[Report 1949] / Medical Officer of Health, Newcastle-upon-Tyne City & County.

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CITY AND COUNTY OF NEWCASTLE UPON TYNE

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1949

Co-operative Printing Society Ltd., Rutherford Street, Newcastle upon Tyne.

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CONTENTS.

HEALTH COMMITTEE.

1949.

The Lord Mayor (Coun. A. C. Curry, J.P.)

Ald. J. Chapman, M.B.E.

,, E. G. King (Died August, 1949).

,, J. T. Horton.

,, N. H. Chapman (Sheriff).

,, Mrs. F. E. Taylor, J.P.

Coun. R. M. Henderson, J.P.

,, Mrs. C. C. Scott, J.P.

,, L. W. Lawrence.

,, W. G. Benn.

,, H. J. M. L. Criddle.

,, Mrs. V. H. Grantham.

Coun. Mrs. M. B. Fenwick (Chairman).

,, Mrs. J. McCambridge (Vice-Chairman).

,, Mrs. R. A. Dixon.

,, H. Waller.

SUB-COMMITTEE AS TO NATIONAL HEALTH SERVICE ACT.

The Sub-Committee as to National Health Service Act consisted of the above members of the Health Committee, together with the following representatives of other bodies :

British Medical Association and Local Executive Council ..... Dr. H. F. Wattsford.

Board of Governors of the Teaching Hospitals ..... Dr. S. Whateley Davidson.

Durham University ..... Prof. Sir J. C. Spence, M.C.

Voluntary Bodies ..... Miss Teresa Merz, O.B.E., J.P.
Miss F. E. Pybus.

Education Committee ..... Ald. G. Dixon, J.P.
Coun. P. H. Edwards,

HEALTH DEPARTMENT STAFF.

Medical Officer of Health and Principal School Medical Officer :

W. S. Walton, G.M., M.D., B.Hy., D.P.H.

Deputy Medical Officer of Health :

G. Hamilton Whalley, M.B., B.S., B.Hy., D.P.H.

Chief Clerk :

J. R. Gilhespy.

Deputy Chief Clerk :

D. H. Macpherson, Cert., R.S.I.

16 Clerks and Typists.

Public Relations Officer :

F. F. Pellatt, D.P.A., Cert. R.S.I.

Chief Sanitary Inspector :

W. Gray, F.R.S.I., F.S.I.A.

Deputy Chief Sanitary Inspector :

W. Combey, D.P.A., M.R.S.I., M.S.I.A.

21 Sanitary Inspectors, 3 Assistant Inspectors, 7 Clerks and Typists.

Veterinary Officer and Inspector of Provisions :

H. Thornton, M.R.C.V.S., B.V.Sc., D.V.H.

5 Inspectors, 8 Rodent Operators and 2 Clerks.

MATERNITY AND CHILD WELFARE.

Child Welfare Medical Officer :

Shirley M. Livingstone, M.B., B.S.

22 Clinic Medical Officers (*Part-time*).

Chief Health Visitor, Superintendent of Midwives and Chief Nursing Officer :

Georgina B. Cameron, M.B.E.

Deputy Chief Health Visitor, 50 Health Visitors, 1 Orthopædic Nurse, 11 Clerks, 15 District Nurses,

Non-Medical Supervisor of Midwives :

Esther M. Walker.

Asst. Non-Medical Supervisor, 50 Municipal Midwives, 3 Clerks.

Domestic Help :

1 Organiser, 2 Clerks, 104 Home Helps.

Day Nurseries :

Superintendent Matron, Superintendent Warden, 2 Clerks.

8 Day Nurseries and 1 Residential Nursery, with Matrons, Assistant Matrons, Wardens, Nurses and Domestic Staff.

Senior Dental Officer :

J. C. Brown, L.R.C.P., L.R.C.S.(Ed.), L.D.S., R.C.S.(Ed.).

1 Assistant Dental Officer and 1 Clerk.

Vaccination and Immunisation :

Medical Officer :

H. J. Hutchens, D.S.O., M.R.C.S., L.R.C.P., D.P.H. (Died 16th May, 1950).

4 Nurses, 2 Clerks.

Care and After-Care :

3 Almoners, 2 Clerks.

AMBULANCE SERVICE.

Ambulance Officer : H. M. Roberts.

Deputy Ambulance Officer, 8 Clerks, 86 Driver-Attendants, 3 Female Attendants, 4 Foremen, 8 Charge Hands.

MENTAL HEALTH SERVICE.

Director : (*Part-time*) J.P. Child, M.A.,B.M.,M.R.C.P.,M.R.C.S.,D.P.M.

1 Part-time Medical Officer, 4 Duly Authorised Officers and 2 Mental Health Visitors.

Chest Clinic.

Tuberculosis Medical Officer (Part-time): C. Verity, M.D., L.R.C.P., M.R.C.S., D.P.H., M.A., B.Sc.

2 Part-time Clinic Medical Officers.

School Medical Service.

Senior School Medical Officer: R. F. Lunn, L.R.C.P., L.R.C.S. (Ed.), D.P.H.

To the Lord Mayor, Aldermen and Councillors of the Newcastle upon Tyne City Council.

My Lord Mayor, Ladies and Gentlemen,

I have pleasure in presenting the 77th Annual Report of the Medical Officer of Health. The Report has been prepared on the lines indicated to the Council by the Ministry of Health in Circular 2/50.

The birth rate of 18·27 showed a further decline from the high rates obtaining in 1946-1947. This is in keeping with the experience of the country generally, and will have its effect on the future distribution of age grouping within the City's population. The death rate was 12·6 per 1,000 of the population, being higher than that of last year and higher than that of England and Wales generally. The infantile mortality rate was returned at 39·6, compared with that of 38 during 1948. This figure still keeps the infantile mortality rate under 40 and as such is a great improvement on the rates of previous years. The corresponding rate for England and Wales for 1949 was 32. Some of the southern towns have lower infantile mortality rates, between 22·0 and 30·0. The Newcastle infantile mortality rate of 39 6 is calculated from the fact that in Newcastle 213 children failed to reach the age of one year in 1949. There is still room for investigation and improvement here.

The marriage rate of 19·06 was the lowest recorded, except for the years 1943-1944. There can be no doubt that housing conditions have had some influence in this fall.

The challenge of Tuberculosis and its ravages amongst the City population is still of very serious import in our City. The Newcastle mortality rate for Pulmonary Tuberculosis was 0·75 per 1,000 of the population, and this compares very unfavourably with the corresponding figure of 0·45 per 1,000 for the whole of England and Wales. Other urban parts of the Tyneside area and of the north east show high incidence and mortality, and some of the urban areas of Clydeside have a similar problem. There were 222 deaths from Pulmonary Tuberculosis in the City during the year, which was a slight reduction on the figure for the previous year (228), and the number of new cases notified was 516. The Health Committee has reviewed the position from time to time, and is working in close co-operation with the

General Practitioners and is strengthening the preventive measures for the protection of young children. The division of the duties of the former Tuberculosis Medical Officer so that now he devotes 8/11ths of his time to clinical duties with the Regional Hospital Board and the remaining 3/11ths to the Local Health Authority for preventive duties certainly merits re-consideration at national level. Regional Hospital Boards and Local Health Authorities will have to come much closer if the division of the curative and the preventive services is not to be perpetuated.

The problems of insufficient and inefficient housing and overcrowding are essential material factors concerned in the spreading of Tuberculosis in the City, and also in the maintenance of the present high level of infection. The shortage of available sanatorium beds through lack of nursing staff, which limits the number of admissions and sometimes shortens the length of stay, is a further problem of which at the present moment there would appear to be no immediate solution. The mass X-ray unit carried out excellent work for the City during the year. Over 17,000 cases were examined and 62 cases of active Tuberculosis were discovered and referred for treatment. Details of the efforts being made to investigate the conditions of the young children associated with Tuberculosis in their homes are given in a separate section of this report, written by Dr. F. J. W. Miller, of the Department of Child Health, and who acts as the clinical adviser in child welfare to the Local Health Authority.

The condition of housing generally in the City is one which calls for very urgent consideration. It is, of course, part of a national problem in so far as permission to build and as far as resources are available to build. The number of overcrowded and unhealthy homes in the City provides a very serious entry on the debit side of the City's health balance sheet. Since the end of the war and up to December, 1949, just over 4,000 houses have been built. The original programme was for the completion of 15,000 houses in the ten year period following the termination of hostilities and 4½ years of that period have gone. The Housing Committee have been faced with difficulties of obtaining sites, obtaining materials and staff recruitment, and have had a most difficult task. The huge waiting lists of deserving citizens are tragic and the number of heart-breaking cases brought to the Housing and Health Departments daily are indeed depressing, particularly when the officers know that in many cases little hope can be offered for many months or even years. The conditons under which many of the

inhabitants of this City are compelled to exist are not conducive to the maintenance of good health or of happy homes and good family life, and it is no wonder that General Practitioners in the City tell us that a large proportion of their work is concerned with worries, ills and neurotic states existing in their patients. These illnesses, they say, are due in the most part to lack of adequate home capacity for families and to the breaking-down of family units when members have to find artificial outside substitutes for home living space. Good housing is one of the primary features of a programme for good health, and just so long as proportions of the population are left living in conditions not compatible with good health and family happiness, just so long will the health of the City remain far short of what it should be.

The increasing number of aged people in the population brings in its train many problems. Care of the aged sick in their homes has been aided by the fast growing domestic help service and by the home nursing service. The Welfare Committee has made good arrangements for the care of aged persons—hostels and homes, but the scheme needs augmenting. Most unfortunate indeed, was the loss of much of the accommodation for the aged at the old Elswick Grange when the Regional Hospital Board took over the premises, and before adequate arrangements could be made to house the aged cases elsewhere. The Regional Hospital Board was constantly pressing for the release of the remaining accommodation during the year. The Council, through its appropriate committees, will have to give during this next year serious consideration to schemes which will provide more residential homes and accommodation for the older members of the community who are not able to look after themselves.

The year, as in 1948, passed without any major outbreaks of serious infectious diseases. Cases of Measles and Chickenpox were prominent in numbers but not in severity, and Whooping Cough cases also showed a fairly heavy incidence. There were 496 cases of Pneumonia.

During the year, the Child Welfare Services were extended considerably because of the demands placed upon them. The Midwives' Service continued to function very well and many more mothers booked General Practitioners under the National Health Service Act than was their custom formerly. There was a fall in the number of ante-natal blood specimens submitted from the City to the Laboratory Service. The ante-natal clinics of the City continued to carry out their routine work. The Home Nursing Service was used much more

fully by the citizens of the City, and in view of the restriction on hospital admissions, General Practitioners were enabled to carry out treatments with the help of the Home Nurses while the patient was still at home. This service has very obviously come to stay and is making a great name for itself, and is greatly appreciated by the doctors and patients.

The Domestic Help Service had placed upon it very heavy commitments, and particularly in connection with help for old people and in respect of homes where there was sickness present. The Health Visiting Service also experienced a heavy load of work, but since the Health Committee's scholarship arrangements during training have come into operation, the staff has been maintained by recruitment from the training school and brought up to an establishment of 50. This staffing has enabled Health Visitors to cover most of the homes in the City, and to expand their duties to include the care of the family generally, and of the aged as well as the care of mothers and young children. Close working relationship between the General Practitioners and Health Visitors has developed during the year. These domiciliary services should provide general cover for the citizens, and are certainly showing dividends in the form of restoration of family life to a normal level as soon as ever possible after sickness.

Development of the care and after-care arrangements as set out in the Council's proposals under Section 28 was an outstanding feature of the year. The local plan of appointing two Almoners for general welfare and one Almoner for the tuberculosis service has worked out very well in practice, and the Health Visitors and Almoners are working together in a complete and happy team. The Almoner's reports show to what extent the convalescent and after-care services have grown and are used.

It will be noted that the Ambulance Service carried over 74,000 patients and covered some 648,140 miles in the course of the year. Delivery of several new ambulances relieved the overbearing pressure on the existing fleet which operated at the commencement of the year.

The reorganisation of the mental health services has given the Local Health Authority and the citizens a comprehensive service. The clinical arrangements are in the hands of specialists from the Regional Hospital Board and the staffs of authorised officers and mental health visitors have settled down well. While the staffing is good, premises are not. It is hoped that it will be found possible to open an occupational centre during 1950, and the provision of a child

guidance clinic is still an outstanding omission in a fairly complete mental health service.

A short synopsis of the work carried out by the School Medical Department is given in this Report. The Education Committee and the Director of Education have been most helpful in matters relating to the school health services where the general medical services have required assistance and co-operation. Considerable progress has been made in the school medical service and this will in turn and in time record its mark on the general health services.

The routine work of the environmental health services and of inspection of meat, milk and other foods, and of premises, continued to give the public an efficient protection service. There were a few outbreaks of food poisoning but none of serious consequence.

Your attention is drawn to three reports from officers of the Child Health Department of the University and which are printed in this Annual Report. These communications are the product of joint activity and work shared between the officers of the Local Health Authority and those of the Board of Governors of the Teaching Hospital. The value of the findings and the value of the clinical help given to the City are bright shafts of light that shine through the gloom which otherwise is so often associatied with the " no man's land " between large executive bodies. The statement on Tuberculosis and young children shows what can be done and what remains to be done; the work with the saving of premature babies has brought most excellent local results, and results which have gained national recognition ; and lastly, the investigation of infective illnesses in childhood sponsored by the two authorities is enabling us to obtain information of what is actually happening to children of the City in their own homes and also to frame future policy which will alleviate at least some of the risks.

At the end of the year the National Health Service had been in operation for eighteen months and so far as the City was concerned, the Council's branches of the service were generally working well. But, innate in the Act is the principle of hard and fast division into hospital, medical and allied services and local health authority, and this division cannot be bridged always by cross representation at Committee level. In fact it would seem that there are too many committees, and too often do the same people meet in various aggregations but under different banners. The difficulties which were referred to in the 1948 report introductory letter have not been resolved, and the sturdy

rock of prevention of disease is now engulfed by the eddying currents, waves and breakers from the ocean deeps of finance incurred by the curative services.

The Newcastle upon Tyne Executive Council budgeted (1949-50) for an expenditure of over £1,000,000 in respect of general practitioner, dental, pharmaceutical and ophthalmic services for the citizens. The corresponding annual expenditure for hospital services provided on behalf of the City would include (a) the greater part of the expenses of the Newcastle upon Tyne Hospital Management Committee, (b) a large proportion of the expenditure of the Royal Victoria Infirmary under the Board of Governors of the Teaching Hospital, (c) expenditure on salaries of specialists and (d) a fraction of the Regional Hospital Board's administrative expenses. It would not be an easy task to assess accurately the total annual hospital expenditure in respect of Newcastle, but it would amount to very much more than £1,000,000. Add to this total of upwards of £2,000,000 for the curative services, an annual sum to cover the granting of some 600 to 1,000 new claims each week for sick benefit under National Insurance, and a rough idea will be obtained of the finance associated with treatment and ill-health in our midst. The Health Committee's expenditure during the year 1949-1950 was £253,054 on the Local Health Authority Account and £40,048 on the sanitary and environmental health services account. The preventive health services are comparatively in the background financially and otherwise at the moment, but perusal of this Report will confirm that excellent, if somewhat overshadowed, work is being done quietly and steadily.

I would like to express, on behalf of the Health Department staffs, our appreciation for the help and interest of the members of the Health Committee throughout the year. Grateful thanks and acknowledgment of excellent service are due to members of the administrative, clerical, technical, nursing and medical staffs.

I am,

My Lord Mayor, Ladies and Gentlemen,

Your obedient Servant,

W. S. WALTON,

Medical Officer of Health.

Health Department,
Town Hall,
Newcastle upon Tyne, 1,
November, 1950.

CITY AND COUNTY OF NEWCASTLE UPON TYNE

I—GENERAL

MORTALITY TABLES,
SOCIAL CONDITIONS, CLIMATOLOGY,
WATER SUPPLY, DISPOSAL OF REFUSE.

SUMMARY OF STATISTICS, 1949.

Population	294,540.
Area	11,401 acres.
Birth rate	18.27 per 1,000 population.
Death Rate	12.76 ,, ,,
Infant Mortality Rate	39.61 per 1,000 live births.
Neo-Natal Mortality Rate	20.27 ,, ,,
Maternal Mortality Rate	1.46 per 1,000 live and still births.
Tuberculosis Death Rate :—	
All forms	0.83 per 1,000 population
Pulmonary	0.75 ,, ,,
Non-pulmonary	0.08 ,, ,,
Infectious Diseases Death Rate	0.05 ,, ,,
Marriage Rate	19.06 ,, ,,
Inhabited Houses	83,890.
Rateable Value	£2,789,355.
Product of 1d. rate	£11,332 18s. 0d.

GENERAL STATISTICS.

POPULATION.—The mid-year civilian population, as estimated by the Registrar General, was 294,540, an increase of 940 over the 1948 figure.

BIRTHS.—There were 5,377 live births recorded, representing a birth rate of 18.27 per 1,000 population, as compared with a rate of 19.4 for the year 1948. The City birth rate is higher than that for England and Wales—16.7, but is slightly lower than the rate for the 126 large towns, viz., 18.7 per 1,000 population.

In addition to the above, there were 100 still-births, representing a still-birth rate of 18.26 per 1,000 live and still births.

	Live Births.			Still Births.		
Sex.	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	Total.
Male ..	2,689	147	2,836	48	2	50
Female	2,418	123	2,541	47	3	50
Totals .	5,107	270	5,377	95	5	100

DEATHS.—The net deaths amounted to 3,757, equivalent to a rate of 12·76 per 1,000 population. This is an increase of 0·96 over the rate for 1948. The death rate for England and Wales in 1949 was 11·7 whilst the rate for 126 large towns was 12·5.

INFANTILE MORTALITY.—213 infants died before completing the first year of life, representing a rate of 39·6 deaths per 1,000 live births, compared with the England and Wales figure of 32, and 37 for the 126 great towns.

Of the 213 infant deaths, 109 occurred before attaining the age of one month, making a neo-natal mortality rate of 20·27 per 1,000 live births. Once again prematurity accounted for the greatest number of deaths in this group.

MATERNAL MORTALITY.—8 maternal deaths occurred during the year, producing a maternality rate of 1·46 per 1,000 live and still births, a disappointing increase over the figure for 1948, viz., 0·85. The England and Wales maternal mortality rate for 1949 was 0·98.

TUBERCULOSIS.—246 persons died from various forms of tuberculosis during the year, 222 being from pulmonary and 24 from non-pulmonary tuberculosis. The equivalent death rates are as follows: All forms 0·83, Pulmonary 0·75, and Non-pulmonary 0·08 per 1,000 population.

These rates, whilst lower than last year, are still much higher than the England and Wales figure of 0·45 per 1,000 population for all forms of tuberculosis, and they are also higher than the rate for the 126 large towns, viz., 0·52.

INFECTIOUS DISEASES.—This group now forms only a very small proportion of the total deaths in the City. There were only 15 deaths during the year (excluding diarrhœa, pneumonia and tuberculosis), representing a rate of 0·05 per 1,000 population, as compared with 0·05 for 1948.

MARRIAGES.—2,807 marriages took place during the year, representing a marriage rate of 19·06 per 1,000 population. For comparison purposes, the rates for the past 10 years are set out below :—

Year.	Population.	No. of Marriages	Marriage Rate.
1949	294,540	2,807	19·06
1948	293,600	2,880	19·6
1947	290,470	2,771	19·1
1946	283,740	2,832	19·9
1945	265,990	2,935	22·1
1944	262,920	2,479	18·8
1943	254,890	2,367	18·6
1942	254,100	2,768	21·8
1941	254,960	2,817	22·1
1940	255,900	3,361	26·2

ACCIDENTS.—The Chief Constable reports a decrease in the number of street accidents which took place during the year, viz :—1,205 as against 1,229 in 1948, but it is to be regretted that there is an increase in the number of children under the age of 15 years who were injured, as shown in the following table :—

	Under 5 years.		5-10 years.		11-15 years.		Total.	
	1948	1949	1948	1949	1948	1949	1948	1949
Killed	2	2	1	1	—	—	3	3
Injured	48	55	80	103	47	41	175	199

NURSING HOMES.—There are 9 Nursing Homes registered in the City, with a total bed accommodation of 155. 57 of these beds are for maternity cases. All homes were inspected during the year.

CREMATION ACT, 1902.

The following table shows the steadily increasing number of cases cremated at Newcastle over the first full fifteen years (1935-1949 inclusive), since the Crematorium on the West Road opened in October, 1934.

TABLE I.

Yr.	Newcastle Residents.		Non-N/c. Residents Cremated.	Total. Cremations.	% annual increase in Cremations.	% of N/c. to non-N'castle Cremations.	% of N/c. to total Cremations.
	Nett Deaths.	Cremations.					
1934	* 3,646	11	15	26	..	73·33	42·30
1935	3,672	84	104	188	44·61 †	80·76	44·09
1936	3,878	109	161	270	43·61	67·70	40·37
1937	3,864	142	235	377	39·62	60·42	37·66
1938	3,621	206	279	485	28·64	73·83	42·67
1939	3,661	261	376	637	31·34	69·41	40·98
1940	3,733	304	412	716	12·40	73·48	42·45
1941	3,951	340	583	923	28·91	58·31	37·92
1942	3,480	354	643	997	8·01	55·05	35·50
1943	3,709	403	784	1,187	19·05	51·40	33·95
1944	3,508	512	1,027	1,539	29·64	49·85	33·26
1945	3,435	566	1,152	1,718	11·69	49·13	32·95
1946	3,515	645	1,414	2,059	19·84	45·61	31·32
1947	3,747	830	1,747	2,577	25·15	48·09	32·20
1948	3,475	824	1,973	2,797	8·53	42·26	29·46
1949	3,757	970	2,446	3,416	22·13	39·65	28·39

*Part year. †Estimated.

It is interesting to note that in 1935, only 2⅓ per cent. of nett deaths of Newcastle residents were cremated, whilst by 1949 (after 15 years) this figure had risen to nearly 26 per cent., a ratio of City residents cremated to City deaths of 1 to 4, almost twice as high a proportion as the corresponding national figure of 1 to 7. The 3,416 cremations done in the City in 1949 represent an increase of 18·12 per cent. over those done in 1948, and were 4·3 per cent. of the national total.

The increments in non-Newcastle residents cremated and total cremations show a progressive rate of increase over each preceding year, compared with which the annual figures for Newcastle residents cremated have shown a moderately steady increase, except for a slight recession in 1948, whilst the percentage annual increase in total cremations has fluctuated considerably.

Since the crematorium opened, the numbers of non-Newcastle cremations have increasingly preponderated, being now in 1949, $2\frac{1}{2}$ times more numerous than cremations of Newcastle residents. Over the last 5, 10 and 15 year periods, cremations of City residents have increased by $\frac{7}{10}$, $2\frac{1}{5}$ and $11\frac{1}{2}$ times respectively, the corresponding increases for non-City and total cremations being 2, 6 and $23\frac{1}{2}$ times, and 2, $4\frac{3}{4}$ and 18 times respectively. Thus the cremations for non-Newcastle residents have increased by twice as much over 15 years as have cremations of City residents, whilst total cremations in this period have increased by 18 times.

This increasing preference for cremation is seen nationally, for in the period 1939-1949, the percentage of cremations to burials for the country has risen from 3·51 per cent. to 13·86 per cent. (an increase of over 10 per cent.), the corresponding figures for cremations of City cases to deaths being 7·10 per cent. and 25·81 per cent. respectively (an increase of over 18 per cent.). The percentage of cremations for 1949 in this country (13·85 per cent.) may be compared with the higher European figures of 18·4 per cent. (Denmark), 17·97 per cent. (Switzerland), 14·5 per cent. (Sweden) and 14·7 per cent. (Norway), and the 26 per cent. of deaths cremated in Newcastle in 1949 may be contrasted with 60 per cent. for Stockholm.

At present, Newcastle mainly serves an area of approximately 30 miles from the City, with a few cases from as far as Cumberland and Yorkshire. The City is now the fourth biggest cremating centre in the country, and showed the second biggest increase in cremations over 1948 (18·12 per cent.) as indicated in the following table :—

TABLE II.

Largest Cremating Centres.	Cremations carried out.		% Increase over 1948.
	1949.	1948.	
Golders Green	6,072	5,430	11·8%
Manchester	4,327	3,733	15·9%
Leeds (Lawnswood)	3,477	2,826	23·0%
Newcastle	3,416	2,797	18·12%
Edinburgh	2,567	2,550	0·7%

(Average annual cremations for the 123 crematoria in England and Wales=647).

If the present increase in cremation continues, the City crematorium will probably be operating to full capacity in a year or so unless

other crematoria come into use in the region; and the number of cremations would doubtless be more, but for restrictions on building operations which continue to prevent both the erection of 200 new crematoria envisaged and alterations to existing ones.

This increased demand for cremations is satisfactory from the medico-social aspect, for in this small, overcrowded island, it is increasingly urgent to put "every urban acre" to the best use, especially for housing and recreation, apart from which unduly expanded urban areas add to the time and cost of transport, thereby affecting income, efficiency, leisure and health. Cremation requires very little land as opposed to earth burial which sterilizes so much, often in residential areas, and which in this City in 1949 may well be assumed to have used approximately $2\frac{3}{4}$ acres, since 1,000 grave spaces occupy about an acre (some of these are family graves), and there were over 2,900 burials, a number for which on such a basis 55 acres (the area of the Castle Leazes) would be required in 20 years time. Of land already in such use, the 6 public cemeteries controlled by the City (apart from private ones) occupy 99 acres, which is :—

0·87 per cent. of the City area of 11,401 acres, or

6·7 per cent. of the 1,462 acres available for active recreation.

The use of portions of churchyards, a traditional resting place for the dead, as gardens of remembrance and rest, is encouraged by the Cremation Society, which improves the amenities by making this fuller use of existing suitable ground.

Of the 3,416 cremations carried out in the City in 1949 :—

39 Post-Mortem examinations were required by the Medical Referee, mainly due to the length of period elapsing between death and the deceased person being last seen by a doctor. The doctors concerned always receive a copy of the post-mortem findings.

No post-mortem required further examination of the internal organs.

There was one cremation of a still-born child.

There was one cremation of an exhumed body over one year from burial.

There was no occasion when the Medical Referee delayed or refused to authorise a cremation.

There was one occasion for reference to the Home Office concerning the signing of a cremation medical certificate by an unregistered medical practitioner.

Monthly cremation totals were as follows, and showed a fall for spring and summer with fewest numbers in September, and the most in March :

327, 286, 357, 278, 261, 252, 243, 240, 223, 279, 319, 351.

During the year 39 applications were authorised after a post-mortem internal examination had been carried out.

NATURAL AND SOCIAL CONDITIONS.

GEOLOGY.—The geological formation of the area consists of heavy clay on the top of hard sandstone, which overlies coal seams.

CLIMATOLOGY.—The following is a summary of the main features of the weather during 1949, as recorded on the instruments in Leazes Park, in King's College and Cockle Park :—

Month.	Leazes Park.			Sunshine Hours.	
	Temperature.		Rainfall. Inches.	King's College.	Cockle Park.
	Mean Max.	Mean Min.			
1949.	°F.	°F.			
January	46·0	33·3	0·58	40·16	68·2
February ...	50·85	35·0	0·52	71·54	115·0
March	51·3	33·3	0·69	77·03	110·2
April	59·3	41·3	1·36	114·40	145·8
May	64·0	42·7	0·54	197·92	211·7
June	72·0	46·9	1·49	241·82	246·6
July	76·0	52·8	1·99	171·18	178·8
August	75·6	52·7	2·03	118·26	141·6
September ..	75·0	51·4	0·72	74·9	120·9
October	61·2	45·3	2·18	63·4	89·1
November...	50·1	38·3	3·12	40·9	54·1
December ..	48·6	36·5	2·4	29·2	44·6
Total			17·62	1,240·71	1,526·6
Average ...	60·83	42·46	1·47	103·39	127·2

The mean maximum and minimum temperatures were 60·83° F. and 42·46° F. respectively.

The rainfall for the year was 17·62 inches—considerably less than last year (30·54 inches).

The following table shows the frequency of the directions of the wind :—

W.	on	16	days.
N.W.	on	142	,,
N.E.	on	40	,,
E.	on	5	,,
S.E.	on	50	,,
S.W.	on	111	,,
S.	on	1	,,

The sunshine records have been made available by the courtesy of King's College, observations being taken at Cockle Park Farm (fifteen miles north of the City and in a rural area) and at the College itself. During the year, 1,241 hours of sunshine were registered in the City, as compared with 1,527 hours at Cockle Park.

WATER SUPPLY.—Details relating to the City's water supply are shown in the Chief Sanitary Inspector's section of this report (see page 153).

SEWERAGE.—There are 432·61 miles of sewers in the City, discharging directly into the Tyne, which is tidal, at various points along the 8½ miles of river frontage.

CLEANSING AND SCAVENGING.—A weekly collection of refuse is made from the whole of the domestic premises, and twice weekly from certain business premises.

There are 87,342 dry ashtubs and galvanised iron bins, 13 dry ashpits, 25 privy ashpits and 22 privy pails in the City. One school (in the area added to the City in 1935) is served by chemical closets, there being no sewers available. With this exception all the schools are served by the water-carriage system.

SOCIAL CONDITIONS.—The principal trades and occupations are of a healthy nature, and include extensive heavy and light engineering and ancillary industries ; shipbuilding and repair, etc., with related seafaring and harbour work ; machine making ; coal mining ; food and tobacco factories ; brewing, hotels, etc. The City is a large commercial and business centre.

The number of registered male and female unemployed at the beginning and end of the year is shown in the following table supplied by the Ministry of Labour and National Service.

Date.	Males (aged 15-64).	Females (aged 15-59).	Total.
10th January, 1949	4,661	1,306	5,967
5th December, 1949	4,621	1,248	5,869

Note :—Persons classified as not suitable for ordinary employment are excluded.

INHABITED HOUSES.—There are **83,890** inhabited houses, which, on the estimated population, shows an average of 3·51 persons per dwelling.

RATEABLE VALUE.—A penny rate produced £11,332 18s. 0d., the gross rateable value being £2,789,355, as against £2,748,833 in 1948.

Vital Statistics of Whole City during 1949, and previous Years.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths Registered in the City.		Transferable Deaths.		Net Deaths belonging to the City.			
		Uncorrected Number	Net. Number	Net. Rate.	Number	Rate.	of Non-residents registered in the City	of Residents not registered in the City	Under 1 Year of Age. Number	Under 1 Year of Age. Rate per 1,000 Nett Births.	At all Ages. Number	At all Ages. Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1914	271,523	7,564	7,538	27.8	5,069	18.7	546	138	1,029	137	4,660	17
1915	278,107	7,575	7,545	27.8	5,257	18.9	693	207	1,007	133	4,771	17
1916	278,107	7,332	7,248	26.2	4,875	17.5	680	232	899	123	4,427	15
1917	278,107	6,548	6,495	23.4	4,646	16.7	718	246	732	113	4,174	15
1918	278,107	6,555	6,468	23.3	5,380	19.3	872	308	692	107	4,816	17
1919	275,099	6,793	6,674	23.3	5,358	19.5	737	234	806	120	4,855	17
1920	286,061	8,433	8,070	28.0	4,609	16.1	779	195	817	101	4,025	14
1921	278,400	7,720	7,284	26.2	4,602	16.5	817	142	699	96	3,927	14
1922	281,600	7,432	6,987	24.8	4,698	16.7	831	145	646	92	4,012	14
1923	283,800	6,961	6,367	22.4	4,298	15.1	789	150	623	98	3,659	12
1924	285,900	7,029	6,335	22.2	4,607	16.1	929	172	632	100	3,850	13
1925	286,300	7,031	6,215	21.6	4,732	16.5	989	165	550	88	3,908	13
1926	284,700	6,728	6,007	21.0	4,460	15.7	979	161	530	88	3,642	12
1927	288,500	6,215	5,395	18.7	4,468	15.5	1,058	178	474	88	3,588	12
1928	281,500	6,360	5.429	19.2*	4,683	16.6	1,178	179	447	82	3,684	13
1929	283,400	6,120	5,126	18.1	5,040	17.8	1,313	172	438	85	3,899	13
1930	283,400	6,190	5,223	18.4	4,665	16.5	1,232	133	384	74	3,566	12
1931	283,600	6,058	5,056	17.8	4,911	17.3	1,251	145	467	92	3,805	13
1932	285,100	6,006	4,883	17.1	4,579	16.0	1,174	134	370	76	3,539	12
1933	286,500	5,770	4,712	16.4	4,695	16.4	1,182	127	359	76	3,640	12
1934	287,050	5,848	4,695	16.4	4,823	16.8	1,322	145	389	83	3,646	12
1935	292,700†	5,895	4,666	16.0	5,040	17.3	1,489	121	400	86	3,672	12
1936	290,400	5,709	4,537	15.6	5,148	17.4	1,421	151	408	90	3,878	13
1937	290,400	5,996	4,796	16.5	5,107	17.6	1,403	160	435	91	3,864	13
1938	291,300	6,101	4,678	16.1	4,866	16.7	1,413	168	307	66	3,621	12
1939	293,400	5,855	4,646	15.8	4,804	17.0	1,328	185	289	62	3,661	12
1940	255,900	5,501	4,519	17.6	4,727	18.5	1,181	187	284	64	3,733	14
1941	254,960	4,599	4,176	16.4	4,905	19.2	1,208	254	315	76	3,951	15
1942	254,100	4,686	4,289	16.9	4,398	17.3	1,140	222	255	59	3,480	13
1943	254,890	5,162	4,548	17.8	4,759	18.7	1,235	185	291	64	3,709	14
1944	262,920	6,799	5,359	20.4	4,585	17.4	1,298	221	270	50	3,508	13
1945	265,990	5,950	4,836	18.2	4,469	17.7	1,234	200	192	40	3,435	13
1946	283,740	8,219	6,079	21.4	4,569	16.1	1,242	188	249	41	3,515	12
1947	290,470	8,512	6,449	22.2	4,726	16.3	1,190	211	286	44	3,747	12
1948	293,600	7,414	5,705	19·4	4,504	15·3	1,215	186	217	38	3,475	11
1949	294,540	6,916	5 377	18.3	4,740	16.1	1,215	232	213	39	3,757	12

* Calculated on a population of 282,200.

† Rates calculated on a population of 291,025.

[Civilians only.

‡ Death-rate calculated on a population of 283,200

TABLE SHOWING POPULATION, BIRTH-RATES, DEATH-RATES, ZYMOTIC DEATH-RATES, INFANT AND MATERNAL MORTALITY RATES OF THE 20 LARGE TOWNS OF ENGLAND AND WALES FOR 1949. 18A

	Birmingham.	Bradford.	Bristol.	Cardiff.	Coventry.	Croydon.	Kingston upon Hull.	Leeds.	Leicester.	Liverpool.	Manchester.	**Newcastle upon Tyne.**	Nottingham.	Plymouth.	Portsmouth.	Salford.	Sheffield.	Southampton.	Stoke-on-Trent.	Sunderland.
POPULATION—Civilian	1,106,800	291,600	439,740	243,300	254,400	249,740	296,400	504,900	283,400	800,800	699,600	**294,540**	300,640	190,860	218,250	178,900	513,700	180,330	274,500	181,340
Total (Service and Civilian)	1,107,200	291,600	439,840	243,500	254,900	250,040	296,600	505,400	283,400	802,000	700,700	**295,240**	301,240	206,960	240,550	178,900	513,800	180,930	274,500	181,340
COMPARABILITY FACTOR	1·13	0·98	0·98	1·07	1·27	0·94	1·15	1·08	1·02	1·20	1·12	**1·10**	1·09	0·99	0·97	1·15	1·08	1·03	1·22	1·14
RATES PER 1,000 POPULATION—																				
Birth	18·1	17·3	17·07	19·56	18·6	16·1	20·95	16·7	17·91	20·7	18·77	**18·27**	18·96	19·75	19·06	20·3	15·7	18·79	18·7	19·9
Crude Death	10·7	14·5	11·11	11·44	9·4	10·95	12·1	12·8	11·55	11·6	12·91	**12·76**	11·8	13·14	12·05	13·0	12·5	11·65	11·5	13·1
Adjusted Death	12·1	14·2	10·88	12·24	11·9	10·29	13·97	13·8	11·78	13·9	14·46	**14·04**	12·86	13·01	11·69	14·95	13·5	11·99	15·13	14·9
Typhoid and Paratyphoid Fever	0·00	0·00	0·002	0·004	0·00	..	0·00	..	..	0·004	..	**0·00**	..	..	..	..	..	..	0·00	..
Cerebro-spinal Fever	0·01	0·01	0·002	0·004	0·012	..	0·00	0·002	0·004	0·019	0·01	**0·01**	0·01	0·01	0·01	0·001	0·006	..	0·015	0·04
Scarlet Fever	..	0·003	..	..	0·00	..	0·00	0·002	..	..	..	**0·00**	..	..	..	..	0·002	..	0·00	..
Whooping Cough	0·02	0·003	0·005	0·016	0·008	0·008	0·02	0·01	0·018	0·071	0·04	**0·01**	0·0	0·03	0·00	0·006	0·008	0·03	0·007	0·04
Diphtheria	0·00	0·006	..	..	0·008	0·004	..	..	..	0·005	..	**0·00**	..	0·00	0·00	0·001	..	..	0·004	0·01
Influenza	0·19	0·26	0·14	0·069	0·12	0·132	0·08	0·15	0·056	0·127	0·15	**0·075**	0·09	0·05	0·04	0·020	0·199	0·1	0·236	0·15
Measles	0·01	0·01	0·009	0·004	0·004	0·004	..	0·01	0·004	0·015	0·01	**0·00**	0·01	0·00	0·02	..	0·004	0·01	0·004	..
Acute polio-myelitis and —encephalitis	0·01	0·024	0·011	0·016	0·00	0·008	0·00	0·02	0·011	0·005	0·01	**0·00**	0·009	0·01	0·00	0·001	0·029	0·03	0·007	..
Acute infectious encephalitis	0·00	0·003	0·014	0·012	0·00	0·004	0·00	0·01	0·014	..	0·01	**0·03**	..	0·01	0·00	0·001	0·019	..	0·007	0·03
Smallpox	..	0·00	..	..	0·00	..	..	..	..	..	..	**0·00**	..	0·00	..	..	..	..	0·00	..
Diarrhœa (under 2 yrs.)	0·06	0·058	0·011	0·069	0·082	0·028	0·11	0·03	0·021	0·119	0·09	**0·12**	0·12	0·07	0·04	0·020	0·056	0·07	0·047	0·15
Tuberculosis—																				
Pulmonary	0·54	0·40	0·44	0·64	0·50	0·352	0·62	0·48	0·50	0·677	0·60	**0·754**	0·625	0·62	0·45	0·6	0·440	0·45	0·566	0·68
Other forms	0·05	0·07	0·05	0·04	0·10	0·024	0·05	0·06	0·078	0·085	0·05	**0·081**	0·043	0·03	0·04	0·12	0·074	0·04	0·043	0·10
Cancer	1·75	1·95	1·87	1·93	1·44	1·862	1·84	1·99	1·80	1·726	2·00	**1·89**	1·73	1·98	2·16	1·9	1·993	1·91	1·932	1·77
INFANTILE MORTALITY RATE— (per 1,000 live births)	31·0	37·0	26·0	31·0	39·4	29·0	42·0	30·0	23·83	44·0	38·24	**39·61**	38·0	34·23	24·04	53·0	35·0	37·66	34·0	57·0
MATERNAL MORTALITY RATE— (per 1,000 births)																				
Sepsis	0·05	0·19	0·26	0·61	0·00	0·24	..	0·12	0·58	0·237	0·45	**0·365**	0·17	..	0·23	..	..	0·59	0·378	..
Other Causes	0·44	1·15	0·78	1·22	0·8	0·98	1·26	0·93	0·96	0·295	0·74	**1·095**	0·34	1·54	0·71	..	0·60	0·88	1·136	1·61
Total	0·49	1·34	1·04	1·83	0·8	1·22	1·26	1·05	1·54	0·532	1·19	**1·460**	0·51	1·54	0·94	..	0·60*	1·47	1·514	1·61

*excluding Abortion.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE FOR 1949.

(Registrar General's Return).

Causes of Death.	Sex	All Ages	0–	1–	5–	15–	45–	65–
All Causes	M.	1989	127	24	5	180	613	1040
	F.	1768	86	14	10	178	379	1101
1—Typhoid and para-typhoid fevers	M.	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..
2—Cerebro-spinal fever	M.	3	1	1	..	..	1	..
	F.	..	..	..	..	..	..	..
3—Scarlet fever	M.	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..
4—Whooping Cough	M.	3	2	1	..	..	..	..
	F.	..	..	..	..	..	..	..
5—Diphtheria	M.	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..
6—Tuberculosis of respiratory system	M.	130	..	..	..	54	60	16
	F.	95	1	1	..	78	14	1
7—Other forms of tuberculosis	M.	11	..	5	..	2	3	1
	F.	9	1	2	..	6	..	..
8—Syphilitic diseases	M.	15	..	..	..	1	9	5
	F.	5	..	..	..	..	3	2
9—Influenza	M.	12	2	..	..	..	5	5
	F.	10	..	..	..	..	3	7
10—Measles	M.	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..
11—Acute poliomyelitis and polioencephalitis	M.	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..
12—Acute infectious encephalitis	M.	5	..	1	..	3	..	1
	F.	4	..	..	..	1	1	2
13—Cancer of buccal cavity and œsophagus (M)	M.	28	..	..	..	3	6	19
Cancer of uterus (F)	F.	44	..	..	..	5	25	14
14—Cancer of stomach and duodenum	M.	64	..	..	..	2	28	34
	F.	50	..	..	..	6	12	32
15—Cancer of breast	M.	..	..	..	..	..	..	..
	F.	36	..	..	..	4	18	14
16—Cancer of all other sites	M.	200	..	1	..	15	86	98
	F.	146	..	1	..	9	59	77
17—Diabetes	M.	6	..	..	..	2	3	1
	F.	24	..	..	1	3	8	12
18—Intra-cranial vascular lesions	M.	232	..	..	..	5	49	178
	F.	268	..	..	..	2	51	215

Causes of Death at different periods of life for 1949—*continued.*

Causes of Death.	Sex	All Ages	0–	1–	5–	15–	45–	65–
19—Heart disease	M.	503	..	..	1	27	151	324
	F.	491	..	..	..	13	80	398
20—Other diseases of the circulatory system	M.	92	1	..	..	1	22	68
	F.	93	..	..	..	4	8	81
21—Bronchitis	M.	147	3	..	..	4	59	81
	F.	89	4	..	1	2	13	69
22—Pneumonia	M.	89	21	2	..	2	18	46
	F.	72	9	2	..	3	11	47
23—Other respiratory diseases	M.	38	1	..	..	2	15	20
	F.	23	..	..	1	3	11	8
24—Ulcer of stomach or duodenum	M.	34	..	..	..	4	14	16
	F.	4	..	..	..	1	2	1
25—Diarrhœa (under 2 years)	M.	17	15	2	..	..	..	..
	F.	14	14	..	..	..	..	..
26—Appendicitis	M.	8	..	..	..	2	4	2
	F.	3	..	..	..	..	2	1
27—Other digestive diseases	M.	32	2	2	..	4	10	14
	F.	37	1	3	2	2	13	16
28—Nephritis	M.	42	..	..	..	5	11	26
	F.	42	..	..	1	5	13	23
29—Puerperal and post abortive sepsis	F.	2	..	..	..	2	..	..
30—Other maternal causes	F.	6	..	..	..	5	1	..
31—Premature birth	M.	33	33	..	..	..	..	..
	F.	22	22	..	..	..	..	..
32—Congenital malformations; birth injury; infantile disease	M.	40	36	1	..	2	1	..
	F.	31	25	2	..	3	1	..
33—Suicide	M.	25	..	..	..	4	15	6
	F.	13	..	..	..	4	6	3
34—Road traffic accidents	M.	15	..	..	1	5	6	3
	F.	3	..	1	..	1	..	1
35—Other violent causes	M.	49	1	2	1	23	11	11
	F.	21	5	1	..	..	..	15
36—All other causes	M.	116	9	6	2	8	26	65
	F.	111	4	1	4	16	24	62

Resident Population, 294,540.

Deaths Under 1 Year.

