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COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1954

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
MEDICAL OFFICER OF HEALTH

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Maternity and Child Welfare, After-Care and Mental Health

Baths, Wash-houses, Lavatories and Ambulance

Smoke Abatement

Insanitary Areas and Premises

Co-ordination of Health Service

Problem Families (Joint Sub-Committee)

Appointment of Staff (Minor Appointments)

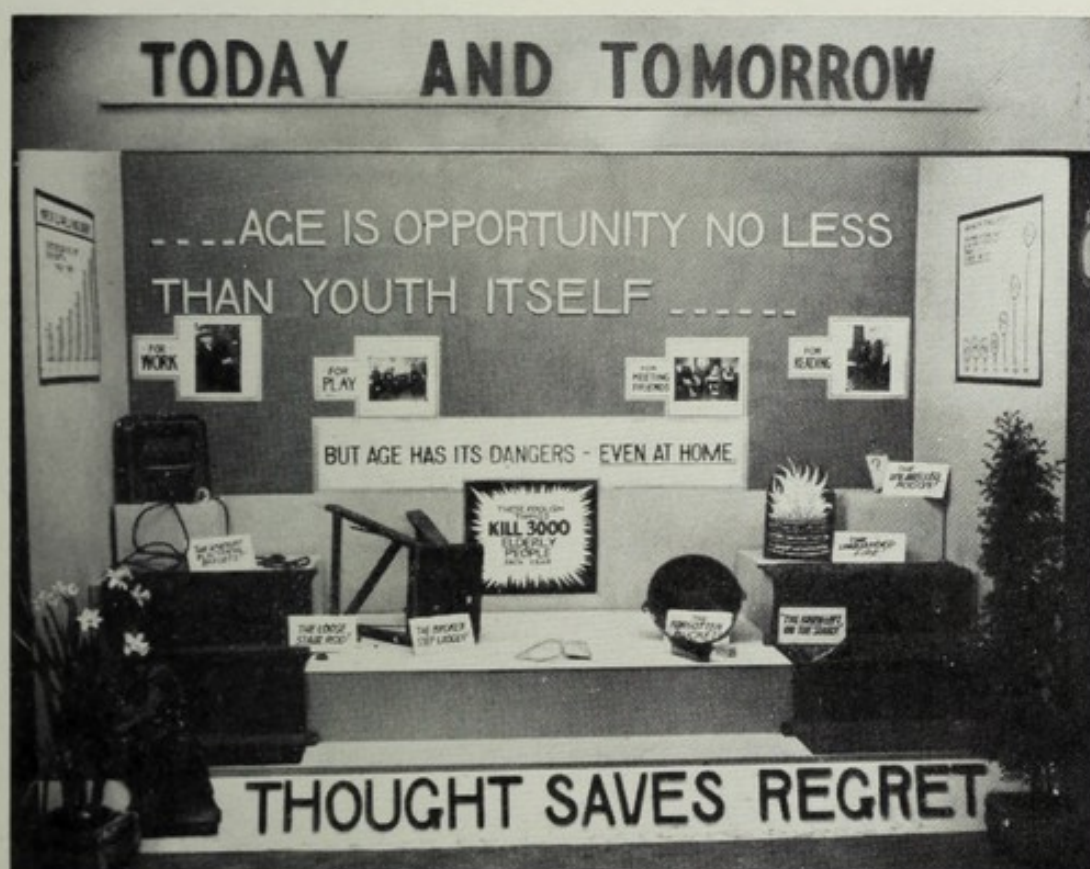
Appointment of Assistant Medical Officers of Health and
School Medical Officers (Joint Sub-Committee)

