | Referred<br>By H.M.<br>Inspector.<br>(6) |                                                                                |                           |
| Want of cleanliness<br>(S.1)... ..                                                             | 4                          | 10            | 10                                              | 4                            | 2                                        | —                                                                              | 4                         |
| Overcrowding (S.2) ...                                                                         | 5                          | —             | —                                               | —                            | —                                        | —                                                                              | 5                         |
| Unreasonable tem-<br>perature (S.3) ...                                                        | 6                          | 7             | 7                                               | 1                            | 1                                        | —                                                                              | 6                         |
| Inadequate ventilation<br>(S.4)... ..                                                          | 7                          | 5             | 5                                               | —                            | —                                        | —                                                                              | 7                         |
| Ineffective drainage<br>of floors (S.6) ...                                                    | 8                          | 1             | 1                                               | —                            | —                                        | —                                                                              | 8                         |
| Sanitary Conveniences<br>(S.7)—                                                                |                            |               |                                                 |                              |                                          |                                                                                |                           |
| (a) Insufficient ...                                                                           | 9                          | 5             | 5                                               | —                            | 2                                        | —                                                                              | 9                         |
| (b) Unsuitable or<br>defective ...                                                             | 10                         | 280           | 245                                             | —                            | 18                                       | —                                                                              | 10                        |
| (c) Not separate for<br>sexes ...                                                              | 11                         | 4             | 4                                               | —                            | —                                        | —                                                                              | 11                        |
| Other offences against<br>the Act (not in-<br>cluding offences re-<br>lating to outwork)... .. | 12                         | 25            | 25                                              | 23                           | —                                        | —                                                                              | 12                        |
| TOTAL ...                                                                                      | 60                         | 337           | 302                                             | 28                           | 23                                       | —                                                                              | 60                        |

TABLE 44.  
Part VIII of the Act  
**OUTWORK**  
(Sections 110 and 111)

| Nature of Work.                      | M/c.<br>Line<br>No. | No. of<br>out-<br>workers<br>in<br>August<br>list<br>required<br>by<br>Section<br>110(1)(c). | No. of<br>cases of<br>default<br>in<br>sending<br>lists<br>to the<br>Council. | No. of<br>prosecu-<br>tions<br>for<br>failure<br>to<br>supply<br>lists. | Section 111                                                           |                    | Prosecu-<br>tions. | M/c.<br>Line<br>No. |
|--------------------------------------|---------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------|--------------------|---------------------|
|                                      |                     |                                                                                              |                                                                               |                                                                         | No. of<br>instances<br>of work<br>in<br>unwhole-<br>some<br>premises. | Notices<br>served. |                    |                     |
| (1)                                  | (2)                 | (3)                                                                                          | (4)                                                                           | (5)                                                                     | (6)                                                                   | (7)                | (8)                | (9)                 |
| Wearing apparel—<br>making, etc. ... | 13                  | 234                                                                                          | —                                                                             | —                                                                       | —                                                                     | —                  | —                  | 13                  |
| <b>TOTAL</b> ...                     | <b>70</b>           | <b>234</b>                                                                                   | <b>—</b>                                                                      | <b>—</b>                                                                | <b>—</b>                                                              | <b>—</b>           | <b>—</b>           | <b>70</b>           |

TABLE 45.  
SUMMARY OF PROSECUTIONS (CASES HEARD) FOR THE YEAR 1957

| Act.                                                                  | Section.           | No. of<br>Informations or<br>Com-<br>plaints. | Penalties. | Costs.  | Orders. |
|-----------------------------------------------------------------------|--------------------|-----------------------------------------------|------------|---------|---------|
|                                                                       |                    |                                               | £ s. d.    | £ s. d. |         |
| Public Health Act, 1936 ...                                           | 75                 | 21                                            | 13 0 0     | 12 0    | —       |
| Public Health Act, 1936 ...                                           | 94                 | 45                                            | 85 0 0     | 4 0     | 22      |
| Public Health Act, 1936 ...                                           | 154                | 2                                             | 1 10 0     | —       | —       |
| Public Health Act, 1936 ...                                           | 290 (6)            | 33                                            | 58 0 0     | —       | —       |
| Shops Act, 1950 ...                                                   | Evening<br>closing | 1                                             | 1 0 0      | —       | —       |
| Shops Act, 1950 ...                                                   | Half<br>Holiday    | 1                                             | 10 0       | —       | —       |
| Food and Drugs Act, 1955<br>and Food Hygiene Regulations,<br>1955 ... | 13<br>and<br>123   | } 25                                          | 57 0 0     | —       | —       |
|                                                                       |                    |                                               |            |         |         |
| TOTALS ...                                                            |                    | 128                                           | £216 0 0   | 16 0    | 22      |



TABLE 46.  
SUMMARY OF RODENT INFESTATIONS AND DISINFESTATIONS OF BUILDINGS AND LANDS DURING THE YEAR 1957.