	Legitimate.	*Illegitimate.*
M.	125	2
F.	81	5

Cause of Death.	Age Periods—Net.									Wards—Net Deaths.															
	Under 1 year.	1 year and under 2.	2 years and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 45.	45 years and under 65.	65 years and above.	Total.	St. Nicholas'.	Kenton.	Scotswood.	Stephenson.	Armstrong.	Elswick.	Westgate.	Arthur's Hill.	Benwell.	Fenham.	Sandyford.	Jesmond.	Dene.	Heaton.	Byker.	St. Lawrence.	St. Anthony's.	Walker.	Walkergate.
I.—INFECTIVE AND PARASITIC DISEASES.																									
Cerebro Spinal (Meningococcal) Meningitis	1	1	..	..	..	..	1	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Whooping Cough	2	1	..	..	..	..	..	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
Tuberculosis of the Respiratory System	2	..	..	..	37	93	72	18	222	9	15	10	15	8	15	13	11	10	9	9	2	5	10	15	13	21	19	13
Tuberculosis of the Meninges and Central Nervous System	1	5	3	..	2	3	1	..	15	..	..	..	2	2	..	1	..	1	1	1	..	1	..	..	1	3	2	..
Tuberculosis of the Intestines and Peritoneum	..	..	..	..	..	..	1	..	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..
Tuberculosis of the Vertebral Column	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Tuberculosis of Other Bones and Joints	..	..	..	..	..	..	1	1	2	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of the Genito Urinary System	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Disseminated Tuberculosis	..	..	..	..	1	1	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Purulent Infection and Septicæmia	2	..	..	..	..	1	1	..	4	..	..	3	..	..	..	..	1	..	1	2	..	..	..	1	2	1	2	..
Syphilis	..	..	..	..	..	1	13	3	17	1	1	..	2	1	..	1	2	..	1	2	..	..	1	2	1	2	..	..
Influenza	2	..	..	..	..	..	7	12	21	3	2	2	5	..	..	1	1	..	..	1	..	..	1	1	1	..	1	2
Acute Infectious Encephalitis (Lethargic or Epidemic)	..	..	..	..	..	3	2	4	9	1	..	1	..	..	..	..	..	2	..	..	..	1	1	..	1	1	..	1
Other Diseases due to Viruses	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Other Infective or Parasitic Diseases	..	..	..	..	..	..	..	4	4	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..
II.—CANCER AND OTHER TUMOURS.																									
Cancer of the Buccal Cavity and Pharynx (Males)	..	..	..	..	..	1	..	12	13	1	2	..	1	3	1	..	1	1	..	..	..	..	..	1	..	..	2	..
Cancer of the Buccal Cavity and Pharynx (Females)	..	..	..	..	..	..	1	2	3	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Cancer of the Œsophagus (Males)	..	..	..	..	..	2	7	6	15	1	3	..	..	1	1	..	2	1	..	..	..	..	..	..	2	1	2	1
Cancer of the Œsophagus (Females)	..	..	..	..	..	..	2	2	4	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1	..	..	1
Cancer of the Digestive Organs and Peritoneum (except Stomach and Duodenum)	..	..	..	..	..	12	61	86	159	5	6	9	12	9	8	12	10	8	10	7	15	3	13	3	9	7	8	5
Cancer of the Stomach and Duodenum	..	..	..	..	..	6	39	65	110	5	8	9	6	5	5	8	7	4	5	8	10	4	4	8	..	6	2	6
Cancer of the Respiratory System	..	..	..	..	..	6	53	34	93	2	8	9	6	5	5	7	1	3	5	14	5	5	5	3	1	1	3	5
Cancer of the Uterus	..	..	..	..	..	5	25	13	43	2	1	4	3	1	2	1	4	1	..	3	1	3	7	3	1	2	1	3
Cancer of Other Female Genital Organs	..	..	..	..	..	1	6	3	10	..	..	..	..	1	1	..	..	2	..	2	2	..	1	..	1	..	..	..
Cancer of the Breast	..	..	..	..	..	3	16	12	31	4	1	1	3	..	..	3	2	2	6	1	2	..	1	..	1	..	1	3
Cancer of the Male Genital Organs	..	..	..	..	..	1	2	23	26	1	..	2	1	1	..	1	3	1	4	1	1	..	2	1	2	2	1	2
Cancer of the Urinary Organs	..	..	1	..	..	..	7	14	22	2	1	1	..	2	..	3	1	..	1	..	1	2	1	..	1	3	2	1
Cancer of the Skin (Scrotum excepted)	..	..	..	..	..	..	3	3	6	..	1	..	1	1	..	..	2	..	1	..	..	..	..	..	..	..	..	..
Cancer of the Brain and Other Parts of the Nervous System	..	..	..	..	..	1	3	..	4	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	1	..
Cancer of Other or Unspecified Organs	..	..	..	..	1	2	7	9	19	1	2	4	..	2	..	..	..	..	..	..	2	1	2	2	2	..	1	..
Non-malignant Tumours	1	..	..	..	1	1	3	2	8	1	..	1	..	..	..	..	..	1	..	..	..	..	3	..	1	..	..	1
Tumours of Undetermined Nature	..	..	..	..	1	2	1	2	6	1	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	1	..	..
III.—RHEUMATISM, DISEASES OF NUTRITION AND OF THE ENDOCRINE GLANDS, OTHER GENERAL DISEASES AND VITAMIN DEFICIENCY DISEASES.																									
Rheumatic Fever	..	..	1	..	1	3	3	3	11	1	..	..	..	2	1	..	..	2	1	1	..	..	..	2	..	..	..	1
Chronic Rheumatism and Other Rheumatic Diseases	..	..	..	..	..	..	..	2	2	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Diabetes Mellitus	..	..	..	1	..	4	6	10	21	1	..	1	2	..	1	1	1	1	..	3	1	2	3	1	1	1	..	1
Diseases of the Thyroid and Parathyroid Glands	..	..	..	..	..	..	2	2	4	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	..
Exophthalmic Goitre	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Other General Diseases	..	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Vitamin Deficiency Diseases	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.																									
Hæmorrhagic Conditions	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Anæmias	..	..	..	..	..	2	1	7	10	..	1	..	1	2	1	1	..	..	..	1	..	..	..	2	1	..	..	..
Leukæmias and Aleukæmias	..	..	1	1	..	1	5	2	10	1	1	..	1	..	1	..	1	..	1	..	..	1	..	..	..	1	1	1
Other Diseases of the Blood and Blood Forming Organs	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
V.—CHRONIC POISONING AND INTOXICATION.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.																									
Encephalitis (Non-Epidemic)	..	2	1	..	..	1	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	..	..
Meningitis (Non-Meningococcal)	2	..	..	2	..	..	1	1	6	..	1	..	1	1	..	..	..	1	..	..	..	..	1	1	..	..	..	..
Diseases of the Medulla and Spinal Cord	..	..	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..
Intra-Cranial Lesions of Vascular Origin	1	..	..	1	2	7	106	364	481	18	20	31	27	34	31	24	26	23	23	35	34	20	31	22	18	16	28	20
Hemiplegia and Other Paralysis of Unstated Origin	..	..	..	..	..	..	5	14	19	1	2	1	1	..	2	1	1	..	2	1	3	1	1	1	..	1	..	..
Mental Disorders and Deficiency	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Epilepsy	1	..	1	..	2	3	2	..	9	..	..	..	1	..	1	2	..	..	1	1	1	..	..	..	..	..	1	1
Convulsions in Children under 5 years of age	3	..	..	..	..	..	..	..	3	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Other Diseases of the Nervous System	1	..	..	..	1	2	3	3	10	..	..	..	1	1	..	..	1	..	1	1	2	..	1	..	1	..	..	1
Diseases of the Ear and Mastoid Antrum	2	..	..	..	..	1	..	..	3	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
VII.—DISEASES OF THE CIRCULATORY SYSTEM.																									
Acute Endocarditis	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Chronic Affections of the Valves and Endocardium	..	..	..	..	1	10	23	30	64	2	1	1	2	4	5	2	5	4	5	5	5	2	3	1	6	5	6	..
Diseases of the Myocardium	..	..	..	..	1	4	42	402	449	24	19	21	35	32	19	22	26	15	19	19	50	22	30	25	12	17	23	19
Diseases of the Coronary Arteries, Angina Pectoris	..	..	..	..	..	13	134	234	381	12	21	13	24	17	19	26	19	18	22	19	29	14	28	26	14	21	19	20
Other Diseases of the Heart	..	..	..	..	..	4	7	30	41	2	4	..	3	4	4	4	..	4	..	1	1	..	2	1	1	3	3	4
Aneurysm (except of Heart and Aorta)	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Arterio-sclerosis (excluding Coronary or Renal Sclerosis or Cerebral Hæmorrhage)	..	..	..	..	..	..	10	114	124	8	3	4	10	14	5	8	3	4	5	8	9	6	2	8	7	12	3	5
Gangrene	..	..	..	..	..	..	1	8	9	1	1	1	..	2	..	1	1	..	..	..	..	..	1	..	..	..	1	..
Other Diseases of the Arteries	1	..	..	..	..	..	3	..	3	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..
Diseases of the Veins	..	..	..	..	..	..	1	2	4	..	..	..	..	1	..	1	..	..	..	..	..	2	..	..	..	..	..	..
High Blood Pressure (Idiopathic)	..	..	..	..	2	..	31	21	54	1	4	5	1	7	3	4	3	..	2	4	4	3	3	3	4	1	2	..
VIII.—DISEASES OF THE RESPIRATORY SYSTEM.																									
Bronchitis	8	..	..	1	1	3	76	147	236	17	6	13	26	19	13	10	14	10	7	14	4	1	6	15	15	19	16	11
Broncho-Pneumonia	32	1	2	1	1	4	33	130	204	6	8	10	25	22	9	10	10	15	14	10	9	6	1	12	11	9	11	6
Lobar Pneumonia	..	..	..	..	..	1	12	18	31	2	4	2	2	..	1	3	1	..	..	2	4	..	1	3	..	3	1	2
Pneumonia (unspecified)	1	1	..	..	1	1	3	6	13	..	2	..	2	1	..	2	..	2	..	..	1	..	1	..	..	1	1	..
Pleurisy	..	..	..	..	..	..	1	2	3	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Congestion, Œdema, Hæmorrhagic Infarction and Thrombosis of Lung	1	..	..	..	..	1	8	19	29	1	1	4	..	1	4	2	1	1	3	1	2	1	1	3	1	2	..	..
	1	..	..	..	..	5	8	5	19	1	1	2	..	..	1	1	1	1	1	2	1	..	1	4	..	..	2	..
Asthma	..	..	..	..	..	..	3	4	7	..	..	1	2	1	1	..	..	..	..	1	..	..	..	..	..	..	..	1
Pulmonary Emphysema	..	..	..	..	..	..	4	3	7	1	..	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2
Other Diseases of the Respiratory System																									
Carried forward	66	12	10	8	59	220	869	1917	3161	142	157	171	226	216	163	179	163	142	151	182	205	111	170	172	136	166	168	141

Cause of Death.	Age Periods—Net.									Wards—Net Deaths.																
	Under 1 year.	1 year and under 2.	2 years and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 45.	45 years and under 65.	65 years and above.	Total.	St. Nicholas'.	Kenton.	Scotswood.	Stephenson.	Armstrong.	Elswick.	Westgate.	Arthur's Hill.	Benwell.	Fenham.	Sandyford.	Jesmond.	Dene.	Heaton.	Byker.	St. Lawrence.	St. Anthony's.	Walker.	Walkergate.
Brought forward	66	12	10	8	59	220	869	1917	3161	142	157	171	226	216	163	179	163	142	151	182	205	111	170	172	136	166	168	141
IX.—DISEASES OF THE DIGESTIVE SYSTEM.																												
Diseases of the Buccal Cavity and Annexa and of the Pharynx and Tonsils	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of the Stomach and Duodenum	..	..	..	..	..	3	11	15	29	2	2	1	3	..	..	1	3	1	4	2	1	..	3	2	1	2	1	..
Other Diseases of the Stomach	..	..	..	..	..	2	..	2	4	1	..	1	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..
Enteritis and Diarrhœa (under 2 years of age)	33	2	..	..	..	..	..	..	35	..	3	..	5	4	3	1	1	..	..	..	1	..	..	..	2	6	1	6
Enteritis and Diarrhœa (over 2 years of age)	..	..	5	1	1	1	4	3	15	..	1	..	3	..	1	2	..	..	..	1	..	2	..	..	2	1	1	..	1
Ulceration of the Intestines (except Duodenum)	..	..	..	..	..	1	1	1	3	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..
Appendicitis	..	..	..	..	1	2	5	1	9	..	..	1	..	..	..	2	..	..	..	..	1	1	2	1	..	1	..	..
Hernia—Intestinal Obstruction	3	..	..	..	..	..	7	9	19	1	..	..	1	1	..	2	..	..	..	1	1	4	2	2	1	..	1	..
Other Diseases of the Intestines	..	..	..	..	..	1	3	7	11	1	..	..	..	2	..	3	..	1	1	1	..	..	..	1	..	..	1	..
Cirrhosis of the Liver (without mention of Alcoholism)	..	..	..	..	..	..	5	2	7	1	..	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	1	..	1
Other Diseases of the Liver	1	..	..	..	1	..	2	1	5	..	2	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Biliary Calculi	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Other Diseases of the Gall Bladder and Bile Ducts	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Pancreas (other than Diabetes)	..	..	..	..	..	..	2	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis without stated cause	..	1	..	..	..	..	3	..	4	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
X.—DISEASES OF THE URINARY AND GENITAL SYSTEMS (NOT VENEREAL OR CONNECTED WITH PREGNANCY OR THE PUERPERIUM).																												
Acute Nephritis	..	..	..	1	1	1	3	1	7	..	..	1	1	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..
Chronic Nephritis	..	..	..	1	5	4	21	35	66	1	2	5	4	4	6	2	6	2	4	2	4	3	6	3	4	4	3	2
Nephritis not stated to be Acute or Chronic (over 10 years of age)	..	..	..	..	2	1	4	7	..	1	1	1	1	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..
Other Diseases of the Kidney and Ureters	1	..	..	..	3	3	6	16	1	..	..	..	1	1	2	..	..	2	1	1	..	..	..	2	1	2	1	..
Calculi of the Urinary Passages	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..
Diseases of the Bladder	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Urethra, Urinary Abscess, etc.	..	..	..	..	..	..	1	1	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Diseases of the Prostate	..	..	..	..	..	..	5	15	20	..	1	1	3	1	1	1	2	..	..	1	3	..	2	1	..	1	..	1
Diseases of the Female Genital Organs	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..
XI.—DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE.																												
Post Abortive Infection	..	..	..	..	..	2	..	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..
Abortion without mention of Septic Condition	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Toxæmias of Pregnancy	..	..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..
Hæmorrhage of Childbirth and the Puerperium	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Other Accidents of Childbirth	..	..	..	..	1	1	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..
XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE.																												
Diseases of the Skin and Cellular Tissue	..	..	..	1	..	..	1	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..
XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT.																												
Diseases of the Joints and other Organs of Movement	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
XIV.—CONGENITAL MALFORMATIONS.																												
Congenital Malformations	18	3	..	..	3	..	2	..	26	1	1	5	..	2	2	2	2	1	1	1	..	..	..	..	1	1	4	2
XV.—DISEASES PECULIAR TO THE FIRST YEAR OF LIFE.																												
Congenital Debility	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Premature Birth	62	..	..	..	..	..	..	..	62	3	3	5	3	3	4	4	4	..	..	4	3	1	1	3	5	7	9	1
Injury at Birth	12	..	..	..	..	..	..	..	12	1	1	1	1	3	1	..	..	1	1	1	2	..	..	..	1	..	..	2
Other Diseases peculiar to the First Year of Life	15	..	..	..	..	..	..	..	15	3	3	..	2	1	..	..	..	1	1	1	2	..	..	..	..	..	2	..
XVI.—SENILITY, OLD AGE.																												
Senility, Old Age	..	..	..	..	..	..	..	73	73	3	1	5	2	4	6	1	..	5	1	4	8	3	7	7	9	..	1	6
XVII.—DEATHS FROM VIOLENCE.																												
Suicide by Solid or Liquid Toxic or Corrosive Substances	..	..	..	..	..	2	3	1	6	..	1	..	..	..	1	..	..	..	..	..	2	..	..	..	1	..	1	..
Suicide by Poisonous Gas	..	..	..	..	1	3	12	8	24	4	2	1	1	2	1	1	1	1	1	..	2	2	1	..	..	3	..	1
Suicide by Hanging or Strangulation	..	..	..	..	..	2	1	1	4	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	..	..	..	..
Suicide by Cutting or Piercing Instruments	..	..	..	..	..	..	3	1	4	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1
Suicide by other or Unspecified Means	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Homicide by other or Unspecified Means	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Railway Accidents	..	..	1	..	..	..	3	1	5	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	2	1	..
Motor Vehicle Accidents (any Cause of Death except War)	..	1	..	1	3	1	4	4	14	..	1	..	..	1	..	2	..	2	..	1	1	..	..	..	3	2	..	1
Other Road Transport Accidents	..	..	..	..	1	1	2	..	4	1	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
Water Transport Accidents (any Cause of Death except War)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Accidents in Mines and Quarries (any Cause of Death except War)	..	..	..	..	..	2	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Accidents caused by Machinery (any Cause of Death)	..	..	..	..	..	1	..	1	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Accidental Absorption of Poisonous Gas	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Conflagration	..	..	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..
Accidental Burns (Conflagration excepted)	..	..	..	..	..	1	..	2	3	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Accidental Mechanical Suffocation	2	1	..	..	1	..	..	..	4	..	..	..	2	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..
Accidental Drowning	..	..	..	..	2	2	3	4	11	2	..	..	..	1	..	1	1	..	..	1	..	1	..	..	..	..	4	..
Accidental Injury by Fall, Crushing, Landslide, etc.	..	1	..	1	2	4	5	13	26	1	1	..	5	3	2	..	1	..	1	1	..	1	1	1	2	2	2	2
Other Accidents due to Electric Current	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Other Accidents	..	..	..	..	..	..	1	1	2	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..
Deaths due to War Service (Military)	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XVIII.—ILL-DEFINED CAUSES OF DEATH																												
Causes of Death Unstated or Ill-defined	..	..	..	1	..	..	5	3	9	1	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..	1	1	2
Total	214	21	16	15	82	269	1000	2140	3757	171	186	201	269	253	193	215	186	164	176	211	240	126	200	206	175	205	210	170

Total deaths during recent years from certain classes of disease.

	Nervous System.	Circulatory.	Respiratory.	Digestive.	External Causes.
1927 ...	328	751	615	204	123
1928 ...	331	796	480	247	153
1929 ...	311	893	577	226	148
1930 ...	256	874	469	227	137
1931 ...	250	991	509	195	158
1932 ...	232	976	413	201	161
1933 ...	237	1,003	362	213	151
1934 ...	266	935	405	215	134
1935 ...	243	1,107	391	223	130
1936 ...	276	1,283	408	266	154
1937 ...	231	1,316	470	207	139
1938 ...	233	1,216	388	205	157
1939 ...	289	1,278	307	171	189
1940 ...	420	1,115	405	154	211
1941 ...	496	972	530	157	302
1942 ...	474	847	444	130	177
1943 ...	475	915	572	138	150
1944 ...	446	987	418	136	128
1945 ...	476	994	416	115	208
1946 ...	511	996	461	105	106
1947 ...	544	983	505	139	151
1948 ...	500	990	398	153	123
1949 ...	538	1131	549	146	127

Cancer Deaths in Ages (Male and Female), 1949.

Site.	Sex.	Under 1 Year	1 & under 2 Years	2 & under 5 Years	5 & under 15 Years	15 & under 25 Years	25 & under 45 Years	45 & under 65 Years	65 Years and over.	Total.
Cancer of the buccal cavity & pharynx	M.	..	..	..	..	..	1	..	12	13
	F.	..	..	..	..	..	..	1	2	3
Cancer of the digestive system	M.	..	..	..	..	..	10	62	73	145
	F.	..	..	..	..	..	10	47	86	143
Cancer of the respiratory organs	M.	..	..	..	..	..	6	44	21	71
	F.	..	..	..	..	..	..	9	13	22
Cancer of the Uterus	F.	..	..	..	..	..	5	25	13	43
Cancer of other female genital organs	F.	..	..	..	..	..	1	6	3	10
Cancer of the breast	F.	..	..	..	..	..	3	16	12	31
Cancer of the male genital organs	M.	..	..	..	..	..	1	2	23	26
Cancer of the urinary organs	M.	..	..	1	..	..	..	5	12	18
	F.	..	..	..	..	..	..	2	2	4
Cancer of the skin	M.	..	..	..	..	..	..	2	2	4
	F.	..	..	..	..	..	..	1	1	2
Cancer of the brain	M.	..	..	..	..		1	2	..	3
	F.	..	..	..	..	..	..	1	..	1
Cancer of other or unspecified organs	M.	..	..	..	..	1	1	3	7	12
	F.	..	..	..	..	..	1	4	2	7
	M.	..	..	1	..	1	20	120	150	292
	F.	..	..	..	..	..	20	112	134	266
TOTAL ...		..	..	1	..	1	40	232	284	558

The average age at death for males was 67 and females 63.

CANCER DEATHS AND DEATH RATES FROM 1933

AND DEATHS FROM CANCER OF RESPIRATORY ORGANS SHOWING AGE AND SEX DISTRIBUTION.

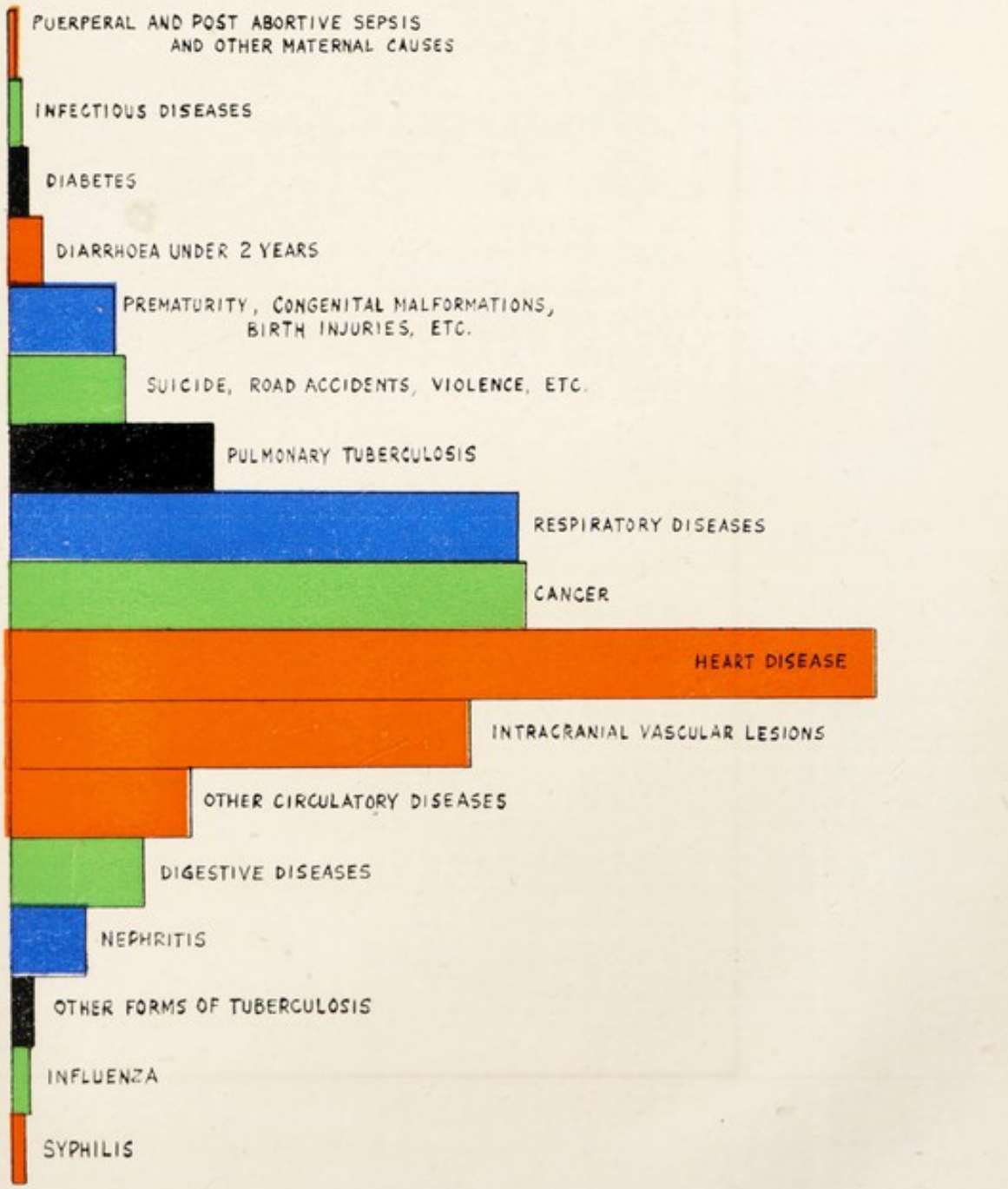
YEAR	Total Number of Cancer Deaths.	Death Rate per 1,000 Population.	RESPIRATORY ORGANS ONLY.									Tota
			Males.				Total.	Females.				
			Under 25	25-45	45-65	Over 65		Under 25	25-45	45-65	Over 65	
1933	404	1·41	..	3	8	5	16	..	..	5	1	6
1934	442	1·54	1	2	16	8	27	..	2	3	3	8
1935	433	1·49	..	1	13	7	21	..	1	6	2	9
1936	413	1·39	..	4	10	5	19	..	..	5	3	8
1937	389	1·34	1	4	15	4	24	..	..	3	..	3
1938	444	1·52	..	7	20	10	37	1	..	7	2	10
1939	457	1·61	..	4	20	9	33	..	1	2	5	8
1940	474	1·85	..	5	37	6	48	..	1	6	4	11
1941	510	2·00	..	4	24	6	34	..	..	2	4	6
1942	510	2·01	..	5	33	12	50	1	2	7	6	16
1943	533	2·09	..	4	43	11	58	..	3	7	7	17
1944	519	1·97	..	3	30	19	52	..	1	4	4	9
1945	510	1·92	1	2	30	13	46	..	2	15	6	23
1946	538	1·90	1	5	37	19	62	..	..	12	5	17
1947	514	1·77	..	4	43	21	68	..	..	10	9	19
1948	590	2·01	..	7	56	22	85	..	1	7	9	17
1949	558	1·89	..	6	44	21	71	..	..	9	13	22

Note the general increase amongst males, more particularly in the age group 45-65.

CHIEF CAUSES of DEATH AT ALL AGES

RATES PER 1000 POPULATION

1949



WARD DISTRIBUTION OF BIRTHS, DEATHS, INFANT MORTALITY, TUBERCULOSIS AND OTHER RESPIRATORY DISEASES, 1949.

WARD.	Estimated Population.	Acreage.	Density of Population per Acre.	Births.	Birth Rate.	Deaths.	Death Rate.	Deaths under 1 year.	Infant Mortality Rate.	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Other Respiratory Diseases.	
										New Cases	Attack Rate.	Deaths.	Death Rate.	New Cases	Attack Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.
Armstrong	17,040	339	50·25	396	23·2	253	14·9	23	58·1	30	1·76	8	0·47	7	0·41	2	0·12	44	2·58
Arthur's Hill ...	15,630	420	37·21	215	13·8	186	11·9	11	51·2	18	1·15	11	0·70	1	0·09	2	0·13	27	1·73
Benwell	16,030	354	45·28	314	19·6	164	10·2	9	28·7	41	2·56	10	0·62	7	0 44	1	0·06	29	1·81
Byker	15,450	271	57·01	294	19·0	206	13·3	9	30·6	38	2·46	15	0·97	4	0·26	0	0·00	37	2·40
Dene	12,010	1,104	10·87	155	12·9	126	10·5	3	19·4	15	1·25	5	0·42	4	0·33	1	0·08	9	0·75
Elswick	14,790	215	68·80	241	16·3	193	13·0	11	45·6	22	1·49	15	1·01	5	0·34	0	0·00	29	1·96
Fenham	13,260	849	15·62	184	13·9	176	13·3	5	27·2	47	3·55	9	0·68	3	0·23	1	0·08	25	1·89
Heaton	14,470	355	40·77	206	14·2	200	13·8	1	4·9	22	1·52	10	0·69	5	0·35	0	0·00	11	0·76
Jesmond	15,440	1,080	14·30	208	13·5	240	15·5	8	38·5	19	1·23	2	0·13	1	0·06	0	0·00	22	1·43
Kenton	18,440	2,280	8·09	401	21·7	186	10·1	11	27·4	25	1·36	15	0·81	1	0·05	1	0·05	23	1·25
St. Anthony's ..	15,120	340	44·47	275	18·2	205	13·6	15	54·6	36	2·38	21	1·39	9	0·59	4	0·26	34	2·24
St. Lawrence ...	16,320	346	47·17	357	21·9	175	10·7	15	42·0	15	0·92	13	0·80	6	0·37	2	0·12	27	1·66
St. Nicholas	11,110	478	23·25	204	18·4	171	15·4	7	34·3	20	1·80	9	0·81	5	0·45	0	0·00	28	2·52
Sandyford.....	14,520	355	40·91	215	14·8	211	14·5	9	41·9	23	1·58	9	0·62	0	0·00	1	0·07	31	2·14
Scotswood	16,210	495	32·75	297	18·3	201	12·4	12	40·4	13	0·80	10	0·62	3	0·19	1	0·06	34	2·10
Stephenson	20,130	362	55·89	476	23·6	269	13·4	22	46·2	37	1·84	15	0·75	12	0·60	2	0·10	58	2·88
Walker	18,840	636	29·62	432	22·9	210	11·1	26	60·2	49	2·60	19	1·01	12	0·64	4	0·21	31	1·65
Walkergate.....	14,930	618	24·16	273	18·3	170	11·4	10	36·6	24	1·61	13	0·87	6	0·40	0	0·00	22	1·47
Westgate	14,800	504	29·37	234	15·8	215	14·5	6	25·6	22	1·49	13	0·87	3	0·20	2	0·13	28	1·88
City	294,540	11,401	25·83	5,377	18·3	3,757	12·8	203	39·6	516	1·75	222	0·75	94	0·32	24	0·08	549	1·87

II.—NATIONAL HEALTH SERVICE ACT

NATIONAL HEALTH SERVICE—DOMICILARY SERVICES.

1949 was the first full year in which the National Health Service Act was operative, and we are now in a better position to judge its effects and to see how the picture is taking shape. In 1948 the lines were roughly sketched only, but now the whole pattern is quite clearly visible.

The responsibilities of the Public Health Service in the domiciliary field have increased considerably, and the Service is changing to meet the need of the times. The infant and maternal death rates are no longer a major problem, although there is still room for improvement. The real problems are social and human, and are the direct result of our modern way of life. The rising cost of living is driving more women to seek employment, and so it happens in many cases when people are sick or too old to look after themselves there is no relative or neighbour to come in and "lend a hand." They cannot be taken into hospital because there is either a shortage of beds or of hospital staff or both. This inevitably affects the old people to a marked degree and the problem of the care of the aged is a very real one. As the allotted span of life increases and the birth rate falls, so the proportion of old people in the community increases. The Home Nursing, Almoning and Domestic Help Services are designed to help such cases and are doing a very good job. The demands for the Domestic Help Service are ever increasing. Since the appointment of Mrs. Maddison as Domestic Help Organiser at the beginning of 1949, the number of workers has grown considerably, but it is obvious that to cope with the demand the Service should be doubled.

At the beginning of the year the Children's Department was set up under the Children's Officer, and consequently in accordance with the Children Act, 1948, certain duties which had hitherto been the responsibility of the Local Health Authority passed to the Children's Committee. These included Child Life Protection, Fostering and the responsibility of the children in the Residential Nursery. It seems unfortunate that children in need of residential nursery accommodation for short periods on account of temporary incapacity of the mother should be classed as "deprived" and have to pass to the care of another department.

Apart from its other functions, the Child Welfare Department provides a training school for student health visitors, pupil midwives and nursery nurses, and the staff also co-operate with

the Local Education Authority in arranging educational visits for senior school girls, college students, etc., to nurseries and clinics.

The work of the Premature Infant Scheme increased and created considerable interest throughout the country. Visits were paid by doctors, supervisors and midwives from other authorities, and several midwives were sent from other authorities to take the training in the care of the premature infant, which combines four weeks in hospital with two weeks on the district.

The detailed work of the Department is reviewed under their special headings, in accordance with the sections enumerated in Part III of the Act.

SECTION 22—CARE OF MOTHERS AND YOUNG CHILDREN.

The Local Health Authority has 18 Maternity and Child Welfare Centres providing 16 Ante-Natal and 33 Child Welfare Clinic Sessions per week. There is one full time Child Welfare Medical Officer acting mainly in an administrative capacity, and a Maternity Officer holding a Regional Hospital Board appointment and acting in a consultant capacity to the Local Authority. The Ante-Natal Clinics are staffed either by general practitioners or medical officers holding hospital appointments. A large number of the child welfare medical officers also hold hospital appointments, full or part time.

The attendances at the Ante-Natal Clinics have dropped as more mothers are availing themselves of the services of a private practitioner. We should like the general practitioners and the mothers to feel that our Ante-Natal Clinics are there for all expectant mothers, and not only for those who have booked a municipal midwife for their confinement. It is unfortunate that all expectant mothers are not now having their blood examined, but the ante-natal clinic staff are only too anxious to co-operate in this service.

Towards the end of the year four ante-natal exercise classes were started. These were greatly appreciated by the mothers who attended.

During the year the Priority Dental Scheme functioned well and excellent work was done. Routine examinations of expectant mothers and children under 5 years of age were carried out and treatment done when necessary, including denture work. Emergency work received immediate attention.

The Committee reviewed the Nursery position, and agreed to limit admission to children of families needing the help because of difficult social circumstances, or in cases of illness of one or other parent. The effects of this policy were reflected in the fall in the waiting lists.

Specialist services were provided either by direct arrangement with the hospitals or by arrangement with specialists through the School Medical Service.

ATTENDANCES AT ANTE-NATAL CENTRES.

Centre.	Ante-Natal.		Post-Natal.	
	Attendances.	Individuals.	Attendances.	Individuals.
Benwell	1,032	277	1	1
Byker	1,639	508	3	3
Diana Street	955	241	2	2
East End	497	73	2	2
Elswick	1,268	351	1	1
Fawdon	26	11	..	..
Fenham	1,523	339	2	2
Heaton	775	194	1	1
Scotswood	800	213	..	..
St. Anthony's	1,321	350	..	..
Walker	626	254	..	..
Wharncliffe Street	999	307	..	..
Total, 1949	11,461	3,118	12	12
Total, 1948	16,160	4,397	23	23

ATTENDANCES AT CHILD WELFARE CENTRES.

CENTRE.	New Children.			Individuals.			Attendances.			Med. Sessions		Individuals.	
	Under 12 mths.	Over 12 mths.	Total	Under 12 mths.	Over 12 mths.	Total.	Under 12 mths.	Over 12 mths.	Total.	No.	Average Atteds.	Boys.	Girls.
Benton	92	15	107	131	118	249	1,325	689	2,014	51	39	132	117
Benwell	237	28	265	350	291	641	2,637	1,371	4,008	154	26	349	292
Byker	260	47	307	403	423	826	2,337	1,705	4,042	150	27	434	392
City Road	62	4	66	99	86	185	717	480	1,197	49	24	100	85
Cowgate	169	31	200	228	155	383	1,505	691	2,196	52	42	199	184
Diana Street	207	28	235	314	195	509	2,047	930	2,977	101	29	254	255
East End	161	10	171	217	104	321	1,772	537	2,309	52	44	175	146
Elswick	311	29	340	469	317	786	3,487	1,820	5,307	153	35	387	399
Fawdon	56	8	64	81	39	120	757	318	1,075	52	21	61	59
Fenham	299	58	357	478	381	859	3,749	1,907	5,656	152	37	442	417
Heaton	194	34	228	318	217	535	2,536	1,054	3,590	101	36	268	267
Jesmond	154	30	184	234	219	453	1,932	1,243	3,175	100	32	222	231
Leazes	76	13	89	107	60	167	747	446	1,193	53	23	90	77
Scotswood	165	24	189	253	229	482	1,457	875	2,332	102	23	251	231
Shieldfield	135	14	149	208	180	388	1,511	987	2,498	101	25	185	203
St. Anthony's	317	29	346	473	443	916	3,408	2,250	5,658	155	37	485	441
Walker	167	19	186	260	117	377	1,278	444	1,722	52	33	188	189
Walkergate	115	16	131	180	142	322	1,509	792	2,301	53	43	160	162
Wharncliffe Street	240	37	277	295	203	498	1,708	917	2,625	154	17	267	231
Total, 1949	3,417	474	3,891	5,098	3,917	9,017	36,419	19,456	55,875	1,837	30·4	4,649	4,378
Total, 1948	3,703	587	4,290	5,643	4,103	9,746	38,902	19,757	58,659	1,736	33·8	4,997	4,749

Births.

2,486 live Births in families belonging to Newcastle occurred in institutions as shown in the following table :—

Nursing Homes	210
Princess Mary Maternity Hospital	341
Gables Maternity Home	235
Newcastle General Hospital	1,336
Other outside hospitals	364
	2,486
Total Number of Births in City	5,377
Proportion of Births taking place in Institutions	46·2%

Illegitimate Births.

270 illegitimate children were born to Newcastle residents during the year, and the death rate in this group of children touched the remarkably low record of 26. The following table gives the legitimate and illegitimate infant mortality rates for the past 6 years :—

Year.	Legitimate.			Illegitimate.		
	Births.	Deaths under 1 year.	Mortality Rate.	Births.	Deaths under 1 year.	Mortality Rate.
1944	5,050	255	50	309	15	48
1945	4,463	170	38	373	22	59
1946	5,742	223	39	337	26	77
1947	6,116	262	43	333	24	72
1948	5,421	207	38	284	11	39
1949	5,107	206	40	270	7	26

Notification of Births.

Of the 6,918 live and 229 still-births (gross) which were registered in the City in 1949, 7,147 or 100 per cent. were notified as follows :—

Notified by	*Gross Living Births.*	*Gross Still Births.*
Medical Practitioners	185	6
Medical Practitioners and Midwives	830	14
Midwives	2,164	23
Princess Mary Maternity Hospital	1,842	116
Newcastle General Hospital	1,458	62
Gables Maternity Home	439	8
	6,918	229

DEATHS OF INFANTS.

	1931	1941	1942	1943	1944	1945	1946	1947	1948	1
Deaths of Infants during first week of life	120	105	101	98	102	96	122	108	93	
Deaths of Infants aged one to four weeks	60	45	28	37	50	21	25	29	20	
Deaths of Infants aged one to twelve months	287	162	129	154	122	73	99	154	105	
Deaths from Prematurity	102	86	71	63	64	56	84	56	68	
Deaths of Twins and Triplets	42	30	29	23	29	20	29	25	27	
Infant Mortality Rate	92	76	59	64	50	39·7	41	44·3	38	3
Net Births ...	5,056	4,176	4,289	4,548	5,359	4,836	6,079	6,449	5,705	5,

Care of Illegitimate Children.

Total number of illegitimate births		270
Number of unmarried mothers who were admitted to Mother and Baby Homes for which the Local Health Authority assumed financial responsibility		28
Elswick Lodge	15	
Brettargh Holy	3	
Coledale Hall	—	
The Refuge	—	
Hopedene	8	
St. Agnes	2	

Children's Acts, 1908-1933.

At the beginning of the year there were 99 nursed-out children in the City, and 99 at the close of the year. Of these, 30 were with foster-mothers and 69 in institutions.

Children in Institutions.

Convent of La Sagesse	11
National Children's Home and Orphanage	19
Northern Counties Institution for the Deaf and Dumb	15
Nazareth Home	9
Dr. Barnardo's Home.....	15
	69

Cause of Death.	Age Periods—Net.									
	Under 1 Week.	1 and under 2 Weeks.	2 and under 3 Weeks.	3 and under 4 Weeks.	Total under 1 Month.	1 and under 3 Months.	3 and under 6 Months.	6 and under 9 Months.	9 and under 12 Months.	Total under One Year
I.—INFECTIVE AND PARASITIC DISEASES.										
Cerebro-spinal (Meningococcal) Meningitis.	..	..	..	..	..	..	..	1	..	1
Whooping Cough	..	..	..	..	..	..	2	..	..	2
Tuberculosis of the Respiratory System	1	..	..	..	1	..	1	..	..	2
Tuberculosis of the Meninges and Central Nervous System	..	..	..	..	..	..	..	1	..	1
Purulent Infection and Septicæmia	..	..	..	..	..	..	..	1	1	2
Influenza (with Respiratory Complications)	..	..	..	..	..	..	2	..	..	2
II.—CANCER AND OTHER TUMOURS										
Non-malignant Tumours	..	..	..	..	..	..	..	..	1	1
VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.										
Meningitis	..	..	..	..	..	1	..	1	..	2
Inter-cranial Lesions of Vascular Origin	1	..	..	..	1	..	..	..	..	1
Mental Disorders and Deficiency	1	..	..	..	1	..	..	..	..	1
Epilepsy	..	..	..	..	..	..	..	1	..	1
Convulsions in Children	..	..	..	..	..	1	..	1	1	3
Other Diseases of the Nervous System	..	..	..	..	..	..	..	1	..	1
Diseases of the Ear and Mastoid Antrum	..	..	..	..	..	..	1	1	..	2
VII.—DISEASES OF THE CIRCULATORY SYSTEM.										
Diseases of the Veins	..	..	..	..	..	..	..	..	1	1
VIII.—DISEASES OF THE RESPIRATORY SYSTEM.										
Bronchitis	..	..	..	1	1	3	3	1	..	8
Broncho-Pneumonia	2	..	..	..	2	9	9	10	2	32
Pneumonia (unspecified)	..	..	..	..	..	1	..	..	..	1
Congestion, Œdema, Hæmorrhagic, Infarction and Thrombosis of the Lungs	..	..	..	..	..	1	..	..	..	1
Asthma	..	..	..	..	..	..	..	1	..	1
IX.—DISEASES OF THE DIGESTIVE SYSTEM.										
Enteritis and Diarrhœa (under 2 yrs. of age)	..	1	..	2	3	7	11	7	5	33
Hernia Intestinal Obstruction	..	..	..	..	..	2	1	..	..	3
Other Diseases of the Liver	..	..	..	..	..	..	..	..	1	1
X.—DISEASES OF THE URINARY AND GENITAL SYSTEMS (NOT VENEREAL).										
Other Diseases of the Kidney and Ureters	..	..	..	..	..	..	..	..	1	1
XIV.—CONGENITAL MALFORMATIONS.										
Congenital Malformations	5	6	3	1	15	1	2	..	..	18
XV.—DISEASES PECULIAR TO THE FIRST YEAR OF LIFE.										
Congenital Debility	..	..	..	..	..	..	..	1	..	1
Prematurity	56	2	1	..	59	2	..	1	..	62
Injury at Birth	11	1	..	..	12	..	..	..	..	12
Other Diseases peculiar to the First Year of Life	14	..	..	..	14	1	..	..	..	15
XVII.—DEATHS FROM VIOLENCE.										
Accidental Mechanical Suffocation	..	..	..	..	..	..	2	..	..	2
Total	91	10	4	4	109	29	34	29	13	214

Adoption of Children (Regulation) Act, 1939.

Number of Persons who gave notice under Section 7(3)	16
Number of Children adopted under Section 7(3)	18
Number of Children under supervision	8
Number of Children who died in 1949.....	Nil.
Number of Children returned to parents	Nil.

Dried Milk and Vitamins.

The number of babies receiving cod liver oil and orange juice is not as high as we should like. About 27 per cent. of the potential numbers take up their orange juice and about 30 per cent. take up cod liver oil. The number of mothers taking up vitamin tablets is slightly over 30 per cent. The majority of artificially fed babies are fed on National dried milk which the mothers obtain at reduced cost through the Ministry of Food Scheme. The vitamins are distributed from all the ante-natal and child welfare clinics, and the National dried milk is now distributed from 10 child welfare clinics.

Maternity and Child Welfare—Orthopædic Scheme.

385 patients have attended during the year. Of these, some have appeared on several occasions for examination, others in addition to attendance for examination, have attended regularly for treatment.

New cases referred during the year.....		175
Children transferred on attaining the age of five years to the Newcastle Education Authority's list		89
Attendances for examination or for re-examination by the Orthopædic Surgeon		519
Patients' attendances for treatment were		3,553
Treatments given :—		
Swedish Remedial Exercises	1,766	
Massage	222	
Electricity	1,766	
Manipulations	539	
Radiant Heat	140	
Ultra Violet Ray	67	
		4,500
Average number of children per month attending for treatment		82
Average number of children per month attending for periodic examination		209
Children discharged as not requiring further treatment.....		27

13 Children were discharged for the following reasons :—

Left District	3
Parents refused to continue attendance	8
Referred to other clinics or hospitals	1
Notified to Local Health Authority	1
X-ray examinations	10 (20 films)
Photographs	2 (14 prints)
Plaster splints	9
New Splints	54
Splint Repairs	20
Surgical Boots	13
Boot Alterations	426

Nose, Throat and Ear Department.

109 children were sent for throat, nose and ear treatment, and of these 51 received operative treatment.

Ultra-Violet Ray.

	Sun-Ray Clinic.	Newcastle General Hospital.	Total.
Number of patients treated	55	28	83
Number of treatments given	636	324	960

Sewing Classes.

A total number of 257 classes were held at 5 centres. The number of attendances was 1,925, an average of 7 mothers at each class.

Day Nurseries.

There are eight day nurseries in the City, all training schools for the National Nursery Nurses' Certificate Examination. The administrative staff includes a Superintendent Matron and a Superintendent Warden. All staffing, ordering of equipment and provisions is done from the central office at 37, Groat Market.

During August, 1949, there was a refresher course organised for the staff nurses in the nurseries. This covered about 9 days and was a very successful undertaking of real benefit to those attending.

The waiting list position was considerably eased by the new policy adopted by the Health Committee in July. Under the new ruling, children were accepted only in cases where the mother was the sole support of the family, in cases of illness of either parent, or in the case of children living under very bad housing conditions.

As always, the number of attendances was reduced to a certain extent by epidemics, particularly measles.

27 nursery students took the Nursery Nurses' Examination Board Certificate examination during the year, and the results were as follows :—

April, 1949 :

Of 5 candidates sitting :—

3 passed,

1 passed after re-sitting,

1 failed.

November, 1949 :

Of 22 candidates sitting :—

17 passed,

5 failed.

DAY NURSERIES RETURNS FOR YEAR 1949.

Nursery.	Total Capacity.	Children on Register.	No. of Attendances 0-2 years.	No. of Attendances. 2-5 years.	Total Attendances	Average Daily Attendance (Monday-Friday).
Cresta	40	86	1,580	7,959	9,539	38
Willow Avenue	50	97	1,811	8,455	10,266	41
Renwick Street	50	85	2,139	8,216	10,355	41
Woodland Crescent .	48	106	2,300	8,500	10,800	43
West Parade	50	104	2,435	8,329	10,764	43
Gosforth Street	50	114	1,421	8,234	9,655	38
Byker Park	50	114	1,779	8,572	10,351	41
St. Anthony's	50	103	1,976	8,321	10,297	41

Report on the Priority Dental Service for Nursing and Expectant Mothers and Children Under School Age for the year 1949.

During the year 1949, the arrangements made towards the termination of the previous year for the provision of a priority dental service for nursing and expectant mothers and children under school age were maintained. Thus the service was operated, partly from the dental clinic set up for the purpose at St. Anthony's Welfare Centre, and partly from the several school dental clinics, whose part-time usage, it will be remembered, was placed at the disposal of the Local Health Authority by the Education Authority.

With these means, it was possible throughout the year to give an offer of an immediate dental examination to every expectant and nursing mother and young child attending the City's welfare centres, and where necessary, to carry out any treatment found to be required with little or no delay.

By the beginning of the year, the service was well on its feet and the clinic at St. Anthony's soundly established and working at full pressure, and it became increasingly apparent as the months passed that the popularity of the new service amongst the Welfare patients was assured.

Examination sessions were held at weekly intervals at St. Anthony's clinic for the eastern area of the city, and at the welfare centres at Shields Road and Diana Street for the Central and western areas respectively. These sessions were fairly well attended, and where dental treatment was found to be necessary, the number of patients wishing to avail themselves of the priority service was in the region of 95 per cent. of the number examined. This figure is irrespective of the nature of the treatment found to be required, and is very gratifying, for it has been our experience in the past that, while consent to having extractions and denture work carried out has always been reasonably good, considerable reluctance to agree to having conservative work done has been encountered.

I should like to say here that this high rate of acceptance is due in no small measure to the enthusiasm of the dental officer at St. Anthony's clinic, Mrs. Makepeace, who conducts these inspection sessions at all three centres, and to the keen interest of the Maternity and Child Welfare medical and nursing staffs, who have taken every opportunity to impress on the mothers attending the welfare centres the importance of the care of their teeth during pregnancy and lactation, and of their children's teeth from an early age.

As the school clinics are not yet equipped to dispense treatment other than extractions, or treatment of a simple conservative nature, denture work for the Maternity and Child Welfare patients was undertaken during the year solely at St. Anthony's clinic, the actual mechanical processing of the dentures fitted being carried out by a local dental laboratory. This arrangement was not altogether satisfactory, involving as it did a considerable amount of travelling on the part of patients residing elsewhere than in the eastern area of the city, and it also entailed too much of the clinic's time being devoted to denture work, with a resultant reduction in the time available for conservative or other treatment. However, alternative arrangements for the provision of artificial dentures are under consideration, and it is hoped that a more satisfactory solution may be found in the near future.

As I have mentioned above, the arrangements with the Education Authority which allowed the part-time use of the facilities of the school dental service for the Maternity and Child Welfare patients was maintained throughout the year, and much useful work was carried out for mothers and young children by the school dental officers. This work included ordinary routine treatment such as extractions and fillings, while in addition, the school service was able to place its facilities for X-ray diagnosis at our disposal, and during the year some 33 patients were referred to the Central clinic at Northumberland Road for X-ray examination.

In conclusion, these arrangements to provide priority dental treatment for our welfare patients have been fairly successful during the year, but it is felt that the provision of a further full-time dental clinic serving the central and western areas of the city should be given early consideration, for the first year's work, and the steadily increasing demand for treatment throughout the year, have shown the need for the scheme's expansion, and as the staff of the school service is fully engaged on the provision of treatment for their own patients it would be unfair to attempt to enlist any further aid from the school services.

For the rest, a detailed account of the work carried out by the service is given on next page.

NUMBERS PROVIDED WITH DENTAL CARE.

	Examined.	Needing Treatment.	Treated.	Made Dentally Fit.
Expectant and Nursing Mothers	600*	584	695	532
Children under five	1,030	490	547	451

FORMS OF DENTAL TREATMENT PROVIDED.

	Extractions.	Anæsthetics.		Fillings.	Scalings or Scaling and gum treatment.	Silver Nitrate treatment.	Dressings.	Radiographs.	Dentures provided.	
		Local.	General.						Complete.	Partial.
Expectant and Nursing Mothers.....	2181	217	207	402	272	8	33	33	29	61
Children under five	1212	33	384	181	..	375	19	..	..	..

* This figure refers only to the number of mothers examined at examination sessions, and does not include those patients attending the clinics as emergency cases.

PREMATURE BABY SERVICE.

The District Premature Baby Service has continued its excellent work throughout 1949. The results have been good and show that hospital care is not always the answer in these cases. What the figures cannot show is that these premature babies can be satisfactorily nursed at home sometimes under the worst possible conditions. Owing to lack of hospital cots it has in some cases been necessary to nurse premature babies in their own homes under conditions which seemed, at first sight, quite unsatisfactory, if not impossible. Experience has proved that the really important things are the personality of the premature baby nurse and her ability to mobilise the services of all members of the family—sometimes friends and neighbours—and organise them into a keen, enthusiastic team working for the baby's welfare.

In 1949 there were 131 living premature babies born at home. Of these, 106 were " specialled " by a premature baby nurse, 10 were nursed entirely by their own midwife and 15 were transferred to hospital within the first 14 days.

Of the 106 babies " specialled " the results were as follows :—

Birth Weight.	Total.	Survived 28 days.	Died.
2½ lbs. and under	8	2	6
2 lbs. 9 ozs.–3½ lbs.	5	2	3
3 lbs. 9 ozs.–4½ lbs.	26	21	5
4 lbs. 9 ozs.–5½ lbs.	67	65	2
Total.....	106	90	16

Also " specialled " :—

6 Premature babies after discharge from Princess Mary Maternity Hospital.
2 Premature babies after discharge from Newcastle General Hospital.
1 Premature baby after discharge from Hopedene Maternity Home.
1 Premature baby after discharge from Dilston Hall Maternity Home.

Of the 90 living premature babies " specialled " by a premature baby nurse :—

51 were entirely breast fed at the end of one month.
16 were receiving complementary feeds at the end of one month.
23 were artificially fed at the end of one month.

AGE GROUPS OF DEATHS OF " SPECIALLED " PREMATURE BABIES :

Under 24 hours.....	9
Under 1 week	7
Under 2 weeks	0
Under 1 month	0
	16

WEIGHT GROUPS OF DEATHS OF "SPECIALLED" PREMATURE BABIES:

9 under 24 hours—

2½ lbs. and under	4
2 lbs. 9 ozs. to 3 lbs. 8 ozs.	3
3 lbs. 9 ozs. to 4 lbs. 8 ozs.	1
4 lbs. 9 ozs. to 5 lbs. 8 ozs.	1

7 under 1 week—

2½ lbs. and under	2
2 lbs. 9 ozs. to 3 lbs. 8 ozs.	nil
3 lbs. 9 ozs. to 4 lbs. 8 ozs.	4
4 lbs. 9 ozs. to 5 lbs. 8 ozs.	1

Total nursing visits given by the premature baby nurses during 1949—2,570.

97 district premature babies were provided with special equipment during 1949.

Of the 95 "specialled" and "non-specialled" premature babies, 3 babies died under one year.

BABIES NOT NURSED UNDER THE PREMATURE BABY SERVICE:

	Survived 28 days.	*Died.*
2½ lbs. and under	nil	2
2 lbs. 9 ozs. to 3 lbs. 8 ozs	nil	1
3 lbs. 9 ozs. to 4 lbs. 8 ozs.	nil	2
4 lbs. 9 ozs. to 5 lbs. 8 ozs.	5	nil
	5	5

AGE GROUPS OF DEATHS OF "NON-SPECIALLED" BABIES:

Under 24 hours	5
Under 1 week	nil
Under 2 weeks	nil
Under one month	nil

WEIGHT GROUPS OF DEATHS OF "NON-SPECIALLED" BABIES:

5 under 24 hours—

2½ lbs. and under	2
2 lbs. 9 ozs. to 3 lbs. 8 ozs.	1
3 lbs. 9 ozs. to 4 lbs. 8 ozs.	2
4 lbs. 9 ozs. to 5 lbs. 8 ozs.	nil

Of the 5 living "non-specialled" babies:—

4 were entirely breast fed at the end of one month.

1 was artificially fed at the end of one month.

SECTION 23—MIDWIVES SERVICE.

The Local Health Authority Midwifery Staff consists of :—

1 Non-Medical Supervisor of Midwives,

1 Deputy Non-Medical Supervisor of Midwives, who is also Superintendent of the Pupil Midwives' Hostel,

1 Deputy Superintendent of the Pupil Midwives' Hostel,

50 permanent Municipal Midwives : this figure includes 3 Municipal Midwives engaged entirely in the District Premature Baby Nursing Service.