Provision of Dustbins

BOLTON HEALTH SERVICES EXHIBITION

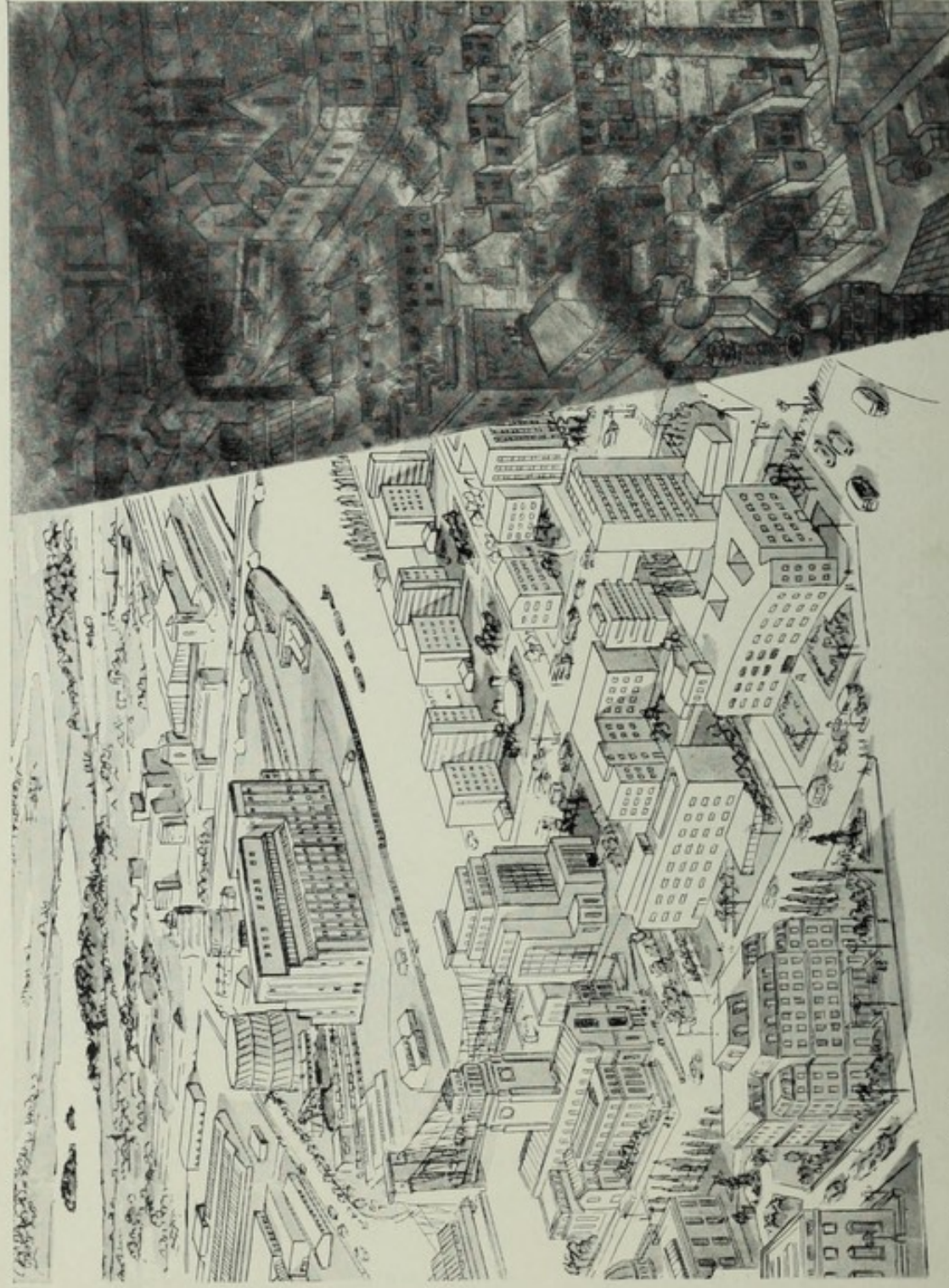
January 18th to 23rd, 1954

in the Bolton Art Galleries



ONE OF THE 28 DISPLAY STANDS ILLUSTRATING THE WORK
OF ALL THREE BRANCHES OF THE HEALTH SERVICE

SMOKE & DISEASE GO HAND IN HAND



**THE
FUTURE ?**

**THE OLD
ORDER**

Illustration reproduced by courtesy of Woodall-Duckham Construction Company, Ltd.

WHITHER BOLTON ?

INTRODUCTION

"We burn day-light: - here, read, read; . . ."

Merry Wives of Windsor

The need for an anti-smoke campaign in the densely populated areas of Lancashire is overwhelmingly clear. The death rates and sickness rates, particularly those from respiratory diseases, are greater in industrial Lancashire - including Bolton - than in any other part of the country except Tyneside. The death rates from bronchitis are forty times greater in industrial England than in the more fortunate Scandinavian countries. The disastrous London fog of December 1952 resulted in the deaths of 4,000 people. There is more than a suspicion that cancer of the lung is associated with the degree of atmospheric pollution. Apart from the effects on health, it is estimated that the damage caused to buildings and vegetation, and the waste of fuel in the form of smoke from inefficient combustion, costs the nation at least £250 million per year. Because of these facts and many more equally disturbing, the case for the abolition of smoke cannot be rejected.