| Description of Premises                     | Infestations |       |               |       | Reinfestations during the Year |      |               |      | Category |       | Total infestations and reinfestations | Total infestations and remedied reinfestations |
|---------------------------------------------|--------------|-------|---------------|-------|--------------------------------|------|---------------|------|----------|-------|---------------------------------------|------------------------------------------------|
|                                             | Premises     | Rats  | Rats and Mice | Mice  | Premises                       | Rats | Rats and Mice | Mice | Major    | Minor |                                       |                                                |
| <b>Shops</b> ... ..                         | 529          | 153   | 7             | 369   | 40                             | 10   | 1             | 33   | —        | 573   | 573                                   | 610                                            |
| <b>Factories</b> ... ..                     | 336          | 142   | 25            | 169   | 47                             | 27   | 4             | 26   | —        | 353   | 393                                   | 400                                            |
| <b>Warehouses</b> ... ..                    | 271          | 156   | 22            | 93    | 29                             | 20   | 3             | 16   | —        | 310   | 310                                   | 307                                            |
| <b>Dwellinghouses</b> ... ..                | 2,892        | 1,169 | 29            | 1,703 | 50                             | 28   | 3             | 25   | —        | 2,948 | 2,948                                 | 2,935                                          |
| <b>Other buildings and lands</b> ... ..     | 842          | 314   | 22            | 476   | 74                             | 14   | 7             | 64   | 2        | 925   | 927                                   | 939                                            |
| <b>Food premises (included in above)...</b> | (683)        | (227) | (22)          | (434) | (64)                           | (22) | (2)           | (54) | (—)      | (761) | (761)                                 | (683)                                          |
| <b>TOTAL</b> ... ..                         | 4,870        | 1,955 | 105           | 2,810 | 240                            | 99   | 18            | 164  | 2        | 5,149 | 5,151                                 | 5,191                                          |

TABLE 47.

**RAT DESTRUCTION IN SEWERS.**  
**MAINTENANCE TREATMENTS.**

| Sewer manholes treated.                                    | Initial<br>Treatment<br>1953 | MAINTENANCE TREATMENTS. |             |             |
|------------------------------------------------------------|------------------------------|-------------------------|-------------|-------------|
|                                                            |                              | 1956/1957<br>(4)        | 1957<br>(1) | 1957<br>(2) |
| Pre-baited ... ..                                          | 16,378                       | 11,198                  | 12,252      | 11,158      |
| Pre-bait taken ... ..                                      | 9,329                        | 2,101                   | 3,953       | 3,367       |
| Incomplete pre-bait takes on one or both<br>of days ... .. | 8,662                        | 1,585                   | 2,002       | 570         |
| Post-poison baited ... ..                                  | 11,141                       | 3,447                   | 6,132       | 5,199       |

TABLE 48.

**RAT DESTRUCTION IN SEWERS.**  
**ANNUAL TEST BAITING**

| Test Baiting Divisions.              | Year<br>1953 | Year<br>1954 | Year<br>1955 | Year<br>1956 | Year<br>1957 |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Total number of manholes ... ..      | 6,337        | 8,753        | 13,731       | 13,873       | 13,571       |
| Number of manholes tested ... ..     | 797          | 902          | 1,428        | 1,382        | 1,440        |
| Number of manholes showing takes ... | 68           | 75           | 114          | 33           | 101          |



TABLE 49.

**SMOKE ABATEMENT****Progress in Smoke Control Areas.**

|                                      |     |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Number of premises visited           | ... | ... | ... | ... | ... | ... | ... |
| Number of appliances                 | ... | ... | ... | ... | ... | ... | ... |
| Number of open fires                 | ... | ... | ... | ... | ... | ... | ... |
| Number of closed stoves              | ... | ... | ... | ... | ... | ... | ... |
| Number of central heating boilers    | ... | ... | ... | ... | ... | ... | ... |
| Number of industrial boilers         | ... | ... | ... | ... | ... | ... | ... |
| Number of hand fired boilers         | ... | ... | ... | ... | ... | ... | ... |
| Number of mechanically fired boilers | ... | ... | ... | ... | ... | ... | ... |
| Number of other types of fire        | ... | ... | ... | ... | ... | ... | ... |
| Gas ignition provided                | ... | ... | ... | ... | ... | ... | ... |

**Improvements.**

|                                                          |     |     |     |     |     |     |     |
|----------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| New oil fired tugs to replace old coal fired tugs        | ... | ... | ... | ... | ... | ... | ... |
| Change from solid fuel to oil (industrial boilers)       | ... | ... | ... | ... | ... | ... | ... |
| Smoke density indicators fitted                          | ... | ... | ... | ... | ... | ... | ... |
| Carbon dioxide recorders installed                       | ... | ... | ... | ... | ... | ... | ... |
| Change from hand firing to mechanical stokers            | ... | ... | ... | ... | ... | ... | ... |
| Number of chimneys raised                                | ... | ... | ... | ... | ... | ... | ... |
| Change from bituminous coal to coke (industrial boilers) | ... | ... | ... | ... | ... | ... | ... |
| Gas ignition provided (industrial boilers)               | ... | ... | ... | ... | ... | ... | ... |
| Change from solid fuel to gas (sectional boilers)        | ... | ... | ... | ... | ... | ... | ... |
| Increased boiler power/or load reduced...                | ... | ... | ... | ... | ... | ... | ... |
| Improved mechanical stokers fitted (industrial boilers)  | ... | ... | ... | ... | ... | ... | ... |
| Reconstructed or improved industrial furnaces            | ... | ... | ... | ... | ... | ... | ... |
| Water meters fitted                                      | ... | ... | ... | ... | ... | ... | ... |
| Steam meters fitted                                      | ... | ... | ... | ... | ... | ... | ... |
| Aids to fireman—mirrors fitted                           | ... | ... | ... | ... | ... | ... | ... |
| Change from solid fuel to electricity (new ovens)        | ... | ... | ... | ... | ... | ... | ... |