There are also :

2 Private Midwives,

55 Midwives employed in institutions, permanent or temporary,

2 Midwives employed by the Princess Mary Maternity Hospital on domiciliary midwifery.

Since the introduction of the National Health Service, when all maternity services became free of charge, a greater percentage of women have availed themselves of the services of a doctor at their confinement. This has meant that there have been fewer confinements attended by Municipal midwives as midwives, and a comparatively greater number attended by them as maternity nurses. The total number of confinements attended by Municipal midwives as midwives and maternity nurses was 114 less than in 1948. There is a greater tendency for the mothers to have their babies in hospital. As the hospitals are hard pressed for beds and staff, these women are in many cases discharged early to be nursed at home up to the fourteenth day by the Municipal midwives. So far this has not created any great problem in the City, but it is quite conceivable that in this way a problem might arise in the training of Part 2 midwives on the district. These pupils must attend a certain number of cases on the district, and if the number of district confinements falls to any great extent, it may be difficult for the pupils to get the required number of cases. It is unfortunate that so many mothers have to be confined in hospital on account of poor home conditions. This is yet another reflection on the housing situation.

As was mentioned in a previous Section, there was a falling off in the percentage of expectant mothers who attended for ante-natal blood examinations. All those who booked midwives and attended

the clinics had these examinations done as a routine, but this Service is available at the ante-natal clinics for all, and if general practitioners wish, they may refer their patients to the clinics for this Service alone.

The use of gas and air analgesia on the district increased in 1949, the analgesia being administered to approximately 1,540 mothers. The machines were, in many cases, conveyed to the patients' homes by the Ambulance Service. There was close co-operation between the Ambulance and Midwifery Services, and the midwives accompanied many midwifery cases to hospitals and to nursing homes in the City and in many instances went with such cases to outside hospitals. There is no doubt that this accompanying of hospital booked cases to hospitals outside the City is an added strain on the Midwifery Service, but it seems only right that a woman in labour should be attended by a midwife if she has to travel any distance.

There was a rise in the maternal mortality rate from 0·85 per thousand births in 1948 to 1·46 in 1949. One of the 8 maternal deaths recorded occurred in 1948, but was not registered until 1949.

41 pupil midwives were trained in 1949, and it is gratifying to report that all passed the examination.

Attendances at Confinements.

	Midwifery Cases.	*Maternity Cases.*
Municipal Midwives	2,024	835
Private Midwives	5	21
Institutions—Gables, Salvation Army, Elswick Lodge, Western Nursing Home	104	307
	2,133	1,163

Summary of Municipal Midwives' Work, 1949.

No. of Ante-Natal Visits.	No. of Clinic Visits by Midwives.	No. of Deliveries.		No. of Nursings.
		As Mat. Nurse Doctor engaged.	As Midwife.	
19,766	2,530	835	2,024	50,915

Still-Births.

Among the 2,029 births attended by the Municipal and Private Midwives, 26 still-births occurred. In the 856 cases where midwives attended in the capacity of Maternity Nurse, 8 still-births occurred.

Of the 5,377 City births registered, 100 related to still-births, which gives a rate of 18·6 per 1,000 total births.

Still-births registered	100
Still-births notified	96
Percentage notified	96%
Still-births visited	96

Duration of Pregnancy.	*No.*	*Percentage of Total notified.*
At or under 7 months	14	14·58
At 7–8 months	19	19·8
At full term	63	65·62
	96	

Suggested Cause of Still-births :—

		Cases.
(1)	Ante-Partum Hæmorrhage	14
(2)	Fœtal Defects	18
(3)	Malpresentation	8
(4)	Inertia and Prolonged Labour	3
(5)	Toxæmia of Pregnancy	9
(6)	Simple Prematurity	10
(7)	Other causes	34
		96

Notices for Medical Aid sent by Midwives.

During Pregnancy—

Ante-Partum Hæmorrhage	34
Abortions	7
Illness (Miscellaneous)	128
Suspected toxæmia of pregnancy	2
	171

During Puerperium—

Rise of Temperature	52
Undefined Illness of Mother	76
	128

During Labour—

Uterine Inertia, Malpresentations	139
Retained Placenta	11
Post-Partum Hæmorrhage	14
Ruptered Perineum	317
	481

For Child—

Prematurity	46
Discharging Eyes	137
Congenital Defects	14
Illness of Baby	81
Still-births	25
Rashes	12
	315

Total calls for mother and child—1,095.

CLAIMS FOR FEES FROM DOCTORS IN RESPECT OF CALLS FROM MIDWIVES :

	Cases.			
	1946.	1947.	1948.	1949.
For prolonged labour-malpresentation ..	121	183	218	80
For post partum hæmorrhage	17	25	27	18
For ante partum hæmorrhage	61	66	60	18
For illness of mother	170	178	172	94
For illness of child	118	146	116	71
For premature birth	65	60	71	43
For discharging eyes	119	169	211	115
Ruptered Perineum	375	492	429	211
Other	167	175	72	44
Specialists called in	9	17	6	—
	1,222	1,511	1,382	694

Complications of Childbirth.

(1) PUERPERAL PYREXIA.—Seventy-three cases were notified during the year. Details of these are given in the following table :—

	Total Cases Notified.	Newcastle Cases.	Extra Mural Cases.	TOTAL DEATHS.
Puerperal Pyrexia	73	52	21	Newcastle.. 0 Extra Mural 0 — Nil

Of the Newcastle cases, 24 occurred in hospital and 11 others were admitted to hospital, the remainder being nursed at home.

All City cases were visited and the attendants at the confinements are indicated in the following table :—

	Puerperal Pyrexia.
Doctors	—
Doctors and Midwives	9
Midwives	19
Princess Mary Maternity Hospital Staff.....	1
Newcastle General Hospital	22
Gables Maternity Home	1
	52

(2) MATERNAL MORTALITY.

4,891 Newcastle women were confined in the City and 486 Newcastle residents had their confinements outside the City. There were eight maternal deaths, a mortality rate of 1·46 per thousand as compared with ·085 for the previous year.

Revised Classifications :

Abortions, including sepsis following abortions	2
Hæmorrhage and shock after confinements (including renal complications)	2
Toxæmias of pregnancy, including pyelitis	3
Accidents of pregnancy and childbirth	–
Associated Maternal Deaths (heart disease, etc.)	1
	8

Place of Death.	*Total.*
Newcastle General Hospital	5
Private Houses	2
Princess Mary Maternity Hospital	1

(3) Ophthalmia Neonatorum.

Four City cases were notified and all were visited.

Attendants at the confinements were as follows :—

Midwives	2
Princess Mary Maternity Hospital	1
Newcastle General Hospital	1

The ophthalmia incidence per 1,000 live births for the last seven years has been as follows :—

1943	6·4
1944	5·2
1945	3·1
1946	1·5
1947	2·0
1948	2·1
1949	0·75

INFANTILE AND MATERNAL MORTALITY.

Year.	Infantile Mortality (Deaths per 1,000 Live Births).	Puerperal Sepsis.			Total Maternal Deaths.	
		Number of Cases Notified.	Number of Deaths.	Death Rate per 1,000 Live and Still Births.	Number of Deaths.	Death Rate per 1,000 Live and Still Births.
1919.....	120	6	..	..	29	4·35
1920.....	101	12	5	0·62	27	3·34
1921.....	96	12	5	0·69	24	3·29
1922.....	92	19	7	1·00	28	4·01
1923.....	98	13	10	1·57	26	4·08
1924.....	100	15	6	0·95	15	2·37
1925.....	88	13	4	0·64	18	2·89
1926.....	88	15	5	0·83	19	3·16
1927.....	88	10	4	0·74	20	3·70
1928.....	82	18	9	1·66	27	4·97
1929.....	85	17	11	2·15	30	5·85
1930.....	74	28	14	2·68	28	5·36
1931.....	92	18	9	1·78	23	4·55
1932.....	76	16	9	1·84	22	4·50
1933.....	76	10	7	1·43	22	4·50
1934.....	83	16	8	1·64	26	5·33
1935.....	86	16	12	2·46	25	5·13
1936.....	90	9	10	2·12	28	5·92
1937.....	91	*9	5	1·00	21	4·21
1938.....	66	39	5	1·03	16	3·30
1939.....	62	37	7	1·46	22	4·78
1940.....	64	56	2	0·43	11	2·37
1941.....	76	62	..	..	12	2·82
1942.....	59	50	3	0·68	12	2·71
1943.....	64	52	5	1·07	13	2·78
1944.....	50	104	6	1·09	19	3·45
1945.....	40	74	4	0·80	11	2·21
1946.....	41	65	1	0·16	4	0·64
1947.....	44	88	..	..	4	0·60
1948.....	38	52	..	..	5	0·85
1949.....	39·6	52	..	..	8	1·46

* Ceased to be notifiable on 1st October, 1937. Figures after that date refer to Puerperal Pyrexia Notifications.

SECTION 24—HEALTH VISITORS.

The Health Visiting Staff consists of the Superintendent Nursing Officer, who combines this post with that of Chief Health Visitor, the Deputy Chief Health Visitor, the Assistant Chief Health Visitor, who is also Health Visitor Tutor, the Assistant Health Visitor Tutor and 50 Health Visitors. Four of the latter are seconded to the Special Investigation of Infections in Infancy which is being carried out by members of the Department of Child Health, University of Durham, under Professor Spence.

The Health Visitor's field of action has greatly enlarged under the National Health Service Act; she is now responsible for the supervision of the whole family and not only the mother and young children. It is hoped that the co-operation between the general practitioners and health visitors will increase, and that the general practitioners will realise how much the health visitors may assist in the health education of the families which they attend.

Work of the Health Visitors.

The greater part of the work of the Health Visitors is shown under Section 22. (See page 28).

SUMMARY OF VISITS.

	Primary.	Subsequent.	Total.
Births	5,280	27,133	32,413
Measles	4,069	2,912	6,981
Pneumonia	460	416	876
Whooping Cough	651	883	1,534
Children over one year	....	57,002	57,002
Hospital Cases	....	61	61
Expectant Mothers	683	234	917
Special Visits	....	1,184	1,184
Visits *re* Adoptions	....	39	39
Visits to Boarded-out or Nursed-out Children	10	231	241
Unsuccessful Visits (Out and Removals)	....	11,131	11,131
Orthopædic Work (including Treatments)	161	329 2,727 Treatments	3,217
Tuberculosis Visits	659	7,806	8,465
Tuberculosis Contacts	31	34	65
	12,004	112,122	124,126

Infants on Visiting List :

Of 5,685 children under one year who were visited in 1949, 5,039 completed their first year, and of the remainder :—

190 died,
355 left the City,
85 could not be traced,
10 were visited only once,
6 were put in institutions.

The following figures are therefore based on the 5,039 who completed the first year plus 190 who died, making in all a total of 5,229, and of that total 2,962 or 56·6 per cent. attended the Welfare Centres.

Illness among the children visited.—296 or 5·7 per cent. contracted measles ; 187, or 3·6 per cent. contracted whooping cough ; 130, or 2·5 per cent. contracted diarrhœa ; and 554, or 10·6 per cent., contracted bronchitis or pneumonia.

Details as to the stated feeding of the 5,229 children under supervision during the year are given in the following table. 66 died before feeding was established.

	Feeding.					
	Breast.		Mixed.		Artificial.	
	No.	Per-centage.	No.	Per-centage.	No.	Per-centage.
At First Visit	3,850	74·6	283	5·5	1,030	19·9
At time of death of those of above Children who died in First Year.....	16	12·9	9	7·3	99	79·8
Surviving Children at 9 months	96	1·9	1,850	36·7	3,093	61·4

Details as to children who should have attained the age of five years during 1949 :—

Well and attending school	3,459
Ill and not attending school	20
Left City or failed to trace	1,631
Died in 2nd year	17
Died in 3rd year	18
Died in 4th year	4
Died in 5th year	2
Total surviving whose whereabouts are known	3,479
Total deaths	41
Total reported upon	5,151

The addresses of 845 children who left the City in 1949 were sent to the Medical Officers of Health for the districts to which they had gone.

Visiting Cases of Tuberculosis.

All new notified cases were visited and existing patients re-visited regularly by the Health Visitors. It has been of considerable help to both patients and Visitors now that the Health Visitor who visits for all purposes in one area should also visit notified cases of tuberculosis. Very close contact has been maintained between the Visitors and the Chest Clinic ; this is brought about by the Health Visitors attending at the Chest Clinic and discussing the patients with the Medical Officers and the Almoners.

During the year 659 new patients were visited and a total number of 7,806 re-visits paid to these patients.

SECTION 25—HOME NURSING SERVICE.

The Home Nursing Service can be looked on as one of the successes of the National Health Service in this City. It has run smoothly and well from the outset, and the demand for the Service has increased.

The administrative arrangements in 1949 were the same as at the end of 1948. Roughly, half the City was served by the Local Authority Home Nursing Service, and the remainder by the Cathedral Nursing Society, who acted as agents of the Local Authority and were reimbursed to the extent of 90 per cent. More nurses were appointed to cope with the increased demand on the Service, and at the end of December, 1949, there were 15 full time nurses attached to the Local Authority Service and 15 full time and 6 part time nurses attached to the Cathedral Nursing Society.

Although the major part of the work of the Home Nurses is with the chronic sick and old people, the number of acute cases and post-operative cases has increased considerably, and both hospital staff and general practitioners appreciate that the nursing of these cases can be done at home. Acute cases can perhaps be discharged earlier from hospital in the knowledge that nursing will be carried on efficiently at home. The co-operation between the hospital staffs and the home nurses is very good, and arrangements are made to have the patients visited almost as soon as they arrive home. The frequent contact with the hospital nursing staffs is stimulating for the domiciliary nurses, and gives them the opportunity of keeping up-to-date with modern treatment. It also gives the hospital nurses an insight into the homes of the patients, enabling them to see the patient better as an individual and not only as a hospital case.

The work of the Home Nurse is arduous, and sometimes her case load is very heavy. It requires infinite patience and a cheerful disposition to carry out this work satisfactorily, as there is no doubt that some of their sick patients have very little to look forward to in their day other than the nurses' visits.

Towards the end of the year, two male nurses were taken on to the Cathedral Nursing Society staff. This was a venture which has proved very successful, and it has been found that many male patients prefer a male nurse and in many cases the work is much more suited to a male rather than a female nurse.

The following table shows the comparison between the number of patients and the number of visits undertaken in 1948 and 1949 :—

		1948	1949
New Patients :	Local Authority	468	1,227
	Cathedral Nursing Society.....	584	1,749
Re-Visits :	Local Authority	12,843	37,923
	Cathedral Nursing Society.....	15,198	48,316
	TOTALS :	29,093	89,215

SUMMARY OF NEW CASES VISITED BY HOME NURSES DURING 1949.

Disease.	Number of cases.	Percentage of whole.	Age.			Result.			
			Under 45 yrs.	45–65 yrs.	Over 65 yrs.	Still ill.	Referred to Hospital.	Discharged.	Died.
Hemiplegia	241	15·7	6	57	178	95	21	38	87
Senility	229		..	5	224	85	23	31	90
Cardiac Disease	190	6 4	10	57	123	57	17	42	74
Rheumatism	66	2·2	13	17	36	25	5	32	4
Respiratory Disease	204	6·8	74	54	76	48	26	99	31
Tuberculosis	101	3·4	67	26	8	40	13	9	39
Carcinoma	206	6·8	17	78	111	62	28	34	82
Fractures	45	5·5	56	31	67	44	12	88	10
Other Accidents	109								
Stomach and Intestinal Disease	412	13·8	189	79	144	29	33	344	6
Post Operative	497	16·7	287	129	81	109	24	345	19
Diabetes	36	1·2	3	10	23	20	2	14	..
Gynæcological	138	4·6	81	27	30	34	11	88	5
Post Obstetric	118	4·0	118	..	..	9	8	101	..
Neo-Natal									
Sepsis	335	11·3	164	80	91	81	30	218	6
Miscellaneous	49	1·6	23	17	9	24	3	19	3
Total :	2,976	100%	1,108 37·3%	667 22·4%	1,201 40·3%	762 25%	256 9·5%	1,502 50%	456 15·5%

SECTION 26—VACCINATION AND IMMUNISATION.

SECTION OF IMMUNOLOGY.

The Section of Immunology was instituted in 1948 to co-ordinate the activities of the Local Health Authority in connection with Vaccination and Diphtheria Immunisation.

Vaccination.

The five clinics which were started in August, 1948, continued to function throughout 1949, but it must be said that attendances were not very satisfactory. However, many children were vaccinated by their family doctor, and the total of 2,216 children aged under 1 year who were vaccinated either at the clinics or by their doctor is better than was at first expected. The fact remains, however, that the greatly improved travel facilities nowadays have increased the vulnerability of this country to the introduction of disease from abroad, and vaccination is therefore more necessary now than it was a few years ago.

The following tables give particulars of vaccination carried out during the year :—

Tables I and II summarise the work at each clinic with regard to primary and re-vaccination.

Tables III and IV give the ages of the individuals included in the above tables, and also show the ages of persons vaccinated or re-vaccinated by private practitioners.

Table V is a summary of Tables III and IV.

Table VI is a record of any untoward signs and symptoms following vaccination.

TABLE I.

NUMBER OF INDIVIDUALS ATTENDING CLINICS FOR PRIMARY VACCINATION IN 1949.

Clinic.	1ST INSERTION.					2ND INSERTION.			
	No.	Successful.	Failed.	Not seen.	Percentage failed.	No.	Successful.	Failed.	Not seen.
St. Anthony's	251	203	13	35	6·01	12	10	1	1
Wharncliffe St.	194	129	7	58	5·14	7	4	1	2
Byker	173	142	9	22	5·96	9	1	5	3
Diana Street	311	246	18	47	6·81	15	6	5	4
East End Centre	216	175	10	31	5·40	9	7	1	1
Total	1145	895	57	193	5·98	52*	28	13	11

* These figures include 1 case where the first insertion was not made at the Clinic.
In addition to the above, 7 third attempts were made, 2 of which resulted in successful vaccination.

TABLE II.

NUMBER OF INDIVIDUALS ATTENDING CLINICS FOR RE-VACCINATION IN 1949

Clinic.	1ST INSERTION.			
	No.	Successful.	Failed.	Not seen.
St. Anthony's	33	11	..	22
Wharncliffe Street.....	4	3	..	1
Byker	36	6	9	21
Diana Street	7	7	..	..
East End Centre	21	9	..	12
Total.....	101	36	9	56

In addition to the above, 2 second attempts were made, both of which failed.

TABLE III.

NUMBER OF INDIVIDUALS ATTENDING CLINICS FOR PRIMARY VACCINATION IN 1949, DIVIDED INTO AGE GROUPS.

Born	1948-1949.		1945-48.	1935-44.	Before 1935.	Total.
Age	Under 1.		1 to 4 yrs.	5 to 14 yrs.	15 yrs. & over.	
	1948	1949				
Number	412	720	5	2	6	1145

NUMBER OF INDIVIDUALS ATTENDING PRIVATE PRACTITIONERS FOR PRIMARY VACCINATION IN 1949.

Born	1949.	1945-48.	1935-44.	Before 1935.	Total.
Age	Under 1.	1 to 4 yrs.	5 to 14 yrs.	15 yrs. & over.	
Number	1084	373	20	73	1550

Total Number of Individuals Vaccinated—2,695.

TABLE IV.

NUMBER OF INDIVIDUALS ATTENDING CLINICS FOR RE-VACCINATION IN 1949.

Born	1945-48.	1935-44.	Before 1935.	Total.
Age	1 to 4 yrs.	5 to 14 yrs.	15 yrs. & over.	
Number	1	9	91	101

NUMBER OF INDIVIDUALS ATTENDING PRIVATE PRACTITIONERS FOR RE-VACCINATION IN 1949.

Born	1945-48.	1935-44.	Before 1935.	Total.
Age	1 to 4 yrs.	5 to 14 yrs.	15 yrs. & over.	
Number	8	22	120	150

Total Number of Individuals Re-vaccinated—251.

TABLE V.

NUMBER OF INDIVIDUALS VACCINATED AND RE-VACCINATED IN 1949.

Born	1949.	1945-48.	1935-44.	Before 1935.	Total
Age	Under 1.	1 to 4 yrs.	5 to 14 yrs.	15 yrs. & over	
No. Vaccinated	2216	378	22	79	2695
No. Re-vaccinated	—	9	31	211	251

TABLE VI.

NUMBER OF CASES SPECIALLY REPORTED DURING PERIOD.

Born	1949.	1945-48.	1935-44.	Before 1935.	
(*a*) Generalized Vaccinia	—	—	—	—	None.
(*b*) Post Vaccinal Encephalomyelitis	—	—	—	—	None.
Death from complications of Vaccination other than (*a*)–(*b*)	—	—	—	—	None.

Diphtheria Immunisation.

As in previous years, eleven diphtheria immunisation clinics were held every week, and during the year, a total of 550 clinics was held. The total attendances amounted to 12,567, making an average of 22·84 at each session, as compared with 28·59 in 1948, and the total number of **individuals** who attended was 4,931, showing a drop of 20 per cent. on the 1948 figure of 6,118. This drop was almost entirely confined to primary immunisations.

It is interesting to note that of 6,602 children who completed a full course of primary immunisation or re-immunisation in 1949, 1,729 or 26 per cent. were done by private practitioners, as against 20·6 per cent. in 1948.

The following tables set out in detail the diphtheria immunisation statistics for the year.

TABLE I.

NUMBER OF INDIVIDUALS ATTENDING THE CLINICS FOR INOCULATION AGAINST DIPHTHERIA,

1ST JANUARY—31ST DECEMBER, 1949.

1949.	PRIMARY IMMUNISATION.						RE-IMMUNISATION.						Total Individuals attending the Clinics.
	Under 5 yrs.		Over 5 yrs.		Total.		Under 5 yrs.		Over 5 yrs.		Total.		
	East End.	West End.	East End.	West End.	East End.	West End.	East End.	West End.	East End.	West End.	East End.	West End.	
1st Quarter	480	431	23	30	503	461	191	172	48	41	239	213	
2nd Quarter	456	340	11	9	467	349	237	188	39	26	276	214	
3rd Quarter	396	387	16	15	412	402	171	209	51	76	222	285	
4th Quarter	230	250	5	16	235	266	152	134	30	71	182	205	
Totals	1,562	1,408	55	70	1,617	1,478	751	703	168	214	919	917	East 2536 West 2395
	2,970		125		3,095		1,454		382		1,836		4,931

TABLE II.

NUMBER AND AGES (AT TIME OF FIRST INOCULATION) OF INDIVIDUALS ATTENDING THE CLINICS FOR PRIMARY IMMUNISATION DURING THE YEARS 1946-1949.

Age in years	0–1	1	2	3	4	Total under 5	5	6	7	8	9	10	11	12	13	14	15	Total over 5	Total all ages.
1949.....	1,642	836	244	81	167	2,970	76	19	11	8	5	4	..	2	..	..	..	125	3,095
1948.....	1,600	1,873	240	99	224	4,036	137	30	28	10	11	6	2	..	2	1	2	229	4,265
1947.....	539	2,067	185	103	148	3,042	92	27	30	16	14	11	5	6	2	..	..	203	3,245
1946.....	271	1,929	273	151	122	2,746	142	84	98	91	41	33	23	25	11	..	1	549	3,295

TABLE III.

NUMBER AND AGES OF THE INDIVIDUALS WHO WERE RE-INOCULATED DURING 1949 AND PREVIOUS YEARS.

Age in years ...	3	4	Total under 5	5	6	7	8	9	10	11	12	13	14	15	Total over 5	Total all ages.
1949.....	..	1,454	1,454 (79% of total)	244	49	35	23	15	8	3	2	3	..	..	382	1,836
1948.....	3	1,374	1,377 (74% of total)	209	79	81	41	34	25	4	1	2	..	..	476	1,853
1947.....	4	977	981 (55% of total)	339	145	114	67	63	38	14	4	1	2	..	787	1,768
1946.....	2	310	312 (24% of total)	200	157	159	131	114	60	50	58	25	1	..	955	1,267

TABLE IV.

NUMBER OF INDIVIDUALS WHO COMPLETED A FULL COURSE OF PRIMARY IMMUNISATION, DIVIDED INTO TWO AGE GROUPS.

1949.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	2,928	109	3,037
Private Practitioners	1,218	84	1,302
Total	4,146	193	4,339

1948.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	3,938	214	4,152
Private Practitioners	1,151	117	1,268
Total	5,089	331	5,420

1947.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	2,945	356	3,301
Private Practitioners	651	133	784
Total	3,596	489	4,085

1946.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	2,749	462	3,211
Private Practitioners	678	191	869
Schools	....	141	141
Total	3,427	794	4,221

PRIMARY IMMUNISATION.

Number attending for first Inoculation	100·00 per cent.
Number attending for second Inoculation	98·12 per cent.
Number attending for third inoculation	95·57 per cent.

TABLE V.

NUMBER OF INDIVIDUALS WHO WERE RE-INOCULATED.

1949.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	1,454	382	1,836
Private Practitioners	238	189	427
Total	1,692	571	2,263

1948.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	1,377	476	1,853
Private Practitioners	116	172	288
Total	1,493	648	2,141

1947.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	981	787	1,768
Private Practitioners	78	48	126
Total	1,059	835	1,894

*1946.	Under 5 yrs.	Over 5 yrs.	Total.
Clinics	312	955	1,267

* No figures available for Private Practitioners.

TABLE VI.

TOTAL ATTENDANCES AT THE DIPHTHERIA IMMUNISATION CLINICS, 1949.

	Primary Immunisation.		Re-inoculation.		Total attendances.	Number of Clinics.	Average attendance at each Clinic.
	Under 5 yrs.	Over 5 yrs.	Under 5 yrs.	Over 5 yrs.			
Scotswood	452	32	242	52	778	48	16·20
Benwell	713	69	221	60	1,063	48	22·14
Fenham	1,059	22	416	145	1,642	49	33·51
Byker	1,001	26	266	56	1,349	48	28·10
St. Jude's	619	27	145	35	826	51	16·19
St. Anthony's	1,454	35	364	81	1,934	51	37·92
East End Centre	754	40	276	34	1,104	52	21·23
Elswick	785	32	215	42	1,074	51	21·05
Heaton	603	21	342	103	1,069	51	20·96
Diana Street	909	24	233	51	1,217	50	24·34
Wharncliffe Street	408	17	56	30	511	51	10·01
Totals	8,757	345	2,776	689	12,567	550	22·84

TABLE VII.

IMMUNISATION IN RELATION TO CHILD POPULATION.
NUMBER OF CHILDREN UNDER 15 YEARS WHO HAD COMPLETED A FULL COURSE OF IMMUNISATION UP TO 31ST DECEMBER, 1949.

Year of Birth.	1949.	1948.	1947.	1946.	1945.	1944-40.	1939-35.	Total under 15 yrs.
Number immmunised	47	2,684	3,604	3,566	2,868	15,479	16,995	45,243
Estimated mid-year population, 1949			Under 5 yrs. 25,670			5-14 yrs. 40,400		66,070
Percentage, 1949..			,, 49·74			,, 80·38		68·47
,, 1948..			,, 47·31			,, 79·94		67·66
,, 1947..			,, 42·70			,, 79·40		65·78
,, 1946..			,, 43·40			,, 75·10		64·40

Enteric Fevers and Cholera.

During the year, 12 persons were inoculated against the Enteric Fevers and 2 against Cholera.

Whooping Cough.

Inoculation against Whooping Cough was not encouraged at the clinics, and " combined inoculation " against diphtheria and whooping cough was frankly discouraged, and this, in the light of recent findings, would appear to have been a wise precaution.

SECTION 27—AMBULANCE SERVICE.

Unlike last year's report, in which—due to the short period that the Service had been operating—it was only possible to anticipate the demands likely to fall upon us, it is now possible to review a whole year's work and abstract statistics that will show what part the Service is called upon to take in the overall set-up of the National Health Service Act.

From the table on page 67 it will be seen that during the year 1949 the Service carried 74,212 patients and travelled 648,140 miles, an achievement that would have been totally impossible with the complement of the fleet standing as it did at the close of 1948. However, due to the foresight of the Health Committee, an influx of new vehicles became available to the Service progressively throughout the year, and it is interesting to note that correspondingly as the load grew in magnitude, delivery was taken of new vehicles to cope with this growth. The table set out below, therefore, shows the progressive increase in the fleet set against the increasing demands for transport. It should be noted in reference to this table that in some instances when new vehicles came through, it was necessary for the older vehicles to be withdrawn from service, and therefore the increasing number of vehicles does not always represent the actual number of new vehicles taken in that particular period.

Period Ending :	No. of Cases.	Vehicles.		
		Ambulances.	Sitting Cars.	Sitting Buses.
31.3.1949	15,311	18	5	1
30.6.1949	17,541	20	6	2
30.9.1949	20,592	25	7	2
31.12.1949	20,768	26	7	2

From this table it can be seen that the complement of the fleet on the 31st December, 1949, was 35 vehicles, made up of 26 ambulances, 7 sitting cars and 2 sitting case 'buses.

Division of the cases lifted shows that a large proportion only required the sitting-case type of transport and it is here that the introduction of the sitting-type of 'buses has proved beneficial. It is gratifying to note that many other authorities have adopted the policy of introducing this type of transport into their services.

No doubt, due to the fact that Newcastle upon Tyne is a large medical centre, the demands on the Service are in no way comparable to the population, and it could be said that from an Ambulance point of view our responsibilities extend to a large proportion of the population in the adjoining Counties, and to a lesser degree in the surrounding County Boroughs. As many of the people of these areas attend the hospitals of Newcastle, they become—by virtue of the statutory duties put upon this Authority by Section 27 of the National Health Service Act, 1946—the responsibility of this Authority with respect to any transport requirements that the Medical Profession and Hospital Authorities deem necessary.

We have therefore been compelled, to meet our obligations, to build up an establishment that would appear large in comparison to our population figure. However, when the figures of the demand for patients living within the city are considered, it is found that at certain times of the day the full complement of the fleet is required to meet this demand, and statistics are showing that between the hours of 9 a.m. and 11 a.m. the load on the Service is between 75 and 85 patients per hour. However, it has been possible to arrange that the City load does not clash with the demands for patients going further afield, and as a consequence of this a well balanced load for the fleet over the whole day is achieved.

There is no doubt, when consideration is given to the formation of the statutory duties laid down by Section 27 of the National Health Service Act, that this is the most satisfactory way of dealing with the problem, both from the patient's angle and that of the Hospitals. However, it did place an unfair financial burden on authorities with large medical centres, and therefore it was gratifying when the Amendment to the Act was introduced in December, 1949, incorporating provisions for the recovery of the cost of conveyance of certain persons under the Parent Act, particularly as this Amendment made no changes as to the responsibilities of the Authority and therefore doing away with the necessity of re-organising the establishment.

While it is anticipated that there will be certain controversies in the application of this Amendment, and also there will be an increase in the clerical side of the administration, it is felt, when it is operating smoothly, that it will relieve the anomalies of the financial burden, and it is anticipated a considerable amount of the local service expenditure will be recoverable.

Premises.

The move into the Sandyford Road premises in October greatly assisted the working of the Service, both from an operational and economical point of view. The geographical situation of this station in relationship to the big Hospitals of the City is such that not only does it cut down the travelling time to the Hospitals, but shows also a great saving in light mileage. Also, with the support of the two wing stations, one in the East and one in the West, the Service is now able to give efficient and comprehensive coverage for all emergencies, which are now increasing on the outskirts of the City due to the new estates being occupied.

Great benefit has been derived from the setting up of the Ambulance Bureaus, both at the Royal Victoria Infirmary and at the Newcastle General Hospital. Here again these Bureaus have saved a considerable number of light miles being run and have brought the relationship between the Hospitals and the Service into close unanimity. Further, they have proved invaluable in fostering the scheme for co-ordination that we have with all other authorities.

Communications.

Parallel with the monthly increase in the number of patients transported, the demands on the telephone switchboard increased correspondingly, and it was found by the end of the year that the average number of calls per day was in the region of 500-600. To cope with this, it has been necessary to increase the number of exchange lines, this alteration taking place when the Headquarters was transferred from Tantobie Road to Sandyford Road depot.

So as to ensure that no messages go astray, or that any misunderstanding occurs, the system of telephonic operation is that no outside calls are received at either of the wing stations, and that central control of the whole establishment be maintained from the Sandyford Road Headquarters, this station being in direct contact with the two wing stations, with the Newcastle General Hospital, and the Central Police Station. It is regretted that up-to-date, this direct contact with the Royal Victoria Infirmary does not exist, but it is hoped that some progress in this direction will be made in the coming year.

Over and above this normal system of communications, the Service was equipped, in the latter part of the year, with two-way Radio-Telephonic communication. Statistics taken from the records of the usage of this installation, in which it makes it possible for the

Headquarters to be in touch with the vehicles while operating, show that due to the increasing demands of an " emergency " nature, prior to the installation it was becoming necessary to hold six vehicles available to answer these calls. However, on fitting radio-telephone it was possible to release three of these vehicles for local work in the City with the knowledge that in the event of them being required for emergency work, immediate contact was possible. It can therefore be concluded that there was a definite saving in capital expenditure and employment of staff in respect of three vehicles.

Further, it has proved itself invaluable when instances of a major nature occur and, on three occasions during the three months under review, we have attended accidents that have required a number of vehicles to transport the injured persons, and at these incidents it has been possible, through the two-way communication system, for the vehicles to be in constant touch with Headquarters, thereby giving particulars of the magnitude of the instances and precise instructions as to the requirements to cope with the situations.

Maintenance.

Arising out of the taking over of the Sandyford Road depot, it has been possible to build up a complete service and maintenance department. A quantity of garage equipment was purchased and an Engineering Stores set up in which stocks of quick-moving parts are kept. This, coupled with the engagement of four mechanics, a coach-builder and a greaser, has made the Service completely self-contained in all repair work, and it is now only necessary to call upon outside repairers for any form of machine work.

Staff.

Here again the increased work that the Service has been called upon to carry out during the year has reflected itself in the numbers employed, and it became necessary to survey the original estimates on this subject and to ask Committee's permission to increase them. The position at the end of the year was that we had some 120 operative, administrative and clerical members employed in the Service.

As the responsibilities of the Service are spread over a 24-hour period of the day, for seven days of the week, the question of adequate supervision for the shift working involved in covering this period, plus the fact that there were now three operative stations and two Bureaus to administer, was considered by the Committee, and it was decided

that the administrative set-up should be an Assistant to the Ambulance Officer, a Senior Foreman, four Shift Foremen and eight Senior Drivers, and accordingly these appointments were made during the year. It also became necessary to increase the clerical staff by 3 persons, this work being solely undertaken by female labour.

First Aid.

The requirements of the Ministry of Health on this subject have been kept constantly in mind and all the new influx of labour during the year were duly trained and, at the end of the year, were in a position to sit for the examination planned for January, 1950, at which 34 passed out of a total entry of 39.

Vaccination.

During the year the Deputy Medical Officer of Health supervised the arrangements on this subject, again in accordance with the Ministry of Health's requirements, and records are being kept of all personnel so that they will come up for re-vaccination in the prescribed periods.

Ancillary Work.

The Service has continued to carry out the commitments under this heading in respect of the Domiciliary Midwives Service and of work entailed on behalf of the Chief Sanitary Inspector for the transport of bedding for disinfection and disinfestation. A further service has also been given to this latter department insomuch as transport is being supplied for the Officers responsible for sampling and testing food and drugs.

During the year also, the Committee undertook, at the request of the Regional Hospital Board, to supply transport in special instances with respect to the requirements of the Hospitals under their control, at such times when the need was not that covered by Section 27 of the National Health Service Act. Another arrangement made with the Regional Board was that the Service would be responsible for the transport of blood in connection with the Blood Transfusion Service after the normal day service had finished duty.

In respect of all these items, with the exception of the Domiciliary Midwives Service, a separate costing system is kept and charges are made to the various departments.

Miscellaneous.

During the year, in which it can be seen from the attached Table that there were 648,140 miles travelled, it is gratifying to note that

the vehicles operated were only involved in ten accidents, involving claims on our Insurers to the amount of £429 4s. 8d. This amount is boosted by some £232 due to the unfortunate incident in which one of the cars of the Service was stolen and crashed.

During the year, there were 362 days lost through sickness, representing a figure of 3·93 days per person.

The petrol consumed during the year amounted to 39,745 gallons.

The number of emergencies, involving " 999 " calls and urgent admissions amounted to 4,164 journeys.

ANALYSIS OF JOURNEYS UNDERTAKEN BY THE AMBULANCE SERVICE DURING THE TWELVE MONTHS
1ST JANUARY TO 31ST DECEMBER, 1949.

Period : 1949.	City.		North'land.		Durham.		Miscellaneous.		Co-ord inated Cases.	Ancill-ary Mileage.	Char-geable Mlge.	Mid-wives Servce. Mileage.	Totals.		Working Hours.
	Cases.	Mileage.	Cases.	Mileage.	Cases.	Mileage.	Cases.	Mileage.					Cases.	Mileage.	
Jan. 1–Jan. 14..	1,521	11,608	200	3,195	334	4,418	8	890	170	685	..	..	2,063	20,796	7,080
Jan. 15–Feb. 11.	3,263	21,467	423	7,555	765	10,880	17	1,830	309	2,106	..	..	4,468	43,838	15,377
Feb. 12–Mar. 11.	3,639	22,430	414	7,174	722	12,758	28	2,275	258	1,986	..	..	4,803	46,623	17,871
Mar. 12–Apr. 8..	4,147	21,690	448	7,897	774	12,728	23	2,825	305	2,067	..	..	5,393	47,207	15,603
April 9–May 6 ..	3,687	21,476	405	6,868	748	13,201	15	1,166	296	2,067	..	..	4,855	44,778	14,453
May 7–June 3 ..	4,628	22,140	492	10,072	748	11,522	22	2,616	262	2,704	..	..	5,890	49,054	15,518
June 4–July 1 ..	4,187	23,493	538	9,722	639	11,628	17	2,359	228	2,231	555	..	5,381	49,988	15,515
July 2–July 29..	4,896	21,582	517	9,789	823	13,650	26	2,285	196	2,377	701	..	6,262	50,384	16,445
July 30–Aug. 26.	5,057	21,560	519	9,471	866	14,335	15	1,393	142	2,587	762	..	6,457	50,108	16,357
Aug. 27–Sep. 23.	4,806	20,326	591	9,969	905	14,685	21	2,960	102	3,220	705	..	6,323	51,865	16,869
Sep. 24–Oct. 21 .	5,045	20,537	573	9,917	983	15,766	13	2,080	146	3,683	758	..	6,614	52,741	17,606
Oct. 22–Nov. 18.	4,567	19,701	657	11,419	922	15,329	25	2,538	95	3,270	648	..	6,171	52,905	18,201
Nov. 19–Dec. 16	4,863	22,626	652	13,041	859	15,177	23	2,922	162	2,850	786	971	6,397	58,373	19,167
Dec. 17–Dec. 31.	2,369	12,883	313	5,405	444	7,478	10	1,300	58	1,698	286	430	3,136	29,480	10,024
TOTALS ..	56,675	283,519	6,742	119,504	10,532	173,555	263	30,439	2,729	33,531	5,201	1,401	74,212	648,140	216,086

SECTION 28—

PREVENTION OF ILLNESS, CARE AND AFTER-CARE.

Health Education.

The activities of the Department in the field of health education were increased during the year. In addition to the usual display of posters in various parts of the city, and the distribution of leaflets at Welfare Centres, etc., advantage was taken of the Central Council for Health Education's offer to supply a mobile Exhibition Stand on permanent loan. Arrangements were made for the stand to be displayed at such places as the Local Food Office, British Restaurant, Co-operative Stores, Welfare Centres, etc., and suitable literature was distributed at the same time. A series of leaflets was produced and widely distributed describing the various services provided by the Local Health Authority and how such services could be obtained.

In addition to the above, arrangements were made for the display of posters at various branches of the Co-operative Stores and at some of the larger shops in the City, on special notice boards provided by the Department.

Lectures and talks were given by various members of the staff to professional bodies, women's organisations and youth organisations, and the Health Visitors gave regular talks on public health and hygiene to the mothers attending the Welfare Centres.

As a new venture, the 1948 Annual Report was printed in two sizes, a large report for official distribution, and a smaller, abridged version for popular consumption. The latter was printed in two colours to make it more attractive, and was distributed widely. The value of this report is reflected in the fact that many requests for additional copies were received.

MATERNITY AND CHILD WELFARE ALMONER'S REPORT.

1949 was a year of development in the Almoner's Department. The increase in the number of cases which began in 1948 was maintained (1,254 as compared with 865 in 1948), and as the year advanced it became increasingly difficult for one Almoner to deal with the interviewing, home visiting and work involved in arranging the necessary help. The appointment of an assistant Almoner in August made it possible to provide an adequate service.

An Almoner working from an office in a Public Health Department has, in contrast to an Almoner attached to hospital or clinic, to depend upon having her cases referred to her, and it is pleasant to report that the co-operation between this department and others has developed in a friendly and constructive manner, each member of the team calling on the other for the help and advice which lay in her own special province.

Since the National Health Service Act the Health Visitors work has extended and she has come into contact not only with the mothers and young children but with the whole family and with many of the old people of the City. Where she felt that material assistance or contact with some outside agency was advisable she has referred them to the Almoner ; where the patient was referred by the Almoner for another service she has, after having arranged all possible assistance, asked for the Health Visitor to visit and supervise. The Midwives have, as always, referred their patients for material help or non-medical advice concerned with arrangements for their confinement, and the Domestic Help Organiser has also called upon the Almoner to arrange for help if her workers have reported that it seemed necessary.

The General Practitioners of the City called upon the Almoner's services to an increasing extent, and even when they did not personally refer the patient, have been most co-operative, sparing time in a busy surgery to answer the Almoner's enquiries about the patient's medical condition or prognosis or to discuss some social problem.

Since the Home Nursing Service became the responsibility of the Local Authority, the nurses have referred their patients. They are in close contact with many of the sick people of the City, and have, when nursing them in their homes, often to surmount almost insuperable difficulties due to the lack of nursing equipment, inadequate beds and bedding and economic straits of some of their patients. Some amelioration of these conditions through Statutory, Local Authority or voluntary services can always be arranged. The care of the sick is the most rewarding form of social work both for the patients and workers, and if the beginning of this relationship between the Home Nursing Service and the Almoner's Department can be taken as an indication for the future, it must result in greatly improved conditions for sick persons in the poorer homes of the City.

The strain of caring for an aged or chronic sick person for a very long period is felt in homes of all types. A home where the patient could be temporarily accommodated while the family could have a

short period of relaxation would prevent many urgent requests for admission to hospital. Often relations do not really wish to get rid of their responsibility, but seeing no hope of any break, feel that admission permanently to a home or hospital is the only solution. It has occasionally, where financial conditions permitted, been possible to arrange for the patient to be admitted to a Nursing Home, but even this is extremely difficult as most Nursing Homes do not admit chronic or aged patients. Unfortunately, there was still a very long waiting list for hospital admission, and the attendance of a District Nurse and Domestic Help does not solve the problem of care at night.

Invalid Loan Scheme.

In July, 1949, the Health Department Scheme for the loan of nursing requisites and invalid comforts was organised in the Almoner's Department. The Health Committee decided that the service should be free to all sick people in the City and equipment should be lent on the recommendation of Doctor, Home Nurse, Health Visitor, Midwife and Almoner.

As the equipment had to be stored in the Almoner's offices, already rather overcrowded (premises have since been acquired), it was decided to begin in a small way by ordering equipment as it was recommended for individual patients. Where the Almoner could obtain the necessary article from existing voluntary services she did so, and no effort was made to publicise the service, but in spite of this, by the end of the year the number of requests was increasing rapidly and it became obvious that this new service would be of great value to the sick people of the City and to the Nursing Service.

The following case illustrates the help this service, combined with other statutory and Voluntary services, can give :—

> The District Nurse asked the Almoner to visit a very old woman who was fatally ill. The patient was living with her husband in two very poor, dilapidated rooms. The bedroom was very small and dark as the window had been broken and boarded up : there was no heating. Through the scheme a single bed and bedding were immediately delivered and put up in the kitchen by the driver of the ambulance van. A voluntary society's aid had meantime been requested and the kitchen cleaned and made cheerful—their visitor continued to visit and help with the care of the patient and her aged husband.

Convalescence.

Under Section 28 of the National Health Service Act, permissive power was given to Local Health Authorities to provide for convalescence for patients who needed the benefits of change of air, good food and rest. Where treatment, diet or supervision was required the responsibility lay with the Regional Hospital Boards. Not all Local Authorities have taken advantage of this power, but the Newcastle Health Committee agreed to do so and has accepted responsibility for every request.

In 1949 the Local Health Authority maintained 116 patients in Convalescent Homes. This number included 43 patients recommended by Hospitals in the area whose convalescence was arranged by the Almoners of the Hospitals. A number of these hospital patients should have been the responsibility of the Regional Hospital Board, but as the facilities provided by the Regional Hospital Board in this area are inadequate, the Hospital Almoners, where they could not obtain a grant from voluntary sources, were obliged to apply to the Local Health Authority. As the fact that convalescence is the responsibility of the Regional Hospital Board and Local Authority become known, it is increasingly difficult to obtain grants from voluntary sources, Trades Unions and Works Benevolent Funds for this purpose. It seems inevitable therefore that the demands on the Local Health Authority will increase.

The benefits of convalescence to a patient recovering from a definite illness, to an exhausted and debilitated mother, or as part of a family case work plan, cannot be over-estimated. It can be not only curative but preventative. The ill-health of mother or father affects the social and economic well-being of the whole family. A tired and debilitated mother cannot care for husband and children to the best of her ability—she becomes nervous and depressed and this often results in friction between husband and wife, and convalescence away from the cares of her family helps greatly. A father may have been ill and owing to poor environment, lack of nourishing food, inevitable when he is out of work, may be helped to regain his health quickly and return to work by a convalescent holiday. In both cases 2 to 3 weeks in a convalescent home may prevent months of ill-health, unhappiness and economic hardship.

Patients were referred for convalescence by Doctors, Health Visitors, Midwives and other agencies. In every case the private doctor was consulted and his recommendation was obtained.

173 patients were referred and 162 convalescences were arranged. 30 were cancelled for various reasons, the most common being that the patient or her children became ill, or the mother refused to allow her children to be admitted to the Residential Nursery at the last moment. Of the 11 cases for which it was impossible to arrange convalescence, 7 were mothers with young children for whom no convalescent facilities existed, 4 were unco-operative, and as an alternative and with his doctor's approval, light work in the country was found for a male epileptic.

The table below shows the type of illness from which the patients weresuffering :—

General debility, anæmia, etc.	48	Heart conditions	4
Chest complaints	31	Rheumatic complaints	4
Neurosis, etc.	22	Various diseases	16
Post-operative	7		

35 men, 74 women and 23 children and young adolescents were sent to Convalescent Homes.

Payment was arranged as follows :—

Local Health Authority (patient contributing according to means)	73	Free under National Health Service	14
Grant obtained from voluntary source	34	Patient paid full cost	11

Analysis of Work.

Total interviews	2,066	Assessments	997
New Cases	1,254	Reduced on further enquiry	56
Home Visits	514		

Services—

Admission to Hospital, Home or medical treatment obtained	86	Referred to Recreational Clubs	12
Help with housing and accommodation problems	71	Domestic Help arranged	34
Arrangements for care of children	155	District Nurse arranged	31
Employment or training	69	Night Nursing	2
Arrangements for care of unmarried mothers and illegitimate children	75	Legal Aid obtained	2
		Voluntary Visitor	25
		Miscellaneous services and advice	583

Material Help Obtained—

Convalescence arranged	162	Financial help	94
Clothing	259	Extra nourishment	15
Bedding, cots, prams, etc.	125	Grants for Cancer patients	4

Statutory and Voluntary Agencies Co-operating.

Statutory—

National Assistance Board	138	Ministry of National Insurance	10
Ministry of Labour	55		

City Departments—

Health Department (Convalescence)	73	Home Help Department	33
Education Department	47	Chief Sanitary Inspector	15
Children's Department	26	Welfare Department	28
Housing Department	53	Mental Deficiency Department	10
Day Nursery Department	86	Duly Authorised Officers	2

Voluntary—

Newcastle Council of Social Service (Personal Welfare and Old People's Welfare Committees)	33	British Legion	11
Soldiers', Sailors' and Airmen's Families Association	82	Citizens' Advice Bureau	11
Women's Voluntary Services	74	Works Welfare Funds	8
Moral Welfare Workers	67	Society of St. Vincent de Paul	2
British Red Cross Society and Emergency Help Committee	29	John Routledge Hunter Memorial Fund	12
Marriage Guidance Council	3	National Society for the Prevention of Cruelty to Children	9
National Society for Cancer Relief	4	Newcastle upon Tyne Housing Improvement Trust	7
Poor Children's Holiday Association	4	Speech Therapist	1
		Poor Man's Lawyer	2
		Miscellaneous Societies, firms and persons	215

Assessments.

850 assessments were made for the patients' payment for Domestic Help. (608 in 1948.) 420 of these were maternity cases of which 321 were assessed at full cost (that is, £2 per week in 1949); 83 at part cost and 20 free. The high number of full cost assessments is due to the National Health Insurance Attendance Allowance of £1 a week for 4 weeks following confinement. This is a grant to pay for Domestic Help.

426 applications were for the sick or aged of which 32 were assessed at full cost (that is £2 per week), 228 at part cost and 166 were free. The high percentage of part and free assessments is explained by the increased number of Domestic Helps supplied to Old Age Pensioners and to other old and sick persons in receipt of very small incomes.

APPLICATION FOR THE REDUCTION OF DOMESTIC HELP FEES.

Social Groups.	*Assessed at Full Cost.*	*Assessed at Part Cost.*	*Free Cases.*	*Total.*
Working	346	219	16	581
In the Services	2	6	1	9
Miscellaneous	5	86	169	260
TOTAL	353	311	186	850

147 assessments were made for the patients' contribution for convalescence (including 27 for the Wilkinson Park Convalescent Home, Netherton). Only 4 patients were assessed to pay full cost as normally if a patient could afford to do so, he was asked to settle his own account with the home. 68 patients paid part cost (the amounts varying from 25/- to 5/-) and 48 were given free convalescence.