How then, are we to achieve smokelessness in the face of the rigid opposition of the kind experienced recently? This is reminiscent of the fierce unbending criticism which faced those gallant pioneers Simon and Chadwick a hundred years ago when they fought on behalf of the people of this country - including their critics - for clean water and better sanitation. The rightness of their cause won them the day, thus saving the lives of hundreds of thousands of people by abolishing epidemics of typhoid fever, and cholera.

The problem of a filthy atmosphere is as great as any of those that faced Simon and Chadwick in their time. It must not be left in any doubt but that we shall tackle this problem as energetically as they did. The Council have faced the situation by introducing a smokeless zone which in many respects had difficulties far and above any similar project elsewhere, even though the least difficult area of the town was chosen. After careful consideration of all aspects of the problems raised by the operation of the smokeless zone, the Council maintained its decision and made financial assistance available to owners, or tenants, of domestic premises where structural alterations had been made to comply with the Smokeless Zone Order. This action has been confirmed by the unusual degree of success achieved from a practical point of view.

It is perhaps heartening to note that all but a few of the critics have avowed that they are not against smokeless zones "in principle", but somehow they find difficulty in accepting that they, or the town of Bolton, should subscribe to a measure which must inevitably, in due course, improve the health and prosperity of the town. Some have stated they do not want a smokeless zone until the whole of Bolton can be brought into it. This, of course, is begging the question; smokelessness will not be produced overnight; it is a long arduous task, and even if we cannot do everything at once that is no excuse for doing nothing. Others have criticised because of an alleged short supply of smokeless fuel, in spite of the fact that the Council obtained an assurance from the Ministry of Fuel and Power, which has been honoured, that adequate

supplies of smokeless fuel would be available for the smokeless zone. It is admitted that smokeless fuel is in short supply in other parts of the town, but the smokeless zone has not been affected and has received priority in every respect. Yet others have criticised on the grounds of hardship. This latter has been tackled in a realistic way by means of financial grants in a manner comparable with the recommendations of the Beaver Committee which have been accepted in principle by the Government. Nothing can be clearer than that the cause of smokelessness has advanced rapidly in the last few months and must – and surely will – become a priority task for the nation. Bolton has already embarked on this difficult journey.

It is indeed ironical that the sunshine which poured down on this country so long ago and which was stored in the form of coal, is now being used to blot out, in the form of smoke, the life-giving sunshine of today. Most assuredly, "We burn day-light".

The shortage of Sanitary Inspectors is making it impossible to deal with environmental hygiene on the scale that it deserves, many defects remaining untouched. As the situation deteriorates it will be impossible to enter new fields of endeavour and it will be necessary to curtail routine activities. This serious situation, accentuated by the added responsibilities of much new legislation, cannot be met when there are 11 vacancies for District Sanitary Inspectors and 6 for Specialist Sanitary Inspectors. Urgent matters are given priority but the situation is such that many important things remain undone. Inspectors have been attracted to other areas by financial inducements, or offers of housing accommodation, or to more congenial climates. Unfortunately, it is in the big towns where the bulk of work for the Sanitary Inspector exists, and it is essential that able men should be attracted thereto. In spite of these difficulties, some progress has been made and action with regard to two Slum Clearance Areas in the Astley Bridge and Kay Street districts has now been completed. Work is proceeding, as quickly as circumstances permit, on a survey of the town to assist the Council in determining its policy as required by the Housing Repairs and Rents Act, 1954. Whether this important work can be completed within the twelve months allowed by the Act will depend on the staffing position. I can see no alternative to making a national appeal for more recruits, if the sanitation of large towns such as this is to be tackled in a realistic manner.

Tuberculosis is at last beginning to show signs of decreasing in importance as a community disease. Each year, for some considerable time, the situation has improved. In 1948 there were 157 new cases notified and 70 deaths, but in 1954 we had only 87 new cases notified with 26 deaths. It is difficult to give any specific reason for this encouraging development and indeed the causes may be many. Improved standards of living, improved housing and rapid advances in treatment all play their part, and equally important are the developments in the preventive field which, during the year, have been further advanced in order to try to eradicate this one-time scourge within a reasonable period. One great step forward, which has not received the publicity which it deserves, is the designation of Bolton and surrounding areas as a district in which only heat-treated or tuberculin tested milk may be sold. This measure came into force in October and will be another weapon in our battle against the crippling conditions of tuberculosis of the bones and joints and abdomen in children, which have been decreasing in number in any case, because of the increasing popularity of heat-treated milk. About the same time as this Order became effective, the Health Department started a new scheme for the vaccination of thirteen year old school children against tuberculosis with Bacillus

Calmette-Guérin vaccine. The response to invitations to be vaccinated has been satisfactory and we shall continue to develop the scheme. It is interesting to note that so far we have found, on testing, that 36% of all children in this group have had some contact with tuberculosis and have developed some degree of sensitization or immunity, thus not necessitating vaccination. This percentage is considerably higher than has been found in some other areas where it is as low as 18%.