**Particulars of Inspections.**

|                                                   |     |     |     |     |     |     |     |
|---------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Number of special complaints received during year | ... | ... | ... | ... | ... | ... | ... |
| Number of chimneys observed following complaint   | ... | ... | ... | ... | ... | ... | ... |
| Total minutes of excess smoke                     | ... | ... | ... | ... | ... | ... | ... |
| Number of routine observations                    | ... | ... | ... | ... | ... | ... | ... |
| Total minutes of excess smoke                     | ... | ... | ... | ... | ... | ... | ... |
| Number of ships observed following complaint      | ... | ... | ... | ... | ... | ... | ... |
| Total minutes of excess smoke                     | ... | ... | ... | ... | ... | ... | ... |
| Number of routine observations of ships           | ... | ... | ... | ... | ... | ... | ... |
| Total minutes excess smoke                        | ... | ... | ... | ... | ... | ... | ... |
| Number of special visits                          | ... | ... | ... | ... | ... | ... | ... |
| Number of incidental calls                        | ... | ... | ... | ... | ... | ... | ... |
| Number of advisory visits                         | ... | ... | ... | ... | ... | ... | ... |
| Total number of observations                      | ... | ... | ... | ... | ... | ... | ... |
| Total number of visits                            | ... | ... | ... | ... | ... | ... | ... |

**Clean Air Act, Section 3.**

|                                           |     |     |     |     |     |     |     |
|-------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Number of Notices of intention to install | ... | ... | ... | ... | ... | ... | ... |
| Number of boilers submitted for approval  | ... | ... | ... | ... | ... | ... | ... |
| Number of boilers approved                | ... | ... | ... | ... | ... | ... | ... |
| Number of applications withdrawn          | ... | ... | ... | ... | ... | ... | ... |

**Contraventions. Public Health Act, 1936.**

|                                       |     |     |     |     |     |     |     |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| Number of Section 102 Notices         | ... | ... | ... | ... | ... | ... | ... |
| Number of Section 103 Notices         | ... | ... | ... | ... | ... | ... | ... |
| Number of warning letters to occupier | ... | ... | ... | ... | ... | ... | ... |

**Liverpool Corporation Act, 1921.**

|                           |     |     |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|
| Section 472 excess smoke  | ... | ... | ... | ... | ... | ... | ... |
| Number of warning letters | ... | ... | ... | ... | ... | ... | ... |

TABLE 50.  
ATMOSPHERIC POLLUTION MEASUREMENT.  
STANDARD DEPOSIT GAUGE.

The results are quoted in tons per square mile per month and the monthly averages are as follows :—

| Location of Instrument. |     |     |     |     |     |     |     |     |     | Tons per square mile. |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------|
| Oxford Street           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 17.85                 |
| Wigburth Vale           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 11.76                 |
| Clarence Dock           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 45.92                 |
| Goose Lane              | ... | ... | ... | ... | ... | ... | ... | ... | ... | 45.31                 |
| St. Domingo Road        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 31.66                 |
| Wairacough Lane         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 21.92                 |
| Wunbabin Road           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 15.65                 |
| Stocky Lane, Childwall  | ... | ... | ... | ... | ... | ... | ... | ... | ... | 16.92                 |
| Mill Lane, West Derby   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 17.63                 |
| Wale Street             | ... | ... | ... | ... | ... | ... | ... | ... | ... | 29.57                 |

TABLE 51.  
ESTIMATION OF SULPHUR TRIOXIDE POLLUTION.  
LEAD PEROXIDE METHOD.

The daily average for the year is quoted in milligrams per 100 square centimetres.

| Location of Instrument. |     |     |     |     |     |     |     |     |     | Mg. of SO <sub>3</sub> /day |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------------|
| Clarence Dock           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3.84                        |
| St. Domingo Road        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3.92                        |
| Wairacough Lane         | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4.00                        |
| Wunbabin Road           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2.81                        |
| Mill Lane, West Derby   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3.01                        |

TABLE 52.  
QUANTITY OF FOOD CONDEMNED FOR DISEASE OR FOUND UNFIT  
FOR HUMAN CONSUMPTION

|                                                    |     |     |     |     |     |     |     | Tons. | Cwts. | Qrs. | Lbs. |
|----------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-------|-------|------|------|
| Beef, Veal, Mutton, Pork                           | ... | ... | ... | ... | ... | ... | ... | 237   | —     | —    | —    |
| Wool                                               | ... | ... | ... | ... | ... | ... | ... | 589   | —     | —    | —    |
| Fish (Wet)                                         | ... | ... | ... | ... | ... | ... | ... | 45    | 3     | 1    | 9    |
| Fish (Dry)                                         | ... | ... | ... | ... | ... | ... | ... | 7     | 5     | 1    | 11   |
| Shellfish                                          | ... | ... | ... | ... | ... | ... | ... | —     | 19    | 1    | 26   |
| Poultry                                            | ... | ... | ... | ... | ... | ... | ... | 4     | 9     | 1    | —    |
| Game                                               | ... | ... | ... | ... | ... | ... | ... | —     | 4     | 2    | 12   |
| Rabbits and Hares                                  | ... | ... | ... | ... | ... | ... | ... | —     | 4     | —    | 12   |
| Fruit                                              | ... | ... | ... | ... | ... | ... | ... | 74    | 14    | 3    | 2    |
| Vegetables                                         | ... | ... | ... | ... | ... | ... | ... | 239   | 14    | 2    | 8    |
| Spices                                             | ... | ... | ... | ... | ... | ... | ... | 8     | 1     | 3    | 15   |
| Dried Fruits                                       | ... | ... | ... | ... | ... | ... | ... | 3     | 1     | 3    | 9    |
| Canned Goods                                       | ... | ... | ... | ... | ... | ... | ... | 43    | 9     | —    | 12   |
| Confectioneries (Sausages, Cereals, Jellies, etc.) | ... | ... | ... | ... | ... | ... | ... | 6     | 10    | 2    | 10   |
| Total quantity of food condemned                   |     |     |     |     |     |     |     | 1,259 | 18    | —    | 14   |



TABLE 53.