TUBERCULOSIS ALMONER'S REPORT.

The work of the Department during 1949 has followed the same lines as in previous years, and as before there has been an increase in the number of cases assisted.

Once again the Statutory bodies, Voluntary agencies and societies have been indispensable and their services widely used. The Women's Voluntary Service " meals on wheels " service has proved a great boon to the aged and sick patients but there is a great need for a daily service for ill patients who live alone. The Red Cross and others have filled important gaps and made the lives of patients and the relatives looking after them easier and pleasanter with their " sitting in," " shopping " and " escorting " services, etc., and the voluntary visitors have been appreciated very much by the patients. The Birtley Young Christian Church Workers, who looked after the young children of patients whilst wives visited husbands in sanatoria deserve great credit for giving up their time on Sundays to carrying out this service when no other volunteers were available.

This year, sponsored by the National Association for Prevention of Tuberculosis, Art Therapy has been started at Walkergate Hospital and a number of patients on discharge have continued with the art. The N.A.P.T. arranged for a London artist, Mr. Spencer, to visit Walkergate Hospital and give a talk to the patients. This stimulated interest, and he very kindly later guided some of the patients through an art correspondence course. The N.A.P.T. arranges regular competitions and Newcastle patients have competed and done fairly well. The Handicraft Classes which have been held twice per week since 1944 have now been extended and are held four afternoons per week. There has also been an extension in the handwork scheme whereby handwork has been sent out to the patients confined in their homes, but due to the pressure of work this scheme had to be curtailed again later in the year.

Special Problems confronting Newcastle upon Tyne.

There are certain recurring problems which have presented the Almoner with considerable difficulty—in some cases there appears to be no satisfactory solution at present, though it is hoped that in the future the various needs may be met by the introduction of special services.

(1) It has been very difficult to find suitable accommodation for young children of patients when there have been no vacancies in residential nurseries, and in some cases admission of the patient to an institution or convalescent home has had to be deferred for some weeks due to there being no one to look after the children. Apart from the danger of infection to the children, great anxiety has been caused to the patient.

(2) Another problem in the City is that of the homeless sputum positive patients. It is practically impossible to find suitable lodgings and some of the patients are living in unsuitable lodgings, lodging houses and hostels. There appears to be a pressing need for special hostels or night sanatoria where these patients, some of them workers, might live.

(3) In the area there appears to be no provision for sheltered or part time employment and there is very little light employment suitable for patients suffering from tuberculosis. The Remploy Factory in Newcastle, unfortunately, does not accepts workers suffering from active tuberculosis and patients are very unwilling to give up unsuitable jobs such as barmen and fish friers when there is little chance of them being found alternative work. There appears to be a great need for the establishment of some kind of light industry in the area for the tuberculous patients.

(4) Another need for Newcastle is more convalescent home beds, as the Newcastle patients have long waits for vacancies in convalescent homes in other areas. A Convalescent Home was opened in Northumberland County in May, but as the Newcastle Authority use only four of the beds there, it has only slightly alleviated the position and there has been a long waiting list, even through the winter months, for admission to this Home. As tuberculous patients with other complications, such as diabetes and blindness are accepted for admission to the Home, patients have been sent there when it would have been impossible otherwise to get them away, thus giving the patient a complete change and the relatives a rest.

Since the Almoner's Department opened in 1943, there has been a steady increase in the work, and with no additional help it has now become quite impossible for one Almoner to manage adequately the work appertaining to the Care and After-Care of the City tuberculous patients. The extension of the Loan Equipment Scheme has also caused extra work, and this has fallen entirely on the Almoner.

Total number of interviews	4,075
New patients seen	868
Home visits	145
Patients assisted	1,673

FORMS OF ASSISTANCE ARRANGED :

Clothing	326	Extra nourishment	125
Convalescent treatment	201	Fares	112
Nursing Comforts	75	District Nurse	47
Home Handwork	25	Beds	54
Bedding	126	Housing Conditions	141
Training for/or Suitable Work	154	Pocket Money	17
Domestic Help	63	Arrangements for Children	88
Miscellaneous	91	Admission to Day Nurseries	28
			1,673

*Miscellaneous—Transport, 2; Removal costs, 3; Home furnishings,4; Priority Fuel, 7; Invalid Chairs, 6; Service Releases, 5; Financial Assistance, 14; Escorts, 5; Lodgings, 7; Drawing Instruments, 1; Overalls, 2; Book Rest 1; Recumbent Spectacles, 2; Furniture Storage, 1; Decorating Room, 1; Sewing Machine, 1; Rediffusion, 2; Visitors, 5; Shopping Service, 4; Debt Settlement, 3; Other forms of Assistance, 15; Total, 91.

AGENCIES AND DEPARTMENTS ASSISTING :—

Voluntary Tuberculosis Care Coun.	194	Soldiers', Sailors' & Airmen's Families Association	47
Red Cross Society (all Branches)	102	John Routledge Hunter Memorial Fund	52
Women's Voluntary Service	101	Ministry of Labour	154
National Assistance Board	274	Regional Hospital Board	96
Welfare Department	19	Education Authority	16
Ministry of National Insurance	26	Housing Department	138
Day Nursery Superintendent	28	*Miscellaneous	138
Local Health Authority	174		
Children's Officer	34		

*Miscellaneous—Poor Children's Holiday Association, 6; British Legion, 7; Invalid Loan Society, 8; Moral Welfare Worker, 4; Works Welfare Fund, 5; Works Welfare Officer, 15; Services Welfare Officer, 2; Citizens' Advice Bureau, 9; Newcastle Council of Social Services, 14; Housing Improvement Trust, 4; Parish Priest, 5; Royal Alfred Society, 4; Shipping Federation, 1; Consuls, 2; Royal Naval Benevolent Trust, 1; Seamen's Union, 1; National Society for Cancer Relief, 2; Hospital Saturday and Sunday Fund, 1; Police Court Missionary, 3; National Association of Local Government Officers, 4; Justice of the Peace, 1; Foreign Relations Department, 1; Ministry of Pensions, 14; Maternity and Child Welfare Department, 4; Board of Trade, 3; Outside Doctor, 14; Duly Authorised Officer, 3; Total, 138.

SECTION 29—DOMESTIC HELP SERVICE.

1949 has been a year of growth in the Domestic Help Department where the foundations have been laid for a successful scheme. It has been a particularly heavy year for the Department, the number of homes having received domestic assistance totalling 1,410, an increase of over 700 against those of the previous year.

The demands on the service have been many and varied. Section 29 empowers Local Health Authorities to provide domestic help, but does not empower them to provide "char-women," "sitters-up", "sitters-in", "housekeepers", or "foster-mothers". It has been difficult in many cases to say where domestic help ends and Home care begins, and great tact and discretion have to be exercised in weeding out the various applications. Applications come from various sources; from Almoners attached to hospitals and from our own Almoners, from Home Nurses, Health Visitors, Midwives, Local Doctors, neighbours and relatives of sick people, and patients themselves.

At the beginning of 1949 the number of workers engaged totalled 71. Of these 34 were full-time and 37 part-time. At the end of the year, full-time workers employed numbered 69, part-time 45, making a total of 114.

These women have all been carefully selected, not only for their skill in housecraft, but also for their personal qualities. Naturally, the character of the Domestic Help is very important. She must be a pleasant woman, kind-hearted, and a good neighbour. She must be honest and trustworthy. Many and varied are the types of cases and homes she must tackle, so that she must be capable of running a home smoothly and be able to adapt herself to the different households. All these qualities have been borne in mind in the recruitment of women for the service.

As a representative sample of the whole of the service it was decided to have 30 Domestic Helps take the examination for the Diploma of the National Institute of Houseworkers. This body is responsible for setting up a national standard of efficiency in housecraft. Of the 30 women submitted one failed owing to illness. Of the remainder, 28 gained diplomas, 13 with credit. As only one failed, a fairly reliable conclusion can be drawn from this example, that Domestic Helps employed in this City have a satisfactory standard of efficiency.

It has been most gratifying in summing up the work we have covered during the year to find that there have been no more than 10 complaints, and of these only three could be regarded as of a serious nature, whilst letters of appreciation and thanks have reached major proportions.

Maternity cases constitute the easiest type of case for which to provide Domestic Help. Here we usually find happy homes looking forward in anticipation to the event. It is here we can provide practical assistance to expectant mothers. The knowledge that 'help' will be available when required during the lying-in period has its effect on the general mental attitude of pregnancy, and so allays one source of anxiety.

The percentage of chronic sick and aged cared for by the Domestic Help service is very high, and although it would be difficult to specify the cases who derive greatest benefit from the scheme, the permanently infirm must rank decidedly high. The daily assistance granted by the Department may appear very expensive, but if these people could be accommodated in hospital, the expense would be much greater.

Sudden illness, however worrying to relatives and friends, always holds the hope of ultimate recovery, and time and patience is gladly given to speed this end. It is an entirely different matter to retain the interest and enthusiasm of both patient and Domestic Help who face the certainty of gradual deterioration of health. People get tired of the chronic sick. This is a sad statement, yet sadder still to have to acknowledge the underlying truth.

For the mother admitted to hospital the Domestic Help takes her place in the home and maintains the daily routine which is so essential to the happiness of the children. It is interesting to note that a total of 1,088 children have been cared for by Domestic Helps during the year owing to the incapacity of the mother. For the convalescent patient, the Domestic Help by her assistance ensures that no undue strain is undertaken, and that progress is maintained.

As for the aged, the death of a partner, children and relatives scattered or pre-occupied with their own domestic affairs, many with no relatives left at all, it is not difficult to imagine the growing sense of weariness and uncertainty which overtakes them. How well we have come to know these little homes. Not very clean, perhaps; usually overcrowded with furniture and photographs of those nearest and

dearest. Apart from restoring order and cleanliness, the Domestic Help must work to tempt the appetite, as only too often the effort of shopping under present conditions is too tiring, and the old person has lived on a very haphazard diet for too long.

Through the Domestic Help service, many aged people have been freed from the dread of having to leave their homes, and have found new interest and comfort which has come through the sympathetic friendship which is to be found within the service.

The Tuberculosis patients constitute problems peculiar to themselves. Here conditions are usually far from ideal. It would appear a paradox that the greatest counsel given to the Tuberculous patient is that speed of recovery is consequent upon rest and peace of mind. Imagine the shock in the first place when the patient is finally told of her condition.

The domestic tragedy is increased where the patient is the mother of a young family, as upon her depends the welfare of the children and the home. These are not easy homes into which to send a Domestic Help. Everything is done to allay the risk to the worker ; special instructions are given on her care and welfare ; and only those who volunteer for such duty are sent to these homes.

The patient is not the easiest to deal with and often tempers are frayed and the tongue unkind. For those for whom further treatment would be in vain, the Help is there to care for their comfort and to try to distract the mind from the inevitable. Where the mother has to go to hospital for treatment, then the Help takes her place to maintain the home for the children's sake.

Constant contact is kept with both worker and patient. In 1949, 886 home visits were made.

In this city we are becoming more and more aware of suffering. We are not reaching a low level, but a new high level of collective awareness of this suffering, and we now make pity and help attend upon that awareness. The City is providing the necessary services to combat this problem. There can be no sort of reward better than to bring to a lonely or stricken household the knowledge that help and sympathy are available.

SUMMARY OF CASES DEALT WITH.

Maternity	483
Chronic sick	356
Aged	185
Short-term illness	348
Tuberculosis	38

AVERAGE LENGTH OF SICK CASES.

Acute or short term sickness—1 month.

Chronic sick, aged and infirm, etc.—Of the 50 long-term cases in 1949, the period of attendance of the Domestic Help has varied from 3 months to 12 months, some cases being carried over to 1950.

SECTION 51—MENTAL HEALTH SERVICES.

I.—Administration.

(a) Constitution and Meetings of the Mental Health Sub-Committee.

The Sub-Committee consists of 8 Council members and 1 co-opted member, several having served previously on the corresponding committees of the Council for a number of years. The Colony Management Sub-Committee and the City Mental Hospital Visiting Committees were discontinued after July 5th, 1948. The monthly reports of the Lunacy Section and the Mental Deficiency Section are submitted to the monthly meetings of the Local Health Authority. The Committee is primarily concerned with :—

the ascertainment of cases which are not the concern of the Education Authority,

the disposal of new cases,

the care of cases under guardianship and Statutory Supervision, and those awaiting hospital care.

The meetings are held on the 3rd Monday of each month. The Deputy Medical Officer of Health usually attends on behalf of the Medical Officer of Health, together with the Mental Deficiency Officer.

(b) Number and Qualifications of Staff employed in the Mental Health Service.

1. The Medical Officer of Health for Newcastle.
2. The Clinical Consultant of the Mental Health Service of the City, who is also the Physician Superintendent of St. Nicholas Hospital.
3. The Deputy Medical Officer of Health (Administrative).
4. The Assistant (part-time) Medical Officer for Mental Health. (Resigned August.) (Clinical duties in mental health and mental deficiency.)
5. A panel of part-time Psychiatrists and Doctors approved by the Local Health Authority for certification of patients under the Mental Deficiency Acts.

6. Four male Duly Authorized Officers and two female Mental Health Visitors. There are two senior Duly Authorized Officers, one being in charge of the work of the Lunacy Section of the Mental Welfare Department under the Lunacy and Mental Treatment Acts, the other being in charge as the Mental Deficiency Officer of the Mental Deficiency Section. One woman officer assists the latter section, being an assistant Petitioning Officer, the rest of the staff doing duty in the Lunacy Section, giving a total of 2 and 4 in the respective Sections, but certain of the duties of these section staffs are interchangeable.

(c) Co-ordination with Regional Hospital Board and Hospital Management Committees.

The Physician Superintendent of St. Nicholas Hospital, as the Clinical Adviser of the Mental Health Service, continues to act as a link between the Local Health Authority on the one hand and the Regional Hospital Board and Hospital Management Committee on the other. In addition to this linkage, close liaison exists through the Superintendent between the lunacy and mental deficiency sections of this department. Domiciliary visits are made in conjunction with the officers, and specialist advice in the home is thereby available to decide the most suitable course for the disposal of cases.

Contact with other consultants occurs in the use of a panel of medical practitioners approved by the Local Health Authority for certification under the Mental Deficiency Acts.

Close co-operation also exists between the Department of Psychological Medicine at Durham University, and also the Psychiatric Unit of the University at Newcastle General Hospital under Professor Kennedy.

St. Nicholas Hospital, as the Mental Hospital for the area, became designated in December for the purposes of Section 20 of the Lunacy Act, 1890. This has led to a departure from previous practice in the City, so that now a patient can be admitted immediately, and so obtain continuity of treatment from the onset of mental disturbance.

The Authorised Officers attend the hospital to enable the better supervision of patients about to be discharged, after-care and supervision of which remains a matter of liaison between the staffs of the

hospital and the Health Department and includes the submission of appropriate reports to the Superintendent at his request, as well as the help which he gives to the Authorised Officers in discussing cases with them at frequent intervals. Social histories are supplied in respect of all cases admitted to Mental Hospitals and to the Observation Ward at the Newcastle General Hospital.

The Mental Deficiency Section provides the various Mental Deficiency Hospitals under the Newcastle Regional Hospital Board and elsewhere with home progress reports quarterly, and social histories, and the staff also supervises a number of patients on licence from such hospitals.

A further contact between the Health Department and the Regional Hospital Board and the Hospital Management Committee is the establishment and use of the newly opened St. Thomas' Psychiatric Clinic, Newcastle upon Tyne, to which patients are referred as and when necessary, and particulars of the attendance of Newcastle patients are given in Part III of this report.

(d) Duties delegated to Voluntary Associations.

No such formal delegation is made in respect of the City Mental Health Service, but in many cases the mental deficiency officer refers cases to the W.V.S. and other bodies when he sees they can help. One defective is receiving some informal instruction at home by a member of the W.V.S. for lack of a trained person.

(e) Arrangements for the Training of Mental Health Workers.

The staff of four Duly Authorised Officers and two Mental Health Visitors have completed a three weeks' course of training held by the Department of Psychological Medicine at the University, designed to afford instruction in mental health for such personnel under the new arrangements required by the National Health Service Act.

II.—Account of Work undertaken in the Community.

(a) Under Section 28, National Health Service Act, 1946; Prevention, Care and After-care.

Many cases continue to be referred to the Duly Authorised Officers of the City, and in some of these cases preventive work has been possible by arranging for early cases of mental disorder, either to attend out-patient clinics or persuading them to go into hospital for treatment.

Close co-operation exists between the Police and the Court and probation officers; and since the operation of the Criminal Justice Act, 1948, defendants appearing in the City Police Court on various charges, who are suspected to be suffering from mental illness, are now coming to the notice of the Department, under Section 24 of this Act, and the Senior Authorised Officer concerned has on occasion been asked to attend the hearing of such cases and his advice has been sought by the Bench, to which every available assistance has been given.

The problem of the aged person with mental disorder is a difficult one. Mild senile dementia often in old people living alone, in many cases only needs simple care and attention, and after consultation with the family doctor, the City Welfare Department often has been able to help, and the Home Helps Service has assisted in other cases. The acute lack of accommodation for the aged (even for the sick and infirm) is an extreme handicap to the Welfare Department in finding proper accommodation for many cases, and in consequence many aged persons are living alone with only the neighbours to help.

As available help is sometimes not adequate, the Duly Authorised Officer tends to send such cases into the Observation Ward at the Newcastle General Hospital. This course often after a few days' care and attention leads to improvement, and if there is seen to be no need for certification and admission to a Mental Hospital, the patient is returned home. The Observation Ward may thereby become congested and delay admission of younger and generally more treatable patients. Although a patient may so return home, this may not always be satisfactory as the mental disturbance may recur, the causal factors being still present in the environment.

(b) Under the Lunacy and Mental Treatment Acts, 1890–1930, by Duly Authorised Officers.

The Duly Authorised Officers continue to be active in the care and after-care of mental defectives and mental patients both in connection with their own work and in full co-operation with Medical Staffs, Practitioners and the Welfare Department, etc. They endeavour to establish at the outset friendly relations both with the patients and their relatives, so that they will not hesitate to seek advice on any matters whatever concerning their welfare or peace of mind.

Practical advice and assistance is given to patients and relatives as to legal procedures relating to mental hospitals and in the removal of cases, as well as help in any social or economic problems which may arise consequent to admission or discharge from a mental hospital.

The great importance to the patient of the follow-up of mental cases discharged from hospital in reducing the relapse rate with the consequent saving of beds (already too few) is realised. In conjunction with the hospital staffs and the psychiatric social workers, patients recently discharged from Mental Hospitals have been visited. This home visiting is made the opportunity for the Duly Authorised Officers to provide social histories and reports on home conditions for the information of the psychiatrists.

The Mental Welfare Department endeavours to assist cases referred, by arranging where possible with other services to help in any home difficulties. This is a field in which much development could occur.

The difficulties in obtaining hospital accommodation for mental defectives and persons of unsound mind even for difficult or urgent or court cases, in view of the long waiting list must be mentioned as seriously affecting the care and after-care of these groups. The Regional Hospital Board is aware of this position and is endeavouring to minimise the serious delay in admission of patients, but results are slow.

Several households have received the services of Domestic Helps because of the presence of mental deficiency and also for mental illness. In a few cases reference has been made to the Welfare Department. Transport provided by the Local Health Authority's Ambulance Service has been of great help in the removal of mental patients and defectives to and from hospital as required, and both the lunacy and mental deficiency sections wish to record their appreciation for the prompt assistance given by the Ambulance Officer and his staff.

The following particulars show the number of cases dealt with by the Duly Authorised Officers and the Police, with their category and manner of disposal together with other visits made by the Duly Authorised Officers.

Analysis of Admissions to Hospital under Section 20.

SUMMARY OF HOSPITAL ADMISSIONS.—

	Observation Ward Newcastle General Hospital.	St. Nicholas Hospital (December).	Other Hospitals.
(*a*) by Duly Authorised Officers (441 cases)	432	9	—
(*b*) by the Police (18 cases)	18	—	—
Total	450	9	—
Disposal of the 459 admissions to the Observation Ward—			
TO MENTAL HOSPITAL—			
(*a*) Certified cases removed	139	3	—
(*b*) Cases transferred from "Sect. 20" to voluntary class	45	5	—
(*c*) Cases transferred from "Sect. 20" to temporary class.....	5	1	—
Total	189	9	—

TO HOME AND OTHERWISE.

(*a*) Home	132
(*b*) Died in Observation Ward	31
(*c*) Discharges from Section 20 to general wards at Newcastle General Hospital	85
(*d*) Discharges from Section 20 to general wards at Royal Victoria Infirmary	1
(*e*) Discharges from Section 20 to Aycliffe Hospital (Certified M.D.).....	1
(*f*) Discharged to Elswick Grange	7
(*g*) Discharged to the Police	2
(*h*) Discharged to Rehabilitation Centre	1
(*i*) Discharged to the Convent of the Good Shepherd	1
Total	261

Of the 441 cases removed under Section 20 of the Lunacy Act by the Authorised Officers, 50 per cent. were removed after hours.

Other Admissions and Discharges.

Admission to Mental Hospital under the Criminal Justice Act, 1948 (Certified and Voluntary)	3
Voluntary Cases admitted direct to Mental Hospital (were practically entirely to St. Nicholas Hospital and were referred from own doctor or from a clinic).....	185
Discharges from Mental Hospital (St. Nicholas)	285
Deaths at St. Nicholas Hospital	87

Particulars of Other Work.

In addition to the above, a considerable number of after-care, welfare, investigations and other visits were made, not only in connection with City cases, but also on behalf of other Local Authorities, whilst 22 removals to hospitals outside the Newcastle area were effected.

(c) Under the Mental Deficiency Acts, 1913-1938.

(i) Ascertainment, including the Number of Defectives awaiting Vacancies in Institutions at the end of the Year.

	M.	*F.*	*Total.*
Number of cases awaiting vacancies in institutions	24	29	53
Number of cases removed to hospital.....	16	16	32
Total number of cases—ascertained	38	35	73
reported	46	46	92

Percentage of ascertained to reported cases—80 per cent.

It is now a duty of the Local Authority under the National Health Service Act, 1946, to ascertain those mental defectives in its area. During 1949, extra attention has been asked for in connection with the ascertainment of mental defectives, particularly in the School Health Service and by Health Visitors. Apart from Local Authority sources, information is given by the Police and other public sources as well as by parents themselves.

Despite efforts to ascertain all defectives in the area, there are many who are not known. High grade defectives very often are not recognised or brought to the notice of the Local Health Authority until some offence is committed.

(ii) Guardianship and Supervision.

In addition to ascertainment, visiting of established cases under Statutory Supervision and Guardianship is carried out by the staff of the mental deficiency section, assisted by the staff (as required) of the Lunacy Section.

All new cases reported to the Section are visited by the Mental Deficiency Officer; friendly relations are established both with the defective and his family from the outset.

A case history and a report on the home conditions is obtained, and these, together with a Medical Report, are submitted to the Mental Cases Sub-Committee for consideration as to the ultimate

disposal of the case, and summaries on the agenda use reference numbers and not names and addresses, to prevent identification beyond the Committee.

The Mental Deficiency Officer and the woman worker attached to his section both present petitions for the purpose of obtaining Orders under the Mental Deficiency Acts.

The Mental Deficiency Officer carries out routine administrative duties and works directly under and in close co-operation with the Medical Officer of Health. He also co-operates with the general practitioners and the various staffs of hospitals, institutional and psychiatric clinics, Magistrates' Courts, Courts of Session and Assize, and Probation Officers.

PARTICULARS OF VISITING AND REPORTING ON DEFECTIVES UNDER LOCAL AUTHORITY SUPERVISION.

		M.	*F.*	*Total.*
Total cases under—	Statutory Supervision	193	183	376
	Guardianship	3	5	8
Cases placed under—	Statutory Supervision	26	29	55
	Guardianship	1	2	3
Number of Statutory Visits paid		192	268	460
Number of Home Reports made		60	43	103

Number of defectives changed from—

	M.	*F.*	*Total.*
(*a*) Guardianship to Statutory Supervision (in view of Ministry of Health Circular 177/48), allowing grants from National Assistance to be made to those under Statutory Supervision	21	10	31
(*b*) Statutory Supervision to Guardianship	—	—	—
(*c*) Institutional care to Guardianship	1	—	1
(*d*) Guardianship to Institution	1	—	1

Number of patients under tuition at home .. 1

Number of Petitions presented 43

(iii) TRAINING.

It has still not been possible to establish an Occupation Centre for the training of mental defectives, owing primarily to the difficulty of finding suitable premises, and at a cost in accordance with the District Valuer's valuation. This is unfortunate, as the provision of such a Centre is important to the welfare of this difficult group of handicapped persons in our midst; but every effort is being made to start such a Centre at the earliest possible moment.

III.—St. Thomas' Psychiatric Out-patients' Clinic.

St. Thomas' Psychiatric Out-patients' Clinic was opened in St. Mary's Place, Newcastle upon Tyne, in August, 1949, and serves 3 Mental Hospitals :—

St. Nicholas' Hospital, Gosforth.
St. George's Hospital, Morpeth.
St. Mary's Hospital, Stannington.

Figures of attendance and disposal :—

New Patients (Newcastle)	157
,, ,, (Non-Newcastle)	33
Total	190

Percentage of Newcastle patients to total new patients—82·6.

Total of subsequent interviews (Newcastle patients)—309.

Source of the 157 Newcastle patients (with % of total) :—

Own Doctor	109 (69·4%)
Probation Officers	29 (18·5%)
City Education Department.....	10 (6·4%)
Ministry of Labour	5 (3·2%)
Duly Authorised Officers	3 (1·9%)
National Association of Mental Health	1 (0·6%)

Disposal of the 47 Newcastle cases completed (with % of total of each category) :—

Discharged cured	14 (30·0%)
Stopped attending	14 (30·0%)
Occasional visits not by appointment (and patient still under own doctor)	10 (21·0%)
To Hospital	7 (15·0%)
Referred back to Newcastle General Hospital	1 (2.0%)
Referred back to General Practitioner	1 (2·0%)

NATIONAL ASSISTANCE ACT, 1948—SECTION 47.

Removal to Suitable Premises of Persons in need of Care and Attention.

It was not necessary to exercise the powers granted by the above Act and Section, during the year.

PREVALENCE, PREVENTION AND CONTROL.

III—INFECTIOUS DISEASE

FEVERS, FOOD POISONING,
DISINFECTION, etc.

THE PREVALENCE AND CONTROL OF INFECTIOUS DISEASE.

During the year, there was no undue incidence of the infectious fevers although there were more cases of rubella and pneumonia.

Of the 263 (147*) deaths in the table of cases of notifiable infectious disease, 3 were due to cerebro-spinal meningitis, 9 due to encephalitis lethargica (although none of these were notified in 1949), 3 due to whooping cough, and 248 (132) were due to pneumonia. Thus pneumonia amounted to 94 per cent. of all deaths from notifiable diseases. In addition to the 263 deaths due to notifiable diseases 50(36) deaths were caused by diarrhœa, not notifiable, of which 35 occurred in children under the age of two years.

It is most gratifying to record for the first time that there were no cases of diphtheria notified, nor were there any deaths. In 1948 there were 8 cases and no deaths. When the figures for the last few years are considered, this will be seen as a considerable achievement, and thanks are due to those parents who responded to appeals and to the doctors and nurses whose interest and efforts have been unremitting.

A number of cases of mild dysentery occurred in several of the Municipal Day Nurseries and reference is made later under the heading " Dysentery."

In the matter of surveillance, 23 alleged contacts of enteric fever, 6 of smallpox, and 1 person who had passed through a typhus-infected area were notified to the Health Department, and were kept under the requisite observation.

It was not found necessary to close any school on account of infectious disease during the year.

SCARLET FEVER.

Notification of 346(442) cases were received during the year, 235 of which were nursed at home, and 11 at Walkergate Hospital. There were no deaths. 59 non-City cases were admitted to Walkergate.

* Figures given in the text in parenthesis refer to 1948.

The failure of isolation to control scarlet fever is well known, and the following table shows a steady fall in percentage of admissions.

Year.	Notified cases of Scarlet Fever.	% of notified cases admitted to hospital.	% of total admissions.
1945...	546	88%	23·6%
1946...	408	80%	28·0%
1947...	310	60%	29·0%
1948...	442	40%	20·0%
1949...	346	32%	17·0%

The next table shows that the increased number of cases nursed at home has not resulted in any significant change in further cases at home. The public is kept informed that in view of the present mildness of the disease, modified isolation suffices for most cases, apart from those cases which have to be admitted because of (a) acute illness, (b) complications, or (c) social conditions.

Incidence of Further Cases of Scarlet Fever in the Home.

Year.	1 case.	2 cases.	3 cases.	4 cases.	Notifications.
1946.....	349	21	1	1	408
1947.....	273	14	..	..	310
1948.....	401	16	1	..	442
1949.....	304	15	3	..	346

DIPHTHERIA.

No cases were notified and no deaths were reported during the year.

MEASLES AND RUBELLA.

4,425 cases (3,803), including 1,010(198) of rubella, were notified. No deaths occurred.

Each Health Visitor visits selected cases occurring in her district on receipt of notification. She advises as to the nursing and isolation of the patient, supervises the case until it recovers, and notifies any subsequent cases in the family.

Source of measles and rubella notifications :—

	1949.	1948.
Cases notified by medical practitioners	3,910	3,340
Cases notified by Health Visitors	515	459
Cases notified by parents and others	..	..
	4,425	3,799

Health Visitors paid visits to 92·92%(95·02%) of the 3,026 households in which 4,112 of the notified cases occurred. Of the 313(182) unvisited cases, 301(179) were in better class homes, and 12(3) were in institutions. In 95·06% of the cases visited, a doctor was in attendance, and in 96·12%(94·9%) the disease ran a normal course, but bronchitis, pneumonia or other complications developed in the remainder.

The following were the ages of cases visited by Health Visitors :—

	1949	1948.
Under 1 year	214	209
1–2 years	489	572
2–3 years	662	569
3–4 years	540	503
4–5 years	543	528
5–6 years	813	748
Over 6 years	851	488
	4,112	3,617

WHOOPING COUGH.

There were 688(958) cases of whooping cough and 3(3) deaths occurred.

FOOD POISONING.

27 cases in which organisms of the food poisoning group were identified, were notified to the Health Department. 6 cases were found to be due to the consumption of contaminated home-made ice-cream. 11 cases were presumed to have been due to the consumption of prepared meat dishes which had been allowed to stand and then re-heated before use. The remaining cases (the cause of the infection was inconclusive), were kept under surveillance and bacteriological specimens taken until they were found to be free from infection. None of the cases was of a serious nature. In only one case, affected by ice-cream, was a sample of the implicated food obtainable.

An outbreak of suspected food poisoning occurred at the canteen in the Byker City Transport Depot, and was investigated. Approximately 40 members of the transport staff complained of abdominal disorder after eating food obtained from the canteen. Bacteriological examinations were carried out on suspected food and tests taken from the affected personnel. The results were inconclusive but the opportunity was taken to impress upon the canteen staff and other personnel the importance of attention to cleanliness in the handling, preparation, and storage of foodstuffs, and of the hygiene of the hand.

Health Education has a large part to play in the prevention and control of infectious disease, for the individual is able to do much in the matter. A topical and excellent example is the fact that good personal hygiene practice can reduce many needless infections spread by food, and some instruction to food handlers has been given. The public lack of elementary knowledge of infectious diseases very probably accounts for a considerable amount of spread of infection to others. As all notified cases of infectious disease are visited either by Sanitary Inspectors (practised in this work), or by Health Visitors as a routine, these visits are made the opportunity to explain the salient points of the infection and its prevention, apart from arranging for disinfection and ascertaining whether there are food handlers in the family where this enquiry would be relevant. The Health Visitors visit cases notified as suffering from pneumonia, whooping cough, measles, rubella, puerperal pyrexia, ophthalmia neonatorum, poliomyelitis and tuberculosis.

ENTERIC GROUP OF FEVERS.

2 suspected cases of enteric fever were notified, but not subsequently confirmed. There were 9 cases in 1948.

DIARRHŒA.

There were in all 50 deaths from this cause, equal to a death rate of 0·17 per 1,000 population (0·12 in 1948), and this number includes 35 deaths of children under 2 years of age.

Diarrhœal conditions have always been a serious cause of death in the young, but are often forgotten when considering deaths from other infections (such as polio), apart from road accidents and accidents in the home. Here again, health education could have a big effect, especially so in view of the high proportion of deaths in young children.

DYSENTERY.

Notifications of dysentery were 118, compared with 25 in 1948, 11 for 1947, and 173 for 1946. There were no deaths.

There were 66 cases, many mild, and others without clinical symptoms, amongst the children and staff of 4 of the 9 Municipal Day Nurseries, one of which required to be closed. All of these cases were carefully followed up.

CHICKENPOX.

1,108(2,176) cases were notified. There were no deaths.

ERYSIPELAS.

60 of the 76(84) cases notified were nursed at home. There were no deaths.

PUERPERAL PYREXIA.

52(52) cases were notified and there were no deaths. Enquiries were made concerning all the notified cases, 30 of which were treated in hospital.

INFLUENZA AND PNEUMONIA.

These diseases accounted for 269 deaths as against 135 last year. 21 deaths from influenza occurred.

Total deaths at age periods.

	Under 5 years.	5–15.	15–25.	25–45.	45–65.	65 and over.	Total.
1949....	39	1	2	6	55	166	269
1948....	35	2	1	4	26	67	135

As will be seen from the above figures, 39(35), or 14·5(26·0) per cent., of the deaths occurred below the age of 5 years.

496(447) cases of pneumonia, including influenzal-pneumonia, were notified. For the ages and ward distribution, see pages 100 and 102.

Of that number, 431(399), or 86·9(89·3) per cent., were visited by Health Visitors. It was found that 364(357), or 84·5(89·5) per cent.,

were primary pneumonia, 47(16), or 10·9(4·0) per cent., were cases of influenzal-pneumonia, and 20(26), or 4·6(6·5) per cent., were cases of pneumonia following other diseases.

Ages.—The ages of the 431 cases visited were as follows :—

	1949.	1948.
Under 1 year	66	67
1–5 years	98	107
5–15 years	53	61
15–25 years	25	18
25–45 years	62	52
45–65 years	84	56
and over 65 years	42	38
Unknown	1	..
	431	399

Housing.—31 cases occurred in 1-roomed dwellings, 98 cases occurred in 2-roomed dwellings, 101 cases occurred in 3-roomed dwellings, and 201 cases occurred in dwellings with more than 3 rooms.

Type of House.—196 cases occurred in flats, 56 cases in tenements, and 179 in self-contained houses.

Previous History.—

There was a previous history of			Measles	in 149 cases.
,,	,,	,,	Whooping Cough	in 95 cases.
,,	,,	,,	Influenza	in 127 cases.
,,	,,	,,	Frequent winter Coughs and Colds	in 218 cases.
,,	,,	,,	Pneumonia	in 55 cases.
,,	,,	,,	Tuberculosis	in 5 cases.

Deaths.—25(23), or 5·8(5·7) per cent., of the visited cases of pneumonia died.

ENCEPHALITIS LETHARGICA.

Again there were no cases of encephalitis lethargica notified during the year.

ACUTE POLIOMYELITIS.

7(6) proved cases of poliomyelitis were notified during the year, and of these, 6 were admitted to Walkergate Hospital.

CEREBRO-SPINAL MENINGITIS.

During 1949 8(11) cases of cerebro-spinal fever occurring in Newcastle residents were notified, and all were admitted to hospital.

There were 3(0) deaths.

Work of Infectious Disease Inspectors.

Domiciliary visits of enquiry by Sanitary Inspectors in respect of notifiable infectious disease	1,940
Re-visits	438
Number of disinfections carried out	697
Specimens collected (stools) for bacteriological examinations	244
Visits of enquiry for non-notifiable disease	257
Number of disinfections carried out for these	122
Visits paid to tuberculosis patients for disinfection purposes	942
Number of disinfections carried out for these	862
Total disinfections	988

Summary of Newcastle Cases admitted to Walkergate Hospital.

Disease.	*No. of Cases.*	*No. of Deaths.*	*Disease.*	*No. of Cases.*	*No. of Deaths.*
Scarlet Fever	111	..	Blood Diseases	6	..
Tonsillitis, etc.	67	..	Poliomyelitis	5	..
Pneumonia	65	13	Meningitis and Encephalitis	5	2
Respiratory Diseases	61	..	Meningococcal Meningitis	4	..
Gastro-enteritis	45	8	New Growths	4	1
Measles	42	..	Rheumatism	4	..
Pertussis	34	4	Tuberculosis, Other	4	..
Routine Examinations (T.B. Meningitis)	31	..	Glandular Fever	3	..
Sepsis and Skin Diseases	28	2	Genito-urinary Diseases	3	1
Erysipelas	16	..	Nothing Abnormal Discovered	3	..
Nasopharyngeal Infections	16	..	Cardio-vascular Disease	2	..
Unclassified	15	2	Routine Examinations (Primary T.B.)	2	..
Healthy Persons	14	..	Diphtheria Carriers	1	..
Dysentery	13	..	Enteric Fever (Carrier)	1	..
Salmonella Infection	13	1	Diphtheria	..	..
Tuberculosis, Pulmonary	13	..			
Alimentary Diseases	12	..			
Tuberculosis, Meningeal	12	6			
Rubella	11	..			
Varicella	9	..			
Mononucleosis	6	..		687	40
Puerperal Fever	6	..			

CONFIRMED CASES OF NOTIFIABLE INFECTIOUS DISEASE AND DEATHS.

EXCLUSIVE OF TUBERCULOSIS.

AGES OF CASES OF INFECTIOUS DISEASE NOTIFIED AND DEATHS REGISTERED DURING THE YEAR 1949.

NOTIFIABLE DISEASE.	AT AGES—YEARS.																NET TOTAL.		Cases admitted to Hospital.
	Under 1.		1 and under 5.		5 and under 15.		15 and under 25.		25 and under 45.		45 and under 65.		65 and upwards.		Ages not known.		1949.		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Diphtheria (including Membranous Croup) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas.....	1	..	1	..	1	..	6	..	21	..	36	..	10	..	..	..	76	..	16
Scarlet Fever	..	..	92	..	226	..	21	..	6	..	1	..	..	..	..	..	346	..	111
Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Fever ...	2	1	2	1	1	..	1	..	1	..	1	1	..	..	..	..	8	3	8
Acute Poliomyelitis and Acute Polioencephalitis	..	..	1	..	2	..	2	..	2	..	..	..	..	..	..	..	7	..	7
Encephalitis Lethargica.	..	..	..	..	..	..	..	..	..	3	..	2	..	4	..	..	..	9*	..
Puerperal Pyrexia	..	..	..	..	..	..	22	..	30	..	..	..	..	..	..	..	52	..	30
Ophthalmia Neonatorum	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..
Pneumonia	71	33	107	4	69	1	28	2	71	6	92	48	54	154	4	..	496	248	65
Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery.....	5	..	76	..	19	..	10	..	7	..	1	..	..	..	..	..	118	..	14
Measles and Rubella ...	240	..	2373	..	1685	..	69	..	39	..	3	..	1	..	15	..	4425	..	53
Chickenpox	43	..	346	..	676	..	24	..	15	..	2	..	2	..	..	..	1108	..	9
Whooping Cough.....	73	2	334	1	273	..	4	..	..	..	3	..	1	..	..	..	688	3	34
	439	36	3332	6	2952	1	187	2	192	9	139	51	68	158	19	..	7328	263	347

* All notified in previous years.

DEATHS (CORRECTED) FROM NOTIFIABLE INFECTIOUS DISEASES

(Including Infant Diarrhœa).

WARD.	Diphtheria.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Pneumonia.	Cerebro-Spinal Fever.	Encephalitis Lethargica.	Polioencephalitis.	Poliomyelitis	Measles and Rubella	Puerperal Fever.	Smallpox.	Whooping Cough.	Diarrhœa (under 2 years of age).	Dysentery.	Malaria	Tuberculosis. All forms.
St. Nicholas'	..	..	..	..	8	..	1	..	..	..	..	..	..	..	..	..	9
Kenton	..	..	..	..	14	1	..	..	..	..	..	..	..	3	..	..	16
Scotswood ..	..	..	..	..	12	..	1	..	..	..	..	..	..	..	..	..	11
Stephenson..	..	..	..	..	29	..	..	..	..	..	..	..	..	5	..	..	17
Armstrong ..	..	..	..	..	23	..	..	..	..	..	..	..	..	4	..	..	10
Elswick	..	..	..	..	10	..	..	..	..	..	..	..	1	3	..	..	15
Westgate ...	..	..	..	..	15	..	..	..	..	..	..	..	..	1	..	..	15
Arthur's Hill	..	..	..	..	11	..	..	..	..	..	..	..	..	1	..	..	13
Benwell	..	..	..	..	17	..	2	..	..	..	..	..	..	..	..	..	11
Fenham	..	..	..	..	14	..	..	..	..	..	..	..	..	..	..	..	10
Sandyford...	..	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	10
Jesmond ...	..	..	..	..	14	..	..	..	..	..	..	..	..	1	..	..	2
Dene	..	..	..	..	6	..	1	..	..	..	..	..	..	..	..	..	6
Heaton	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	10
Byker	..	..	..	..	15	..	..	..	..	..	..	..	..	2	..	..	15
St. Lawrence	..	..	..	..	11	1	1	..	..	..	..	..	..	6	..	..	15
St. Anthony's	..	..	..	..	13	1	1	..	..	..	..	..	..	1	..	..	25
Walker	..	..	..	..	13	..	..	..	..	..	..	..	1	6	..	..	23
Walkergate..	..	..	..	..	8	..	1	..	..	..	..	..	1	2	..	..	13
City ...	..	..	..	..	248	3	9	..	..	..	..	..	3	35	..	..	246

Note :—All deaths in Public Institutions have been allotted to the Wards to which they properly belong.

WARD DISTRIBUTION OF INFECTIOUS DISEASES (NET).

WARD.	Diphtheria.	Erysipelas.	Enteric Fever.	Scarlet Fever.	Cerebro-Spinal Fever.	Poliomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Measles.	Rubella.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Smallpox.	Chickenpox.	Malaria.	Dysentery.	Whooping Cough.	Tuberculosis (all forms).	TOTAL 1949	TOTAL 1948
St. Nicholas'	..	..	..	7	..	..	..	..	103	14	2	..	6	..	..	7	..	4	17	25	185	277
Kenton	..	8	..	26	1	..	..	..	269	62	4	..	34	6	..	144	..	14	43	26	637	663
Scotswood	..	10	..	24	..	1	..	..	236	51	5	..	25	5	..	83	..	1	31	16	488	561
Stephenson	..	3	..	13	1	..	..	..	313	41	7	1	44	..	..	110	..	4	84	49	670	496
Armstrong	..	5	..	24	..	..	..	..	191	15	3	..	39	2	..	76	..	1	67	37	460	442
Elswick	..	5	..	22	..	..	..	..	230	38	2	..	26	5	..	51	..	..	28	27	434	434
*Westgate	..	3	..	17	1	..	..	..	164	26	2	2	28	..	..	96	..	1	30	25	395	276
†Arthur's Hill	..	2	..	12	..	..	..	..	159	22	3	..	15	1	..	112	..	..	29	19	374	315
Benwell	..	5	..	21	1	2	..	..	234	34	5	..	34	2	..	80	..	12	55	48	533	594
Fenham	..	2	..	19	..	..	..	..	194	38	..	..	7	3	..	25	..	1	39	50	378	374
Sandyford	..	2	..	7	..	..	..	..	101	34	1	..	11	1	..	16	..	1	15	23	212	391
§Jesmond	..	5	..	19	..	1	..	..	109	27	..	..	13	3	..	27	..	1	3	20	228	261
Dene	..	8	..	23	..	2	..	..	157	65	..	..	12	4	..	110	..	1	19	19	420	292
Heaton	..	1	..	34	..	..	..	..	133	113	1	..	20	2	..	22	..	22	27	27	402	533
Byker	..	3	..	30	1	..	..	..	196	80	5	1	26	3	..	23	..	2	30	42	442	539
St. Lawrence	..	2	..	5	1	..	..	..	150	82	3	..	27	2	..	48	..	9	29	21	379	567
St. Anthony's	..	2	..	23	2	..	..	..	160	65	5	..	31	2	..	23	..	3	38	45	399	500
Walker	..	1	..	11	..	..	..	..	224	94	1	..	28	5	..	26	..	41	50	61	542	685
‡Walkergate	..	9	..	9	..	1	..	..	92	109	3	..	23	1	..	29	..	..	54	30	360	533
TOTAL, 1949	..	76	..	346	8	7	..	..	3415	1010	52	4	449	47	..	1108	..	118	688	610	7938	8733
TOTAL, 1948	8	84	9	442	11	5	1	2	3605	198	52	13	431	16	..	2176	4	25	958	693	8733	

* Includes Royal Victoria Infirmary.
† ,, Elswick Grange and Newcastle General Hospital.
‡ ,, Walker Gate Hospital.
§ ,, Fleming Memorial Hospital.

Attack Rates and Death Rates for certain Infectious Diseases since 1919.

Year.	Diarrhœa and Enteritis, (all ages).		Enteric Fever.					Diphtheria.					Scarlet Fever.					Erysipelas.					Measles and Rubella.			Whooping Cough.	
	Number of Deaths	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Death Rate per 1,000 Population.	Number of Deaths.	Death Rate per 1,000 Population.
1919	132	0.48	10	2	20.0	0.00	0.04	320	22	6.9	0.08	1.16	716	24	3.3	0.09	2.6	173	4	2.3	0.01	0.63	7,624	101	0.37	9	0.03
1920	131	0.46	10	2	10.0	0.00	0.03	348	24	6.9	0.08	1.22	1,282	20	1.6	0.07	4.5	246	6	2.4	0.02	0.86	2,727	42	0.15	45	0.16
1921	159	0.57	7	5	71.4	0.02	0.02	353	22	6.2	0.08	1.27	1,413	12	0.8	0.04	5.1	160	7	4.4	0.02	0.57	3,762	97	0.35	58	0.21
1922	73	0.26	19	5	21.1	0.02	0.07	254	15	5.9	0.05	0.90	663	7	1.1	0.02	2.3	159	4	2.5	0.01	0.56	542	9	0.03	36	0.13
1923	102	0.36	7	1	14.3	0.00	0.02	200	10	5.0	0.04	0.70	492	5	1.0	0.02	1.7	131	6	4.6	0.02	0.46	6,875	152	0.54	78	0.27
1924	81	0.28	28	3	10.7	0.01	0.10	256	17	6.6	0.06	0.89	805	4	0.5	0.01	2.8	152	3	2.0	0.01	0.53	3,504	61	0.21	29	0.10
1925	86	0.30	15	3	20.0	0.01	0.05	187	7	3.7	0.02	0.65	1,196	14	1.2	0.05	4.2	193	5	2.6	0.02	0.67	6,030	114	0.40	76	0.27
1926	121	0.42	14	2	14.3	0.01	0.05	202	17	8.4	0.06	0.71	987	14	1.4	0.05	3.5	172	5	2.9	0.02	0.60	4,242	42	0.15	49	0.17
1927	71	0.25	10	..	..	..	0.03	225	16	7.1	0.05	0.78	867	6	0.7	0.02	3.0	212	12	5.7	0.04	0.73	3,077	32	0.11	20	0.07
1928	116	0.41	22	5	22.7	0.02	0.08	262	8	3.1	0.03	0.93	506	2	0.4	0.01	1.8	234	19	8.1	0.07	0.83	4,160	56	0.20	50	0.18
1929	93	0.33	19	4	21.1	0.01	0.07	259	14	5.4	0.05	0.91	584	5	0.9	0.02	2.1	220	11	5.0	0.04	0.78	3,855	74	0.26	27	0.09
1930	70	0.25	43	5	11.6	0.02	0.15	200	4	2.0	0.01	0.71	634	4	0.6	0.01	2.2	208	12	5.8	0.04	0.73	1,954	17	0.06	29	0.10
1931	57	0.20	13	1	7.7	0.00	0.05	115	6	5.2	0.02	0.40	1,074	6	0.6	0.02	3.8	218	11	5.0	0.04	0.77	5,952	125	0.44	55	0.19
1932	61	0.21	26	2	7.7	0.00	0.09	136	5	3.7	0.02	0.48	1,164	7	0.6	0.02	4.1	205	13	6.4	0.05	0.72	2,384	19	0.07	30	0.11
1933	81	0.28	8	3	37.5	0.01	0.03	93	9	9.7	0.03	0.32	2,034	18	0.9	0.06	7.1	264	12	4.5	0.04	0.92	4,080	37	0.13	25	0.09
1934	67	0.23	14	1	7.1	0.00	0.05	393	22	5.6	0.08	1.37	1,727	22	1.3	0.08	6.0	240	16	6.7	0.06	0.84	8,644	80	0.28	16	0.06
1935	81	0.28	7	..	..	..	0.02	675	35	5.2	0.12	2.32	1,282	3	0.2	0.01	4.4	239	15	6.3	0.05	0.82	3,341	18	0.06	22	0.08
1936	126	0.43	8	2	25.0	0.01	0.03	693	35	5.1	0.12	2.38	937	8	0.8	0.03	3.2	176	12	6.8	0.04	0.61	4,022	17	0.06	7	0.02
1937	94	0.32	10	..	..	..	0.03	475	23	4.8	0.08	1.64	843	1	0.1	0.00	2.9	167	8	4.8	0.03	0.57	1,862	14	0.05	25	0.09
1938	68	0.23	13	1	7.7	0.00	0.04	415	23	5.5	0.08	1.42	704	..	..	..	2.4	189	1	0.5	0.00	0.65	4,525	21	0.07	3	0.01
1939	49	0.17	4	..	..	..	0.01	243	10	4.1	0.03	0.86	374	..	..	..	1.3	144	3	2.1	0.01	0.51	466	2	0.01	10	0.03
1940	32	0.12	11	1	9.1	0.00	0.04	155	9	5.8	0.03	0.60	148	..	..	..	0.6	128	2	1.6	0.01	0.50	4,649	10	0.04	7	0.03
1941	36	0.14	31	..	..	..	0.12	344	19	5.5	0.07	1.35	270	..	..	..	1.0	98	..	..	..	0.38	2,947	6	0.02	29	0.11
1942	41	0.16	2	..	..	..	0.01	598	47	7.8	0.18	2.35	871	1	0.1	0.00	3.4	141	4	2.8	0.01	0.55	7,044	9	0.03	5	0.02
1943	49	0.19	3	..	..	..	0.01	320	18	5.6	0.07	1.25	785	..	..	..	3.1	160	3	1.9	0.01	0.63	3,121	2	0.01	13	0.05
1944	41	0.16	7	1	14.3	0.00	0.03	312	10	3.2	0.04	1.19	700	1	0.1	0.00	2.7	121	..	..	..	0.46	3,098	1	0.00	8	0.03
1945	22	0.08	1	1	100.0	0.00	0.00	399	14	3.5	0.05	1.50	546	..	..	..	2.1	105	..	..	..	0.39	3,432	2	0.01	4	0.02
1946	25	0.08	5	..	..	..	0.02	191	15	7.8	0.05	0.67	408	..	..	..	1.4	108	..	..	..	0.38	3,725	2	0.01	10	0.04
1947	32	0.11	1	..	..	..	0.00	52	4	7.7	0.01	0.18	310	..	..	..	1.1	87	..	..	..	0.30	2,078	2	0.01	11	00.4
1948	36	0 12	9	1	11·0	0·003	0·03	8	..	0·0	0·00	0·03	442	..	..	..	1·5	84	1	1·2	0·003	0·29	3,783	2	0·01	3	0·01
1949	50	0·17	..	..	..	..	..	..	..	..	..	..	346	..	..	..	1·2	76	..	..	..	0·26	4,425	0	0·00	3	0·01

HOUSEHOLDS AFFECTED WITH INFECTIOUS DISEASES

EXCLUSIVE OF TUBERCULOSIS, MEASLES AND CHICKENPOX.