In order to deal with the after-care needs of patients suffering from tuberculosis, an official committee consisting of representatives of the Corporation and the Hospital Management Committee staffs, has been set up to consider each tuberculous case individually and so recommend the best possible methods of social therapy, including rehousing where necessary. The Mass Radiography survey which was carried out during the week of the Health Exhibition was remarkably successful, about 4,200 people being X-rayed. Nine active cases of tuberculosis were discovered as well as a considerable bulk of other non-tuberculous defects of the chest. We look forward to a full survey of the town, using three Mass Radiography Units, which is scheduled to begin in August next and I would ask for every co-operation from the public in making this survey a success.

Progress has been made in the field of Mental Health. An Occupation Centre for mental defectives was opened in January at the former Cotton Street Day Nursery, after adaptations, and is proving highly successful in the training of these unfortunate people. An expansion of the accommodation will be needed within the next two or three years. A weekly evening meeting of a Psychiatric Club, arranged jointly between the Health Department and the Hospital Management Committee staffs, has proved successful in assisting the rehabilitation of patients who have been under the temporary care of the psychiatrist. The club meets at the Occupation Centre. More attention must be paid to preventive measures, so that patients may be dealt with in the early stages of abnormality and so prevent either admission to hospital or further deterioration. It is also important to have adequate means of rehabilitation of patients discharged back into the community from hospital. Here the Council have assisted considerably by revising and increasing the establishment of the Mental Health Section of the Department which, on being implemented, will make it possible to advance our care of the mentally defective and mentally sick in their own homes. Hospital admission for difficult psychiatric cases and for mental defectives continues to be extremely difficult to secure.

The functions of the Ministry of Food changed about the middle of the year causing repercussions on the work of the Health Department. It was necessary to take over from the Ministry the distribution of Welfare Foods, but this, fortunately, did not cause a great deal of disturbance and we were able to effect a smooth changeover by adapting a part of the waiting room of the Health Department as a central distribution point for the town. Distribution at the Child Welfare Clinics continued as before. A rather more difficult situation, however, developed on the decontrol of meat with regard to slaughterhouses. The public abattoir continued to be used but it was necessary also to re-license five private slaughterhouses. This was a retrograde step which caused much misgiving, but under the circumstances it was unavoidable if the new situation was to be met adequately. It is absolutely essential, at the earliest possible moment, for Bolton to have a new and up-to-date abattoir and so do away with the medieval conditions which have persisted for too long.

The responsibilities of the Ambulance Service have increased by the taking over of more work on behalf of the National Coal Board, and certain of the inter-hospital transfer duties previously carried out by the Hospital Manage-

ment Committee. Although the total mileage has increased by 3,000, the number of patients carried went up by nearly 7,000. The policy of using radio control and sitting-case ambulances, however, has proved its worth in that the number of miles per patient carried has decreased by 0.6 since 1952.

An effort has been made to improve the protection given to young children against smallpox, diphtheria and whooping cough by carrying out vaccination and immunisation at a much earlier age. Previously, the age of eight months had been recommended for immunisation. Now, increasingly, we are carrying out vaccination at the age of three months and immunisation at four months. It has the dual effect of giving immunity against diphtheria at an earlier age and at the same time encouraging mothers to protect their children against whooping cough at a time when the danger is greatest. This has been made possible by the use of injections which enable immunity against diphtheria and whooping cough to be given by the same procedure, thus causing less inconvenience to the parents and the child. The occurrence of one case of diphtheria during the year emphasises the extreme vigilance which must still be kept in order to maintain a high degree of immunity. I should like to thank the Executive Council for their help in permitting me to send a personal letter extolling the values of vaccination and immunisation, to the mothers of all infants, and which is enclosed with the first medical card sent out by the Council.