CARCASSES AND OFFAL INSPECTED AND CONDEMNED IN WHOLE OR IN PART

|                                                                                                        | Cattle<br>excluding<br>Cows | Cows   | Calves | Sheep<br>and<br>Lambs | Pigs   | Horses |
|--------------------------------------------------------------------------------------------------------|-----------------------------|--------|--------|-----------------------|--------|--------|
| Number killed ... 405,372 ...                                                                          | 309,14                      | 41,175 | 28,673 | 211,816               | 92,794 | —      |
| Number inspected 405,372 ...                                                                           | 30,914                      | 41,175 | 28,673 | 211,816               | 92,794 | —      |
| <b>All Diseases except Tuberculosis and Cysticerci.</b>                                                |                             |        |        |                       |        |        |
| Whole carcasses condemned ...                                                                          | 11                          | 133    | 176    | 552                   | 145    | —      |
| Carcasses of which some part or organ was condemned ...                                                | 5,784                       | 14,871 | 1,210  | 31,276                | 5,893  | —      |
| Percentage of the number inspected affected with disease other than tuberculosis and cysticerci ... .. | 18.9%                       | 36.5%  | 4.8%   | 15.1%                 | 6.5%   | —      |
| <b>Tuberculosis only.</b>                                                                              |                             |        |        |                       |        |        |
| Whole carcasses condemned ...                                                                          | 51                          | 337    | 13     | —                     | 22     | —      |
| Carcasses of which some part or organ was condemned ...                                                | 1,127                       | 5,921  | —      | —                     | 2,005  | —      |
| Percentage of the number inspected affected with tuberculosis ... ..                                   | 3.8%                        | 14.9%  | 0.05%  | —                     | 2.8%   | —      |
| <b>Cysticercosis.</b>                                                                                  |                             |        |        |                       |        |        |
| Carcasses of which some part or organ was condemned ...                                                | 15                          | 7      | —      | —                     | —      | —      |
| Carcasses submitted to treatment by refrigeration ...                                                  | 15                          | 7      | —      | —                     | —      | —      |
| Generalised and totally condemned ... ..                                                               | —                           | —      | —      | 1                     | —      | —      |

TABLE 54.

## METEOROLOGICAL SUMMARY, 1957.

Recorded at Liverpool Observatory and Tidal Institute, Bidston.

| Month     | Mean Barometric Pressure in. |        | Temperature of F |        |      | Rainfall in. |           | No. of days with rain | Sunshine hrs. |           |        |
|-----------|------------------------------|--------|------------------|--------|------|--------------|-----------|-----------------------|---------------|-----------|--------|
|           | 1957                         | Normal | Mean             |        | 1957 | Normal       |           |                       |               |           |        |
|           |                              |        | 1957             | Normal |      |              | Mean Max. |                       |               | Mean Min. |        |
| 1957      |                              |        |                  |        |      |              |           |                       |               |           |        |
| January   | 30.06                        | 29.92  | 43.1             | 39.8   | 47.3 | 38.3         | 1.09      | 2.29                  | 17            | 47.1      | 51.5   |
| February  | 29.63                        | 29.93  | 41.2             | 40.1   | 45.9 | 37.0         | 1.74      | 1.76                  | 19            | 89.2      | 67.0   |
| March     | 29.82                        | 29.92  | 48.3             | 42.4   | 53.8 | 43.3         | 1.74      | 1.76                  | 17            | 103.7     | 112.1  |
| April     | 30.24                        | 29.92  | 47.5             | 46.7   | 53.1 | 42.3         | 0.34      | 1.64                  | 8             | 145.0     | 162.1  |
| May       | 30.05                        | 29.97  | 51.0             | 52.1   | 57.4 | 45.0         | 1.39      | 2.04                  | 14            | 203.9     | 202.0  |
| June      | 30.06                        | 29.99  | 59.2             | 57.3   | 66.5 | 51.9         | 1.11      | 2.03                  | 10            | 285.2     | 206.8  |
| July      | 29.91                        | 29.95  | 59.8             | 60.2   | 64.8 | 55.6         | 4.47      | 2.70                  | 21            | 138.4     | 183.1  |
| August    | 29.89                        | 29.92  | 59.1             | 59.8   | 64.1 | 54.7         | 2.99      | 3.14                  | 20            | 132.5     | 168.1  |
| September | 29.90                        | 29.96  | 54.3             | 56.3   | 58.5 | 50.5         | 5.60      | 2.72                  | 23            | 105.0     | 131.0  |
| October   | 29.98                        | 29.90  | 52.2             | 50.0   | 56.3 | 48.1         | 2.63      | 3.17                  | 16            | 82.9      | 96.0   |
| November  | 30.08                        | 29.88  | 45.1             | 44.2   | 48.3 | 41.7         | 1.22      | 2.68                  | 7             | 67.1      | 59.3   |
| December  | 29.88                        | 29.87  | 41.6             | 41.0   | 45.5 | 36.8         | 2.29      | 2.65                  | 15            | 55.4      | 41.4   |
| Year      | 29.96                        | 29.93  | 50.2             | 49.2   | 55.1 | 45.4         | 26.62     | 28.58                 | 187           | 1455.4    | 1480.5 |

The normal is the long period average for that time of year.