DISEASES.	HOUSEHOLDS WITH				Institutions.	NET CASES.
	1 Single Case.	2 Cases each.	3 Cases each.	4 Cases and over.		
Diphtheria (including Membranous Croup)	..	..	..	..	..	..
Erysipelas	74	1	..	..	..	76
Scarlet Fever	304	15	3	..	3	346
Enteric (or Typhoid Fever)	..	..	..	..	..	..
Cerebro-Spinal Fever	8	..	..	..	..	8
Poliomyelitis	7	..	..	..	..	7
Polio-encephalitis	..	..	..	..	..	..
Encephalitis Lethargica	..	..	..	..	..	..
Puerperal Pyrexia	28	..	..	..	24	52
Ophthalmia Neonatorum	4	..	..	..	..	4
Pneumonia	470	13	..	..	..	496
Dysentery	24	4	3	..	77	118
Malaria	..	..	..	..	..	..
Whooping Cough	500	76	12	..	..	688
TOTAL	1,419	109	18	..	104	1,795

SPECIAL SKIN CLINIC.

The work of the clinic in giving advice, treatment and instruction has continued satisfactorily throughout the year, 98 per cent. of cases having been in respect of scabies and verminous conditions, either of person or clothing, and 2 per cent. for a few other conditions mainly skin infections self-referred or sent by doctors.

Whilst it is again satisfactory to be able to record a fall in the total attendance as shown in the following Table " A ", which amounts to as much as 46·4 per cent. of last year's attendances (a lesser fall of 27·8 per cent. was recorded in 1948), there has been again, however, an increase (amounting to 11·5 per cent.) over 1948 in the numbers of cases of pediculosis attending, to which further reference is made.

Despite the falling attendances, in the belief that numbers of cases of scabies occur which could well be referred to the clinic for treatment,

when treatment of the whole family can be encouraged and full treatment ensured, administrative action has been taken to draw attention to the facilities which this clinic offers.

TABLE A. ATTENDANCES AND TREATMENTS.

Year.	*No. of treatments.	Patients treated.	Percentage fall in patients.	Treatments (Average No.)
1943.....	11,232	4,907	....	2·28
1944.....	11,798	5,239	....	2·25
1945.....	10,105	4,428	15·5	2·28
1946.....	10,030	3,964	10·5	2·53
1947.....	7,595	2,411	39·2	3·15
1948.....	5,706	1,741	27·8	3·27
1949.....	2,722	933†	46·4	3·13

†Does not include 16 return cases (45 return cases in 1948).

*The average number of treatments per patient remains almost as for 1948 (and includes those for return patients).

Analysis of Total Attendances.

Sex: Males 73·7 per cent. Females: 26·3 per cent.

Age groups: 0–1 years, 17 (1·8 per cent.); 1–5 years, 64 (6·9 per cent.); 5–15 years, 149 (16 per cent.); 15+ years, 703 (75·3 per cent.).

Scabies cases, 532 (56·8 per cent.) (75 per cent. in 1948).

Pediculosis cases—382 (40·9 per cent.) (20 per cent. in 1948)—the proportion is doubled.

Ratio of scabies to pediculosis cases is roughly 4 : 3 (4 : 1 in 1948).

Double infestations with scabies and pediculosis—2 (0 in 1948).

Cases other than scabies and pediculosis—17 (2 per cent. of total).

Pediculosis pubis cases (included under "Pediculosis")—41 (4·4 per cent. of total).

Return cases (not counted as new patients)—16 (45 in 1948).

Cases referred back to own doctor—0.

Cases referred to the clinic from other authorities—0.

Cases otherwise referred—1 (to Newcastle General Hospital, after collapse in bath).

The totals of treatments given by four-weekly periods throughout the year show a winter peak and a lesser summer one.

TABLE B. ANALYSIS OF SOURCE OF PATIENT AND DIAGNOSIS.

Source.	Scabies.	Pediculosis	Pediculosis pubis.	Scabies & pedic.	Others.	Total.	% total of cases.	% of total cases in 1948.
Self	323	2	36	..	10	371	39·77	56
Doctor	160	11	3	2	7	183	19·25	9
Prudhoe Street Mission	1	131	..	..	..	132	14·15	5
Salvation Army	..	80	..	..	..	80	8·57	1
Newcastle General Hospital	20	21	2	..	..	43	4·60	5
School Health Service	17	..	..	..	..	17	1·82	12
Health Department	1	89	..	..	..	90	9·75	5
Welfare Department	6	..	..	..	..	6	0·6	3
Common Lodging House	..	5	..	..	..	5	0·5	1
Royal Victoria Infirmary	3	1	..	..	..	4	0·4	1
Fleming Memorial Children's Hospital	1	..	..	..	..	1	0·1	..
Private Hostel	..	1	..	..	..	1	0·1	..
Total	532	341	41	2	17	933		
% of Total	57·0	36·56	4·39	..	1·82			

The above table gives the totals from each source and the various conditions as percentages of the total cases ; and also shows that the proportions of patients from their own doctors and the Health Department has doubled, whilst that from the Prudhoe Street Mission has trebled and has been even higher from the Salvation Army. Practically all the cases coming from the latter two sources were ones of pediculosis, forming 55 per cent. of such cases. Medical practitioners sent almost 20 per cent. of total cases, of which all but a few were cases of scabies, compared with 9 per cent. in 1948.

A marked fall in the proportion of cases referred by the School Health Service is shown.

Staff Duties.

The attendants have paid occasional visits to disinfest and cleanse old bed-ridden patients ; bedding, etc., being disinfested by the Health Department.

One of the female staff terminated duty due to the recession of work, and in order to aid full employment of the others they have, when free to do so, acted in emergency as female attendants for the ambulance service, and are available likewise for the Mental Health Service and the delivery of home nursing equipment in special cases.

The time required to give treatments is made an opportunity by the staff to give a little general health education to the patients.

All the staff were successfully vaccinated during the year.

SCABIES.

The need for all the family members to receive treatment when one of them has scabies (whether showing symptoms or not) is emphasized. Advice as to the nature of the condition, its mode of spread and prevention, is also given, and this no doubt explains the satisfactory fact that no case of scabies attended without at least one other member of the family also attending for treatment. This was so in two-thirds of the cases, whilst in one-third of the cases all the family members received treatment and such public response and co-operation is noteworthy. Comparative totals of scabies for the years 1943-1949 are :—

4,897 ; 4,956 ; 3,820 ; 3,560 ; 2,104 ; 1,329 ; 532.

Whereas scabies formed 75 per cent. of total cases in 1948, this condition only formed 57 per cent. of the total in 1949, showing a relative and absolute fall. Compared with 1948, the number of cases of scabies fell by 60 per cent.

TABLE C. INCIDENCE OF SCABIES (AND OTHER DISEASES) (BY AGE GROUPS AND SEX).

Age Group.	Scabies.				Other Diseases.	
	Male.	Female.	Total.	% of Total.	Male.	Female.
0–1.....	7	10	17	3	–	–
1–5.....	35	24	59	12	1	3
5–15.....	77	58	135	25	1	–
15+.....	191	130	321	60	6	6
Total :	310	222	532		8	9

Except for the few cases (3 per cent.) in the infant age group, male cases exceeded female in all the other groups, and overall in the ratio of 10 : 7.

PEDICULOSIS.

There has been an increase of 11·4 per cent. in the number of such cases over 1948, (and also in the proportion of such to total cases by approximately 22 per cent.), although this is much less than the percentage increase of pediculosis of almost 100 per cent. for 1948, when the attendances decline was 28 per cent. compared with 46·4 per cent. for this year.

Comparative totals (pediculosis) for the years 1943-1949 are :—

163 ; 166 ; 285 ; 159 ; 168 ; 335 ; 382.

The increased number of cases has largely derived from the Prudhoe Street Mission and the Salvation Army (sources forming 23 per cent. of the total of all cases compared with 6 per cent. in 1948), and to a lesser extent from the Health Department, from whence cases have been mainly sent by Sanitary Inspectors and the Health Department enquiries office, with a few coming through Health Visitors.

It is felt that this increase in cases referred of pediculosis is the result of extra vigilance rather than that there is any appreciable increase in such an infestation and for any increase of which there is no expectation.

TABLE D. INCIDENCE OF PEDICULOSIS.

(BY AGE GROUPS AND SEX).

Age Group.	Male.				Female.				Totals in age groups.	% in age groups of total cases.
	Capit.	Corp.	Pubis.	Total.	Capit.	Corp.	Pubis.	Total.		
0–1	..	..	..	..	..	..	..	..	0	..
1–5	..	1	..	1	..	..	..	..	1	..
5–15	..	13	..	13	..	..	..	..	13	3·4
15+	..	315	41	356	3	9	..	12	368	96·5
Totals	..	329	41	370	3	9	..	12	382	

This table shows that :—

There were no cases of pediculosis under 1 year, with only one case under 5 years.

Those over 15 years formed 96·5 per cent. of such cases, male cases being 30 times more common.

Of the total cases of pediculosis, pediculosis capitis formed approximately 1 per cent., pediculosis corporis 88 per cent., and pediculosis pubis 10 per cent. respectively.

All the female cases of Pediculosis were over 15 years

Pediculosis Pubis.—These cases have been counted under "pediculosis." All the 41 cases were males over 15 years, and Table B gives the source.

There have been no alterations to the clinic premises. Walls and paintwork were cleaned down twice in the year.

I am glad to record again the good work, interest and loyalty of the clinic staff.

G. Hamilton Whalley,

Medical Officer-in-Charge
of the Special Skin Clinic.

VENEREAL DISEASES STATISTICS.

Newcastle upon Tyne, 1949.

During the past year the downward trend noted in recent years with reference to the total attendances made by Newcastle patients, has been maintained. When those statistics are interpreted in terms of patients, the 1949 picture is apparently not so favourable, since new registrations which numbered 1,253 in 1940, totalled 1,530 in 1949.

The incidence of new patients reporting with transmissable syphilis in both sexes and gonorrhoea in females, does show a welcome decline compared with previous years. The bulk of new patients in 1949 may therefore be classified as non-venereal and especially prominent in this category were those who reported with the express purpose of being examined so that they might be assured they were free from venereal infection. As was emphasised in last year's report, this is not to be discouraged, since the maxim " prevention is better than cure " is probably more applicable to the venereal diseases group of patients than to those in any other branch of medicine.

While the numbers of new patients reporting here with inherited syphilis were not large, I regret to say that no material progress can be reported in this sphere of preventative as well as curative medicine. Probably the chief cause for this unsatisfactory state of affairs was the lack of adequate ante-natal blood testing for syphilis in all expectant mothers, especially those who eventually gave birth to infected children. The introduction of ante-natal blood Wassermann testing would pay rich dividends, since those unfortunate children must needs attend a V.D. department for many years, during which they are treated and subsequently observed for potential relapse.

Default from treatment and surveillance still constituted a serious problem. Modern treatment is quick to alleviate suffering and the clinical picture of venereal disease is soon obliterated from the patient's mind as well as his body. Small wonder, therefore, that patients fail to realise the need for further attendance—a fact clearly borne out over the past decade by uniformly high default rates in both sexes suffering from syphilis, contagious or otherwise. Statistics for male and female gonorrhœal patients make even more unsavoury reading. The danger here, however, is probably more apparent than real, as it is fairly certain that the cure rate with modern treatment is exceedingly high amongst adults.

Laboratory work concerning patients residing in Newcastle may be summarised as follows: 248 cerebro-spinal fluid and 6,316 blood specimens were investigated for syphilis by the staff of the laboratory under the supervision of the Medical Research Council. In our own laboratory, 4,476 smears were examined for gonorrhœa, 294 specimens for syphilis, and a further 172 mocroscopic tests were performed for Trichomonas Vaginalis.

Sixteen expectant mothers were found to have positive blood tests which indicated that they might have syphilis. Since 7 of those women were already under treatment, the remaining nine were asked to attend this department for further investigation and all did so. One was found to be free from venereal infection, four had a virulent form of syphilis, and the infection in the remainder was probably of greater danger to the expectant mother than to the unborn child. It has to be noted that modern medical treatment can well nigh guarantee syphilis-free offspring, even although the infected patient reports in an advanced stage of pregnancy. This is indeed a tremendous advance compared with the hitherto more-protracted anti-syphilitic treatment which was by no means free from danger.

Viewing the problem as a whole, the venereal diseases picture in Newcastle compared with the previous nine years, showed a steady improvement during 1949. Rapidly-attained "cure" with modern therapy demands constant vigilance on the part of contact-tracers and default workers. But for their sustained efforts, a sharp rise in the incidence of venereal infection could be expected.

W. V. MacFarlane.
Medical Officer.

REPORTS OF THE
CHEST PHYSICIAN
AND
MEDICAL DIRECTOR,
MASS RADIOGRAPHY UNIT.

IV—TUBERCULOSIS.

CHEST CLINIC.
MASS RADIOGRAPHY.

REPORT OF WORK DONE AT CHEST CLINIC, FOR YEAR 1949.

In January, a new system of postal appointments was commenced, and it was thus possible for the first time to have complete control of the size of an individual clinic, so making the work more orderly and generally raising the standard. Along with this change was the inception of a new system of recording details of patients' attendances, so that monthly reports of the amount of work done at the clinic could be readily compiled.

It was well that such a system had been established, for in April the area of Newburn was added to our responsibilities, to be followed by that of Gosforth in October; each of these additions brought us approximately another 100 tuberculous familes to care for. These changes were part of the plan for a greater "Newcastle" area for a Tuberculosis Service which was to include the Urban District Council of Longbenton also. These additions were made without further medical assistance until the appointment of a Registrar at Walker Gate Hospital in August; this appointment so relieved the medical staff of many routine duties at the Hospital that it was possible during this year to bring the Dispensary Register almost completely up-to-date and to deal with those arrears of assessments left from previous years. Much still remained to be done, but 1950 looked full of promise.

During the year under review, the Regional Hospital Board proposals for the Tuberculosis Service in the region were published, and it was suggested that each Chest Clinic should have its own central admission list, admissions being arranged according to clinical urgency.

"Newcastle" was allocated bed vacancies in eleven different institutions and some of the beds at Walker Gate Hospital were to be occupied by Northumberland and Durham cases; some of the Newcastle cases were to go to Wooley and Barrasford Sanatoria in the North, and as far South as Holywood Hall and Leazes House Sanatoria, near Wolsingham, while 28 female hospital beds were to be made available for us in three Sunderland Hospitals. It seemed odd that, with the shortage of manpower, patients should be so dispersed and an additional burden placed upon the newly-formed ambulance service, as well as creating a real hardship for relatives of patients.

The preliminary trials of the new drug Streptomycin in cases of tuberculosis of the miliary and meningitic types fulfilled some of the original claims made for it, but did reveal that the drug had unfortunate disadvantages—chiefly its toxic effects upon the auditory nerve, giving nerve deafness in some cases, but more important still, marked disturbance of the vestibular apparatus. Originally available only for such cases as these in this country, during the current year it was gradually made available for certain types of pulmonary tuberculosis, especially those shown to have a bronchial lesion, and as a palliative in cases of intractable pain, due to tuberculous laryngitis.

The stimulus given to research teams by the results of streptomycin, which had been more readily available in the United States of America, was enormous. Along with this research into drugs related to the sulphonamide group had given several products with very limited effects, but no real clinical value. However, during the time when the use of streptomycin was strictly confined to these specific types, another preparation, manufactured in this country, was being widely discussed as having a beneficial effect upon pulmonary tuberculosis. This preparation, Para-aminosalicylic acid, and its sodium salt, known as Paramisal, or P.A.S., was introduced into our treatment programme at Walker Gate Hospital; steps were taken to imitate the preparation by a harmless substitute and to carry out a controlled trial to ascertain whether this preparation did have the effect claimed for it. Unfortunately, this experiment had to be later abandoned owing to staff shortage, and the results were inconclusive, but it is correct to say that no dramatic effects were observed.

The finding of these new preparations revolutionised the structure of our attack upon the established disease, and we witnessed the unexpected survival of patients who twelve months ago would surely have died in a short time.

It is to be expected that the numbers of deaths from tuberculosis will show a decrease, although the evil day may have been merely postponed for a brief period. Furthermore, it made treatable, cases previously beyond our help—acutely spreading disease could be easily checked and patients prepared for collapse therapy; the surgeon had a means of combating the dreaded acute contralateral spread of disease in patients undergoing thoracoplasty. Such changes inevitably accentuated the serious bed shortage.

One further important disadvantage of this potent weapon was associated with the fact that streptomycin resistant strains of tuberculosis emerged during treatment of a case, and it became clear that unless the length of treatment of infective respiratory cases of tuberculosis was strictly limited the position with regard to miliary and meningitic tuberculosis would quickly return to the pre-streptomycin era.

Paramisal was reputed to delay the development of this drug resistance. Much work remains to be done in order to discover whether and to what extent the development of streptomycin resistant strains in pulmonary tuberculosis is either preventable or reversible, and this question affects the possibility of giving an effective second course of the drug at some future date, possibly in conjunction with surgical procedures, but the answer to this must await Laboratory facilities for streptomycin sensitivity tests.

Our armamentarium was further strengthened when B.C.G. Vaccine was made available in early autumn. Those recommended as suitable for vaccination were Mantoux negative persons, who were either house-contacts of known cases of respiratory tuberculosis, or nurses or medical students. This matter was placed before the Health Committee in December, in order that they may consider the provision of residential accommodation for young children who would be suitable for this procedure. Isolation of all groups submitted for vaccination is clearly impossible, but the bad housing conditions prevailing in Newcastle, especially in families where this vaccine would be particularly required, did make one feel that the relaxing of this requirement in this particular group of individuals would be most undesirable.

The following tables show details of the work carried out at the Clinic, and it is pleasing to note that the Death Rate has slowly diminished, but when compared with England and Wales it is still unfavourable.

The Attack Rate, however, shows but little improvement. Embodied in the statistical report is a table showing the comparison of Newcastle with England and Wales, as against the comparison of Glasgow with Scotland as a whole. The figures speak for themselves, and do not need any comment.

It is clear that Tuberculosis still remains one of our major medical problems, and whilst our attack upon the disease is tending to take

upon itself a new form, one can hardly expect much dramatic change until those social factors which mean so much to the health of a community as a whole are materially altered, and in this respect the housing situation appears to predominate.

In conclusion, I would like to express my sincere appreciation of the co-operation I have had from all the staff concerned, during a year of many changes and an increasing load of work. I must again hope that the succeeding year will relieve some of the conditions under which they continue to labour so cheerfully.

Attendances.—Total out-patient attendances for year ended 31st December, 1949 was 15,058.

This figure includes all new patients attending for registration, Domiciliary Visits by medical staff, patients examined at clinic sessions and all attendances for Blood Sedimentation Rate, Mantoux test, etc.

(a) New Patients.

Adults.		Children.		Total.
M.	F.	School Age.	Not School Age.	
1,596	1,624	668	112	4,000

Referred by:

General Practitioners.	School Medical Officer.	Health Visitors.	Others.	Total.
2,553	171	400	876	4,000

Of those patients referred by the General Practitioners, 160 had been picked up by Mass Miniature Radiography.

(b) Patients Examined at Clinic Sessions.

Adults.		Children.		Total.
M.	F.	School Age.	Not school Age.	
3,793	3,830	1,433	142	9,198

Of the total, 9,918 examinations, 5,720 were old patients, leaving a balance of 3,478 patients examined for the first time.

In 6,289 cases, X-Ray examination had been arranged immediately prior to attendance.

In 994 cases, Mantoux test was done.

In 734 cases, Blood Sedimentation Rate was taken.

No. of samples of sputum examined at Clinic—4,409 ; at Bacteriological Laboratory—437.

No. of samples of urine tested—333.

Notifications.—During the year, notifications were received as follows :—

Primary Notifications.	*Lungs.*	*Other Forms.*	*Total.*
Newcastle upon Tyne	516	94	610
Newburn	22	7	29
Gosforth.....	8	1	9
Totals	546	102	648

In addition, there were 64 second and 6 third notifications which appear on the register as duplicates.

Source of Notification :—

General Practitioner	183 ..	28·2%
Clinic Medical Staff	217 ..	33·5%
Other Sources (Transfers, Deaths, Hospitals, etc.)	248 ..	38·3%
	648 ..	100%

SUMMARY OF NOTIFICATIONS DURING THE PERIOD 1st JANUARY TO 31st DECEMBER, 1949.
(THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.)

Area.		Primary Notifications.													Total.
		0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards	
NEWCASTLE.	Respiratory—														
	Males	4	1	6	7	18	34	35	50	39	53	46	7	3	293
	Females	..	..	9	5	16	48	46	56	23	8	9	3	..	223
	Non-Respiratory														
	Males	1	2	5	4	3	9	6	3	..	3	2	..	1	39
	Females	..	4	9	2	6	10	13	7	1	2	1	..	..	55
	Total	5	7	29	18	43	101	90	116	63	66	58	10	4	610
NEWBURN.	Respiratory—														
	Males	..	..	..	..	..	..	2	5	2	2	..	..	..	11
	Females	..	..	1	..	..	1	4	3	1	1	..	..	..	11
	Non-Respiratory														
	Males	..	..	1	1	..	1	..	..	1	..	..	..	..	4
	Females	..	..	..	..	..	1	..	1	1	..	..	..	..	3
	Total	..	..	2	1	..	3	6	9	5	3	..	..	..	29
GOSFORTH.	Respiratory—														
	Males	..	..	..	..	..	1	2	..	1	..	..	..	..	4
	Females	..	..	..	..	..	1	1	2	..	..	..	..	..	4
	Non-Respiratory														
	Males	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Females	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	2	3	2	2	..	..	..	..	9
GRAND TOTAL :		5	7	31	19	43	106	99	127	70	69	58	10	4	648

In all cases, unless expressly asked by the patient not to do so, Health Visitors have visited the homes within a few days of receiving notification urging patients and contacts where applicable to visit the Clinic for examination and classification with a view to treatment. On receipt of the nurse's report, a case folder has been prepared in every case, except those notified at death, and an effort made either to secure the patient's attendance at the clinic or in cases where treatment was already being given by other institutions, to ensure that supervision was being maintained in accordance with the time limits set out in Tuberculosis Regulations, 1930.

Health Visitors' Work.—All cases thus taken on to the Clinic Register have been classified according to their condition, so that subsequent visits could be made by the Health Visitors in accordance with the following table :—

Type of Case.	Period of Visit.
Respiratory cases with positive sputum—classified active Non-Respiratory cases with tubercle bacilli demonstrated in any exudate classified active	Monthly.
Cases, Respiratory and Non-Respiratory, negative and active Households from which a patient has been admitted to Hospital or Sanatorium	Three-Monthly.
All Quiescent cases	Six-Monthly.

The Health Visitor service has steadily increased its rate of visiting to meet the demands of the above scheme, and at the end of the year, the target rate had been almost reached. 1950 should see a steady rate of work and a consolidation of the scheme.

During the year, the total number of visits made to patients' homes was as follows :—

	Newcastle.	Newburn. (Part of year only)	Gosforth.	Total.
Primary Visits (new notifications and changes of address)	629	23	..	652
Subsequent Visits	7,813	115	92	8,020

Treatment.—The following table is a copy of the annual return submitted to the Ministry of Health under Memo. T.145 :—

TREATMENT OF TUBERCULOSIS.

RETURN SHOWING THE WORK OF THE CLINIC.

Diagnosis.	Respiratory.			Non-Respiratory.			Totals.			Grand Totals.
	M.	W.	Ch.	M.	W.	Ch.	M.	W.	Ch.	
A. (1) No. of definite cases of T.B. on register on 1st January, 1949	997	797	284	70	89	285	1,067	886	569	2,522
(2) Transfers from clinics under other Hospital Management Committees	98	79	16	10	17	22	108	96	38	242
(3) Lost sight of cases returned	34	20	8	1	3	7	35	23	15	73
B. No. of new cases diagnosed—T.B. Minus	93	84	55	19	24	20	112	108	75	295
T.B. Plus	140	99	4	2	2	2	142	101	6	249
C. No. of cases in A. and B. written off during the year—										
(1) Recovered	61	66	35	13	19	42	74	85	77	236
(2) Died (all causes)	134	94	2	5	4	3	139	98	5	242
(3) Removed to other areas	60	49	14	6	5	10	66	54	24	144
(4) Other reasons	19	13	3	6	3	5	25	16	8	49
D. (1) No. of definite cases of T.B. on register on 31st December, 1949	1,088	837	313	72	104	276	1,160	961	589	2,710
(2) No. of above known to have positive sputums within preceding 6 months	232	137	1	..	..	..	232	137	1	370
E. No. of contacts first examined during the year—										
(1) Diagnosed as tuberculosis	27	28	11	1	2	8	28	30	19	77
(2) Not tuberculosis	140	182	60	..	..	..	140	182	60	382
(3) Not determined	189	281	198	..	..	..	189	281	198	668

Institutional Treatment.—The following table shows the nature of institutional treatment afforded to cases notified during 1949 :—

INSTITUTIONAL TREATMENT

Type of Case.	Total Notifications.	Institution.							Total.	% of Total Notifications.
		Barrasford San.	Wooley Sanatorium.	Stannington San.	San. Pavils. Walker Gate.	Newcastle General Hospital.	Sheriff Hill.	Hexham General.		
Respiratory—										
Male	308	64	4	13	71	46	..	..	198	62·0%
Female	238	74	10	14	57	16	..	..	171	72·0%
Total	546	138	14	27	128	62	..	..	369	67·6%
Non-Respiratory—										
Male	44	..	..	5	..	16	5	4	30	68·3%
Female	58	..	..	3	..	26	3	3	35	60·3%
Total	102	..	..	8	..	42	8	7	65	63·7%
Grand Total	648	138	14	35	128	104	8	7	434	67·0%

Domiciliary Supervision.—During the year, 346 visits were made by Medical Staff to patients in their homes. In every instance, an opportunity was offered to the patient's own doctor to be present, and on 16 occasions use was made of this service.

Deaths from Tuberculosis.—There were 252 deaths from tuberculosis among Newcastle upon Tyne, Newburn and Gosforth residents, as follows :—

	Respiratory.	*Non-Respiratory.*
Newcastle upon Tyne	222	24
Newburn	3	2
Gosforth	1	–
	226	26

The figures for Gosforth and Newburn are not representative of a full twelve months, since the areas were taken over during the year, Newburn being transferred on 1st April, 1949, and Gosforth on 1st October, 1949.

The death rate per 1,000 population of Newcastle upon Tyne residents for 1949 is as follows :—

	No. of deaths.	*Death rate.*
Respiratory tuberculosis	222	0·75
Non-Respiratory Tuberculosis	24	0·08
All forms of Tuberculosis	246	0·83

SUMMARY OF DEATHS FROM TUBERCULOSIS DURING THE PERIOD 1st JANUARY, 1949, TO 31st DECEMBER, 1949.

Area.		Primary Notification.													Total.
		0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards	
NEWCASTLE.	Respiratory—														
	Males	1	..	..	..	..	..	9	19	25	32	28	14	3	131
	Females	1	..	..	..	..	12	18	35	10	9	5	..	1	91
	Non-Respiratory														
	Males	1	1	3	..	..	..	..	2	1	3	..	..	1	12
	Females	..	4	..	..	..	2	4	2	..	..	..	..	..	12
	Total	3	5	3	..	..	14	31	58	36	44	33	14	5	246
NEWBURN.	Respiratory—														
	Males	..	..	..	..	..	..	..	..	1	..	1	..	..	2
	Females	..	..	..	..	..	..	1	..	..	..	..	..	..	1
	Non-Respiratory														
	Males	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	Females	..	..	..	..	..	..	..	1	..	..	..	..	..	1
	Total	..	..	..	..	..	1	1	1	1	..	1	..	..	5
GOSFORTH.	Respiratory—														
	Males	..	..	..	..	..	..	..	..	..	..	1	..	..	1
	Females	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Non-Respiratory														
	Males	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Females	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	1	..	..	1
GRAND TOTAL :		3	5	3	..	..	15	32	59	37	44	35	14	5	252

Further details and comparative figures for previous years are submitted in the following table :—

RETURN OF DEATHS FROM RESPIRATORY TUBERCULOSIS (NEWCASTLE CASES ONLY).

	Deaths which occurred in these years.									
	1943	1944	1945	1946	1947	1948	1949.			
							M.	F.	Ch.	Total
Persons not notified	13	11	8	10	12	18	10	4	2	16
,, notified under 1 mth.	40	24	37	23	27	30	13	4	..	17
,, between 1 and 3 ,,	34	18	15	24	23	16	22	4	..	26
,, between 3 and 6 ,,	23	17	16	24	24	20	8	7	..	15
Total under 6 months	110	70	76	81	86	84	53	19	2	74
Persons notified between—										
6 and 12 months	26	31	21	26	24	30	8	13	..	21
12 and 18 months ...	31	21	21	10	13	15	11	12	..	23
18 and 24 months ...	13	19	10	15	26	9	6	6	..	12
2 and 3 years	23	25	25	31	30	22	10	6	..	16
over 3 years	67	53	67	64	80	70	42	34	..	76
Totals	270	219	220	227	259	230	130	90	2	222

COMPARATIVE FIGURES OF ATTACK AND DEATH RATES.
(Per 1,000 population.)

		Death Rate.	Attack Rate.
1947	Newcastle upon Tyne	1·18	2·2
	England and Wales	0·547	1·21
	Glasgow	1·17	2·98
	Scotland	0·80	1·97
1948	Newcastle upon Tyne	0·87	2·36
	England and Wales	0·507	1·21
	Glasgow	1·15	2·84
	Scotland	0·75	1·94
1949	Newcastle upon Tyne	0·83	2·08
	England and Wales	0·457	1·19
	Glasgow	1·14	2·90
	Scotland	0·67	1·99

Contacts.—The ideal method of contact supervision would be for the Chest Clinic to send appointments to all house contacts on receipt of the nurse's Primary Investigation Sheet, thus ensuring that all

Pulmonary Tuberculosis. Notifications and Deaths.

Newcastle upon Tyne, 1919 to 1949.

Notifications ——

Deaths. ——

Non-Pulmonary Tuberculosis. Notifications and Deaths.

Newcastle upon Tyne. 1919 to 1949.

Notifications. ——

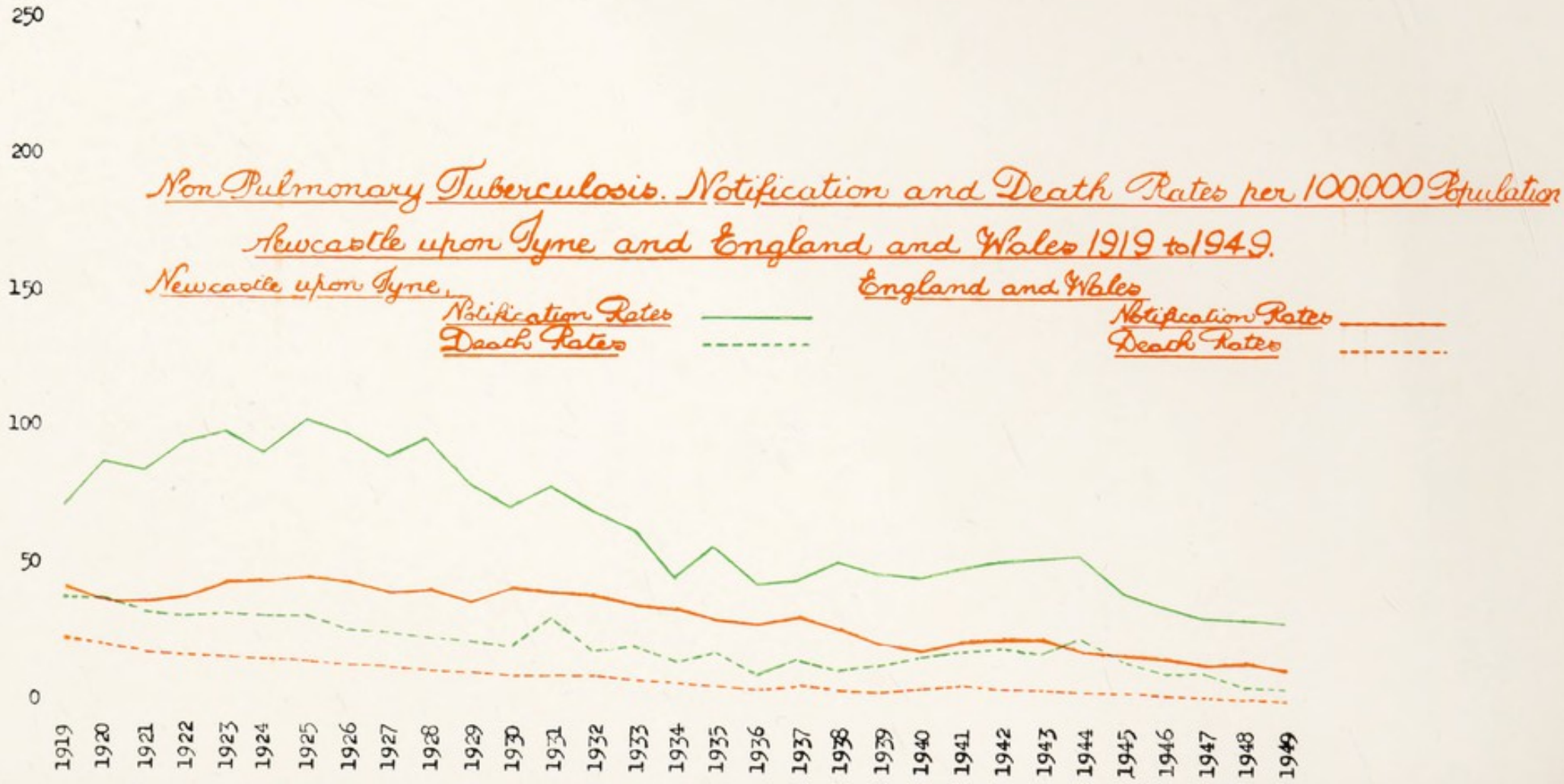
Deaths. ——

Pulmonary Tuberculosis. Notification and Death Rates per 100,000 Population

Newcastle upon Tyne and England and Wales 1919 to 1949.

Newcastle upon Tyne. Notification Rates ——— Death Rates - - - - - -

England and Wales. Notification Rates ——— Death Rates - - - - - -


Non Pulmonary Tuberculosis. Notification and Death Rates per 100,000 Population
Newcastle upon Tyne and England and Wales 1919 to 1949.
Newcastle upon Tyne,
Notification Rates
Death Rates
England and Wales
Notification Rates
Death Rates
250
200
150
100
50
0
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949

contacts of notified cases were examined, but for obvious reasons this is not possible at present. An average notification rate of about 650, with an average total family size of four would require a further 1,950 appointments per annum, and with present staff and building limitation it is out of the question to undertake the extra work entailed.

As a compromise, the following arrangements are in force :—

1. Adult contacts of notified cases.

The Health Visitors encourage adults to come to the clinic to arrange appointments for themselves and other members' of the household, and by keeping a record in the Health Visitors' records section of all contacts who have attended, the nurses are kept informed of the results of their efforts.

2. Children 5-15 years (school age).

All children in this age group are listed weekly, and the School Health Service informed so that during routine school clinics special attention can be given to this group.

3. Children 0-5 years.

A similar procedure is adopted with this age group and Dr. Miller at Newcastle General Hospital has continued to exercise supervision over this age group as previously, keeping the Chest Clinic informed of his findings.

Some idea of the size of the problem can be gained from the following figures :—

	Male.	*Female.*
Children 5–15 years referred to the School Medical Officer during 1949	215	183
Children 0–5 years referred to Dr. Miller during 1949	220	199
Totals	435	382

It will be seen from Form T.145 which is shown, that of the total of 1,127 contacts examined at the Chest Clinic, 77 or 6·84 per cent. were found to be tuberculous during the year.

As an interesting comparison, it will be seen that out of a total of 4,000 new patients registered during the year, 544 new cases were diagnosed, which is 13·6 per cent.

It must be borne in mind that the larger percentage concerns a proportion of patients who are suspects, having been referred to the clinic for that reason, while the smaller precentage represents a group of people who, although in contact with cases, are not necessarily suspects in quite the same way.

X-Ray Examination.—X-Ray facilities are provided as follows :

Eastern half of city to Walker Gate Hospital.

Western half of city to Northern Counties Chest Hospital.

Contacts under periodical supervision—Mass Miniature Radiography Unit when stationed in Newcastle.

X-Rays of bones and joints, etc., by arrangement with Newcastle General Hospital.

During 1949, appointments were made as follows :—

Walker Gate	3,690
Northern Counties Chest Hospital	3,313
Mass Miniature Radiography	415
Newcastle General Hospital	7

In addition to these, 601 films were taken at Walker Gate Hospital concerning in-patients and 457 in connection with artificial pneumothorax treatment.

Artificial Pneumothorax Treatment.—There were 41 initial inductions of artificial pneumothorax and 13 initial inductions of pneumoperitoneum. There were 7,566 attendances for refill during the year.

DETAILS OF INSTITUTIONAL TREATMENT.

1. HOSPITALS.

Sanatorium Pavilions, Walker Gate Hospital.—329 patients were admitted (169 males and 160 females).

Details of the number of patients admitted and discharged are given in the accompanying table :—

		Sex	In Institution on 1st January, 1949.	Admitted during the Year.	Discharged during the Year.	Died in Institution during the Year.	In Institution on 31st Dec., 1949.
Number of Patients	Adults	M.	49	169	134	33	51
	Do.	F.	52	159	145	16	50
	Children ...	M.	1	..	..	..	1
	Do. ...	F.	1	1	2	..	..
TOTALS ..	..	..	103	329	281	49	102

Included in the total of 329 admissions during the year were 41 patients admitted for observation, of whom 12 were diagnosed as suffering from tuberculosis and 29 discharged as not tuberculosis.

49 patients died in the Institution ; the conditions of the other patients on discharge is given in the table below :—

	Males.	Females.	Total.
Improved	88	90	178
Without Improvement	46	57	103
Died in Hospital	33	16	49
Totals	167	163	330

Many of those discharged " improved " were fit for light work. The following transfers to other Institutions were arranged : 20 to Barnasford Sanatorium, 3 to Poole Sanatorium, 12 to Newcastle General Hospital, 9 to Torquay Convalescent Home, 2 to the Royal Victoria Infirmary and 2 to Sheriff Hill Isolation Hospital. 31 patients were transferred to Shotley Bridge Hospital for Thoracic Surgery.

Treatment has been on Sanatorium lines, modified to some extent in view of the type of patient ; the essentials are the same, however, namely, rest and good food under satisfactory hygienic conditions, with exercise graduated to the patient's tolerance.

Newcastle General Hospital.

158 patients were admitted (96 males and 62 females). Details are given in the following table :—

		Sex.	In Institution on 1st Jan., 1949.	Admitted.	Discharged.	Died in Institution.	In Institution on 31st Dec., 1949.
Respiratory ..	Adults	M.	..	48	42	5	1
Do. ..	Do.	F.	..	13	10	2	1
Do. ..	Children	M.	..	10	8	..	2
Do. ..	Do.	F.	..	9	7	1	1
Non-Repository	Adults ..	M.	..	26	24	..	2
Do.	Do.	F.	1	28	25	2	2
Do.	Children	M.	..	12	11	1	..
Do.	Do.	F.	1	12	12	1	..
Totals			2	158	139	12	9

The results of the treatment received are given in the table below :—

	Males.	Females.	Children.	Totals.
Improved	56	32	35	123
Without Improvement	10	3	3	16
Died in Hospital	5	4	3	12
Totals	71	39	41	151

Sheriff Hill Isolation Hospital.

During the year, 19 Newcastle patients were admitted and 15 discharged.

Hexham General Hospital.

During the year 9 Newcastle patients were admitted. There were no discharges.

2. SANATORIA.

Barrasford Sanatorium.

187 patients were admitted (93 males and 94 females). Details are given in the following table :—

	In Institution on 1st January, 1949.	Admitted during the year.	Discharged during the year.	In Institution on 31st December, 1949.
Males	47	93	103	37
Females ...	42	94	95	41
Totals :	89	187	198	78

The condition of the patients on discharge is given in the table below :—

	Males.	Females.	Total.
Improved	96	84	180
Without improvement	7	11	18
Totals	103	95	198

Wooley Sanatorium.

With the absorption of Gosforth and Newburn into the Newcastle Chest Clinic area, a number of beds were taken over in Wooley Sanatorium already occupied by ex-County cases, and a further 8 patients were admitted during the latter part of the year. The 1950 report will show a better picture of the situation, since it will cover a full year.

Stannington Children's Sanatorium.

48 children were admitted to Stannington Sanatorium during the year—25 males and 23 females.

	In Sanatorium on 1st Jan., 1949.	Admitted.	Discharged.	In Sanatorium on 31st Dec., 1949.
Respiratory Males	18	18	23	13
Do. Females	12	18	13	17
Non-Respiratory Males	10	7	9	8
Do. Females	2	5	4	3
Totals	42	48	49	41

In every case except 2, benefit accrued to the patient, as is shown in the following returns :—

	Males.	Females.	Total.
Disease quiescent	15	13	28
Improved	16	3	19
Without Improvement	1	1	2
Died	..	..	..
TOTALS	32	17	49

C. VERITY,

Chest Physician.

TUBERCULOSIS NOTIFICATIONS AND DEATHS SINCE 1919.

YEAR	TUBERCULOSIS.											
	PULMONARY.				NON-PULMONARY.				TOTAL.			
	New Cases Notified.	Number of Deaths.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	New Cases Notified.	Number of Deaths.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.	New Cases Notified.	Number of Deaths.	Death Rate per 1,000 Population.	Attack Rate per 1,000 Population.
1919	529	339	1.23	1.92	205	116	0.42	0.75	734	455	1.65	2.7
1920	593	368	1.28	2.07	244	121	0.42	0.92	837	489	1.71	3.0
1921	532	348	1.25	1.91	245	103	0.37	0.88	777	451	1.62	2.8
1922	495	322	1.14	1.76	280	100	0.35	0.99	775	422	1.50	2.7
1923	544	311	1.10	1.92	289	103	0.36	1.02	833	414	1.46	2.9
1924	540	322	1.12	1.89	272	99	0.35	0.95	812	421	1.47	2.8
1925	546	343	1.20	1.91	303	101	0.35	1.06	849	444	1.55	2.9
1926	580	331	1.16	2.04	292	84	0.30	1.02	872	415	1.46	3.1
1927	504	316	1.09	1.75	270	84	0.29	0.94	774	400	1.38	2.7
1928	508	295	1.05	1.80	280	77	0.27	1.00	788	372	1.32	2.8
1929	551	309	1.09	1.94	236	75	0.26	0.83	787	384	1.35	2.8
1930	507	298	1.05	1.79	212	67	0.24	0.75	719	365	1.29	2.5
1931	507	303	1.07	1.79	232	94	0.33	0.82	739	397	1.40	2.6
1932	432	277	0.98	1.52	207	64	0.22	0.73	639	341	1.20	2.2
1933	428	262	0.91	1.49	191	67	0.23	0.66	619	329	1.14	2.2
1934	464	280	0.97	1.62	140	51	0.18	0.49	604	331	1.15	2.1
1935	464	240	0.82	1.59	176	63	0.22	0.60	640	303	1.04	2.2
1936	449	265	0.90	1.55	135	43	0.14	0.46	584	308	1.04	2.0
1937	489	270	0.93	1.68	137	54	0.19	0.47	626	324	1.12	2.1
1938	481	249	0.85	1.65	158	44	0.15	0.54	639	293	1.00	2.2
1939	428	232	0.82	1.51	143	47	0.17	0.50	571	279	0.99	2.0
1940	465	251	0.98	1.82	123	51	0.20	0.48	588	302	1.18	2.3
1941	483	249	0.98	1.89	130	56	0.22	0.51	613	305	1.20	2.4
1942	511	219	0.86	2.01	136	58	0.23	0.53	647	277	1.09	2.5
1943	595	270	1.06	2.33	140	55	0.21	0.55	735	325	1.27	2.9
1944	547	233	0.89	2.08	147	68	0.26	0.56	694	301	1.15	2.6
1945	580	227	0.85	2.18	115	47	0.18	0.43	695	274	1.03	3.0
1946	572	227	0.80	2.02	105	36	0.13	0.37	677	263	0.93	2.4
1947	546	259	0.89	1.88	98	39	0.13	0.34	644	298	1.02	2.2
1948	596	228	0·78	2·03	97	26	0·09	0·33	693	254	0·87	2·36
1949	516	222	0·75	1·75	94	24	0·08	0·32	610	246	0·83	2·07

MASS RADIOGRAPHY UNIT.

Annual Report, 1949.

Herewith I beg to submit a brief report on the work of the Mass Miniature Radiography Unit during 1949.

The Unit spent almost nine months of the year working within the City boundaries and during the other three months visited Whitley Bay, Wallsend and the Team Valley Trading Estate.

Table " A " is a timetable of our movements showing the total number of volunteers examined at each place :—

TABLE " A ".

Place of Operation.	Dates.	Number Examined.
Headquarters	January 1—February 17	3019
Ministry of National Insurance, Benton	February 17—March 17	3211
Headquarters	March 17—April 28	3690
Team Valley Trading Estate....	April 28—June 10.....	3538
Headquarters	June 10—August 8	2703
Whitley Bay	August 18—September 16 ...	2317
Wallsend.....	September 27—October 20 ...	1744
Vickers-Armstrongs' Works, Scotswood and Elswick	October 20—November 18 ...	3798
Headquarters	November 18—December 31..	1138

The results of the whole year's working are given in Table " B ", divided into routine examinations inside and outside Newcastle, doctors' patients, and " contacts " and " suspects " X-rayed at the request of the Newcastle upon Tyne Chest Clinic :—

TABLE " B ".

	Miniature Films.		Recalled.		Referred to Chest Clinic or kept under observation by M.R.U.	
	M.	F.	M.	F.	M.	F.
Newcastle ...	9,511	6,208	513	279	91	40
Elsewhere ...	2,914	4,540	155	217	28	47
	12,425	10,748	668	496	119	87
Totals	23,173		1,164 or 5%		206 or 0·9%	
Doctors' Patients ...	811	933	176	177	56	51
Chest Clinic	104	137	11	21	4	8
Patients	915	1,070	187	198	60	59
Totals	1,985		385 or 19%		119 or 6%	
Grand Totals	13,340	11,818	855	694	179	146
	25,158		1,549 or 6%		325 or 1·3%	

A comparison with 1948 is given in Table " C " below :—

TABLE " C ".

	Miniature films.		Recalled.		Referred to Chest Clinic or kept under observation by M.R.U.	
	1948	1949	1948	1949	1948	1949
Routine Examinees ..	17,174	23,173	956	1,164	219(1·3%)	206(0·9%)
Doctors' Patients	2,625	1,985	570	385	237 (9%)	119 (6%)

It will be seen that although the number of persons examined was considerably larger than in 1948, the number of cases requiring further investigation was less. 1948 was, however, an unusual year in this respect and, as will be seen from Table " D " below (which shows the percentage of examinees referred in each year to the Chest Clinic and in which is included for 1949 those persons who were kept under observation by the Unit), the figures have reverted to their normal level :—

TABLE " D "

Year.	Routine X-rays.	Doctors' Patients.	Total.
1944	0·8%	6·0%	1·0% (201 cases)
1945	1·2%	....	1·2% (396 cases)
1946	1·1%	14·5%	1·3% (423 cases)
1947	0·9%	7·1%	1·0% (296 cases)
1948	1·3%	9·0%	2·4% (457 cases)
1949	0·9%	6·0%	1·3% (268 cases)

From Table " A " it will be seen that the work in Newcastle was divided between headquarters, the Ministry of National Insurance at Benton and Vickers-Armstrong's Works, the total number of volunteers examined being 17,567, compared with 16,254 in 1948. We had a very successful survey at Vickers, our third visit, where 75 per cent of the employees volunteered, a higher percentage than at either of the previous visits. At Benton, the response was about 50 per cent—a reasonably good one in view of the number of unestablished Civil Servants, with no safeguards in the case of sickness, working there. At headquarters, the people X-rayed fall into the same groups as in 1948, with the addition of students from King's College. A week was set aside for the students in February, and about a third of the total number attended. This was considered disappointing, but apparently

compares favourably with surveys in other Universities, where a chest X-ray is not part of a Student Health Service.

Volunteers X-rayed in Newcastle can, therefore, be divided into six categories :—

(a) Groups from factories, large stores and commercial offices, Corporation employees, Civil Servants and staffs of Public Authorities.

(b) Members of the General Public.

(c) Students.

(d) School leavers from public and private schools.

(e) Doctors' patients.

(f) "Contacts" and "suspects" X-rayed at the request of the Newcastle upon Tyne Chest Clinic.

The figures relating to this survey are shown in Table "E."

TABLE "E".

	Miniature Films.		Recalled.		Referred to Chest Clinic or kept under observation by M.R.U.	
	M.	F.	M.	F.	M.	F.
Factories, Stores and Offices	6,543	3,718	356	165	68	25
General Public	453	618	47	45	9	7
Students	848	143	47	6	7	2
School-Children ...	1,667	1,729	63	63	7	6
	9,511	6,208	513	279	91	40
Total	15,719		792 or 5%		131 or 0·8%	
Doctors' Patients ...	811	933	176	177	56	51
Chest Clinic Patients ...	104	137	11	21	4	8
	915	1,070	187	198	60	59
Total.....	1,985		385 or 19%		119 or 6%	
Grand Totals	10,426	7,278	700	477	151	99
	17,704		1,177 or 6%		250 or 1·4%	

Of the 100 men and 62 women referred to the Newcastle upon Tyne Chest Clinic for further investigation, 129 are known to have attended. Of these, fourteen were diagnosed as non-tuberculous and eighteen were kept under observation. Of the remaining 97 considered to be suffering from tuberculosis, the lesions were regarded as healed or inactive in the case of 27 patients, as doubtful in the case of eight patients, and 62 were regarded as having active disease; 43 patients entered institutions for treatment or observation, seven received domiciliary treatment and 38 were kept under observation at the Chest Clinic.

The general comments in my report for the year 1948 still hold good and there seems to be no need to amplify them.

W. H. Dickinson,

Medical Director.

REPORT OF THE

CHIEF SANITARY INSPECTOR

V—FOOD AND DRUGS, NUISANCES, HOUSING, FACTORIES, Etc.

ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR FOR THE YEAR 1949.

To the Medical Officer of Health.

Sir,

Prior to the year 1939, the carrying out of improvements and sound maintenance work on premises, particularly in respect of dwellinghouses, was of common occurrence. During the war years and the immediate post-war years the problem arising to be solved to carry out this commonsense work was that of shortages of building materials and labour. Many owners were then desirous of keeping their properties in good order but the restrictions in force proved a very effective brake on their intentions. Other owners, on the other hand, used the restrictions as a convenient " get out " to do just as little or nothing as could be managed. The general result of this inaction is that a marked deterioration in structures of properties has taken place which is not confined to any particular area of the City. To-day, the shortages of building materials have been materially lessened, but this easement, unfortunately, has been counteracted over and over again not only by the high costs of building work, but also the effect of the stabilised rentals of dwellinghouses. Increasingly, it is noted that on account of financial difficulties attention is now directed by owners to remedying as cheaply as possible, items of disrepair which are of a really vital nature only. It is a serious position that has arisen and concerns all, and unless a drastic change occurs in this general inaction, the effect will be to cause many properties to be included in the proposed slum clearance programme which are at the present not so included.

With regard to the work of slum clearance that lies ahead, the number of dwellinghouses proposed to be dealt with will be greatly in excess of the 3,932 dealt with during the years 1931-1939. The conditions in and around the houses in many of the proposed areas are deplorable, and equally as bad as in the houses condemned over 10 years ago. Action to secure their demolition is long overdue, but whilst the Minister's Order restricting this class of work remains operative, little progress may be made.

Condemned Dwellinghouses.

At the beginning of the year, over 800 families awaited their new houses and during the year, 45 only (just less than one-third of the number re-housed during 1948) had their great expectations realised.

Report has been made on several occasions as to the deplorable conditions under which these people live and remain so surprisingly passive. These conditions become progressively worse and now the remedy of disrepair or improvements of any nature in the houses is in very many instances a practical impossibility. In portions of the areas deterioration has so progressed that the appearance may, with great justice, be termed " like unto war shattered." These conditions are not by any means unknown to the Ministry of Health, and during April a deputation of officials was sent to London to meet the Ministry officials on the matter and, as a result of this meeting, a policy was decided upon as to the clearance and development of three of the bad areas, viz. the Hill Street, Hindhaugh Street and Yorkshire Street areas.

Since then clearance and development has moved in respect of one Area only (Hindhaugh Street), where it is proposed to erect block dwellings of four, six and eight stories high. Progress hastens somewhat slowly, and in the meantime it becomes imperative to accelerate the provision of new houses by every means possible, not only for the occupiers of the condemned dwellinghouses, but also for the others who are compelled to live in dwellinghouses equally as bad, as to which action for condemnation cannot as yet be undertaken under present re-housing arrangements.

Educational—Student Sanitary Inspectors.

A full time course for the training of ex-Service men arranged by the Director of Education at the request of the Ministers concerned commenced early in the year and is programmed to finish at the end of October, 1950. With regard to the specialist lecturers for the course, the Health Committee willingly agreed again that the services of the Departmental team be available. It is understood that this is the final course, and that they are to be discontinued throughout the country. They were designed to overcome the post-war shortage of qualified sanitary inspectors and this object has now been more than achieved.

Clean Food Campaign.

Much work is being done by local authorities and others throughout the country in improving sanitary conditions in food premises. In this sphere of our work over a very considerable number of years, persistent efforts have been carried out by the staff in a quiet way, and lectures and demonstrations have borne excellent results.

Intensification of these efforts commenced towards the latter end of the year and contact has been made with the committees of the various food associations. After frank discussion, full and willing co-operation has been secured with them as a necessary first measure. Many difficulties remain to be overcome and time must pass before the numerous and diverse food traders in the City are fully sanitary conscious.

Atmospheric Pollution.

The Northumberland and Durham Regional Advisory Smoke Committee was set up by local authorities in the North East during 1933, and functioned with much benefit to the area until September, 1939. On the lead of representations of the Tyneside local authorities who are members of the National Smoke Abatement Society, activities were resumed in February under the National Smoke Abatement Society as the North East Divisional Council. The object of the Council is the elimination of atmospheric pollution in the North East area. Its membership is open to any body, trade, organisation or person. It has a common policy operating with all the local authority members, and on this common policy plus the special efforts of individual local authorities and others the problem of atmospheric pollution can be overcome. Other types of nuisance may be localised and dealt with by a local authority, but in atmospheric pollution a very much wider control must be exercised if elimination of the nuisance is to be attained.

New Legislation.

The Food and Drugs (Milk and Dairies) Act, 1944 ; The Milk and Dairies Regulations, 1949 ; The Milk (Special Designations) Act, 1949 ; The Milk (Special Designations) (Raw Milk) Regulations 1949 ; and the Milk (Special Designations) (Pasteurised and Sterilised Milk) Regulations, 1949, came into force on the 1st of October. Formerly the production and distribution of milk was supervised by local authorities, whereas under the new powers production control has been cancelled and is now exercised by the Ministries of Health, Agriculture and Fisheries, and of Food. The aim of the Acts is to eradicate disease from the milk herds and to ensure a clean and safe supply of milk to the consumer. When the powers are fully operative throughout the country the only milk that may then lawfully be sold for human consumption will be of two types, one a raw milk (tuberculin tested) and the other pasteurised or sterilised milk. Activities are afoot through-

out the country in equipping areas with premises and equipment for the processing of milk, and when areas are adequately equipped, then the powers become operative by order of the Minister.

To meet the anticipated needs of our City and district new premises with ultra-modern equipment for the heat treatment of milk are in course of erection in the City. This, when in operation and in conjunction with the existing premises in the City together with the enforcement of the new legislation should very materially improve the quality of the milk supply to the public.

Applications for Council Houses.

The Medical Officer of Health and Chief Sanitary Inspector with the approval of the Housing and Health Committees deal with applications for Council houses, where the conditions are such that their special knowledge should be used to bridge the gap between the " Points Scheme " of the Housing Committee and other matters that are so difficult to assess satisfactorily with so many points.

The applications after consideration are classified in four groups and reports thereon submitted to the Housing Committee. Details of these are set out on page 162.

Food Supply.

The certificates of the Public Analyst as to the samples of foodstuffs analysed by him and found to be " not genuine " give no cause for apprehension as to their quality. They reveal in the instances of all but two of the milk samples that the cows were at fault in not delivering milk up to standard. In the sausage samples, a deficiency of meat content, caused wilfully or by carelessness in mixing of contents, crops up again. In regard to a sausage, to the man in the street of this City at least, it means a skin, inside of which is meat mixed with some other food. In the instances of beef or pork sausage, his opinion is confirmed as the meat content is prescribed. There are other articles, however, similar in appearance to sausages and labelled sausages wherein meat content is not found. These are sold under the title of Vegetarian Savoury, Vegetarian Tomato, Rusk, Potato and Tomato, Savoury Rusk, or just Rusk Sausages. Penalties were inflicted on the vendors of the sausages deficient in meat content, whereas no action with the vendors of the Vegetarian tomato, potato and rusk sausages was taken, other than report to the Ministry of Food for their attention.

The Bacteriologist's reports upon his examinations of the samples taken from the milk coming into the City indicate better keeping qualities of the milk in comparison with that supplied during the previous year. This improvement, slight and welcome as it is, leaves a position that is far from satisfactory, as 25·18 per cent. of the samples failed to pass the prescribed tests. Last year this percentage was 39·84. Material improvement in this position can and must be made, and it is in the betterment of the arrangements for the production and main delivery of the milk that the remedy lies.

The increasing demand by the public for ice-cream was reflected in the registration of 123 new premises. Nutritionally, the average fat content of the samples analysed was 5·36 per cent. and variations of this fat content ranged from 20·20 to 0·50 per cent. During 1949, the Ministry of Food offered to manufacturers an extra allocation of fat and sugar with the proviso that the fat content of the ice-cream be not lower than 2·50 per cent., otherwise the extra allocation might be withdrawn. Quite a number availed themselves of this offer and of the 99 samples analysed during the year, 12 of them failed to reach this very low standard. In the grading of samples by the Bacteriologist, 55·21 per cent. were reported as satisfactory, this being 3·57 per cent. above the last year's position. It leaves room for very material improvement and whilst manufacturers' premises and apparatus are good, there is no doubt about their keenness to obtain satisfactory results, but it has been found at times that inattention to that little extra care by staff in the matter of cleanliness has meant the difference between satisfactory and unsatisfactory results.

FOOD & DRUGS ACT, 1938.

Total Samples.—The total number of samples submitted to the Public Analyst was 1,353, an increase of 186 over last year's total. This equals a rate of 4·58 per thousand population, and is above the rate of 3·0 per thousand population recommended by the Minister of Agriculture and Fisheries.

Informal Samples.—The information gained from the analyses of samples taken informally furnishes a very useful indication as to the quality of the foodstuffs and drugs on sale to the public, and whenever a sample is found to be adulterated a formal sample is taken so that legal proceedings may be instituted if necessary. In all, 741 such samples (54·76 per cent. of the total samples) were so procured and analysed by the Public Analyst and of this number 364 were of milk.

Samples not Genuine.—The number of these was 56 (4·13 per cent. of the total samples), an increase of 33 per cent. over the preceding year. 30 were of milk and in 28 of these particular samples the cows were found to be at fault. 20 of the others were of sausage, of which 7 (vegetarian type) were devoid of meat content and the remainder consisted of Almond Flour, Baking Powder, Sulphur Ointment, Frofrute, Chewing Gum and Malt Toffee.

Milk Samples.—In all, 898 (66·37 per cent. of the total samples) were of milk. Of these, 30 (3·34 per cent.) were certified to be below the minimal limit fixed by the Sale of Milk Regulations, 1939, viz. 8·50 per cent. of non-fatty solids and 3·0 per cent. of milk-fat. Of these latter samples 5 were deficient in non-fatty solids, 20 in fat content and 5 in both. The non-fatty solids deficiences ranged from 5·8 to 0·3 per cent. and milk-fat from 20·0 to 1·60 per cent. 20 of the samples were from milk produced in the County of Northumberland, 8 from local producers, and two were processed milks. In the case of 5 deficient samples they were followed up by " appeal to cow " samples (30 in number) and in each instance the milk secreted by some of the cows was found to be below standard. Advice to the producers as to improvements in the milking arrangements was tendered and subsequently milk was sent out with a fat content above the minimal standard.

Samples taken for Analysis during the Year 1949.

Article.	No. of Samples obtained.			Result of Analysis.		Action Taken.			Remarks.
	Formal.	Informal.	Total.	Genuine.	Non-Genuine.	Prosecutions.	Convictions.	Cases Dismissed.	
Milk	534	364	898	868	30	..	..	..	In 28 samples no action was taken as the milk was as it came from the cow. 2 samples were obtained from sealed bottles, which could not have been tampered with by vendor. No action taken.
Condensed Milk	..	2	2	2	..	..	..	..	
Butter	1	10	11	11	..	..	..	..	
Margarine	..	10	10	10	..	..	..	..	
Lard and Cooking Fat	..	10	10	10	..	..	..	..	
Cocoa	..	3	3	3	..	..	..	..	
Tea	..	9	9	9	..	..	..	..	
Coffee and Chicory	..	4	4	4	..	..	..	..	
Sugar	..	10	10	10	..	..	..	..	
Baking Powder	1	4	5	4	1	..	..	..	No action—check sample genuine.
Custard Powder	..	4	4	4	..	..	..	..	
Cheese	..	10	10	10	..	..	..	..	
Bacon	..	9	9	9	..	..	..	..	
Golden Raising Powder	..	2	2	2	..	..	..	..	
Jams and Marmalade	..	5	5	5	..	..	..	..	
Golden Syrup	..	1	1	1	..	..	..	..	
Rice, Semolina, Sago	..	6	6	6	..	..	..	..	
Flour and Bun Flours	..	8	8	8	..	..	..	..	
Peas, Barley, Lentils	..	4	4	4	..	..	..	..	
Dried Fruits	..	4	4	4	..	..	..	..	
Tinned Fruits	..	2	2	2	..	..	..	..	
Gelatin	..	3	3	3	..	..	..	..	
Ice Cream	..	99	99	99	..	..	..	..	
Biscuits	..	1	1	1	..	..	..	..	
Tinned Vegetables	..	5	5	5	..	..	..	..	
Tinned Fish	..	3	3	3	..	..	..	..	
Fish Paste	..	3	3	3	..	..	..	..	
Meat Pastes	..	5	5	5	..	..	..	..	
Sausage	50	..	50	30	20	5	5	..	Vendors fined £155 and £14 14s. 0d. costs.
Pickles and Sauces	..	6	6	6	..	..	..	..	
Flavouring Essences	..	6	6	6	..	..	..	..	
Herbs	..	5	5	5	..	..	..	..	
Saccharin	1	..	1	1	..	..	..	..	
Curry Powder	..	1	1	1	..	..	..	..	
Soups	..	7	7	7	..	..	..	..	
Mustard, Pepper and Vinegar	..	7	7	7	..	..	..	..	
Spices	..	5	5	5	..	..	..	..	
Ground Ginger	..	2	2	2	..	..	..	..	
Gravy Salts	..	3	3	3	..	..	..	..	
Bicarbonate of Soda	..	2	2	2	..	..	..	..	
Baker's Filler	1	..	1	1	..	..	..	..	
Chewing Gum	..	1	1	..	1	..	..	..	90 per cent. Paraffin Wax—not a food or drug.
Almond Flour	1	..	1	..	1	..	..	..	Cautioned.
Ground Almonds	..	1	1	1	..	..	..	..	
Ground Arrowroot	..	1	1	1	..	..	..	..	
Candied Peel	..	2	2	2	..	..	..	..	
Glace Cherries	..	1	1	1	..	..	..	..	
Frofrute	1	2	3	2	1	..	..	..	No action—formal sample genuine.
Ground Rice	..	1	1	1	..	..	..	..	
Kippers	..	1	1	1	..	..	..	..	
Bovril	..	1	1	1	..	..	..	..	
Dessert Powder	..	1	1	1	..	..	..	..	
Meat Pies	2	..	2	2	..	..	..	..	
Sweetfat	3	..	3	3	..	..	..	..	
Synthetic Cream	2	..	2	2	..	..	..	..	
Oatmeal	..	2	2	2	..	..	..	..	
Vermicelli, Farinoca, Macaroni	..	5	5	5	..	..	..	..	
Spaghetti (tinned)	..	2	2	2	..	..	..	..	
Salt	..	2	2	2	..	..	..	..	
Confectionery	5	..	5	4	1	..	..	..	Offender cautioned.
Baked Beans	..	1	1	1	..	..	..	..	
Household Drugs—									
Boracic Powder (4)	..	4	4	4	..	..	..	..	
Cream of Tartar(5), Tartaric Acid(4)	..	9	9	9	..	..	..	..	
Camphorated Oil(3), Castor Oil (3)	..	6	6	6	..	..	..	..	
Cod Liver Oil(3), Olive Oil(2)	..	5	5	5	..	..	..	..	
Composition Essence(2), Con. Senna (1)	..	3	3	3	..	..	..	..	
Cough Mixtures(2), Epsom Salts(4)	..	6	6	6	..	..	..	..	
Friars Balsam (2), Glycerin and Honey (1)	..	3	3	3	..	..	..	..	
Gregory's Powder (3), Liquorice Powder (4)	..	7	7	7	..	..	..	..	
Liquid Paraffin	1	2	3	3	..	..	..	..	
Liver Salts(1), Magnesia(2)	..	3	3	3	..	..	..	..	
Tincture Rhubarb (1), Glaubers' Salt (4)	..	5	5	5	..	..	..	..	
Ointments—Boracic (4), Zinc (4), Sulphur (3)	..	11	11	10	1	..	..	..	No action—check sample genuine.
Glycerin (3), Paregoric (2), Eucalyptus (2)	..	7	7	7	..	..	..	..	
Beer and Stout	..	2	2	2	..	..	..	..	
Sarsaparilla	1	..	1	1	..	..	..	..	
Raspberry Drink	1	..	1	1	..	..	..	..	
American Cream Soda	1	..	1	1	..	..	..	..	
Sherry	1	..	1	1	..	..	..	..	
Ruby Wine	1	..	1	1	..	..	..	..	
Rum	1	..	1	1	..	..	..	..	
Whisky	2	..	2	2	..	..	..	..	
Gin	1	..	1	1	..	..	..	..	
Totals	612	741	1,353	1,297	56	5	5	..	

DEFICIENT MILK SAMPLES.

No.	Designation.	Composition.		Deficiency.	
		Milk-fat. %	Solids not Fat. %	Milk-fat. %	Solids not Fat. %
1	Tuberculin Tested (Certified)	3·20	8·36	..	1·6
2	,, ...	3·20	8·36	..	1·6
3	,, ...	3·15	8·45	..	0·5
4	,, ...	2·40	8·67	20·0	..
5	,, ...	2·80	8·75	6·6	..
6	,, ...	3·45	8·41	..	1·0
1	Accredited	2·57	8·60	14·3	..
2	,, ...	2·91	8·00	3·0	5·8
3	,, ...	2·85	8·56	5·0	..
4	,, ...	2·90	8·57	3·3	..
5	,, ...	2·70	8·59	10·0	..
6	,, ...	2·65	8·47	11·6	0·3
7	,, ...	3·00	8·47	..	0·3
8	,, ...	2·95	8·43	1·6	0·8
9	,, ...	2·55	8·40	15·0	1·1
10	,, ...	2·90	8·50	3·3	..
11	,, ...	2·50	8·62	16·6	..
12	,, ...	2·45	8·42	18·3	0·8
13	,, ...	2·80	8·50	6·6	..
14	,, ...	2·80	8·70	6·6	..
15	,, ...	2·80	8·60	6·6	..
16	,, ...	2·95	8·66	1·6	..
1	Undesignated.....	2·71	8·73	9·6	..
2	,, ...	2·92	8·55	2·6	..
3	,, ...	2·94	8·73	2·0	..
4	,, ...	2·95	8·78	1·6	..
5	,, ...	2·80	8·75	6·6	..
6	,, ...	2·65	8·82	11·6	..
1	Sterilised.....	2·70	8·58	10·0	..
2	,, ...	2·80	8·60	6·6	..

"APPEAL TO COW" SAMPLES.

No.	Milk Fat. %	Non-fatty Solids. %	Deficiency		Breed of Cow.	Grade of Milk.	Time of Milking.	Place of Production.
			Milk Fat. %	Non-fatty Solids %				
1	3·06	8·53	..	..	Short-horn.	Accre-ited.	a.m.	Local.
2	2·91	8·00	3·0	5·8				
3	3·5	8·57	..	..			p.m.	
4	3·15	8·50	..	..				North-umber-land.
5	2·45	8·42	18·3	0·8	Short-horn	Accre-ited.		
6	2·80	8·50	6·6	..			a.m.	
7	3·05	8·55	..	..				
8	3·10	8·84	..	..	Short-horn.	Undesig-nated.	a.m.	North-umber-land.
9	2·65	8·82	11·6	..				
10	4·20	8·66	..	..				
11	3·20	8·36	..	1·6				
12	3·15	8·45	..	0·5				
13	3·10	8·66	..	..				
14	3·40	8·67	..	..			a.m.	
15	3·35	8·59	..	..				
16	2·40	8·67	20·0	..		Tuber-culin Tested Certi-fied.		
17	2·80	8·75	6·6	..	Ayr-shire.			
18	3·75	8·94	..	..				Local.
19	3·80	8·58	..	..				
20	3·45	8·41	..	1·0				
21	4·50	8·59	..	..				
22	4·35	8·66	..	..			p.m.	
23	4·15	8·67	..	..				
24	4·30	8·65	..	..				
25	4·30	8·90	..	..				
26	4·30	8·63	..	..			p.m.	
27	4·30	8·75	..	..				North-umber-land.
28	2·80	8·60	6·6	..	Short-horn.	Accre-ited.		
29	3·15	8·80	..	..			a.m.	
30	2·95	8·66	1·6	..				

Offences other than Adulteration.

9 offences were reported to the Health Committee and the action taken as follows :—

OFFENCES OTHER THAN ADULTERATION.

Offence.	No. of Cases.	Action Taken.
MILK & DAIRIES ORDER, 1926— Article 32— Failure to use all practicable precautions to prevent milk from being contaminated by dust, dirt, rainwater or otherwise	2	Offenders cautioned.
MILK (SPECIAL DESIGNATIONS) ORDER, 1936—THIRD SCHEDULE Part I.A.6— Churns not sealed in accordance with the above order	1	Offender cautioned.
MILK (SPECIAL DESIGNATIONS) (RAW MILK) REGULATIONS 1949 SECOND SCHEDULE Part Ia 7(b). Time of production of milk not stated contrary to above regulations	2	Offenders cautioned.
MILK (SPECIAL DESIGNATIONS) (RAW MILK) REGULATIONS 1949 SECOND SCHEDULE Part Ic. 2: Lids of churns containing T.T. milk not sealed contrary to above regulations	4	Offenders cautioned.
Total	9	

COMPOSITION (AVERAGE) OF ALL MILK SAMPLES.

Designation.	No. of Samples.	Composition (average).	
		Milk Fat.	Non-fatty Solids.
		%	%
T.T. (Cert.).....	98	4·15	8·91
T.T.	53	3·94	8·76
Accredited	25	3·06	8·55
Pasteurised.....	344	3·50	8·76
Heat Treated	84	3·50	8·72
Sterilised.....	103	3·51	8·70
Undesignated	123	3·55	8·80
T.T. (Pasteurised)	68	3·67	8·68
	898	3·61	8·73

BACTERIOLOGICAL EXAMINATION OF MILK.

Samples of all milks coming into and sold in the City are taken regularly and submitted to bacteriological examination. In all, 1,142 samples were procured, the results being as follows :—

Designation.	No. taken.	Satis-factory.	Unsatisfactory.	
			Meth. Blue	%
T.T. (Cert.)	97	85	12	12·37
T.T.	250	203	47	18·80
Accredited	70	57	13	18·57
Undesignated	429	288	141	32·86
Total	846	633	213	25·18
T.T. (Past.)	57	55	2	3·50
Pasteurised	135	131	4	3·00
Heat Treated	80	75	5	6·25
Sterilised	24	24	..	..
Total	296	285	11	3·71

PHOSPHATASE TEST.
(Public Analyst).

Designation.	No. Taken.	Satisfactory.	%
T.T. (Past.)	57	57	100
Pasteurised	135	135	100
Heat Treated	80	80	100
Sterilised	24	24	100
Total	296	296	

TUBERCULOUS MILK.

370 samples were submitted to the Bacteriologist, who subsequently reported 7 of them to be positive. In each instance, the appropriate action was taken in the matter. These samples were of milk produced on six premises in the County of Northumberland and one in Durham. The table following sets out the grades of milk samples and the results of the examination :—

Designation.	No. Taken.	Negative.	Positive.	Percentage. Positive
T.T. (Past.)	3	3	..	..
T.T. (Cert.)	15	15	..	..
T.T.	87	87	..	..
Accredited	36	35	1	2·8
Undesignated	212	206	6	2·8
Pasteurised	7	7	..	..
Heat Treated	8	8	..	..
Sterilised	2	2	..	..
Total	370	363	7	1·89

The percentage of milk samples found to contain tubercle bacilli during the past 30 years is as under :—

Year.	Percentage of Samples found Tuberculosis.	Year.	Percentage of Samples found Tuberculous.
1920	6·3	1935	3·4
1921	5·5	1936	2·7
1922	7·0	1937	4·3
1923	4·5	1938	3·8
1924	3·2	1939	5·2
1925	8·0	1940	5·7
1926	4·0	1941	2·3
1927	3·7	1942	5·0
1928	3·7	1943	3·0
1929	8·7	1944	3·1
1930	4·2	1945	0·8
1931	3·7	1946	2·1
1932	1·8	1947	1·3
1933	2·0	1948	2·3
1934	2·6	1949	1·8

Milk Churns.—A considerable number of empty milk churns on return to the producers, wholesalers, etc., from milk vendors on Tyneside pass through the Central Railway Station. These as well as those on return from vendors in the City are examined at the Railway Station, at the dairy premises in the City and also on the road haulage vehicles when in the City. There is no legal obligation upon the sender of an empty churn to affix his name and address on it, consequently, when any such churn is found uncleansed, identification cannot be made.

Of the 14,653 churns examined 217 (1·48 per cent.) were found to be uncleansed and unidentifiable as to the consignor.

The Milk and Dairies Regulations, 1949, Section 8 and the Food and Drugs Act, 1938, Section 22.

Inspection of all premises dealing in milk is carried out as a routine measure and during the year apart from minor offences, the condition of the premises has been found to be satisfactory. Seven applications were received for registration as retail purveyors of milk and were granted. The total number of premises registered is one less than the preceding year.

Producers of Milk (Wholesale)	1
Producers and Retailers	16
Shops (Sale of Dairy or the like commodities)	56
Shops (General)	381
Total	454

Milk (Special Designations) Regulations, 1949.

The number of licences granted during the year is 14 above those granted during 1948 and is in accordance with the following table :—

	Grade of Milk.			Total.
	Tuberculin Tested.	Accredited.	Pasteurised.	
Pasteuriser-bottler-dealers	..	..	2	2
Producer-bottler-retailers	2	4	..	6
Bottler-retailers	11	..	..	11
Retailers	23	..	8	31
Supplementary Licences(Retailers)	6	1	1	8
Total	42	5	11	58

The Public Health (Condensed Milk) Regulations, 1923, 1927.

Two samples of condensed milk were procured, both of which were certified to be genuine and in full compliance with the regulations.

Artificial Cream.—Retail premises on the register number two. The manufacture for sale for human consumption of this commodity is still prohibited under a Civil Defence Regulation, therefore no action has been taken.

Ice Cream—Newcastle Corporation (General Powers) Act, 1935 ; Sec. 4.

Premises used for the manufacture, storage and/or sale of ice cream, together with the person occupying such premises or vending ice cream, are registered under the above Act. During the year, 123 applications for registration were received and, after inspection and where required improvements carried out, all were granted.

Careful and constant supervision is exercised over these premises, and the persons engaged therein, so as to maintain hygienic conditions. The number of premises on the register is 367.

During the year, 258 samples of ice-cream were procured from manufacturers and vendors, 99 being submitted to the Public Analyst

and 159 to the Bacteriologist. The analysis and examination results are as follows :—

ICE CREAM.

PUBLIC ANALYST.

Number of Samples.	Result.	Fat Content (Between).
2	Genuine	0 and 1 per cent.
6	,,	1 and 2 ,,
38	,,	2 and 4 ,,
27	,,	4 and 6 ,,
4	,,	6 and 8 ,,
13	,,	8 and 10 ,,
3	,,	10 and 11 ,,
6	,,	over 11 ,,
99		

BACTERIOLOGIST.

GRADING.	
No. of Samples.	Grade.
56	I
32	II
20	III
51	IV
159	

In addition, 4 water ices (Lollipops) were examined. 3 were found sterile and 1 contained 86 viable organisms per ml.

ICE CREAM PREMISES.

Type.	Sale of		Open and Pre-packed.
	Open.	Pre-packed.	
Manufacturer only (Wholesale).....	..	7	..
Manufacturer (Wholesale & retail) ...	17	12	8
Vendors (Shops, all types)	34	267	22
Total.....	51	286	30

Butter and Margarine Warehouses, etc.

2 Butter Factories and 32 Margarine Warehouses are registered under Section 34, Food and Drugs Act, 1938. These premises were inspected on 16 occasions when conditions therein were found to be satisfactory.

21 samples of Butter and Margarine were submitted to the Public Analyst and certified genuine. During the taking of these samples, margarine containers, wrappings, etc., were examined and all found to be in compliance with the provisions of the Act.

Preservatives in Food.

Of the 1,353 samples submitted to the Public Analyst 8 (of sausage) were found to contain preservatives. All contained Sulphur Dioxide within the limit allowed under the Public Health (Preservatives in Food) Regulations, 1925-1940. 13 samples of sausages were also submitted to the Public Analyst for analysis as to their meat content, and in all samples the meat content was found to be below the prescribed percentage. Details of the deficiences were submitted to the Food Control Committee, prosecutions were ordered in 5 cases and the offenders were fined in each case. Total of fines, £155, plus £14 14s. 0d. costs.

Bakehouses.

The registered bakehouses in the City total 157, and of these 5 are certified "Basement Bakehouses." Supervision of all these premises is carried out as a routine measure and minor causes for complaint only were found during the inspections.

In regard to the Basement Bakehouses, renewal of certificates becomes due in October, 1953.

No. of Factory Bakehouses (Mechanical).....	102
(Non-mechanical) .	37
No. of Domestic Bakehouses	18
Total.....	157

Restaurant Kitchens (including Hotels, Cafes, Snack Bars, Refreshment Rooms, Works and other premises canteens).

Particular attention has been paid to the sanitation of these premises, the hygiene of the staffs, and the amenities available to the staffs and patrons. Generally it was often found in the small premises (Cafes and Snack Bars) that the volume of business carried on was in excess of the good working capacity of the premises resulting in overworked kitchens and all the troubles that arise therefrom. Extension or expansion of this class of premises is usually not possible, hence maintenance of sanitary conditions is rendered more than ordinarily difficult. Apart from the legal provisions governing the usage of these premises there is an obvious need for regulating the space of the kitchen in relation to the dining or eating-room space.

During the year, the number of these premises increased by 37 and now comprises :—

Hotel Kitchens	46
Cafes and Restaurants	105
Snack Bars	22
Refreshment Rooms	2
Canteens	58
British Restaurants	1
Coffee Stalls	1
Total	235

Fried Fish Shops.

The number of registered shops is 138, a decrease of 1 since 1948. Comments as to this trade are set out under " Offensive Trades " on page 161.

WATER SUPPLY.

The supply of water is furnished to the City by the Newcastle and Gateshead Water Company, who also supply other areas on Tyneside. The main supply is pure upland surface water obtained from large catchment areas at Catcleugh (close to the Cheviots) and in lower Northumberland. Secondary supply is from the River Tyne at Barrasford and Wylam. Reservoirs are situated at Catcleugh, Colt Crag, Hallington, Simonburn and Whittle Dene. Filtering and chlorinating stations are situated at Whittle Dene and Throckley, 11 and 5 miles respectively west of the City.

From these stations, the domestic water supply is piped into the City, whilst the great riverside works, for trade purposes, are catered for by a separate trade main. The great majority of our 82,019 dwellinghouses possess an adequate internal water supply. In 551 of them (population approximately 2,000), the supply is by standpipes in the backyard, whilst in 3,039 others, supplies are available to the ground floor holdings from backyard standpipes, with internal supplies to the other floors. The water supply has been satisfactory in quality and quantity, and is not liable to have plumbo-solvent action. 10 houses in a colony situate in a rural district of the City are supplied from wells, and from each the water is subjected to periodic sampling.

Bacteriological Examination.—The domestic supply is sampled weekly from supply taps on premises within the City and also at Throckley Water Works and two other control stations outside of and west of the City.

Throughout the year 348 samples have been taken, whose classification is as follows :—

BACTERIOLOGICAL EXAMINATION OF WATER, 1949.

	Class 1.	Class 2.	Class 3.	Class 4.	Total.
		Contained 1 B. Coli per 100 ml.	Contained 3 - 10 B. Coli per 100 ml.	Contained in excess of 10 B. Coli per 100 ml.	
	Highly Satisfactory.	Satisfactory.	Suspicious.	Unsatisfactory.	
Waterworks	149	3	1	..	153
Domestic Supplies.	150	8	1	..	159
"Wells"	3	1	..	1	5
Public Baths	30	..	..	..	30
Paddling Pool	..	..	..	1	1
Totals	332	12	2	2	348

Chemical Analysis.—4 samples are taken monthly from the domestic supply and from different points within the City, and in each example the Public Analyst certifies that the water is of satisfactory organic purity, its microscopical characteristics are good, it is clear and bright and is suitable for a public supply. The average analysis of the chemical samples is set out below :—

	Parts per 100,000.
Total solids dried at 180°C.	16·2
Chlorine as chlorides	1·22
Free ammonia.....	0·009
Albuminoid ammonia	0·005
Nitrogen as nitrates	0·07
Oxygen absorbed (4 hours at 80°F.)	0·237
Total hardness	11·116
Permanent hardness	2·783
Temporary hardness	8·333
Lead and copper	Nil.
Iron	0·046
pH value	7·1

Public Baths.—" Break Point " chlorination of the plunge bath waters is carried out and samples of these waters are regularly taken and submitted to the Bacteriologist for examination. As an additional measure the water is tested with the " chloroscope " weekly by the Inspectorial Staff so as to ascertain its sterility or otherwise and its pH value. Throughout the year all samples were satisfactory.

NUISANCES.

The average weekly number of nuisances dealt with was 163, and the total for the year 8,499. Generally all were of a nature common to those found during previous years. In one instance, however, it was unusual, not in regard to the cause for complaint, but unusual in the fact that no similar complaint is recorded as having been received in the Department for over 30 years. The complaint was " Foul and evil smells arising from the River Tyne near the Tyne Bridge." Investigation revealed that an area of 150 yards (approx.) radius from the quayside was heavily permeated with a foul smell arising from the discharge of sewage into the Tyne from a large sewer. In this area, large blocks of offices are situated, wherein the occupiers for 48 hours endured a most unpleasant ordeal. The Tyne within the City boundaries and beyond takes the untreated discharge from the sewers and during the long, dry hot summer, fresh water from the upper reaches of the river was considerably diminished, whilst sewage discharging into the river was generally much stronger, and this combination was the cause for complaint. Fortunately, a break in the dry spell occurred and relieved the situation.

Notices Served.—The total number of notices of all kinds was 22 above the previous year, and in each individual type the number was closely the same as last year.

Number of notices served :—		
Informal	3,850	
Statutory	5,169	
		9,019
No. of " summons " letters sent		1,053
*No. of other letters sent		2,370
No. of circular letters sent		305
Total		12,747

* Includes letters sent relative to the " Overcrowding " provisions of the Housing Act, 1936 (" permitted numbers," etc.).

Legal Proceedings.—Prosecutions (18 summonses) were instituted against an owner in respect of defects at 13 dwellinghouses. Adjournments were granted and final hearings are to be heard early January, 1950.

Pail-Closets, Privies, etc.—The pail-closets, privies, etc., are situated in the semi-rural areas on the outskirts of the City. Structurally they are in a reasonably sound condition, and owing to the absence of convenient sewerage facilities they must remain. The conversion of these to water-closets will be enforced immediately sewerage facilities are available. Indication of their situation is set out in the following table :—

SITUATION OF PAIL-CLOSETS, PRIVIES, ETC., IN CITY.

WARD.	Dry Ashpits.	Pail Closets.	"Cell" Privies.	Combined Privies and Ashpits.	Total No.
St. Nicholas	8	..	..	..	8
Scotswood	..	..	..	1	1
Kenton	1	14	..	21	36
Fenham	..	2	..	2	4
Jesmond	..	1	..	..	1
Dene	..	4	..	1	5
Byker	3	..	..	..	3
St. Lawrence	1	1	..	..	2
Total.....	13	22	..	25	60

NEWCASTLE CORPORATION (GENERAL POWERS) ACT, 1935.

The Medical Officer of Health and the Sanitary Inspector are empowered under the above Act to deal, on a 24 hours' notice, with defective and/or choked drains, conveniences, soil-pipes and wastepipes from baths, sinks, etc. On default of an owner, the works required may be carried out on the instructions of the Health Committee and the costs recovered from the owner or occupier of the premises, as the case may be. In all, these very useful powers have been invoked in the service of 602 notices, and in 45 instances the specified works were carried out when default was made, at a total cost to the defaulters of £122. 4s. 6d. The works carried our were as follows :—

Choked drains cleared	22
Drains repaired.....	1
Pedestal W.C. basins renewed	18
"Cottage" W.C. basin renewed	1
"Cottage" trap renewed	1
Choked sink waste pipe cleared	1
Drain chamber cover renewed	1
	45

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
*Complaints from Health Department	671	552	483	447	605	468	739	638	674	718	618	637	7260*
*Complaints on District	52	51	95	80	87	66	102	65	68	59	80	73	778*
*Nuisances found on District	35	20	29	77	44	27	15	24	29	60	75	26	461*
Inspections of Dwelling Houses—													
Under P.H. Acts	681	512	572	450	572	494	710	779	654	693	628	566	7311
Housing Act (Sect. 9) and Consol. Regs.	..	..	..	..	..	..	1	..	..	2	..	..	3
Housing (Slum Clearance)	64	..	848	57	188	130	66	326	437	24	3	57	2200
Housing Applications	36	71	58	63	68	50	61	82	60	55	55	46	705
Housing Overcrowding	21	28	5	4	6	5	18	14	3	9	5	3	121
Tenement Holdings	115	222	97	140	111	76	119	141	124	163	118	128	1554
Tenement Yards, Courts, etc.	77	205	65	64	59	35	66	68	46	84	61	65	895
Tenement, as to Limewashing	..	24	..	..	..	5	..	..	..	..	..	..	29
Houses let in Lodgings	..	1	1	..	..	..	4	2	1	2	62	10	*83
Houses let in Furnished Rooms	2	..	..	4	..	..	..	..	..	..	..	..	6
Revisits *re* Works Ordered	1931	1893	1675	1385	1435	1240	1169	1221	1290	1159	1525	1461	17384
Supervision of Work in Progress	308	195	143	146	207	130	149	190	190	169	213	218	2258
Inspections of Drainage Work	9	30	27	14	25	33	48	26	..	48	22	52	334
Miscellaneous Visits	539	686	676	530	566	480	561	519	501	424	475	436	6393
Inspections of Other Premises—													
Offices (Sect. 92, P.H.A. '36)	1	8	102	93	59	26	33	18	50	83	30	21	524
Shops (Sect. 10 Shops Act)	9	21	116	94	94	14	42	46	74	73	100	25	708
Hairdressers' Premises	1	7	16	3	1	1	..	2	5	1	7	2	46
Hotels, Inns, Public Houses	37	59	73	60	59	45	59	66	58	59	93	76	744
Cinemas, Theatres, Halls, etc.	31	22	34	26	27	44	26	31	40	26	30	41	378
Stables, Manure Pits, etc.	7	18	5	3	12	18	18	41	13	53	31	24	243
Piggeries	3	19	9	8	22	17	11	13	9	8	10	8	137
Yards, Accumulations, etc.	..	1	7	5	8	11	12	8	4	5	8	9	78
Public Conveniences	21	46	67	47	40	61	106	42	24	29	34	39	556
Tents, Vans, Sheds, etc.	10	3	..	..	2	393	..	..	..	10	1	3	422
Ditches, Streams	1	1	11	6	1	9	7	6	4	..	2	..	48
Schools (Sanitation)	4	11	10	5	6	4	2	1	2	2	4	1	52
*Smoke Observations (½ hour)	**21**	**108**	**43**	**25**	**72**	**7**	**12**	**11**	**7**	**11**	**22**	**47**	**386***
Visits to Boiler Plant	7	16	17	8	7	4	5	4	3	5	13	15	104
Inspections of Drainage Work	1	12	8	1	9	8	27	31	5	2	8	11	123
Re-visits, *re* Works Ordered	20	141	25	20	52	25	25	21	43	70	58	44	544
Miscellaneous Visits	16	43	56	49	197	60	64	62	51	337	65	47	1047
Inspections of Food Premises—													
Cowsheds	2	17	14	3	15	18	7	19	11	3	7	6	122
Dairies (Bottling/Filling)	19	58	26	26	27	33	23	30	30	17	28	23	340
Milkshops (Retail)	47	72	85	54	71	31	60	31	36	18	173	167	845
Ice Cream Manufactories	37	25	15	24	46	28	22	23	22	17	16	26	301
Ice Cream Retail Premises	19	63	84	72	350	109	204	136	105	90	98	106	1436
Ice Cream Vehicles	3	6	..	3	15	111	9	4	3	3	1	5	163
Margarine Warehouses	..	2	..	..	5	..	1	1	2	1	1	..	13
Butter Factories	..	..	1	..	1	1	..	..	..	..	..	..	3
Meat Retailers	1	20	8	5	7	..	22	10	27	125	119	71	415
Fishmongers/Poulterers	5	25	14	21	26	64	25	22	30	12	33	35	312
Grocers	12	29	41	30	56	42	82	83	89	82	109	88	743
Fruiterers/Greengrocers	26	32	35	40	54	34	71	83	149	93	104	87	808
General Dealers	55	78	102	86	238	68	173	142	154	125	271	245	1737
Food Manufactories (Sect. 14)	11	9	4	5	3	77	11	2	8	52	31	12	225
Catering Establishments	11	13	33	19	36	152	41	27	28	26	40	35	461
Bakehouses (Mechanical)	21	21	18	26	33	24	27	20	21	17	18	21	267
Bakehouses (Non-Mechanical)	11	18	27	18	17	17	13	15	11	9	16	18	190
Bakehouses (Domestic)	3	2	5	2	2	7	10	3	8	10	9	12	73
Fried Fish Shops (Day)	52	51	42	50	47	74	52	41	44	33	39	50	575
Fried Fish Shops (Night)	..	2	..	..	..	..	..	..	1	..	3	1	7
Inspections of Drainage Work	..	1	6	6	7	5	4	2	9	8	7	2	57
Supervision of Work in Progress	2	..	11	18	26	21	18	15	30	40	61	49	291
Miscellaneous Visits	1	8	18	27	64	357	34	19	13	33	23	26	623
Offensive Trades—Blood or Soap Boiler	1	..	..	..	..	..	1	..	5	2	17	..	26
Fat Extractor, Bone Boiler, Gut-Scraper	7	1	..	4	6	5	..	1	2	4	..	1	31
Glue and Size-Maker; Tripe Preparer	2	..	1	1	..	1	1	..	2	2	1	1	12
Hide and Skin Dealer; Rag and Bone Dealer.	3	3	..	..	..	..	..	..	..	1	..	..	7
Supervision of Works in Progress	..	..	..	..	..	..	..	..	..	..	..	1	1
Childhood Infections Survey	620	..	..	..	..	..	..	..	..	..	..	..	620
												Total:	55,734

*Not included in total number of Inspections

SUMMARY OF NUISANCES ABATED AND IMPROVEMENTS EFFECTED.

Matters Dealt With.	Dwelling Houses.	Tenem'ts.	Food Premises and Street Vendors.	Shops.	Offices.	Places of Public Resort.	Other Premises.	Totals.
Accumulations	52	25	7	10	2	..	10	106
Animal Nuisances	8	2	..	2	..	..	..	12
Cowsheds Cleansed	..	..	..	..	..	..	..	..
Cowsheds Repaired, Improved	..	..	..	..	..	..	2	2
Cooking Accommodation Repaired	8	1	..	..	..	..	..	9
Cooking Accommodation Provided	..	1	..	..	..	..	..	1
Dampness	703	75	2	..	1	1	..	782
Dustbins	670	69	5	11	..	..	53	808
Drain Tests Applied	138	..	14	10	1	1	3	167
Drains Found Defective	35	..	11	5	1	1	5	58
Drains, Waste Pipes, Cleared	333	109	11	5	3	3	3	467
Drains/Soil/WastePipesRepaired/Renewed(Yds.)	685½	45	26	24	1	9	60	850½
Drains/Soil/Waste Pipes Provided (Yds.)	323	19	37	11	5	22	1	418
Doors and Windows	1408	199	19	10	1	4	..	1641
Ditches and Streams Cleansed	..	..	..	..	..	..	1	1
Floors	443	73	32	9	1	2	..	560
Food Stores Provided	52	11	1	..	..	..	..	64
Fireplaces/Flues	152	28	1	..	1	..	1	183
Lighting Improved	4	3	3	1	..	1	..	12
Manure Pits Emptied	2	..	..	..	..	..	1	3
Manure Pits Repaired/Improved	1	..	..	..	..	..	2	3
Offensive Trades (Contraventions Remedied)	..	..	..	..	..	..	..	..
Piggeries Cleansed	3	..	..	..	..	..	..	3
Piggeries Repaired/Provided	20	..	..	..	..	..	2	22
Roofs, Gutters, Spouting	1834	213	9	11	..	1	2	2070
Rooms Cleansed/Redecorated	38	11	83	15	15	12	1	175
Sanitary Accommodation Provided	35	2	6	4	3	..	..	50
Sanitary Accommodation Repaired	921	150	34	12	5	16	5	1143
Sanitary Accommodation Cleansed	32	4	3	1	1	5	..	46
Sinks/Wash Basins Repaired	112	9	9	1	2	..	..	133
Sinks/Wash Basins Provided	29	4	45	22	..	1	..	101
Sites Cleared	..	1	..	..	..	..	..	1
Stables Cleansed	1	..	..	..	..	..	1	2
Smoke Nuisances (Domestic)	141	28	..	..	..	..	..	169
Smoke Nuisances (Industrial)	..	..	1	..	..	..	..	1
Temperature Improved	..	..	1	1	..	..	..	2
Urinal Accommodation Provided (Ft.)	..	..	..	..	..	..	..	..
Urinal Accommodation Cleansed	..	..	1	..	..	2	..	3
Ventilation Improved	27	..	33	14	3	3	..	80
Walls and Chimneys (External)	270	28	4	1	..	..	..	303
Walls and Ceilings (Internal)	1763	283	46	17	6	2	1	2118
Washing Clothes Accommodation Provided	5	..	1	..	..	..	..	6
Washing Clothes Accommodation Repaired	44	22	..	..	..	..	..	66
Water Supply Provided (New)	5	2	145	45	..	2	..	199
Water Supply Reinstated	347	55	3	4	..	1	..	410
Yards Repaired/Relaid	133	4	6	..	..	..	..	143
Yards Cleansed/Limewashed	18	4	2	..	..	1	1	26
Other Nuisances	478	38	27	8	..	9	4	564
Housing Acts—								
Dwellinghouses Closed	1	..	..	..	..	..	..	1
Dwellinghouses Demolished	18	..	..	..	..	..	..	18
Dwellinghouses Rendered Fit (Informal)	..	..	..	..	..	..	..	..
Dwellinghouses Rendered Fit (Statutory)	..	..	..	..	..	..	..	..
Overcrowding—								
A. New Cases	517	..	..	..	..	..	..	517
B. Rehoused (By Corporation)	543	..	..	..	..	..	..	543
C. Rehoused (Privately)	..	..	..	..	..	..	..	..
Rent Book Amendments (P.Nos. etc.)	..	..	..	..	..	..	..	2

Service of Notices.	INFORMAL. (Verbal) Served.	(Verbal) Complied with.	(Written) Served.	(Written) Complied with.	STATUTORY. Served.	Complied with.
Public Health Act	147	248	2745	2014	4901	4030
Housing Act (General)	..	..	4	1	..	1
Housing Act (Overcrowding)	..	..	3	..	..	..
Shops Act, 1934 (Sec. 10)	..	..	82	37	21	3
Food and Drugs Act, 1938	47	52	383	110	41	12
Corporation Acts and Regulations	7	10	605	210	114	119
Tenement Bye-laws—Owner	..	..	19	19	92	15
Occupier	..	..	9	3	..	3
Totals	201	310	3850	2394	5169	4183

Smoke Abatement.

Byelaws are in operation which allow 3 minutes emission of black smoke per 30 minutes, and any emission in excess is an offence and a nuisance. Whenever this permissible amount is exceeded and also in cases where a heavy emission of " medium " smoke is observed, the cause is enquired into and advice given, wherever possible, to remedy the fault.

During the year 380 observations were made of 51 factory and other chimneys, and 10 informal notices were served.

The following table gives details of smoke inspections :—

No. of chimneys watched	No. of observations made.	No. of chimneys from which black smoke issued in such quantity as to be a nuisance.	No. of times when smoke issued so as to be a nuisance.	No. of notices served (Informal).
51	380	10	21	10

Atmospheric Pollution.