TABLE 55.  
MISCELLANEOUS STATISTICS.

[illegible]

## TABLE No. 56.





TABLE 57.  
TABLE SHOWING POPULATION, BIRTH-RATES, DEATH-RATES, INFANT AND MATERNAL MORTALITY RATES, ETC., OF A NUMBER OF THE LARGER AUTHORITIES FOR 1957.

| Name of Authority                                            | Birmingham | Bradford | Bristol | Cardiff | Kingston-upon-Hull | Leeds   | Leicester | Liverpool | Manchester | Newcastle-upon-Tyne | Nottingham |
|--------------------------------------------------------------|------------|----------|---------|---------|--------------------|---------|-----------|-----------|------------|---------------------|------------|
| Registrar General's estimated population for 1957 ... ..     | 1,103,000  | 287,000  | 439,600 | 251,300 | 300,500            | 509,700 | 281,200   | 768,700   | 682,000    | 275,100             | 312,600    |
| Comparability factor—                                        |            |          |         |         |                    |         |           |           |            |                     |            |
| (a) Births ... ..                                            | 0.94       | 1.00     | 1.00    | 0.94    | 0.96               | 0.98    | 1.00      | 0.93      | 0.96       | 0.96                | 0.95       |
| (b) Deaths ... ..                                            | 1.07       | 0.98     | 0.90    | 1.12    | 1.24               | 1.14    | 1.05      | 1.22      | 1.17       | 1.14                | 1.13       |
| Crude birth rate per 1,000 population ... ..                 | 17.14      | 17.3     | 15.89   | 18.28   | 18.3               | 16.5    | 15.7      | 20.87     | 18.22      | 18.17               | 17.52      |
| Birth rate as adjusted by factor... ..                       | 16.11      | 17.3     | 15.89   | 17.19   | 17.57              | 16.2    | 15.7      | 19.41     | 17.49      | 17.44               | 16.64      |
| Crude death rate per 1,000 population ... ..                 | 11.19      | 14.1     | 11.79   | 11.13   | 10.45              | 11.4    | 11.3      | 11.83     | 12.40      | 12.34               | 10.82      |
| Death rate as adjusted by factor ... ..                      | 11.97      | 13.8     | 10.61   | 12.47   | 13.0               | 13.0    | 11.9      | 14.43     | 14.51      | 14.07               | 12.23      |
| Infant mortality rate per 1,000 live births ... ..           | 24.64      | 28.9     | 18.33   | 22.85   | 29.27              | 24.6    | 17.6      | 26.37     | 30.10      | 23.21               | 23.0       |
| Neonatal mortality rate per 1,000 live births ... ..         | 17.66      | 15.0     | 13.75   | 16.97   | 18.9               | 17.7    | 13.6      | 17.51     | 21.01      | 16.21               | 15.15      |
| Stillbirth rate per 1,000 total births ... ..                | 21.53      | 26.6     | 22.12   | 21.30   | 24.3               | 21.0    | 19.3      | 24.86     | 25.95      | 23.01               | 19.51      |
| Perinatal mortality rate per 1,000 total births ... ..       | 36.95      | 36.2     | 33.88   | 35.57   | 40.45              | 35.3    | 30.6      | 39.08     | 43.51      | 36.55               | 31.14      |
| Maternal mortality rate per 1,000 total births ... ..        | 0.41       | 0.19     | 0.14    | 0.64    | 0.54               | 0.35    | 0.44      | 0.43      | 0.63       | 0.19                | 0.36       |
| Tuberculosis rates per 1,000 population                      |            |          |         |         |                    |         |           |           |            |                     |            |
| (a) Primary notifications—                                   |            |          |         |         |                    |         |           |           |            |                     |            |
| Respiratory ... ..                                           | 0.77       | 0.787    | 0.678   | 1.19    | 0.77               | 0.65    | 0.66      | 1.327     | 0.88       | 1.04                | 1.065      |
| Non-respiratory... ..                                        | 0.12       | 0.066    | 0.082   | 0.14    | 0.04               | 0.08    | 0.068     | 0.125     | 0.08       | 0.22                | 0.092      |
| (b) Deaths—Respiratory ... ..                                | 0.12       | 0.080    | 0.071   | 0.083   | 0.15               | 0.09    | 0.096     | 0.16      | 0.14       | 0.127               | 0.118      |
| Non-respiratory... ..                                        | 0.01       | 0.010    | 0.011   | 0.012   | 0.01               | 0.01    | 0.007     | 0.007     | 0.02       | 0.003               | 0.006      |
| Death Rates per 1,000 population                             |            |          |         |         |                    |         |           |           |            |                     |            |
| from—                                                        |            |          |         |         |                    |         |           |           |            |                     |            |
| Cancer (all forms including Leukaemia and Aleukaemia) ... .. | 2.20       | 2.282    | 2.08    | 1.94    | 2.08               | 2.10    | 2.09      | 2.08      | 2.21       | 2.36                | 2.015      |
| Cancer of Lungs and Bronchus ... ..                          | 0.49       | 0.453    | 0.44    | 0.47    | 0.54               | 0.47    | 0.41      | 0.58      | 0.58       | 0.53                | 0.476      |
| Meningococcal infections ... ..                              | 0.01       | 0.007    | 0.00    | 0.008   | —                  | 0.002   | —         | 0.001     | 0.007      | 0.003               | —          |
| Whooping Cough ... ..                                        | 0.00       | 0.000    | 0.00    | 0.004   | —                  | 0.002   | 0.0036    | 0.003     | 0.003      | —                   | —          |
| Influenza ... ..                                             | 0.14       | 0.153    | 0.17    | 0.147   | 0.18               | 0.09    | 0.13      | 0.16      | 0.17       | 0.105               | 0.179      |
| Measles ... ..                                               | —          | 0.000    | —       | —       | —                  | 0.01    | —         | 0.001     | 0.007      | —                   | 0.006      |
| Acute Poliomyelitis and Encephalitis ... ..                  | 0.01       | 0.014    | 0.00    | 0.004   | —                  | —       | 0.011     | 0.003     | 0.001      | —                   | —          |
| Diarrhoea (under 2 years) ... ..                             | 0.01       | 0.028    | 0.01    | 0.008   | 0.013              | 0.004   | 0.0036    | 0.01      | 0.004      | 0.003               | 0.006      |
| Diarrhoea (under 2 years) (per 1,000 live births)... ..      | 0.26       | 1.605    | 0.43    | 0.44    | 0.7                | 0.24    | 0.226     | 0.499     | 0.024      | 0.2                 | 0.365      |