Four gauges (records set out in tables following) are in use to detect atmospheric pollution. One is situated on the Town Moor in open surroundings, and the other three in densely populated areas. The Town Moor gauge is approximately 2¼ miles North of the river, whilst the others are situated approximately 1 mile, ½ mile and ⅙ mile North of the river. Two additional gauges are being installed and will be ready for operation early 1950.

Smoke emanation from chimneys of all types of premises in the densely populated and industrialised area of Tyneside confines itself to no fixed boundary, thus the problem affecting the City cannot be effectively solved unless joint concerted action is taken by all authorities, not only on Tyneside but also in the whole of the North East. This action has commenced with the advent of the North East Divisional Council, National Smoke Abatement Society.

ATMOSPHERIC POLLUTION.—NEWCASTLE RECORDS, 1949.

TOWN MOOR GAUGE.

MONTH.	RAINFALL (Millimetres).	ENGLISH TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible.	Ash.			Sulphate as S.O.4	Chlorine as Cl.	Lime as Ca.
January	26·4	0·30	3·71	4·99	3·37	12·37	1·21	0·30	0·37
February ...	13·5	0·51	2·49	4·11	2·93	10·04	0·71	0·24	0·24
March	21·1	0·07	2·46	4·08	3·03	9·64	1·25	0·24	0·64
April	39·0	0·40	2·93	5·46	2·59	11·38	1·48	0·13	0·64
May	17·6	0·47	4·01	4·72	3·77	12·97	1·31	0·30	0·37
June	39·6	0·30	3·61	10·88	5·25	20·04	1·35	0·30	0·40
July	62·1	0·30	3·07	4·01	4·11	11·49	1·82	0·40	0·37
August	39·6	0·20	1·08	5·29	2·83	9·40	1·42	0·44	0·61
September ..	19·8	0·07	2·46	2·59	2·63	7·75	1·18	0·44	0·24
October	59·4	0·27	3·23	3·88	10·91	18·29	3·50	1·85	0·17
November...	79·3	0·13	2·06	3·00	6·47	11·66	2·33	2·16	0·61
December ..	66·1	0·10	2·90	2·90	8·76	14·66	1·38	3·60	0·40
Total, 12 months	483·5	3·12	34·01	55·91	56·65	149·69	18·94	10·40	5·06
Average per month	40·3	0·26	2·83	4·66	4·72	12·47	1·58	0·86	0·42

WESTGATE CEMETERY GAUGE.

MONTH.	RAINFALL (Millimetres).	ENGLISH TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O4.	Chlorine as Cl.	Lime as Ca.
January	26·7	1·12	12·93	15·79	6·26	36·10	1·80	0·10	0·41
February ...	13·6	0·54	3·85	8·47	3·64	16·50	1·63	0·17	0·31
March	20·0	0·31	3·88	6·63	3·47	14·29	1·43	0·20	0·65
April	36·7	0·41	2·28	7·86	3·37	13·92	1·33	0·20	0·61
May	15·4	0·20	4·12	6·91	3·13	14·36	1·23	0·17	0·27
June	11·4	0·24	2·35	5·44	2·76	10·79	0·78	0·17	0·24
July	61·5	0·27	2·42	4·32	5·65	12·66	1·94	0·34	0·27
August	40·1	0·17	1·46	8·68	3·27	13·58	1·84	0·54	0·71
September ..	13·4	0·14	3·17	7·96	2·55	13·82	0·48	0·37	0·20
October	60·1	0·24	5·58	5·99	4·59	16·40	2·14	0·82	0·27
November...	93·5	0·10	5·82	5·38	6·19	17·49	2·76	1·70	0·41
December ..	66·8	0·54	1·19	5·00	7·49	14·22	1·53	1·80	0·51
Total, 12 months	459·2	4·28	49·05	88·43	52·37	194·13	18·89	6·58	4·86
Average per month .	38·2	0·35	4·08	7·37	4·36	16·17	1·57	0·54	0·40

WELBECK RESERVOIR GAUGE.

Month.	Rainfall (Millimetres).	English Tons of Deposit per Square Mile per Month.							
		Insoluble Matter.			Soluble Matter.	Total Solids.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O.4.	Chlorine as Cl.	Lime as Ca.
January	26·9	1·10	1·71	5·71	7·80	16·32	3·11	0·14	0·62
February ...	8·5	0·14	2·05	3·49	3·35	9·03	1·51	0·14	0·31
March	12·8	0·41	2·53	4·38	4·82	12·14	1·78	0·17	0·55
April	28·9	0·31	1·78	4·28	3·97	10·34	1·98	0·21	0·55
May	13·4	0·10	2·67	5·51	3·83	12·11	1·47	0·21	0·27
June	18·8	0·10	0·89	2·84	4·07	7·90	1·09	0·31	0·34
July	43·0	0·31	1·92	5·30	4·17	11·70	2·26	0·24	0·14
August	40·3	0·38	3·66	4·21	4·11	12·36	1·78	0·44	0·65
September ..	8·1	0·41	2·33	5·03	3·90	11·67	1·85	1·85	0·17
October	57·1	0·31	1·57	3·01	7·57	12·46	2·40	2·05	0·34
November...	80·6	0·31	1·98	3·39	8·21	13·89	2·87	2·19	0·62
December ..	53·7	0·27	2·81	7·77	7·12	17·97	2·70	1·23	0·31
Total, 12 months	392·1	4·15	25·90	54·92	62·92	147·89	24·80	9·18	4·87
Average per month .	32·6	0·34	2·15	4·57	5·24	12·32	2·06	0·76	0·40

CITY ROAD GAUGE.

Month.	Rainfall (Millimetres).	English Tons of Deposit per Square Mile per Month.							
		Insoluble Matter.			Soluble Matter.	Total Solids.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O.4.	Clorine as as Cl.	Lime as Ca.
January	23·4	0·75	..	..	6·66	7·41	3·33	0·21	0·46
February ...	14·3	0·20	14·56	13·40	6·47	34·63	2·88	0·20	0·47
March	23·35	0·35	9·57	15·86	4·52	30·30	2·45	0·21	0·70
April	33·7	0·56	8·56	23·96	6·87	39·95	3·18	0·19	0·96
May	16·9	0·30	19·26	15·83	2·24	37·63	3·58	0·59	0·76
June	28·5	0·20	11·02	10·14	7·85	29·21	2·99	0·46	0·56
July	47·5	0·42	11·92	12·36	7·98	32·68	4·58	0·17	0·57
August	37·6	0·38	10·04	14·41	5·56	30·39	3·00	0·51	0·85
September ..	15·6	0·28	14·64	11·45	5·23	31·60	3·11	0·56	0·51
October	41·5	0·22	8·98	15·20	4·23	28·63	2·53	0·94	0·25
November...	51·9	0·44	21·73	13·17	9·25	44·59	3·82	1·18	0·54
December ..	59·7	0·75	13·10	11·45	7·91	33·21	3·39	1·08	0·36
Total, 12 months	393·95	4·85	143·38	157·23	74·77	380·23	38·84	6·30	6·99
Average per month .	32·83	0·40	11·95	13·10	6·23	31·68	3·23	0·52	0·58

TOTAL IN FOUR GAUGES IN THE CITY, 1949.

	Rainfall (Millimetres).	English Tons of Deposit per Square Mile per Month.							
		Insoluble Matter.			Soluble Matter.	Total Solids.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O4.	Chlorine as Cl.	Lime as Ca.
Total 12 months ...	1,728·75	16·40	252·34	356·49	246·71	871·94	101·47	32·46	21·78
Average month ...	144·06	1·36	21·02	29·70	20·56	72·66	8·45	2·70	1·81
Average per gauge 12 months	432·18	4·10	63·08	89·12	61·67	217·98	25·37	8·11	5·44
Average per gauge per month	36·01	0·34	5·25	7·42	5·14	18·16	2·11	0·67	0·45

Sunshine over the City.

Sunshine is recorded at King's College in the City and comparison made with similar records compiled by King's College at Cockle Park, near Morpeth (approximately 15 miles North of the City) and at Hexham, 20 miles west of the City. During the year the health-giving sunshine lost to the City due to smoke pollution is as under :—

Month.	King's College Sunshine (hours).	Cockle Park Sunshine (hours).	Hexham Sunshine (hours).
January	40·16	68·2	65·16
February	71·54	115·0	112·43
March	77·03	110·2	102·0
April	114·40	145·8	148·58
May	197·92	211·7	162·33
June	241·82	246·6	185·25
July	171·18	178·8	130·50
August	118·26	141·6	106·25
September	74·9	120·9	76·58
October	63·4	89·1	71·50
November.....	40·9	54·1	46·5
December	29·2	44·6	38·5
Total for year	1,240·71	1,526·6	1,245·58
Average per month	103·39	127·2	103·79

Loss of sunshine to the City, in comparison to Cockle Park, 285.89, Hexham, 4.87.

Rainfall.

The rainfall recorded over the City was much less than the previous year, being 17·62 inches or an average of 1·47 inches per month, as against 30·54 inches with an average of 2·5 inches per month in 1948.

OFFENSIVE TRADES.

In addition to the offensive trades set out under the Public Health Act, 1936, the trade of Fish Fryer is scheduled as such under a local Act. In the 12 months under report, 4 applications were received to establish offensive trades, and reports thereon were presented to the Health Committee who granted all the applications.

Throughout the year 697 inspections of these trade premises were carried out systematically, and many offences detected and dealt with.

None of the offences, however, were of a serious character, and generally the businesses have been carried out in a satisfactory manner. The great majority of these premises are fish fryers (Fish and Chip shops), whose hours of business (apart from two hours at mid-day) are during the evenings, when inspections are carried out.

The number and types of offensive trades on the register is :—

Fish fryers	138
Rag and bone dealers	8
Tripe boilers	4
Gut scrapers	2
Dealers in hides and skins	1
Bone boilers	2
Fat melters	2
Glue makers	2
Soap boilers	1
Blood boilers	2
Fish curing	1
Total	163

PLACES OF PUBLIC ENTERTAINMENT.

Theatres, Cinemas, etc.

Attention is paid to all places of public entertainment as to the suitability and sufficiency of the amenities provided for patrons and staff, together with the sufficiency of ventilation, heating, lighting and the condition of cleanliness, etc., and during the year works of improvement were carried out. With regard to premises where application is made to the Licensing Magistrates for a licence for music and/or dancing, a Certificate of Sanitation from the Sanitary Authority must be produced in support of the application. One such application was received and refused.

The total number of premises in respect of which Certificates of Sanitation have been issued is 160, comprising 6 theatres and music halls, 35 cinemas and 119 dancing and concert halls, billiard rooms and cafes.

The number of inspections (day and evening) of all these premises carried out during the year was 378 and sanitary conditions were found to be reasonably satisfactory.

HOUSING.

The Housing Act, 1936.

The number of inspections carried out during the year totalled 3,029, nearly double that of the previous year's figure of 1,539.

Sections 11 and 12.

Action was commenced as to the condemnation of 6 dwellinghouses owing to their being totally unfit for human habitation. In 3 instances the owners requested this action to be taken. All of the houses are very old, without amenities and structurally beyond repair or improvement.

Section 51.

No applications were received from owners of working class dwellinghouses for certificates in respect of agreed works of improvement other than repair or decoration.

Section 57.—Abatement of Overcrowding.

The Housing Department of the City Corporation re-housed 543 families (2,417 persons living under overcrowded conditions) into houses suitable for the needs of each family.

Applications for Council Houses.

795 applications were received during the year, and after investigation and careful consideration, classification was made and appropriate recommendations submitted to the Housing Department.

Details of these applications are :—

No. of Applications.		Classification.			Not Classified.
Received.	Classified.	A.	B.	C.	
795	661	..	45	616	134

(Classification A—first priority, B—second and C—third.)

Apart from the applications made to the Housing Department and referred to the Medical Officer of Health and Chief Sanitary Inspector for their consideration, the great majority were received direct from the applicants. Others were from the Medical Profession and from other sources.

In the assessment of the applications careful consideration is given to the type and structure of the house, its amenities, the degree of overcrowding, illnesses amidst the occupants and in particular, Tuberculosis. In regard to overcrowding, the 1936 survey revealed it to be 10·7 per cent. in the City. Against this background, under the 1936 overcrowding standard, is the 64 per cent. of the 800 (approx.) houses tabulated in the following tables.

During the year re-housing was effected by the Housing Department in 126 of the cases, viz. : 21 class B ; 91 class C and 14 unclassified.

APPLICATIONS.

From.	Total.	Houses.		Percentage.
		Council.	Private.	
Tenant	479	28	451	60·25
Married son of tenant.....	65	22	43	8·16
Son-in-law of tenant.....	103	32	71	13·00
Other relationship	32	11	21	4·00
No relationship	116	29	87	14·59
Totals	795	122	673	100·00

REASON FOR APPLICATION.

	Overcrowding. Houses.		Overcrowding plus illness (Tuberculosis). Houses.		Illness (Tuberculosis). Houses.		Other Causes.
	Council.	Private.	Council.	Private.	Council.	Private.	
Tenant	7	197	5	75	30	73	157
Sub-tenant	56	146	6	18	7	11	
Tenant and Sub-tenant	1	6	..	..	..	..	
Totals ...	64	349	11	93	37	84	157
Percentages	51·63		13·00		15·12		19·7
	Overcrowding ..... 64·63 Tuberculosis ..... 28·12						

PERCENTAGES OF OVERCROWDING.—PRIVATE HOUSES.

No. of rooms in house	0 to 10 %	11 to 20 %	21 to 30 %	31 to 40 %	41 to 50 %	51 to 60 %	61 to 70 %	71 to 80 %	81 to 90 %	91 to 100 %	101 to 125 %	126 to 150 %	151 to 175 %	176 to 200 %	201 to 250 %	251 to 300 %	301 to 400 %	Totals.
1....	–	–	25	–	21	–	–	11	–	8	3	2	–	1	–	–	–	71
2....	–	38	12	35	35	–	20	2	11	11	6	7	2	–	–	1	–	180
3....	6	14	34	10	14	3	2	1	–	3	1	1	1	–	–	–	1	91
4....	1	3	35	2	16	2	1	1	–	5	–	5	–	–	–	–	–	71
5....	–	1	8	1	1	–	–	–	–	–	–	2	–	–	1	–	–	14
6....	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
7....	–	–	2	1	2	–	–	1	–	2	–	–	–	–	–	–	–	8
8....	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
9....	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
COUNCIL HOUSES.																		
1....	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
2....	–	2	1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	5
3....	–	2	11	1	1	–	–	1	–	–	–	–	–	–	–	–	–	16
4....	2	2	18	2	6	–	1	4	–	4	–	–	–	–	–	–	–	39
5....	–	–	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10
6....	–	–	2	–	1	–	–	–	–	–	–	–	–	–	–	–	–	3
7....	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Tots.	9	62	165	52	100	5	24	21	11	34	10	17	3	1	1	1	1	517

Section 62.

Under this section the "permitted number" i.e., the number of persons who may normally sleep in a dwellinghouse without causing illegal overcrowding, is issuable by the Health Committee. During the year 249 such numbers were supplied to applicants after inspection and measurement of the rooms. This information, together with other information as to the name and address of the Medical Officer of Health and of the landlord, must be inscribed in rent books and similar documents. In many instances, upon inspection of rent books, this prescribed information was found to be absent and cautions were therefore sent to all of the delinquents.

Tenemented Houses.

During the year, 32 tenemented houses (76 holdings) ceased to be so used, whilst 6 new tenemented houses, with 18 separate holdings therein, were found, and compliance with the Byelaw requirements secured.

The number of such houses on the register at the end of the year was 1,407, with holdings therein as follows :—

One-roomed holdings	1,013
Two-roomed holdings	2,518
Three-roomed holdings	508
Four-roomed holdings	47
Five-roomed holdings	8
Total	4,094

Inspections carried out of these houses numbered 2,478.

Common Lodging Houses.

The business of " Common Lodging House Keeper " up to 1917 was carried out in 57 registered houses wherein accommodation was provided for 2,010 male and female lodgers. Since this date, business has steadily declined and at the commencement of the year, 2 houses only, with accommodation for 88 males were on the register. Throughout the year the accommodation available was slightly in excess of the highest demand, viz. : 88 beds. The lowest nightly accommodation was 58 and the average for the year, 81.

The accommodation available for the lodgers, whilst complying with lawful requirements, is not good. The persons who now reside in the houses are generally aged, past active work, and unlike the lodgers of some 20-30 years ago, untroublesome. To meet their demands, apart from the accommodation already available, there is a definite need of a well-equipped hostel to cater for those who through force of circumstances are compelled to eke out their lives in a common lodging house.

Strict supervision was exercised over the houses and lodgers, and when vermin was found, the houses, beds and bedding disinfected and the lodger cleansed at the Special Skin Clinic.

The following is a summary of inspections made and contraventions found and dealt with during the year :—

SUMMARY OF INSPECTIONS, CONTRAVENTIONS FOUND, ETC. :—

Number of houses on the register at the end of the year	2
Applications for registration (Public Health Act, 1936 ; Section 238)	2
Houses ceased to be occupied as Common Lodging Houses	..
Inspections made (day, 68 ; night —)	68
Notices served (re washing of bed-clothes, 8 ; re lime-washing of houses, 4)	12
Defects and contraventions of Bye-laws, etc.—	
Drains defective	—
Water-closets defective	—
Dustbins required	—
Ventilation not efficient (window sash-cords broken)	2
Yard pavement defective	1
Structural defects (including plasterwork, windows, doors, etc.)	4
Inadequate cleansing of—	
Rooms, passages and staircase, etc.	3
Beds and bedding	1
Yards, conveniences, etc.	1
Wash-house	—
Beds and/or bedding defective (mattresses, bedclothes)	1
Beds and bedclothes not " aired " during prescribed hours	—
Ventilation (windows not opened as required)	—
Bedding verminous (Lice, 6 ; Bugs, —)	6
Cases of infectious diseases reported	—
Deaths reported	1

Slum Clearance.

The activity carried out was the demolition of 18 empty, condemned dwellinghouses which had become derelict and in a dangerous condition.

Tents, Vans, Sheds and Similar Structures.

There are no tents, vans, sheds or similar structures occupied as dwellings in the City.

New Buildings and Sanitary Alterations.

150 plans were received from the Town Improvement and Streets Committee for examination, and where necessary improvements on the proposals were suggested on their return. The number of plans submitted last year was 193.

DISINFESTATION.

Eradication of Bed Bugs, Black Beetles, etc.

Re-housing.—Whenever an incoming tenant of a new or vacated Council house has lived in a verminous or query verminous house, the rooms, his goods and chattels are thoroughly treated with an insecticide before removal to his new house, whilst soft goods (mattresses, etc.) are steam disinfected. When new Council houses become more freely available, the Disinfestation Station may then be re-opened to deal with disinfestation, by Hydrogen Cyanide gas, of the goods and chattels of incoming occupiers, particularly those from condemned dwelling-houses. In the meantime, the present temporary arrangements are affording satisfactory results.

Council and Private Houses.—When private houses are found verminous, then, in accordance with the degree of infestation, the wood mouldings, skirtings, wall coverings, etc., are removed and the rooms and contents therein treated with a liquid and/or powder insecticide. Mattresses and other soft goods are removed and steam disinfected where necessary. Rooms are then thoroughly cleansed and redecorated.

In Council Estate houses the City Architect carries out all disinfestation work (apart from the use of steam), and when houses are found to be infested the foregoing procedure is carried out, but before replacement of woodwork it is well coated on the back side with creosote or other preservative. After cleansing and re-decoration of the rooms, further treatment with insecticide is given and observation kept on the houses.

Insecticides in use are Zaldecide, Gammexane, D. Solution, Lowes' Deodex, etc., in liquid, powder and fume form. Reinfestation has rarely been found.

The number of premises found to be verminous and dealt with is as follows :—

Council Houses	48
Private Houses	257
Other Premises	5

FACTORIES ACT, 1937.

Factories, manual and non-manual, come within the jurisdiction of the Health Committee. In the latter group, powers are to some extent restricted. Overcrowding, ventilation, heating, water supply, washing facilities, sanitary accommodation, the handling, preparation and storage of food, and a host of other matters of a hygienic nature call for constant supervision, and during the year 6,736 inspections were made.

Outworkers.—A list of outworkers (carrying out work on behalf of a factory in their own homes) must be submitted to the Local Authority by occupiers of factories twice per year, in February and August. 23 such lists were received, and 15 inspections were carried out on outworkers' premises.

H.M. Inspector of Factories notifies the Local Authority of any matters under their jurisdiction, which have come to his notice to be dealt with by the Local Authority. In all, 62 such notices were received as to insanitary conditions. These all received attention, and the action taken was reported to H.M. Inspector as required by the Act.

Administration of the Factories Act, 1937.

Home Office Tables.

1.—INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH. INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

PREMISES.	NUMBER OF		
	Inspections.	Written Notices.	Occupiers Prosecuted
(1)	(2)	(3)	(4)
Factories with mechanical power	1,016	140	..
Factories without mechanical power	2,742	158	..
Other Premises under the Act (including works of building and engineering construction but not including outworkers' premises)	53	12	..
Total	3,811	310	..

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of defects in respect of which Prosecutions were instituted.
	Found.	Remedied.	Referred by H.M. Inspector.	
(1)	(2)	(3)	(4)	(5)
Want of cleanliness (S.1)	113	97	11	None.
Overcrowding (S.2)	14	..	1	
Unreasonable temperature (S.3)	4	1	..	
Inadequate ventilation (S.4)	14	6	..	
Ineffective drainage of floors (S.6)	3	..	..	
Sanitary Conveniences (S.7) — insufficient	49	40	24	
Sanitary Conveniences (S.7) — unsuitable or defective	55	27	11	
Sanitary Conveniences (S.7) — not separate for sexes	15	8	1	
Other Offences (Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)	117	85	11	
Total	384	264	59	..

OUTWORK IN UNWHOLESOME PREMISES.

(Factories Act, 1937; Section 110).

Nature of Work	No. of Outworkers	No. of cases of default in sending Lists to the Council.	Prosecutions.
Making Wearing Apparel	22	1	None.

Workplaces.—Workplaces, wherein is carried out all manner of business and trades, are dealt with under the Public Health Act, 1936, and other Acts. Of these premises, 628 inspections were made and the following defects found and dealt with :—

Want of cleanliness	59
Want of ventilation	24
Sanitary accommodation insufficient or defective	85
Other nuisances	99
Total	267

LIST OF TRADES.

Group.	Trades.	Number of	
		Factories (Factories Act, 1937).	Workplaces (Public Health Act. 1936).
1	Athletic Outfitters (comprises: the making and repairing of bats, rackets, guns, cycles, billiard tables, golf clubs, etc.)	23	..
2	Bakehouses	157	..
3	Food (comprises: bacon-curing, rolling and smoking, packing of vegetables, fruits, canned goods, ice cream, fish-curing and smoking, sauce and pickles, tripe-boiling, jam making, sugar boilers, egg-sorters, wholesale fish dealers, sausage makers, potato stores, etc.)	262	100
4	Laundries.....	30	..
5	Metal workers (comprises: blacksmiths, whitesmiths, coppersmiths, locksmiths, tinsmiths, brass-finishers; motor, electrical and general engineers, wireworkers, sheet metal workers, car-breakers, plumbers, engravers, millwrights, etc.)	552	44
6	Restaurant kitchens (including hotels, cafes, dining rooms, snack bars, works canteens, and community food supply centres)	..	236
7	Wood workers (comprises: saw mills, joiners, cabinet-makers, wood carvers, picture framers, undertakers; boat builders and repairers, ladder makers, coopers, toy makers, boxmakers, etc.)	196	12
8	Wearing apparel (comprises: dressmakers, milliners, costumiers, mantle and gown makers, underclothing, bed linen, furriers, shirt makers, tailors, etc.)	268	13
9	Workers in leather (comprises: bootmakers and repairers, bookbinders, bag and trunk makers, belt makers, harness and saddlery, etc.)	133	..
10	Watchmaking and jewellery (comprises: watchmakers, opticians, instrument makers, etc.)	63	..
11	Miscellaneous trades (comprises: transport workers, hide and skin dealers, hay and corn dealers, marine stores, scrap metal works, timber yards, grease and oil stores, bottle washers, photographers, painters and decorators, bouquet and wreath makers, soap boilers, wholesale chemists, cosmetic makers and packers, etc.)	671	160
	Total	2,355	565

Council and Other Schools.

Routine inspections numbering 52 were made of all the schools in the City. Defects of a minor nature were found and on verbal request to the Education Authority they were promptly remedied.

Shops Act, 1934 : Section 10.

Persons employed in or about the business of a shop are catered for under Section 10 in respect of ventilation, temperature and lighting of the rooms, together with the provision of sanitary accommodation, washing facilities and accommodation for the taking of meals. In other matters the premises are dealt with under the provisions of other Acts.

Inspections totalling 708 were made, when 254 contraventions were found and dealt with. Details of these inspections are embodied in the " Summary of Inspections " table on page 156A.

Rag Flock Acts, 1911, 1928.

No rag flock is manufactured in the City. It is used, however, in the 36 premises in the City where the trade of upholsterers or bedding makers is carried on. The object of the Acts is to ensure that rag flock used by the upholsterers be in a clean state, and to this end a cleanliness standard is laid down. 11 samples of rag flock were purchased and all were certified by the Public Analyst to conform to the standard. The premises where rag flock is used were also inspected under the Factories Act, 1937, and during the year a total of 165 visits were made.

Fertilisers and Feeding Stuffs Act, 1926.

Factories, warehouses and retail shops where fertilisers and feeding stuffs are made, stored or sold are visited to ascertain whether the requirements of the Act are being observed. In addition, these premises are supervised under powers of other Acts.

38 supervisory visits were made and 21 samples (5 formal and 16 informal) of fertilisers were obtained. 5 of them were certified by the Agricultural Analyst to be deficient in certain of their constituents, and not to be in conformity with the statutory statement given at the time of purchase of the samples.

In respect of these deficient samples, nitrogen and soluble phosphoric content was found to be less than stated on the statutory statement in an informal one. On taking a check formal sample, it

too was found to be similarly deficient. Another sample (informal) was too low in potash and nitrogen, and too high in soluble phosphoric acid. A check formal sample could not be taken owing to stocks having been sold out. In respect of the other two deficient (informal) samples, one was found to be deficient in nitrogen and the other was high in nitrogen and soluble phosphoric acid. On taking check formal samples they were found to be genuine. Report as to the deficient samples was submitted to the Ministry of Agriculture and Fisheries and also to the Official Sampling Officer of the areas wherein the articles were manufactured.

Agricultural Produce (Grading and Marking) Acts, 1928, 1931.

Premises wherein eggs are kept in cold or chemical storage are registerable under these Acts. 4 such premises are on the register and inspections (included under food premises) were made regularly throughout the year.

Pharmacy and Poisons Acts, 1933, 1941.

Listed Sellers of Part II Poisons.

Registration of premises and persons selling poisons scheduled under the above Acts is obligatory, and much care is exercised over the registration of any food premises selling such poisons. Generally the sale in these shops is that of sealed bottles of disinfectant. New registrations during the year totalled 7 and the number of premises on the register at the end of the year was 195.

During the year, 12 premises ceased to sell the listed articles and their names and addresses were accordingly deleted from the register.

Grocery, Provision and General Dealers	132
Hairdressers	15
Druggists	9
Hardwaremen, etc.	17
Seed and Agricultural Merchants	16
Chemical Disinfectant Manufacturers	3
Electrical Supplier	1
Manufacturing Chemist	1
Veterinary Medicine Vendor	1

262 visits (apart from other inspections of these premises) were made, when the provisions of the Acts and Rules were found to be complied with. Verbal cautions were given in respect of slight offences occurring on 16 premises.

Exhumations.

2 exhumations and re-interments, authorised by Home Office licence, were supervised during the year. The operations were carried out in the early morning in a reverent and sanitary manner and with due regard to the conditions set out in the licence.

Staff Changes.

Reorganisation of Inspectorial duties was affected early in the year and necessitated changes. Inspectors W. T. Nicol and J. R. Shipley were promoted to senior appointments as Factory Inspectors. Five vacancies as District Inspectors were filled by the appointment of new staff in Messrs. J. Colpitts, W. G. Ingledew, S. Pape, A. P. Robinson and R. Simpson. Subsequently, R. Simpson resigned on taking up a similar appointment with another local authority. The vacancy caused by this resignation is to be filled early in January, 1950.

Conclusion.

The Inspectorial duties in this large City of ours may be likened in many ways into that of a very busy factory. Daily there is much to do that fully occupies all the working hours and yet time must be found to do that which does not crop up ordinarily, and with an able and experienced staff, difficulties and troubles arising melt away like snow in summer. The influence of the rather large leavening of new, keen, but inexperienced staff who commenced early in the year was, however, not without its effect, but with the willing guidance of those who are becoming grey in service, all duties have been carried out loyally, satisfactorily and with much benefit to the City and its inhabitants. Of the Clerical Staff, without whose work it would not be possible to have done so much for the public, efficiency has been noteworthy, and to each and all, my honest acknowledgement of their work is made.

I am, Sir,

Your obedient Servant,

W. Gray,

Chief Sanitary Inspector.

INCLUDING REPORTS OF
DISEASES OF ANIMALS AND
INSPECTION OF MEAT AND OTHER FOODS.

VI—VETERINARY OFFICER.

ANIMALS SLAUGHTERED, CARCASES CONDEMNED,
RATS AND MICE DESTROYED.

REPORT OF THE
VETERINARY OFFICER, INSPECTOR OF MEAT, Etc.
For the Year 1949.
To the Medical Officer of Health.

I have pleasure in submitting the following report which includes the work of inspection under the Public Health Acts during the year, 1949.

Tuberculosis.

The introduction of the Tuberculosis Order of 1938 was a measure intended to obviate the presence of tubercle bacilli in cow's milk and thus lower the danger of such milk to man. The Order provides for the detection and elimination of all bovine animals affected with tuberculosis of a type likely to lead to entry of tubercle bacilli into the milk. Thus animals affected with tuberculosis of the udder, lungs, intestines and generative tract may excrete bacilli which enter the milk pail, and the slaughter of animals so affected is therefore obligatory by law. During the year 1949, no animals within the City required to be dealt with under the Tuberculosis Order.

The above Order plays but a small part in lowering the incidence of the disease in the bovine population, for animals affected with tuberculosis may have been disseminating tubercle bacilli for some time, even months, before they show symptoms of disease, and during that time they may infect other animals housed with them. The lowering of the incidence of the disease in bovines can only be secured by application to the animals of the tuberculin test, this being followed by immediate removal of all animals shown to be positive reactors. The production of herds shown to be tuberculosis free is the basis of the Attested Herds Scheme, and once an owner possesses a herd free from reactors he can apply for licensing under the scheme, being encouraged to attain this status by a bonus paid on the milk yielded by his herd. It is satisfactory to record that of the 575 cows housed in cowsheds within the City no less than 442, i.e., 76 per cent., of these animals have proved negative to the tuberculin test. The position in regard to Northumberland is also encouraging, where more than half the milk produced is derived from animals which are tuberculosis free. As the proportion of animals from attested herds increases in relation to the total cattle population one may expect to see a gradual

lowering of the number of animals found tuberculous on routine slaughterhouse examination. Tuberculosis, however, still remains the chief cause of condemnation of beef carcases within the City slaughterhouses, the highest incidence of the disease being in cows, and of the 3,406 cows slaughtered during 1949, no less than 39.31 per cent. were found affected with tuberculosis, and 195 cow carcases out of a total of 264 bovine carcases found affected with generalised tuberculosis had to be totally condemned.

The Milk and Dairies Order of 1926.

Within the City there are 8 cowkeepers, registered as occupying 11 premises, and on the registered premises there is a total of 19 cowsheds in which are housed 575 milch cows.

Of these registered premises, three house Attested herds, whilst 3 are licensed for the production of Accredited Milk.

During the year, 102 visits were made for the purpose of inspecting the animals, buildings, conditions as to cleanliness, etc.

DISEASED COWS FOUND IN REGISTERED PREMISES WITHIN THE CITY.

Year.	No. of Cow-keepers.	No. of Registered Premises.	No. of Registered Cowsheds.	No. of Milch Cows in City.	No. of Diseased Cows.				
					Tuberculosis.		Other Diseases.		Destroyed under the Tuberculosis Order, 1938.
					Of Udder.	Other than Udder.	Udder.	Other than Udder.	
1929	19	19	30	258	4	1	1	2	4
1930	17	17	28	251	2	3	1	4	4
1931	16	16	27	243	4	7	1	3	9
1932	16	16	27	246	4	2	7	3	6
1933	16	16	27	243	1	..	5	4	1
1934	14	14	22	223	3	2	6	4	5
1935	23	23	38	504	3	3	3	2	6
1936	22	22	35	515	5	1	1	3	6
1937	19	20	31	477	2	2	3	3	4
1938	18	21	31	489	3	2	2	1	4
1939	18	21	30	521	..	..	2	2	..
1940	15	17	26	468	4	..	3	..	4
1941	14	18	29	553	3	3	1	..	6
1942	14	18	29	554	4	5	1	4	8
1943	14	18	29	588	3	5	..	..	8
1944	13	17	28	708	6	12	..	..	18
1945	12	16	26	674	4	4	..	..	8
1946	11	15	23	527	1	6	..	..	7
1947	9	12	17	420	4	..	..	..	4
1948	8	11	19	534	1	1	..	..	2
1949	8	11	19	575	..	..	1	..	..

Anthrax.

An outbreak of anthrax occurred in 1940, another in 1946, but since that date the City has remained free of the disease. A feature of this disease in cattle is the rapidity with which death occurs, and the greatest public health danger is in the consignment to the City slaughterhouses of animals which have died or have been slaughtered on the point of death. Dead animals arriving within the City are not permitted to be dressed for human food but are sent direct to the destructor or knacker's yard, while in the case of any animal which after slaughter shows evidence of fever or enlargement of the spleen it is a routine procedure to examine the organs microscopically for the presence or absence of anthrax bacilli. During the year, 10 such examinations were carried out but all proved negative.

The greatly enlarged and swollen spleen is a valuable sign in anthrax, and it is therefore disturbing to report that a number of bovine animals slaughtered within the City have at times shown splenic enlargement which aroused suspicion that they might be affected with the disease. In some cases a batch of six or more cattle slaughtered on a particular day have shown these enlarged spleens, and it was eventually deduced that this phenomenon was a mechanical one and related in some way to the act of slaughter. Investigations into the cause and method of prevention of these " slaughter spleens " is being pursued, as their occurrence in the slaughterhouses in the City might obscure a case of anthrax should one happen to occur.

In Britain as a whole the country remained remarkably free from the disease during the war years, due to the virtual cessation of supplies of animal feeding stuffs from abroad. Thus 669 cases occurred in 1939, but only 118 in 1948. The number of outbreaks recorded in Britain in 1949, however, has risen to 244, thus confirming the Veterinary Officer's forecast in his Annual Report of 1948 that it was not improbable that the number of outbreaks would tend to increase as more normal supplies of imported feeding stuffs became available.

LIVESTOCK EXHIBITED WITHIN THE NEWCASTLE CATTLE MARKET.

The Cattle Market, which ceased to function as such on the 15th January, 1940, has again operated throughout the year as a Collecting Centre. The number of animals passing through the Centre during the year was 30,323, including 5,761 cattle, 361 calves, 19,620 sheep and 4,581 swine, and an ante-mortem inspection of these was carried out prior to the animals being graded and allocated to the Government Slaughterhouses.

INSPECTION OF MEAT AND OTHER FOODS.

Animals Slaughtered within the City.

Control of slaughter within the City of livestock intended for human consumption still continues, the animals being purchased by the Ministry of Food, slaughtered in Government Slaughterhouses and finally allocated, after inspection of the carcases by the Local Authority's officers, to the retail butcher.

It is perhaps of interest to record the number of animals slaughtered within the City slaughterhouses in the year immediately prior to the war. During 1938, 27,456 cattle, 219,243 sheep, 6,201 calves, 54,867 pigs and 2,130 horses were slaughtered, a total of 309,897. (None of the flesh of horses slaughtered within the City prior to the war was consumed in this country, the sides of horseflesh being exported to the Continent where there was a steady demand for the meat of these animals.) From 1940 a steady decline occurred in the number of animals slaughtered within the City, and the number slaughtered in 1948, namely, 129,182, was the lowest on record. During 1949, however, the numbers showed an increase, 152,641 animals being slaughtered and inspected in the four slaughterhouses within the City under Government control. By reference to the Table below it will be seen that the number of cattle slaughtered showed an increase and there was also a marked increase in the number of sheep slaughtered. This latter figure indicates a recovery of the flocks which were seriously depleted in the severe winter of 1946-47. The number of pigs slaughtered also shows a marked increase, this being related to the increase in the allocation of feeding stuffs, together with a tightening up of the regulations as to the slaughter of pigs outside controlled slaughterhouses. Perhaps the most significant fall is in the number of horses slaughtered within the City for human consumption. Horseflesh is most likely to form part of the meat diet, unknown to the customer or otherwise, at times when there is greatest shortage of the other and more generally accepted meat foods. The marked decline of horses slaughtered during 1949 as compared with the previous year would therefore appear to be partly related to a more satisfactory position regarding supplies of the ordinary rationed meats, partly to a diminution in the supplies of horses available for slaughter, and lastly but nevertheless significant, to the exemplary penalties imposed and supervision maintained on those found guilty of illegal practices in connection with the sale of this food.

ANIMALS SLAUGHTERED ON LICENSED PREMISES WITHIN THE CITY.

	YEAR.				
	1949	1948	1947	1946	1945
Cattle	28,313	25,885	26,827	29,237	31,808
Calves	6,513	6,863	7,104	14,147	7,185
Sheep	112,449	90,102	92,124	130,617	115,077
Pigs	2,725	1,728	1,242	1,156	2,326
Horses	2,641	4,604	2,582	2,639	2,235
Total Animals.	152,641	129,182	129,879	177,796	158,631

Animals found Tuberculous on Routine Slaughterhouse Inspection.

Of the animals slaughtered for human food the ox and pig are found affected with tuberculosis almost exclusively, and the disease in sheep and horses is an occurrence of great rarity. Reference to Table on page 180, detailing the carcases inspected within the City, shows that 39.31 per cent. of cows were found affected, 10 per cent. of young cattle (bullocks and heifers), 0.39 per cent. of calves and 3.96 per cent. of pigs. The high incidence of the disease in cows is related to the greater age at which these animals are slaughtered compared with other livestock, and also to the fact that cows are housed continually throughout the winter months and may become readily infected during this period. Reference to the table also shows that it is the cow which is found most frequently affected with diseases other than tuberculosis, a fact which will be readily apparent when it is stated that affections of the uterus and the udder are common in dairy cows and are a frequent cause of these animals being removed from the milking herd and consigned to an abattoir for slaughter.

The judgment of carcases of animals found in routine meat inspection to be affected with tuberculosis calls for a wide experience and scientific assessment of the type and extent of the disease. Should the disease be localised to certain parts there is complete justification for condemnation of these parts and release of the remainder of the carcase for human food. The most serious form of tuberculosis from the meat inspection aspect is where the disease has become generalised, i.e., where tubercle bacilli have gained entrance into the blood stream and have been widely disseminated throughout the muscles and organs. It is an accepted practice to decide whether the disease is localised or generalised by reference to a series of recommendations

drawn up by the Ministry of Health. It may be remarked that these recommendations, which have remained unaltered since 1922, are now considered by the highest scientific authorities to be unnecessarily severe, and it is the opinion of the Veterinary Officer that a study of the disease in relation to the possibility of it causing human infection by the eating of meat might result in the release for food of many carcases which are at present condemned.

CARCASES INSPECTED AND CONDEMNED.

	Cattle, excluding Cows.	Cows.	Calves.	Sheep and Lambs.	Pigs.
Number killed	24,907	3,406	6,513	112,449	2,725
Number inspected	24,907	3,406	6,513	112,449	2,725
All diseases except Tuberculosis: Whole carcases condemned..	15	56	123	257	30
Carcases of which some part or organ was condemned ..	7,318	2,076	5	2,216	219
Percentage of the number inspected affected with diseases other than Tuberculosis	29·44	62·59	1·8	2·19	9·10
Tuberculosis only: Whole carcases condemned ..	69	195	26	..	12
Carcases of which some part or organ was condemned ..	2,516	1,144	..	..	95
Percentage of the number inspected affected with Tuberculosis	10·37	39·31	0·39	..	3·96

NUMBER OF DISEASED ORGANS CONDEMNED.

HEADS (including Tongues)—	Bovine.	Swine.	Sheep.	Total.
Tuberculosis	955 (125)	82 (1,248)	— (—)	1,037 (1,373)
Other conditions....	93 (14)	— (—)	6 (—)	99 (14)
LUNGS—				
Tuberculosis	3,351 (369)	16 (14)	— (—)	3,367 (383)
Other conditions....	3,406 (72)	163 (213)	450 (37)	4,019 (322)
HEARTS—				
Tuberculosis	193 (31)	— (—)	— (—)	193 (31)
Other conditions....	28 (1)	58 (—)	35 (—)	121 (1)
LIVERS—				
Tuberculosis	322 (175)	5 (—)	— (—)	327 (175)
Other conditions....	8,443 (785) & 37,021 lbs.	21 (80)	744 (111)	9,208 (976) & 37,021 lbs.
PLUCKS—				
Tuberculosis	— (—)	31 (83)	— (—)	31 (83)
Other conditions....	3 (—)	35 (45)	1,385 (30)	1,423 (75)
UDDERS—				
Tuberculosis	27 (—)	— (—)	— (—)	27 (—)
Other conditions....	1,190 (—)	— (—)	— (—)	1,190 (—)
THICK SKIRTS—				
Tuberculosis	351 (—)	— (—)	— (—)	351 (—)
Other conditions....	104 (—)	— (—)	— (—)	104 (—)
SPLEENS—				
Tuberculosis	229 (—)	— (—)	— (—)	229 (—)
Other conditions....	417 (—)	— (—)	— (—)	417 (—)
STOMACHS, MESENTERIES & INTESTINES—				
Tuberculosis	230 (24)	26 (—)	— (—)	256 (24)
Other conditions....	115 (—)	27 (239)	8 (—)	150 (239)

NOTE.—The figures in brackets indicate condemnations during 1939, i.e., the year prior to the introduction of centralised slaughtering. The increased condemnations during the war years and in 1949 may be attributed entirely to the fact that centralised slaughtering rendered possible the post-mortem inspection of 100 per cent. of the animals slaughtered within the City.

The table does not include organs condemned for decomposition. Organs and parts condemned for decomposition are detailed on page 182.

TOTAL CARCASES, &c., DESTROYED AS BEING UNFIT F

	Carcases, &c.				Lungs.				Hearts.		
	Beef.	Veal.	Mutton.	Pork.	Sets Ox.	Sets Calf.	Sets Sheep.	Sets Pig.	Ox.	Sheep.	Pig.
Tuberculosis	264½ + 12,805lbs	26	..	12	3351	..	..	16	193	..	..
Johne's Disease with emaciation	11	..	..	..	..	..	..	..	..	..	..
Johne's Disease	..	..	..	..	..	..	..	..	..	..	..
Swine Erysipelas	..	..	..	3	..	..	..	..	..	..	..
Necrosis	116 lbs.	..	..	..	..	..	..	..	..	..	..
Bacterial Necrosis	..	..	..	..	..	..	..	..	..	..	..
Actinobacillosis	287 lbs.	..	..	..	..	..	..	..	..	..	..
Actinomycosis	..	..	..	..	..	..	..	..	..	..	..
Pyrexia	3	1	..	1	..	..	..	..	..	..	..
Pyæmia	1	2	11	8	..	..	..	..	..	..	..
Myeloid Leukæmia	1	..	..	..	..	..	..	..	..	..	..
Pericarditis	..	..	..	..	..	..	..	..	24	..	53
Nephritis	..	..	..	..	..	..	..	..	..	..	..
Septic Conditions	1,395 lbs.	10	19½ + 538 lbs.	6 + 157 lbs.	8	..	5	..	2	3	..
Toxæmia	8	..	1	1	..	..	..	..	..	..	..
Gangrene	..	..	2	..	..	..	..	..	..	..	..
Jaundice	1	5	3	..	..	..	..	..	..	..	..
Enteritis	..	..	..	1	..	..	..	..	..	..	..
Tumours	1	..	..	..	..	..	..	..	..	..	..
Pneumonia	..	..	..	..	4	1	9	103	..	..	..
Pleurisy	2,030 lbs.	..	458 lbs.	6 lbs.	114	..	37	41	..	..	..
Pleurisy and Peritonitis	521 lbs.	..	36 lbs.	2	..	..	..	..	..	..	..
Pleurisy and Pericarditis	89 lbs.	..	..	..	..	..	..	..	..	..	..
Peritonitis	581 lbs.	8 lbs.	78 lbs.	18 lbs.	..	..	..	..	..	..	..
Mastitis	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis	..	..	..	..	..	..	..	..	..	..	..
Cavernous Angioma	..	..	..	..	..	..	..	..	..	..	..
Œdema and/or Emaciation	19	6	214	4	..	..	..	..	..	..	..
Parasites (Distomatosis, Cysts, &c.)	1 + 26 lbs.	..	17 lbs.	..	3280	..	399	16	2	..	..
Imperfect Bleeding, Congestion, &c.	1	2	5	..	..	..	..	3	..	32	5
Melanosis	1	..	..	..	..	..	..	..	..	..	..
Immaturity	..	97	..	..	..	..	..	..	..	..	..
Traumatism	2,147 lbs.	4 lbs.	450 lbs.	386 lbs.	..	..	..	..	..	..	..
Arthritis	61 lbs.	5 lbs.	456 lbs.	214 lbs.	..	..	..	..	..	..	..
Decomposition	2 + 2,617 lbs.	..	2 + 565 lbs.	4	..	..	..	..	21	..	..
Contaminated	495 lbs.	4 lbs.	..	2 lbs.	13	..	..	2	4	..	10

...MAN CONSUMPTION DURING THE YEAR 1949.

	Livers.			Heads.			Plucks.			Sets Stomachs & Intest's.			Stomachs			Mesenteries and Intestines						
	Calf.	Sheep.	Pig.	Ox.	Sheep.	Pig.	Calf.	Sheep.	Pig.	Ox.	Sheep.	Pig.	Ox.	Sheep.	Pig.	Ox.	Sheep.	Pig.	Ox Fat.	Udders.	Thick Skirts.	Ox Spleens.
2	..	..	5	955	..	82	..	..	31	41	..	18	16	..	2	173	..	6	14 lbs.	27	351	229
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	11	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36 lbs.	..	..	..
2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
+ lbs.	1	4	2	2	2	..	..	84	5	2	..	2	2	2	..	3	..	3	..	..	21	8
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	15	3	..	..	..	..	..	..	..	..	..	..	..	31	..
.	..	..	..	..	..	..	..	16	10	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
+ bs.	..	..	4	..	..	..	..	1	..	21	4	12	1	..	..	5	..	4	..	..	39	95
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1190	..	..
+) lbs.	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	734	13	24	..	..	..	1251	5	..	..	..	..	..	..	..	..	..	..	..	..	..
3	..	4	..	..	..	..	3	18	12	..	..	6	..	..	..	..	..	..	..	..	13	303
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.	..	..	..	1	3	..	..	3	1	2	3	3	1	..	..	1	37 lbs.	2	..	..	2	1
2	3	5	1	2	3	..	..	10	..	..	..	2	..	..	..	..	..	1	..	3	4	57

CARCASES OF BEEF CONDEMNED WITHIN THE CITY DURING THE PAST TWENTY YEARS.

Total Condemned.		Numbers condemned on account of Tuberculosis.	Percentage Tuberculous.
Year.	Carcases.	Carcases.	Per cent.
*1930	147	124	84.35
1931	117	94	80.34
1932	135	120	88.89
1933	128	116	90.62
1934	186	158	84.94
1935	182	159	87.35
1936	255	241	94.51
1937	231	208	90.04
1938	263	205	77.94
1939	278	237	88.25
1940	460	413	85.43
1941	450	400	88.88
1942	413	369	89.34
1943	494	413	83.60
1944	416	352	84.61
1945	415	380	91.56
1946	418	364	87·08
1947	361	291	80.60
1948	261	213	81.60
1949	335	264	78.80

* Years prior to 1930 are given in previous Annual Reports.

Public Health (Meat) Regulations of 1924.

Visits numbering 5,810 were made to meat and provision shops, restaurants, stalls, vehicles, etc., in the enforcement of the Regulations. A number of contraventions, relating chiefly to meat conveyed in dirty vehicles, and of butchers' shops not kept in a cleanly condition, were found during these visits and cautions administered.

FOOD AND DRUGS ACT, 1938.

Registration of Food Premises.

During the year, 40 applications for registration of butcher's shops to be used for the preparation or manufacture of sausages, potted meats, etc., were dealt with and approved by the Health Committee.

Imported Foodstuffs.

During the year regular routine visits were made to the Quayside. Forty-four vessels carrying meat foodstuffs arrived from Denmark and one from South Georgia, compared with thirteen arrivals from Denmark and Canada during the previous year. The following were included in the cargoes a percentage of which was examined :—

SALTED PIG OFFALS.

Casks :—253 maws, 513 feet, 30 rinds, 18 casings, 424 chitterlings, 12 tails and 124 mixed offals.

Other Goods.

140,838 sides bacon, 10,003 cases tinned meats, 116 cases sausages, 68 cases udders and 1,000 tons whalemeat.

Imported meat arriving by rail and road within the City is subjected to supervision and inspection within cold storage depots and wholesale meat shops.

Number of Visits and Inspections of Premises during the Year 1949.

Slaughterhouses.	Central Markets.			Meat Shops.		Fish Shops.		Provision Shops.		Fruit Shops.		Wharves and Vessels.	Cold Stores.	Stalls, Carts, &c.	Food Preparing Factories.	Goods Stations.	Restaurants.
	Meat and Provisions.	Fruit and Vegetables.	Fish.	Wholesale.	Retail.	Wholesale.	Retail.	Wholesale.	Retail.	Wholesale.	Retail.						
2,060	593	490	319	1244	942	104	10	1145	932	595	64	269	65	826	80	60	13

Arsenical Contamination of Imported Pears.

On the 10th August during the year under report a communication was received from an outside local authority that consignments of Italian pears imported into this country were showing evidence of arsenical contamination in such an amount as to constitute a possible danger to public health. This contamination was considered to be the result of spraying the fruit with an insecticide.

On the above date two ships arrived at Newcastle Quayside with cargoes of Italian pears. Part of this consignment had been forwarded to various wholesale fruit merchants, and those within the City were informed of the possible danger and were instructed to cleanse the fruit prior to sale by thorough wiping. Where consignments had been forwarded to other districts the Medical Officer of Health of the area was informed.

Samples of the fruit were taken and submitted to the Public Analyst and to the Ministry of Health Laboratory. Significant quantities of arsenic were shown to be present in both sets of samples.

TOTAL WEIGHT OF MEAT AND OTHER FOODSTUFFS CONDEMNED.

The total weight of meat and other foodstuffs condemned during the year 1949 was 325 tons, 8 cwts., 1 qr., 17 lbs., comprising :—

	tons	cwts.	qrs.	lbs.
Beef, Mutton, Veal and Pork	120	16	3	14
Offals	110	9	2	23
Fish	1	15	2	7
Provisions	71	11	2	1
Fruit and Vegetables	20	14	3	..
	325	8	1	17

The following figures show the total weights of carcases and offals, fish and provisions, etc. (excluding fruit and vegetables) condemned since 1934. For comparison these figures are given at intervals of five years :—

	tons	cwts.	qrs.	lbs.
1934	64	15	2	18
1939	153	19	..	24
1944	308	..	..	9
1949	304	13	2	16

Poultry and Game, Fish, Fruit and Vegetables, Provisions, &c., Destroyed as being Unfit for Human Consumption During the Year 1949.

Poultry and Game.	lbs.
Ducks	93
Fowls—34	899
Pigeons—1	—
Poultry	51
Pemmican	112

Fish.	lbs.
Fish (various)	3,713

Fruit and Vegetables.	lbs.
Apple Rings	163
Beans	458
Cabbage	5,917
Cauliflower	65
Cherries	14
Dates—58 cases	3,460
Dried Apricots	62
Dried Peaches	100
Dried Vegetables	30
Figs	920
Lemons	400
Lettuce—102 boxes	—
Onions	7,112
Orange Pulp	128
Parsnips	19,452
Pears	49
Peas	1,588
Potatoes	3,403
Prunes	240
Raisins	167
Rhubarb	448
Tomato Pulp	50
Walnuts	3,150
Watercress—280 baskets	—

Provisions, &c.	lbs.
Apple Sauce—11 tins	—
Arrowroot	24
Artificial Cream—5 gallons	—
Baby Food—60 tins	—
Bacon—8 tins	360
Baking Powder—50 tins	19
Barley	729
Beef (cooked)	125
Biscuits	3,738
Black Puddings	25
Breakfast Cereals—205 packets	62
Butter	396
Cakes—975	—
Cheese—121 cartons	118
Chestnuts	1,300
Chillies	6
Chocolate Powder	75
Cinnamon	8
Cocoa—23 tins	224
Coffee Essence—325 bottles	—
Condiment Powder	112
Confectionery	3,649
Cream of Tartar	56
Cummin Seeds	25
Currants	384
Coriander Seeds	35
Curry Powder	32
Custard Powder—5 packets	—
Dahl	1,323
Dessert Powder	11
Dessicated Coconut	5
Dried Eggs—19 tins	192
Dried Potatoes—117 tins	—
Farinoca	225
Fish Cakes—190 tins	—
Flavouring Essence—153 tins	—
Flour	11,672

Provisions, &c.—*Continued.*	lbs.
Flour Mixture	1,428
Frozen Eggs	40
Galantine	4
Ginger—2,270 jars	3
Golden Corn—6 tins	—
Gravy Browning	10
Haslet	85
Herbs—75 packets	—
Homo. Foods—360 tins	—
Hops	11
Invalid Jelly—11 jars	—
Jellies—36	—
Lemonade Powders	2
Lentils	62
Liquid Egg	38
Macaroni	231
Malt Loaves—10	—
Mayonnaise—10,371 jars	—
Meat Paste—16 tins	—
Meat Pies—1,629	—
Milk Powder	112
Mustard—18 tins	24
Mutton (cooked)	3
Nutmeg	29
Nuts	4
Oatmeal	1,232
Parsley—34 packages	—
Pepper	32
Pickles—98 tins and 3,856 jars	—
Pig Maws	948
Polony	23
Potato Crisps—22,704 packets	—
Puddings	528
Pudding Mixture—283 packets	443
Rice	1,361
Rolled Oats	2,894
Sago	422

Provisions, &c.—*Continued.*	lbs.
Salad Cream—4,055 bottles	—
Sandwich Spread—398 jars	—
Sauce—29 tins and 1,157 bottles	—
Sausage	2,459
Sausage Rolls—36	—
Savoury Cakes—197	—
Scone Meal	57
Semolina	1,756
Shredded Suet	13
Soyaghetti	18
Spaghetti	108
Split Peas	754
Sugar	137
Sultanas	203
Sweetcorn—5 tins	—
Sweetened Fat—1,948 cartons	835
Tapioca	8
Tomato Savouries—13	—
Vermicelli—79 tins	1,269
Vinegar—29 bottles	—
Wholemeal	3

Tinned Goods.	tins.	lbs.
Fish	6,117	—
Fruits—52 jars	7,668	—
Jam—278 jars	8,298	—
Meats	1,566	9,613
Milk	11,280	—
Vegetables	11,774	—

MICROSCOPICAL EXAMINATIONS.

During the year, 11 microscopical examinations were carried out in connection with cases under investigation. Material examined comprised specimens of milk and blood, one sample of milk proving negative for tuberculosis, while 10 samples of blood were found negative for anthrax bacilli.

SLAUGHTERHOUSES.

Four slaughterhouses are in use within the City for the slaughtering of cattle, calves, sheep and pigs, and as these are occupied by the Ministry of Food on behalf of the Crown, licensing of the premises by the local authority is unnecessary. Five slaughterhouses, however, are licensed within the City for the slaughtering of horses, 2 at the Cattle Market, 1 at Byker Hill and 2 at Boyd Street. All the premises have been regularly inspected, a total of 2,060 visits being made during the year.

Licensed Slaughtermen.

Under the Slaughter of Animals Act, 1933, 5 slaughtermen's licences were granted during the year, making a total of 40 licensed slaughtermen within the City. All applications for these licences are submitted to, and approved by, the Health Committee.

RATS AND MICE (DESTRUCTION) ACT, 1919, AND THE INFESTATION ORDER, 1943.

During the year, 4,321 visits were made to premises in respect of 1,395 reports of the presence of rats received, and 1,395 premises were inspected and dealt with. Inspection of these premises, detailed in the table below, showed that rats were found infesting 1,284, the remaining 111 being found free from evidence of infestation. Third Party Control work (i.e., baiting, etc.) was carried out on all of the infested premises, 19,650 pre-baits and 13,146 poisoned baits being laid, resulting in an estimated kill of 32,840.

Advice regarding baits, traps, etc., is given free, but where rodent destruction is carried out by the department a charge is made, and a consolidated grant of 50 per cent. of the approved net expenditure incurred by the local authority is made by the Ministry of Agriculture and Fisheries. Where necessary, the testing of drains is carried out in conjunction with the Sanitary Inspector, and structural repairs are enforced by the service of a Notice, if required, on the occupier of the premises.

RATS AND MICE (DESTRUCTION) ACT, 1919, AND THE INFESTATION ORDER, 1943.

Reports received	1,395
Number of premises inspected and dealt with in connection with the above	1,395
Number of premises where evidence of the presence of rats was found	1,284
Number of visits made	4,321

KIND OF PREMISES DEALT WITH.

Allotments	2
Bakeries	7
Cafes	43
Brewery	1
Cat and Dog Shelter	2
Cinemas	10
Clinics	1
Dwellings	638
Factories	141
Farm	1
Food Depots and Canteens	115
Garages	2
Hospitals	6
Offices	47
Public Houses	15
Residential Hotels	10
Refuse Tips	8
Schools	15
Shipyard	1
Shops (Food)	81
Shops (other than Food)	198
Warehouses	43
Stables	8
	1,395

Number of premises requiring 3rd Party Control Work (i.e., baiting, &c.)	1,284
Number of unpoisoned baits laid	19,650
Number of poisoned baits laid	13,136
Estimated number of rats killed	32,840

LEGAL PROCEEDINGS.

A butcher was fined £50 for having deposited on his premises horseflesh for the purpose of sale for human consumption where meat other than horseflesh was deposited for the same purpose, this being a contravention of the Horseflesh (Control and Maximum Prices) Order of 1941. His manager was fined £25, £2 costs being also imposed.

HORACE THORNTON,
VETERINARY OFFICER.

REPORT OF THE

SCHOOL MEDICAL OFFICER

VII—SCHOOL HEALTH SERVICE

SYNOPSIS OF REPORT SUBMITTED TO

EDUCATION COMMITTEE.

RESUME OF WORK DONE BY THE SCHOOL HEALTH SERVICE DURING 1949.

The School Medical Officers have examined in the Primary, Secondary Modern, Technical, Grammar and High Schools, at the Statutory Medical Inspection of Entrants, Intermediates and Leavers 11,445 children.

At the Clinics the following consultations have been carried out by the School Medical Officers :—

Ashfield House	571
Atkinson Road	4,164
Bentinck	1,929
Central	2,064
Cowgate	744
Middle Street	2,337
Raby Street	2,192
TOTAL	14,001

The nurses and nursing helpers have paid 1,326 visits to schools and have carried out 94,432 inspections. They have issued to parents 7,598 notices calling their attention to various conditions found to be affecting the children, and have excluded temporarily from school 241 children either for being verminous, or for some infectious or contagious condition.

There have been 21,201 cases receiving treatment at the Clinics, and they have attended on 91,723 occasions. In addition, 17,038 cases have been examined and referred for treatment either at the Orthopædic Clinic, Refraction Clinics, Throat, Ear and Nose Clinics, or elsewhere. The nurses and nursing helpers have visited 3,158 homes, and at the Clinic Baths, 107 cases of scabies have been dealt with, and 548 baths have been given.

Dental Clinics.—At the seven Clinics, 38,847 children have been examined, 16,649 attendances have been made for treatment, 11,886 extractions and 8,578 fillings have been done and gas has been administered in 4,304 cases.

The Cowgate Dental Clinic, which had been closed since November, 1948, was re-opened when the newly-appointed Dental Officer, Miss A. M. M. Greig, commenced duty on the 1st December, 1949.

Orthopædic Clinic.—1,427 patients have been in attendance during the year, 1,910 examinations have been carried out by the Orthopædic Surgeons and 14,354 treatments have been given.

The termination in April of the appointment of Dr. W. Mackenzie, who had been Orthopædic Surgeon to the School Health Service for 25 years, necessitated the appointment of another orthopædic surgeon. Under the National Health Service Act, arrangements were made with the Regional Hospital Board for the services of an orthopædic surgeon to be allocated to the School Health Service on four sessions per week.

Throat, Ear and Nose Clinics.—The Committee's Throat, Ear and Nose specialist, Dr. R. D. Forsyth, has examined 2,903 children and 341 operations for the removal of tonsils and adenoids and other throat, ear and nose conditions have been carried out at the various hospitals in the City.

The question of operations for the various throat, ear and nose conditions is at present under consideration by the Regional Hospital Board, and it is hoped that in the very near future additional beds will be available for school children.

Refraction Clinics.—2,191 children have been specially examined for defective eyesight, and of these, spectacles were prescribed in 1,630 cases. Under the National Health Service Act, 936 pairs of spectacles have been supplied through the Ophthalmic Services Scheme.

The attention of the Local Executive Council of the National Health Service was drawn to the fact that there was a long delay in many cases in the delivery of glasses prescribed for school children. Assurance has now been given that everything possible is being done to expedite delivery of glasses. Towards the end of the year it was noticed that this delay was much reduced.

In special cases, such as children attending the classes for partially-sighted, arrangements were made for the necessary spectacles to have priority in delivery.

Dr. J. D. Milne, part-time Ophthalmic Surgeon, has examined 223 cases. His duties include the certification of cases of suspected blindness and the examination of partially-sighted children.

Mass Radiography.—In connection with the Survey of School Leavers, 740 boys and 1,025 girls were radiographed at the Newcastle General Hospital. Of these, 15 boys and 18 girls were recalled for further investigation.

Ringworm.—At the Newcastle General Hospital, 52 cases of Ringworm of the scalp have received X-ray treatment, and at the Central Clinic 118 cases have been periodically examined and treated. 79 cases are now fit, leaving 39 cases still under treatment.

Plantar Warts.—At the Central Clinic, 73 boys and 147 girls have been treated for this condition. It is caused by a filter passing virus and is known to be infectious. The symptoms include pain on walking or running, the warts being usually limited to the heel or ball of the foot. It is found more frequently in girls.

Treatment has been carried out successfully, and 51 boys and 128 girls are now cured.

Cardiovascular Clinic.—At the Cardiovascular Clinic, organised by Professor W. E. Hume at the Newcastle General Hospital, 87 school children, 48 boys and 39 girls, have been examined and reported upon.

Special Cases.—225 children—physically handicapped or educationally subnormal or maladjusted—have been specially examined and reported upon.

Visit of German Children to Newcastle upon Tyne.—A party of 22 German children, 8 boys and 14 girls aged 8 to 14 years, accompanied by one adult, visited the City under the British Aid for German Workers Scheme. Hospitality was afforded the children with families in the East end of the City, and education was provided for them at the St. Peter's Primary School.

One of the School Medical Officers attended the St. Peter's School on the arrival of the children, and carried out a routine medical examination prior to them commencing school attendance. Facilities for the treatment of minor ailments at the school clinics were granted to the children, and any other medical treatment needed was carried out by a medical practitioner in the district under the National Health Service Scheme. The children were again medically examined just prior to returning to their homes, and all were reported to be in good health.

Pendower Open Air School.—180 children have been in attendance, of whom 59 have been discharged, all with great improvement to their health.

Pendower Open Air School—Classes for Partially-Sighted.—46 children have been in attendance, of whom 11 have been discharged during the year.

Bolam Street Day Special School for Educationally Subnormal Girls. 104 girls have been in attendance, of whom 22 have left during the year.

Lower Condercum House Day Special School for Educationally Sub-Normal Boys.—170 boys have been in attendance, of whom 36 have left during the year.

Residential Special Schools.—The following children have been cared for in Residential Special Schools :—

Blind	8
Crippled	107
Epileptic	7
Deaf and Dumb	36
Educationally Sub-normal	24
Heart Disease	4
Residential Open Air	4
Maladjusted	15
	205

Stannington Sanatorium.—40 beds for various forms of Tuberculosis have been practically in constant occupation.

MATERNITY AND CHILD WELFARE SCHEMES.

(The following figures are additional to those already enumerated above.)

1. **Dental.**—At the seven Clinics 202 patients were examined, 333 attendances were made for treatment, 480 extractions and 79 fillings have been done, and gas has been administered in 109 cases.

2. **Throat, Ear and Nose.**—The Specialist has examined 100 children and 11 operations for the removal of tonsils and adenoids or other throat, ear and nose conditions, have been carried out at the various hospitals in the City.

3. **Orthopædic.**—385 patients have been in attendance during the year, 536 examinations have been carried out by the Specialists and 4,315 treatments have been given.

I would like to take this opportunity of thanking all the members of the staff for their efficient services during the year, and the members of the Education Committee for the keen interest shown and the very willing support and encouragement they have given the staff in the work of the School Health Service.

R. F. Lunn,

Senior School Medical Officer.

APPENDIX I.

THE CARE OF PREMATURE INFANTS.

Contributed by F. J. W. Miller, M.D., M.R.C.P., D.C.H., Lecturer in Pædiatrics, Department of Child Health, Durham University, Clinical Adviser in Child Health to the Local Health Authority and formerly Child Welfare Medical Officer, City of Newcastle upon Tyne.

In the Annual Report for 1947 I described the work of the Home Nursing of Premature Infants, and reviewed the results to the end of that year. Now, with the accumulated data and experience of almost five years, it seems time to re-assess the value of the service and to reconsider the respective roles of home nursing and hospital care in our plans to reduce the deaths of premature infants to a minimum.

In 1949, 20 infants per thousand live births in the city—a total of 109 infants—died before reaching the age of one month. More than half of these children had been prematurely born, and our greatest hope of further substantial reduction in the neonatal mortality rate lies in our willingness to face this fact; to give careful consideration to the problems involved and take whatever action is necessary to modify or expand the existing services. As I intend to discuss the question of premature children at home or in hospital, it will of necessity involve consideration of the services administered by the local health authority and also by the Regional Hospital Board, but it seems quite apparent that a problem of this nature which involves the services administered by two authorities must depend upon free, flexible administration of those authorities, and without these conditions neither the home nursing service nor the hospital service could be used to full advantage.

In discussing our data I shall assume that for some years to come a significant proportion of infants in the city, including about 40 per cent. of the premature infants, will continue to be born at home, although it is agreed that whenever possible, the onset of premature labour should be considered to be an obstetric emergency and a reason for admission to hospital.

This report will fall into four sections :—

A. The statistics of prematurity in Newcastle upon Tyne.
B. Discussion of existing services at home and at hospital.
C. The results of care as organised from 1945 to 1949.
D. Recommendations for further development.

A. The Statistics of Prematurity in Newcastle upon Tyne.

(1) Incidence.

Premature birth (i.e., the birth of an infant of weight 5½ lbs. or less irrespective of the duration of pregnancy) first became notifiable in Newcastle in 1945, but the figures for that year may not be complete and have not been included in the calculation of incidence. From 1946 to 1949 the incidence of live born premature children has been 5·5 per cent. of the total live births of the City.

TABLE I.

Incidence of Premature Birth in Newcastle upon Tyne. 1946–1949.

	Total Births.	Total Prematures.	Live Births.	Live Prems.	Incidence Prematurity.	Incidence Liveborn Prematures.
					%	%
1946....	6,246	371	6,079	318	5·9	5·23
1947....	6,240	376	6,078	332	6·02	5·46
1948....	5,864	365	5,705	320	6·22	5·6
1949....	5,477	333	5,377	295	6·09	5·5
Total 1946–49	23,827	1,445	23,239	1,265	6.06	5.44

Thus, in Newcastle there are rather more than 300 live born premature infants each year. The distribution of the birth weights within the definition is important. Of 1,528 live born premature infants, between 1945 and 1949, 55·8 per cent. were from 4½–5½ lbs. birth weight; 25·6 per cent. from 3½–4½ lbs., i.e., 81 per cent, or 4 out of every 5 were over 3½ lbs; 10·9 per cent. were from 2½-3½ lbs., and only 7·7 per cent. were under 2½ lbs. Thus, less than 1 in 5 was under 3½ lbs. and only 8 out of 100 under 2½ lbs., and in Newcastle we expect only about 60 live born infants of the birth weight of 3½ lbs. or less each year.

(2) Place of Birth.

In the five years, 636 infants were born at home and 892 in hospital, but when these figures are divided into the various weight groups, it can be seen that equal numbers of children of birth weight of 4½ lbs. and under were born at home and in hospital.

TABLE II.

LIVE BORN PREMATURE INFANTS. PLACE OF BIRTH.

Birth Weight.	Home.	Hospital.
Under 2½ lbs.	59	59
2 lbs. 9 oz.—3½ lbs.	75	92
3 lbs. 9 oz.—4½ lbs.	189	202
4 lbs. 9 oz.—5½ lbs.	313	539
	636	892

B. Discussion of the Existing Services at Home and at Hospital.

In 1948 and 1949 most premature infants born at home have been looked after by the Domiciliary Nursing Service. Those born in hospital or nursing home are cared for at their place of birth.

(i) HOSPITAL PROVISION.

Premature infants' nurseries for the care of infants born within the hospitals have been established in the Newcastle General Hospital and in the Princess Mary Maternity Hospital. The premature infant unit in the General Hospital has 3 rooms, each containing 2 cots, equipped with oxygen and "Oxygennaire" apparatus, but without any incubator for the care of very small infants. These cots are sufficient only to nurse the infants who are born in the maternity unit at the hospital, and any infants admitted to hospital from home are admitted to the Infants' Wards of the Children's Department. The Princess Mary Maternity Hospital has similarly a premature infant nursery designed and equipped to care for the children born within that hospital, but like the General Hospital, not large enough to admit children born at home. There is, therefore, at present no hospital accommodation in Newcastle especially set aside for the admission of premature infants from home.

The work and the organisation of the premature infant nurseries at the Newcastle General Hospital and the Princess Mary Maternity Hospital are similar :—

(1) To care for the premature infants born within the hospital ;

(2) To teach the principles of the care of the premature child.

The Nursery at the Princess Mary Maternity Hospital is part of the teaching hospital for medical students, and that of the General Hospital is used for the training of nurses and midwives in the employment of the Local Health Authorities, especially those authorities who wish to establish a domiciliary premature baby nursing service. It should, in a few years, be a method of improving the standards of infant care in domiciliary midwifery.

(ii) Operation of the Home Nursing Service.

The principles of the service have remained unchanged since 1945. This is a service offered by the Local Health Authority to the family doctor who retains the clinical responsibility for the care of the infant. The whole success of the service, therefore, depends first upon the willingness of the family doctors to use it, and secondly upon the co-operation of the City midwives and the five midwives (3 whole-time and 2 part-time) who have undertaken the special duties of looking after premature children. The service is called upon either by the doctor or the midwife attending the confinement, and whenever necessary, equipment (cots, etc.) is supplied. Electric blankets and oxygen apparatus have not so far been included in the equipment sent to the home. If necessary in extremely difficult cases, either for social or medical reasons, the children are admitted into the Infants' Wards of the Newcastle General Hospital.

Since 1945 the proportion of premature children looked after in this way has steadily increased, and now the majority of children born at home come under the care of the premature infant nurses. Indeed the tendency is growing and is encouraged, for the midwife to call in the premature infant nurse whenever a premature birth is expected, and if possible, before the birth of the baby. In 1949 the midwives employed on this service looked after 121 of the 131 infants born on the district. In all, the special equipment was used 97 times, and the nurses made 2,570 home visits.

TABLE III.

Number of Children Nursed at Home.

	Living Prems. Notified.	Nursed entirely by Service.	Taken by Service but admitted to Hospital within 14 days of Birth.	Total Nursed.
1945.....	88	29	4	33
1946.....	151	59	5	64
1947.....	140	55	8	63
1948.....	126	102	9	111
1949.....	131	106	15	121
	636	351	41	392

In five years, from 636 infants born at home, 90 have been admitted to hospital—41 within the first 14 days after coming into the care of the domiciliary nurses and 49 immediately. In general, the infants admitted to hospital are feeble infants under 4½ lbs. or

sick or injured infants over 4½ lbs., or children born under extremely unfavourable social conditions. In Newcastle it is estimated that almost 15 per cent. of the houses are statutorily overcrowded. (Housing Act 1936.)

C. Immediate Results of Care of Premature Infants in Newcastle.

The results which are given below refer to the immediate care of premature infants, i.e., infants who have been born either at home or at hospital and have survived for at least a month. Table IV shows the immediate survival rates of all premature infants born, either at home or in hospital, of which we have knowledge in the years 1945-1949.

TABLE IV.

ALL PREMATURE INFANTS, 1945–1949.

Weight.	Births.	Lived.	Died.	% Lived.
Under 2½ lbs.	118	6	112	5·0%
2 lbs. 9 ozs.—3½ lbs.	167	61	108	36·5%
3 lbs. 9 ozs.—4½ lbs.	391	320	71	81·8%
4 lbs. 9 ozs.—5½ lbs.	852	805	45	94·5%
	1,528	1,192	336	78·0%

These results show us, as we expected, that a great difference in immediate survival falls between the infants who are born under 3½ lbs. and those who are born over 3½ lbs. If this Table is now split up, the results of those born at home can be considered separately from those born in hospital.

TABLE V.

SURVIVAL OF PREMATURE INFANTS BORN AT HOME, 1945–1949.

Weight.	Births.	Lived.	Died.	% Survival for 4 Weeks.
Under 2½ lbs.	59	5	54	8·5%
2 lbs. 9 ozs.—3½ lbs.	75	28	47	37·3%
3 lbs. 9 ozs.—4½ lbs.	189	151	38	79.9%
4 lbs. 9 ozs.—5½ lbs.	313	287	26	91·7%
	636	471	165	74·0%

A further analysis of this Table is given in Table VI showing the results in the groups of infants nursed by the special nursing service, the home midwife, and in all the infants who were born and nursed at home.

TABLE VI.

PREMATURE INFANTS BORN AND NURSED AT HOME.

Weight.	Premature Service.			Own Midwife.			% Survival Nursed at Home.
	Total.	Lived.	Survival.	Total.	Lived.	Survival.	
Under 2½ lbs.	22	2	9%	22	..	..	4·5%
2 lbs. 9 oz.—3½ lbs.	35	15	43%	14	2	14·3%	34·7%
3 lbs. 9 oz.—4½ lbs.	131	112	85·5%	32	20	62·5%	80·9%
4 lbs. 9 oz.—5½ lbs.	162	158	97·5%	128	114	89·0%	93·8%

Table VII shows the results of the premature infants born at home and admitted to hospital.

TABLE VII.

INFANTS BORN AT HOME AND ADMITTED TO HOSPITAL.

Weight.	Total.	Lived.	Died.	% Survival.
Under 2½ lbs.	15	3	12	20%
2 lbs. 9 ozs.–3½ lbs.	26	11	15	42·3%
3 lbs. 9 ozs.–4½ lbs.	26	19	7	73·1%
4 lbs. 9 ozs.–5½ lbs.	23	15	8	65·2%
	90	48	42	53·3%

In general, the children admitted to hospital were either born under extremely unsatisfactory home conditions or were extremely feeble or ill children.

TABLE VIII.

CHILDREN BORN AND NURSED IN HOSPITAL AND NURSING HOME.

Weight.	Total.	Lived.	Died.	% Survival.
Under 2½ lbs.	59	1	58	1·7%
2 lbs. 9 ozs.—3½ lbs.	92	33	59	35·8%
3 lbs. 9 ozs.—4½ lbs.	202	169	33	83·7%
4 lbs. 9 ozs.—5½ lbs.	539	518	21	96·1%

When Table VI and Table VIII are compared, it can be seen that in Newcastle in the past five years there has been little difference in the chances of survival of the premature child whether born in hospital or at home.

In our assessment, however, of the results of the home nursing service, we should use data relating to infants born at home and admitted immediately to hospital, and this data should be related to social conditions which are at least similar to those in Newcastle. Fortunately, such figures exist and have been made available by Dr. M. V. Crosse who has had long experience in, and has done much to improve the results of premature infant nursing in hospital.

In 1947, 1948 and 1949, she obtained the following results for infants admitted to the Premature Infant Ward of the Sorrento Maternity Home, Birmingham, after birth at home.

TABLE IX.

BIRMINGHAM—1947, 1948 AND 1949.

PREMATURE INFANTS ADMITTED TO HOSPITAL.

Weight.	Total.	Lived.	% Survival.
Under 2½ lbs.	60	12	20·0%
2 lbs. 9 ozs.—3½ lbs.	130	96	73·8%
3 lbs. 9 ozs.—4½ lbs.	232	195	84·0%
4 lbs. 9 ozs.—5½ lbs.	161	157	97·5%

These results can, I think, be compared with the results of the infants born and nursed at home.

TABLE X.

Weight.	NEWCASTLE UPON TYNE.		BIRMINGHAM.	
	Prem. Infants Born and Nursed at Home.		Prem. Infants Born at Home and Admitted to Hospital.	
	Total.	% Survival.	Total.	% Survival.
Under 2½ lbs.	22	9%	60	20·0%
2 lbs. 9 ozs.—3½ lbs.	35	43%	130	73·8%
3 lbs. 9 ozs.—4½ lbs.	131	85·5%	232	84·0%
4 lbs. 9 ozs.—5½ lbs.	162	97·5%	161	97·5%

From this it is quite apparent that the results of home nursing in Newcastle and admission from the district in Birmingham are of the same order until we consider infants with a birth weight of less than 3½ lbs. Then there is a marked difference in favour of hospital admission, with a survival rate of almost 75 per cent. against 45 per cent. It must be noted, however, that in hospital in Newcastle, in the time under consideration, the immediate survival rates of the care of premature children in the same weight group (2 lbs. 9 ozs.—3½ lbs.) was only 36 per cent.

D. Future Policy.

(1) IMMEDIATE—HOME.

From this survey of five years' work the following points are noted :—

(*a*) The work of the Home Nursing Service for Premature Infants has been of very great value to the City and has undoubtedly reduced the deaths as a result of premature birth.

(*b*) When measured against the best available English figures, the results are comparable with those obtained if the infants are born at home and removed immediately to hospital, until we deal with children with a birth weight of 3½ lbs. or less.

(*c*) Assuming that the same results could be obtained in Newcastle, the best policy in dealing with this group of children would be to recommend immediate admission to a specially organised hospital unit.

At present, however, the results of care of children of a birth weight below 3½ lbs. in Newcastle, are approximately equal whether or not these children were born at home or in hospital, and both are inferior to the results obtained in the Premature Infants' Unit in the Sorrento Maternity Hospital in Birmingham.

In the first place, therefore, we must improve our results in dealing with infants of birth weights under 3½ lbs., and to do so it is apparent that we will have to make use of the advantages to be found in incubators, etc. But only when there is a marked difference between the results of such children born and nursed in hospital and those born and nursed at home will we be justified in making arrangements to admit many of the children.

For children over 3½ lbs. in weight, our results have been exceedingly good and there does not seem to be any reason to change our policy of nursing at home whenever possible, and only admitting under conditions of great necessity. In five years only 45 infants in this weight group were admitted to hospital.

The above points, therefore, should govern our future policy, and it is suggested that this policy should be :—

1. All premature children should be nursed by the special Home Nursing Service, and that pædiatric assistance should be given whenever requested.

2. Whilst the hospitals are developing the technical aids for the care of very small infants, the Home Nursing Service should be equipped with oxygen apparatus and a trial should be given to the use of this apparatus at home. It will be necessary to have accurate assessment of the results and a careful selection of the cases in which it could be tried should be made. The apparatus would consist of an " Oxygennaire " Tent, and arrangements would be necessary for a regular supply of oxygen to be brought to the house so long as it was necessary. If this is done it may require additional nursing help.

HOSPITAL.—A closer study should be made of the technique of nursing very small infants, i.e., infants under 3½ lbs. birth weight, in order to increase the overall results from 45 per cent. immediate survival to 75 per cent., and attempts should be made to obtain suitable incubator equipment.

(2) ULTIMATE POLICY.

HOME.—It is assumed that the Domiciliary Nursing Service will be able to care for the great majority of children over 3½ lbs. who are born at home, and only very few—say, 10 a year—would require admission to hospital. When hospital results justify a change in policy, arrangements might be made for the admission of children with a birth weight of under 3½ lbs.

HOSPITAL.—The premature infant units attached to the maternity hospitals will continue to care for the children born within those hospitals, but in Newcastle—preferably associated with the premature infant unit at one of the larger maternity hospitals—additional cots should be made available for the admission of children of birth weight under 3½ lbs.

Under the present conditions, and from the data given above, such a policy would require hospital accommodation for approximately 60 infants under 3½ lbs. a year (30 born in hospital and 30 born at home and admitted as soon as possible), and the same unit would probably be called upon to accept an average of 10 infants a year over 3½ lbs., in all cot accommodation for 40 infants a year admitted from home. Of these it would be reasonable to expect 20–25 to survive. Each surviving child would require about 6–8 weeks' cot time a year, and most of the children who would not survive would die in the first week. I estimate, therefore, that the needs of Newcastle could be met by the provision of 5 additional cots reserved for this purpose. If linked to an existing unit it could come under the care of the Sister in charge of that unit, but one additional Staff Nurse and probably one or two assistant nurses would be required.

Summary.

1. Premature birth is still the greatest single cause of death before the age of one month.

2. The results of the care of premature infants born in Newcastle, at home and in hospital between the years 1945 and 1949, have been considered.

3. The work of the Home Nursing Service and Premature Infant Service has been considered and has been compared with the best available figures for the survival of children after admission to hospital.

4. On the basis of the data accumulated over five years, it is suggested that ultimately children of a birth weight over 3½ lbs. can be successfully nursed at home, whilst better results would be obtained if children under this birth weight born at home were admitted immediately to hospital, but that this is not yet possible as a matter of policy in Newcastle upon Tyne.

5. In the meantime we should try to improve our results of the care of very small infants by attempting to use oxygen apparatus in the home.

APPENDIX II.

A STUDY OF ACUTE INFECTIVE ILLNESS IN INFANCY AND CHILDHOOD.

An interim report upon the joint investigation of the Child Health Department of the Durham University and the Newcastle Health Committee.

Contributed by Sir James C. Spence, M.C., M.D., D.Sc., F.R.C.P., Nuffield Professor of Child Health, University of Durham, and F. J. W. Miller, M.D., M.R.C.P., D.C.H., Lecturer in Pædiatrics, Department of Child Health, University of Durham, Clinical Adviser in Child Health to the Local Health Authority and formerly Child Welfare Medical Officer, City of Newcastle upon Tyne.

This investigation, commonly called the " Red Spot " investigation—a name derived from our practice of appending a red legal seal to all our records and correspondence—jointly undertaken by the Newcastle Health Committee and the Durham University Department of Child Health, is now at the end of its third year. Originally started to elucidate facts concerning the types and frequency of infective illness in the first year of life, its scope has broadened as experience has become deeper. Now we know that at the end of five years' study we shall be able to give a picture of the illnesses of infancy and early

childhood, observed in a representative group of the population of the city in a way never before possible ; moreover, we shall also be able to do this against a background of social environment, of housing, and of family capacity for meeting the strains and difficulties of life. In particular, we should be able to study the acute respiratory diseases, the origin of chronic respiratory disease, and the extent of the disability and illness caused by tuberculosis in our community.

A detailed report of the work and results of the first year is in preparation, but the following facts will show how the investigation stands at the end of its third year.

Method.

Visiting by doctors and nurses working in close personal and friendly relationship with the parents, the family doctors, the staff of hospitals and other agencies, has remained the fundamental method of collecting our information. And it is possibly not claiming too much to say it has succeeded, for of 1,142 children, original members of the survey group, we had by the end of 1949 lost only 9 because their parents would not agree to remain in the investigation. In all, however, we have lost 246—187 by removal from the city, and in 50 cases by fatal illness—leaving a group of 896 families in the survey.

During 1949 the team remained unchanged :—

Dr. F. J. W. Miller Dr. S. D. M. Court Dr. R. H. Jackson	Members of the Medical Staff of the Child Health Department, University of Durham.
Miss D. Bryan Miss E. Robinson Miss E. Hann Miss S. Emerson Miss C. Swart Miss M. F. Thompson	Seconded from the staff of the City Health Department.

Since the beginning of the survey the Health Visitors have made 16,646 and the medical members over 1,000 visits. In addition, many infants from the families have been seen in hospital. This number of visits made by five Health Visitors, averaging about 25 a week, may not seem large when compared with the usual number made by a Health Visitor on the district, but it is fair to claim special circumstances. Our visits are longer, great details of clinical facts are

obtained, and only visits in which the person is found at home are counted. Thus we think 5 or 6 visits a day are enough for work of this type. After the visit each Health Visitor spends considerable time writing out the records of her observations. The standard is extremely high, so that a very highly trained team has been established. The task of the Health Visitors is therefore exacting, requiring constant alertness, attention to epidemiological detail, and a highly developed sense of clinical observation and recording. It is not reached without care or maintained without effort, but it is rewarding in the sense of purpose and the degree of intimacy established with the families. Here then is the opportunity to record our personal sense of gratitude to the Health Visitors of the team who have had the vision to see the possibilities of new work, and the courage to follow their visions.

In investigations of this type, closely organised and integrated in one team working as a unit, each is dependent on the other, and the field workers require office support and a permanent point of reference for all records and correspondence. In our team that necessary place, has been filled from the beginning of the investigation by Miss M. F. Thompson, who has been responsible for maintenance of all records and correspondence, the reception and distribution of all messages and the many other tasks which fall to the lot of every good secretary but are not included in the curricula of commercial or other colleges.

Without attempting to anticipate our full report, we shall briefly give some of the facts concerning our families, and to do so will divide them into " deaths," " illnesses " and " social facts " in that order.

Deaths.

Deaths in our group until the end of the third year have numbered 50. As expected, the great majority of these occurred in the first year, and only five in the second and third years together. Indeed, amid the great reduction of deaths in children in the last 50 years, the fall in the second and third years has possibly been more dramatic than at any other time. This is largely due to the decreasing number of deaths from acute respiratory diseases, etc., and from measles and whooping cough.

CAUSES OF DEATH IN INFANTS OF THE SURVEY GROUP.

FIRST YEAR, 1947–1948.

Congenital Malformations	3
Birth–Death	7
Hæmolytic Disease of the Newborn	1
Hydrops Fœtalis (Non-hæmolytic Disease)	1
Prematurity (alone)	4
Infective Causes (grand total of 17)—	
Respiratory Infections	8
Staphylococcal Septicæmia	1
Acute Infections of Unknown Origin	4
Meningitis	1
Gastro-enteritis	2
Tuberculosis	1
Accident	4
No opinion possible	8
Total	45

SECOND YEAR, 1948–1949.

Congenital Heart Disease	1
Epilepsy	1
Tuberculous Meningitis	1
Total	3

THIRD YEAR, 1949–1950.

Gastro-enteritis	1
Acute Septicæmic Illness	1
Total	2

Illnesses.

There is no doubt that the great mass of illness in infancy and the earliest years is infective in origin. And the most important types of infections are those affecting the respiratory tract, that is, the nose, throat, ears, bronchi and lungs, including measles and whooping cough. The illnesses may be acute and either mild or severe, or repeated, and may lead in a few cases to permanent lung damage, which prevents normal development and causes ill-health. They form the greatest problem in preventive and curative medicine to-day and we still do not know how to prevent them.

The following figures will serve as examples of the frequency of certain infections during the first year of our survey.

INFECTIONS IN THE FIRST YEAR OF LIFE.

	Children Affected.		*Children Affected.*
Respiratory Infections—		Pertussis	100
Severe Colds	232	Gastro-enteritis	143
Tonsillitis and Pharyngitis	32	Tuberculin Conversion	15
Otorrhœa	64	Staphylococcal Infections—	
Bronchitis	219	Conjunctivitis	155
Pneumonia	46	Skin Sepsis	98

Yet, to see figures relating to large numbers is impersonal and abstract. Our survey is personal and we have observed many examples of family or household epidemics. From these we have learned that infective illness must be regarded upon a family as well as a community or an individual basis; that the same infection in the family may take different forms of illness; that the younger the child the more likely is he to suffer from a serious illness.

SPECIMEN CASE :—

Example of Family Infection.

The infant lived with her mother and father in a single room in a tenemented house. In the house were 6 other families, making, in all, 22 persons—13 adults, 6 children of ages ranging from 2 to 5 years, and 3 infants. The outbreak of illness did not begin with our family, and the first affected individual was an infant of four months of age living in an attic room with two adults. This baby had a sharp attack of pneumonia, and four weeks afterwards her mother developed a severe cold. She was a frequent visitor to our "red spot" household and the other families. At the same time as she developed the cold, a girl of 3 living on the ground floor, had a sharp attack of acute bronchitis, and a few days later her infant sister developed pneumonia. As this occurred, the other family resident on the same floor—a man, wife, a girl of 3 years and a girl of one year, all had respiratory illnesses. Our "Red Spot" baby, then aged 7 months, first became unwell on the 29th January, 1948. For the first day she was simply off colour, but the next day was clearly very ill, refused her feeds and lay drowsy and apathetic. During the night of the 30th she panted, grunted and coughed, and the following day was quite felled with rapid and noisy respirations. She refused all feeds except water, and during the 31st, in her mother's words "lay with her mouth open most of the day craving for water." The family doctor saw her for the first time at 3 p.m. on the 31st; he diagnosed pneumonia immediately and gave sulphonamide. The night

of the 31st was an anxious time and the next morning found her exhausted, but in the afternoon she slept peacefully for 4 hours. That evening she took her first feed for three days and slept again, for 8 hours. On the 2nd February, 48 hours after sulphonamide was first given, she was definitely improved and thereafter made a steady recovery. On the 2nd February, just as the infant was beginning her recovery, her mother developed a sharp cold.

This is an interesting and characteristic epidemic of respiratory infection showing the spread of illness through a crowded house, and how the younger children—especially the infants—are more severely affected. In the house, four adults were affected with colds, four children under school age had sharp attacks of bronchitis, and the three infants under one year all had pneumonia.

Septic infections of the skin have been found to be very common indeed, and much more so in certain families than in others. The reasons for this are not all apparent, but we are giving them our close attention.

Another disease which is at least equal in importance with acute infections is tuberculosis. This chronic infection, in the great majority of cases conveyed from an infective adult suffering from the disease, is just as much an infection as measles, though unfortunately its presence is not manifest by the appearance of a dramatic rash. Tuberculosis has always in Newcastle been an important cause of death and disability, and although the numbers of deaths are falling it was still in 1949 responsible for the deaths of 235 adults and 11 children under 5 years of age. Before killing, it usually causes a long illness with attendant ill-health and worry and economic hardship to the patient and often his family. Here again, in our study we have the opportunity of making a survey of its present importance in a way never measured before, and of seeing this against the background of a representative sample of the population of the city. We are taking full advantage of this and have been enabled to test the frequency of infection by using a simple skin test. To the end of the third year 5 per cent. of the children have been infected with tuberculosis, and three have died as a result of that infection.

Social Facts.

Our first year, 1947, was in many ways unusual. Men had been returning from the Forces, there were many marriages, and a great rise in the number of births. So, almost half of our infants were first

babies ; 75 per cent. of the mothers were under 24 years of age, and only one tenth of the infants were born into families with more than 3 children. Rather more than half were born at home. But housing conditions were difficult. Many lived with in-laws ; almost 20 per cent. lived in rooms. Overcrowding was common, and after careful assessment with the Sanitary Inspectors of the Health Department, we estimated that 15 per cent. of the houses were overcrowded (1936 Housing Act), and that a similar percentage, though not necessarily overcrowded, were not fit for habitation.

Yet, in spite of all difficulties, and again after extremely careful observations, we also realised that the thing which stood out above all else was the way in which the ordinary family and especially the mother, copes with the situation before her and leads a stable and happy life.

These few facts show the way this conjoint investigation is unfolding. There is no doubt its influence is widespread.

(1) It is influencing the teaching of Child Health in the medical school ; therefore it is influencing the doctors of the future who will in turn be caring for the children of the future, and will we hope approach that task with a fuller appreciation of the problems involved.

(2) It is continuously providing data for further study—data which one must again emphasise is not being obtained anywhere else in England.

(3) It is demonstrating—and this is also one of its greatest assets—a notable example of friendly and active co-operation between a University Department, a local Health Authority, and the members of a large group of families. Each is aware of the purpose and all are giving to the whole because each feels a sense of local responsibility and has the conviction that in spite of all past successes, much more can be done for the improvement of the health of children.

We, in the Child Health Department, are grateful for the support, interest and encouragement of the local Health Authority and wish to sustain with them and with the family doctors of the city, the tradition of fostering the health of the children of our city.

APPENDIX III.

TUBERCULOSIS IN CHILDREN IN NEWCASTLE UPON TYNE.

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The great reduction of deaths in young children and the great improvement in health which has occurred in the last fifteen years is undoubtedly a great source of satisfaction and pride to Local Health Authorities, but it should never be a reason for complacency, for, while children die, as they still do, from infective illness, we cannot stop searching for methods of reducing deaths and diminishing illness. Such a search can only be made if the responsible Health Authority is aware of and sensitive to the facts concerning disease within its own community, and only upon accurate knowledge can appropriate steps be taken. Elsewhere in this Annual Report I have described something of the Investigation into Acute Infections which the Health Committee is supporting. Another method of following the health of the local community is close attention to the facts published each year from the City Health Department. This data can also be used to assess the significance of a particular disease or group of diseases, and here I propose very shortly to set out, in so far as they are known, the facts relating to tuberculosis as a cause of death in children in Newcastle at the present time. First, however, I must state the five fundamental truths about tuberculosis and its spread as an infective disease.

How Tuberculosis is Spread.

1. Tuberculosis is not a hereditary disease but an infection acquired after birth, spread either by persons suffering from the disease and coughing up the infecting germs, or much less frequently, by drinking infected milk.

2. After the germ is first implanted into a lung or into the abdomen, it may extend locally in these sites or it may spread to the blood stream and thus give rise to tuberculosis of bones, joints, or tuberculous meningitis.

3. The important method of preventing tuberculosis, therefore, is to prevent children from coming into contact with adults suffering from the disease or from drinking infected milk.

4. Most of the deaths in children in large cities to-day are caused by germs which they have acquired from adults suffering from the disease; and the cause of most infection in children is the presence in the community of infective adults.

5. The younger the child at the time of infection the more likely is serious disease to arise.

Deaths from Tuberculosis in Childhood.

Having set out as briefly as possible the five most important facts concerning the spread of tuberculosis in children, let us examine the position concerning deaths from tuberculosis in Newcastle upon Tyne.

TABLE I.

DEATHS FROM TUBERCULOSIS.
1939–1949 (inclusive).

All ages	3,124	
Under 1 year	31	Total—296 children under 15 years of age.
1–5 years	124	
5–15 years	141	

Table I shows the total number of deaths from tuberculosis in 1939–1949 and, as part of this total, the number of deaths under the age of 15 years. It can be seen that deaths in children form almost 10 per cent. of the total deaths from tuberculosis. This might not seem a high percentage of the total deaths from this disease, but if it is seen against the other causes of death in childhood its true significance and the part it plays as the cause of death in children after the first year can be appreciated much more easily

TABLE II.

DEATHS FROM TUBERCULOSIS IN CHILDHOOD COMPARED WITH ALL DEATHS IN AGE GROUP.

(Excluding deaths under one year.)
1939–1949.

	Total Deaths in Age Group.	Tuberculosis.	% of Deaths in Age Group.
1–5 years	570	124	21·7%
5–15 years	561	141	27·0%
	1,131	265	23·0%

Tuberculosis is responsible for nearly one-quarter of all deaths between 1 and 15 years.

Table II shows deaths from tuberculosis in childhood compared with that of total deaths in the same age group, children from 1 to 15 years, and it can be seen that almost one quarter of the deaths which occurred in Newcastle in these years were due to tuberculosis.

TABLE III.

Deaths in Childhood from Tuberculosis and Other Causes.

1939–1949 (inclusive).

	Total Deaths in Age Group.	Acute Respiratory Dis. with Measles and Whooping Cough.	Tuber-culosis.	Diph-theria.	Violence.
1–5 years ..	570	200	124	68	82
5–15 years .	561	34	141	59	119
	1,131	234	265	127	201

It is seen that tuberculosis in the years 1939–1949 was the greatest single cause of death in childhood, exceeding that of acute respiratory disease and violence. In the country as a whole in the same years, tuberculosis was the third greatest cause of death, following violence and acute respiratory disease. It would therefore appear that tuberculosis plays a greater part in the cause of death in childhood in Newcastle than it does over the country as a whole. A further comparison with an area of London makes this point even more clear.

TABLE IV.

Deaths from Tuberculosis under 15 Years.

1942–1945 (inclusive.)

	Population.	Deaths from Tuberculosis. All Ages.	Deaths under 5.	Deaths 5–15.	Total under 15.
Ealing & Acton (Thompson 1947)	212,000	450	13	5	18
Newcastle/Tyne	270,000	1,177	58	72	130

Although I am well aware that the social conditions may not be the same, the point of this comparison is to show the need for local study of the figures, and that we cannot apply figures from one area of England to another.

When one compares further the deaths from tuberculosis in other large cities, another important fact can be noticed, that deaths from tuberculosis in Newcastle are particularly high in the school age, *i.e.*, between 5 and 15 years.

TABLE V.

DEATHS FROM TUBERCULOSIS.

1945–1947 (inclusive.)

	Population.	0–1.	1–5.	5–15.	Total under 15.
City of Newcastle ...	290,000	8	27	44	79
Birmingham	1,076,000	26	85	57	168
Manchester	659,700	29	59	44	130

This evidence here presented concerns deaths. It takes no account of the illnesses which also result from infection in childhood and are another measure of the unhappiness which infection with tuberculosis brings. Unfortunately, I am unable to give figures for hospital admissions of Newcastle children, and it is well known that the figures for notification of tuberculosis in children are unreliable as an indication of the amount of childhood tuberculosis in a community. It is apparent, however, that tuberculosis forms a very important cause of both death and illness in Newcastle and, while further investigation is necessary, the high death rate in children suggests that a large number of infective adults must be present in the City.

Conclusion.

The point of this analysis is simply to bring before the Health Authority responsible for its prevention the facts concerning tuberculosis in childhood. We need further patient collection of facts and sensitivity to their importance, but above all it is the application of our present knowledge which is essential. And there can be no mistake; the way to reduce tuberculous disease in young children is to avoid infection by the following methods:—

(1) The provision of adequate sanatorium accommodation for adults in order to separate the infective adult from the young child.

(2) The provision of temporary accommodation for babies and young children until a more permanent method of separation from the source of infection can be obtained, and while they may be offered a vaccine treatment (B.C.G.) which is becoming available as an anti-tuberculosis measure.

(3) The eradication of active tuberculosis in adults who are responsible for the care of children or who come into contact with children in the course of their daily work, e.g., the routine X-ray of hospital nurses and doctors, school teachers, nursery nurses, bus conductors, and indeed anyone whose daily work brings him into contact with young children.

(4) Reconsideration of the housing policy so that children in families exposed to the danger of infection are given priority for other accommodation **before** they are infected and not afterwards.

(5) The insistence that all milk, unless certified from tuberculin tested herds, should be efficiently pasteurised before distribution.

(6) The wide dissemination in all branches of medical workers and in parents and the general public of the dangers which result from tuberculous infection in young children.