TABLE 58.  
NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1957.

| DISEASE.                                    | NUMBER OF CASES NOTIFIED. |               |      |      |      |      |      |     |     |     |     |     |     | TOTAL DEATHS |
|---------------------------------------------|---------------------------|---------------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|--------------|
|                                             | At all Ages.              | At Ages—Years |      |      |      |      |      |     |     |     |     |     |     |              |
|                                             |                           | Under 1       | 1—   | 2—   | 3—   | 4—   | 5—   | 10— | 15— | 20— | 35— | 45— | 65— |              |
| Scarlet Fever.....                          | 695                       | 2             | 14   | 55   | 55   | 93   | 406  | 58  | 5   | 6   | 1   | —   | —   | —            |
| Diphtheria .....                            | —                         | —             | —    | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —            |
| Enteric Fever (including Paratyphoid) ..... | 2                         | —             | —    | —    | —    | —    | —    | —   | —   | —   | —   | —   | 2   | —            |
| Puerperal Pyrexia.....                      | 712                       | —             | —    | —    | —    | —    | —    | —   | 91  | 559 | 59  | 3   | —   | —            |
| Pneumonia .....                             | 672                       | 29            | 17   | 20   | 23   | 15   | 71   | 25  | 20  | 80  | 69  | 194 | 109 | 193          |
| Cerebro-spinal Fever .....                  | 34                        | 18            | 8    | 3    | 3    | —    | —    | 1   | —   | —   | 1   | —   | —   | 1            |
| Poliomyelitis (Paralytic) .....             | 25                        | 1             | 5    | 3    | 2    | 1    | 6    | 3   | —   | 4   | —   | —   | —   | 2            |
| Poliomyelitis (Non-paralytic) .....         | 7                         | —             | 1    | —    | —    | —    | 2    | 3   | —   | 1   | —   | —   | —   | —            |
| Dysentery .....                             | 484                       | 52            | 77   | 61   | 54   | 33   | 97   | 34  | 10  | 37  | 11  | 10  | 8   | 2            |
| Ophthalmia Neonatorum .....                 | 130                       | 130           | —    | —    | —    | —    | —    | —   | —   | —   | —   | —   | —   | —            |
| Erysipelas .....                            | 56                        | —             | —    | —    | —    | —    | —    | —   | 14  | —   | —   | 33  | 9   | —            |
| Malaria .....                               | 5                         | —             | —    | —    | —    | —    | —    | —   | —   | 2   | 1   | 2   | —   | —            |
| Measles .....                               | 10180                     | 479           | 1119 | 1397 | 1479 | 1402 | 3962 | 236 | 66  | 34  | 5   | 1   | —   | 1            |
| Whooping Cough .....                        | 1726                      | 216           | 246  | 258  | 243  | 209  | 514  | 27  | 6   | 4   | 3   | —   | —   | 2            |
| Food Poisoning.....                         | 133                       | 17            | 10   | 9    | 6    | 1    | 14   | 12  | 5   | 17  | 9   | 24  | 9   | —            |
| TOTALS.....                                 | 14861                     | 944           | 1497 | 1806 | 1865 | 1754 | 5072 | 399 | 217 | 744 | 159 | 267 | 137 | 201          |





## CITY OF LIVERPOOL.

TABLE 59.

## Infant Mortality during the year 1957.

Net deaths from stated causes at various ages under One Year.

| CAUSE OF DEATH                  |                    | Under<br>1 day | 1 to 2<br>days | 2 to 3<br>days | 3 to 4<br>days | 4 to 5<br>days | 5 to 6<br>days | 6 to 7<br>days | 1 to 2<br>weeks | 2 to 3<br>weeks | 3 to 4<br>weeks | Total<br>deaths<br>under<br>28 days | 28 days to<br>2 months | 2 to 3<br>months | 3 to 4<br>months | 4 to 5<br>months | 5 to 6<br>months | 6 to 7<br>months | 7 to 8<br>months | 8 to 9<br>months | 9 to 10<br>months | 10 to 11<br>months | 11 to 12<br>months | Total<br>deaths<br>under<br>1 year |
|---------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-------------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|--------------------|------------------------------------|
| Tuberculosis of                 | Respiratory System | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| "                               | Meninges, etc.     | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| "                               | Intestines, etc.   | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| "                               | Other Organs       | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Syphilis                        | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Typhoid Fever                   | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Dysentery                       | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Diphtheria                      | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | 1                | —                | —                | —                | 1                 | —                  | —                  | 2                                  |
| Whooping Cough                  | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | 2                                  |
| Meningococcal Infections        | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Acute Poliomyelitis             | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Measles                         | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Scarlet Fever                   | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Chickenpox                      | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | —                                  |
| Psychosis                       | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | —                      | —                | —                | 1                | —                | —                | —                | 1                | —                 | —                  | —                  | 2                                  |
| Meningitis (non-tubercular)     | ...                | —              | —              | —              | —              | —              | —              | —              | 2               | 1               | —               | 3                                   | 1                      | —                | 1                | —                | 1                | —                | —                | 1                | —                 | —                  | —                  | 7                                  |
| Influenza                       | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | 1                      | 1                | —                | —                | —                | —                | —                | —                | —                 | —                  | 1                  | 3                                  |
| Pneumonia                       | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | 20                     | 11               | 9                | 6                | 3                | 5                | 2                | 3                | 2                 | 2                  | 2                  | 65                                 |
| Bronchitis                      | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | 3                      | 1                | 2                | 1                | 2                | 1                | —                | 1                | —                 | —                  | —                  | 11                                 |
| Enteritis                       | ...                | —              | —              | —              | —              | —              | —              | —              | —               | —               | —               | —                                   | 3                      | 1                | —                | 1                | —                | 2                | —                | —                | —                 | —                  | —                  | 7                                  |
| Malformations                   | ...                | 24             | 2              | 4              | 3              | 1              | 1              | 1              | 2               | 3               | 7               | 48                                  | 7                      | 2                | 5                | 3                | 2                | 1                | 2                | 5                | —                 | 1                  | —                  | 76                                 |
| Injury at Birth                 | ...                | 15             | 4              | 9              | 3              | 1              | 2              | 2              | 4               | —               | —               | 40                                  | —                      | 2                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | 42                                 |
| Infections of Newborn           | ...                | 1              | —              | —              | 1              | —              | 1              | —              | 3               | 8               | 8               | 22                                  | —                      | —                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | 22                                 |
| Other Diseases of Early Infancy | ...                | 97             | 27             | 16             | 9              | 2              | 1              | 2              | 6               | 1               | —               | 161                                 | —                      | 1                | —                | —                | —                | —                | —                | —                | —                 | —                  | —                  | 162                                |
| Other Causes                    | ...                | 2              | 1              | 1              | —              | —              | —              | 1              | —               | 1               | 1               | 7                                   | 3                      | 4                | 2                | 2                | 2                | —                | —                | 1                | —                 | 1                  | —                  | 22                                 |
| Totals                          | ...                | 139            | 34             | 30             | 16             | 4              | 5              | 6              | 17              | 14              | 16              | 281                                 | 38                     | 25               | 19               | 14               | 11               | 9                | 4                | 12               | 3                 | 4                  | 3                  | 423                                |

Net Births in the year { Legitimate ... 15,190  
 Illegitimate ... 854

Net Deaths in the year of { Legitimate Infants 396  
 Illegitimate Infants 27





TABLE 60.  
CITY OF LIVERPOOL.

DEATHS REGISTERED DURING THE YEAR 1957

| CAUSE OF DEATH                                     | SEX   |         | AGE—BELOW |    |    |   |    |    |    |    |    |    |    |     |     |     |     |     |     |      |      |      |      |     |         |      |  |  |  | TOTAL |  |
|----------------------------------------------------|-------|---------|-----------|----|----|---|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|------|------|------|------|-----|---------|------|--|--|--|-------|--|
|                                                    | Males | Females |           |    |    |   |    |    |    |    |    |    |    |     |     |     |     |     |     |      |      |      |      |     |         |      |  |  |  |       |  |
|                                                    |       |         | 1         | 2  | 3  | 4 | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40  | 45  | 50  | 55  | 60  | 65  | 70   | 75   | 80   | 85   | 90  | Over 90 |      |  |  |  |       |  |
| ALL CAUSES                                         | 4732  | 4341    | 423       | 15 | 14 | 7 | 11 | 25 | 21 | 29 | 45 | 57 | 67 | 140 | 177 | 276 | 485 | 687 | 922 | 1088 | 1333 | 1408 | 1106 | 584 | 173     | 9093 |  |  |  |       |  |
| Class I.—Infectious and Parasitic Diseases         | 115   | 55      | 6         | 3  | 2  | 1 | 1  | 1  | 1  | 1  | 3  | 5  | 13 | 18  | 11  | 9   | 23  | 12  | 19  | 15   | 20   | 5    | 1    | 1   | 1       | 179  |  |  |  |       |  |
| II.—Neoplasms                                      | 923   | 706     | 1         | 1  | 1  | 1 | 3  | 4  | 7  | 5  | 8  | 8  | 34 | 32  | 99  | 143 | 232 | 246 | 236 | 242  | 171  | 100  | 36   | 12  | 1       | 1619 |  |  |  |       |  |
| III.—Allergic, Metabolic Diseases, etc.            | 31    | 72      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 163  |  |  |  |       |  |
| IV.—Diseases of the Blood                          | 7     | 23      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 30   |  |  |  |       |  |
| V.—Mental, and Psychoneurotic Diseases             | 5     | 88      | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 93   |  |  |  |       |  |
| VI.—Diseases of Nervous System                     | 505   | 747     | 8         | 1  | 2  | 1 | 1  | 3  | 1  | 3  | 5  | 4  | 7  | 16  | 17  | 45  | 66  | 118 | 163 | 209  | 270  | 196  | 97   | 19  | 1       | 1252 |  |  |  |       |  |
| VII.—Diseases of Circulatory System                | 1617  | 1457    | 1         | 1  | 1  | 1 | 1  | 2  | 2  | 10 | 8  | 14 | 31 | 33  | 78  | 136 | 238 | 279 | 371 | 520  | 552  | 488  | 258  | 78  | 1       | 3074 |  |  |  |       |  |
| VIII.—Diseases of Respiratory System               | 922   | 836     | 80        | 6  | 3  | 2 | 1  | 2  | 4  | 5  | 3  | 8  | 3  | 19  | 22  | 31  | 88  | 127 | 147 | 202  | 221  | 254  | 175  | 161 | 37      | 1558 |  |  |  |       |  |
| IX.—Diseases of Digestive System                   | 126   | 119     | 12        | 2  | 1  | 2 | 1  | 1  | 2  | 1  | 2  | 1  | 10 | 12  | 15  | 11  | 23  | 35  | 37  | 24   | 26   | 8    | 1    | 1   | 1       | 236  |  |  |  |       |  |
| X.—Diseases of Genito-urinary System               | 98    | 73      | 1         | 1  | 1  | 1 | 1  | 2  | 1  | 1  | 1  | 2  | 4  | 5   | 3   | 3   | 9   | 11  | 21  | 18   | 20   | 20   | 21   | 14  | 3       | 171  |  |  |  |       |  |
| XI.—Diseases of Pregnancy                          | 1     | 7       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 7    |  |  |  |       |  |
| XII.—Diseases of Skin                              | 1     | 6       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 29   |  |  |  |       |  |
| XIII.—Diseases of Bones                            | 6     | 21      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 30   |  |  |  |       |  |
| XIV.—Congenital Malformations                      | 51    | 44      | 76        | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 226  |  |  |  |       |  |
| XV.—Diseases of Early Infancy                      | 137   | 89      | 226       | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 78   |  |  |  |       |  |
| XVI.—Scalds and Ill-defined Diseases               | 21    | 37      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 21   |  |  |  |       |  |
| XVII.—Deaths from Violence                         | 197   | 145     | 7         | 1  | 5  | 3 | 4  | 11 | 6  | 9  | 10 | 12 | 13 | 17  | 20  | 18  | 17  | 20  | 21  | 20   | 32   | 35   | 30   | 23  | 1       | 345  |  |  |  |       |  |
| Class 1.—Tuberculosis of Respiratory System        | 85    | 38      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 123  |  |  |  |       |  |
| Tuberculosis of Meninges, etc.                     | 2     | 2       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Tuberculosis of Intestines, etc.                   | 1     | 1       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Tuberculosis of Other Organs                       | 13    | 3       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 16   |  |  |  |       |  |
| Syphilis                                           | 1     | 1       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Typhoid Fever                                      | 1     | 1       | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 2    |  |  |  |       |  |
| Dysentery                                          | 1     | 1       | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 2    |  |  |  |       |  |
| Diphtheria                                         | 1     | 1       | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 2    |  |  |  |       |  |
| Whooping Cough                                     | 1     | 1       | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Meningococcal Infections                           | 1     | 1       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Acute Poliomyelitis                                | 1     | 1       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Measles                                            | 1     | 1       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Other Infectious Diseases                          | 10    | 8       | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 18   |  |  |  |       |  |
| Class 2.—Malignant Neoplasm of Bow, Cavity         | 21    | 8       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 29   |  |  |  |       |  |
| Malignant Neoplasm of Digestive Syst.              | 319   | 298     | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 437  |  |  |  |       |  |
| Malignant Neoplasm of Respiratory Syst.            | 381   | 67      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 448  |  |  |  |       |  |
| Malignant Neoplasm of Breast                       | 1     | 107     | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Malignant Neoplasm of Female G. Organs             | 1     | 94      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Malignant Neoplasm of Other Organs                 | 163   | 103     | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Leukemia                                           | 21    | 20      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Benign Neoplasms                                   | 7     | 9       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Class 3.—Thyroiditis                               | 13    | 14      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Diabetes mellitus                                  | 13    | 36      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Other Allergic Diseases, etc.                      | 18    | 24      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Class 4.—Anemia                                    | 7     | 20      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Other Diseases of Blood                            | 1     | 3       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Class 5.—Psychoses and Psychoneurotic Disorders    | 5     | 88      | 2         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Class 6.—Vascular Lesions of Central Nervous Syst. | 469   | 689     | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Meningitis                                         | 6     | 7       | 7         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Epilepsy                                           | 3     | 8       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Otitis Media and Mastoiditis                       | 1     | 2       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Other Diseases of Nervous System                   | 27    | 41      | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Class 7.—Rheumatic Fever                           | 8     | 9       | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1   | 1       | 1    |  |  |  |       |  |
| Chronic Rheumatic Heart Disease                    | 58    | 113     | 1         | 1  | 1  | 1 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1   | 1   | 1   |     |      |      |      |      |     |         |      |  |  |  |       |  |