The Home Help and Home Nursing Services have been under considerable strain during the past year. Home Nurses paid 11,000 more visits than they did in 1953, and the Home Helps served 80 more cases than they did in the previous year. Most of this work was on behalf of old people, but unfortunately it had to be performed without any appreciable increase in staff of either service. The shortage of Home Nurses was due to difficulties of recruitment and of Home Helps because of financial restriction. With both services the increased amount of work was done by spending less time on each case. It is expected that this situation will be eased in the coming year by an increased allocation of money to the Home Help Service, and by more recruitment of Home Nurses which should be stimulated by the recognition during the past year of Bolton as a Training Centre for District Nursing by the Queen's Institute of District Nursing. The training courses will be organised from the Health Department and will be somewhat novel in that they will be non-residential, which is contrary to the accepted procedure in the past. This measure became necessary because of the closure of the District Nurses' Home in Chorley New Road in August. However, adequate accommodation has been made in the Civic Centre for the headquarters of the service and for training. The whole scheme will undoubtedly be an improvement on past experience.

A scheme for the extension of the Home Help Service, by the employment of Night Attendants, has also been approved and this should be a great boon to seriously ill old people living alone. The attendants, who will not be nurses, will carry out those duties which a relative would normally carry out in an ordinary home. The service will be supplied only on a doctor's recommendation and in needy cases. Recruitment for such a service is extremely difficult but a small start has been made.

A further advance in the care of old and seriously ill people has been made by a proposed extension of the use of nursing equipment. Many old people who may be incontinent have difficulty in providing the necessary clean bed linen for their comfort, and frequent soiling of the bed leads to much waste of time on the part of Home Nurses and Home Helps. It has therefore been decided to provide draw sheets and other bed linen for incontinent patients

and to institute a system of frequent laundering of these soiled articles. I should like to acknowledge, with pleasure, the help given by the Hospital Management Committee in agreeing to arrange for the laundering for a trial period of three months. The scheme will start in the new financial year.

Domiciliary Midwifery went through an anxious period about the middle of the year when, owing to retirements and resignations, the number of midwives was reduced to four. Midwives were leaving to obtain the benefits of extra amenities which were available with other authorities. When alterations were made in the conditions of service whereby midwives were allocated council houses on service tenancies, and schemes for the assisted purchase of cars and car allowances were introduced, the situation immediately improved and an adequate number of staff was obtained. More important still, the efficiency of the service was brought to a high standard. The number of domiciliary births has decreased by over 100 compared with 1953. This tendency is somewhat disturbing in view of the higher cost to the community of the very high proportion – about 80% – of confinements carried out in institutions.

A great deal has been written and said, since 1948, about the effects of the division of the Health Service into three parts and the necessity for combating the stultifying effects of this trichotomy by increased co-operation between the three branches of the Service. In the end, this co-operation depends entirely on the staffs of the various organisations concerned and their willingness to co-operate. Fortunately, an exceptional amount of goodwill is always apparent in Bolton. An example of this is the attempt being made to deal with the problems of old people which is one of our greatest concerns. A Health Visitor now accompanies the Geriatric Physician each week on his domiciliary visits and is able to help him in obtaining the various voluntary and statutory services available, as well as deciding on social priorities for admission to hospital.

The very great improvement in the relationship between general practitioners and health visitors, which started as a result of a meeting in December 1953, has continued to prosper, so much so, that further meetings have taken place and the health visitor at last is taking her place as a member of the team in the general practitioner service. I would like to thank the general practitioners of Bolton for their patience and extremely helpful co-operation.

The attendance of health visitors at the paediatric out-patients' and ward rounds of the Bolton District General Hospital, has, with the encouragement of the paediatrician, been extended to the special premature baby clinic. The improved co-ordination has widened the value of the health visitor to the community. This, together with the help which the health visitor is now able to give at the hospital ante-natal clinic by way of mothercraft teaching, has linked yet closer the aims of the two services. Consultants of the Hospital Management Committee have been very helpful in at last getting started the scheme for the routine chest X-ray of expectant mothers attending the Authority's ante-natal clinics.

The sense of co-operation between the services has been fostered by the Weekly Information Letter which is sent from the Health Department to all doctors. This was started as an experiment a year ago but has proved to be useful and is being continued.

The number of cases of infectious disease has gradually declined and nothing of outstanding importance has been recorded. There has been a slight increase in the amount of dysentery, but a welcome decrease in the number of cases of whooping cough. Whether this latter is due to immunisation or not, it is too early to say.

In January a very successful Health Exhibition was held representing all three branches of the Health Service. The public interest was very gratifying and although only held for a week, seems to have had the effect of interesting thousands of residents of the town in the services available to them.

After great difficulties in obtaining suitable accommodation, the Bolton Family Planning Association were finally given permission to use Health Department premises for one evening a week. The improvement in amenities has been very striking.

The Bolton Mother and Child Welfare Association which commenced its activities in 1908 and ran the Maternity and Child Welfare Clinics in the town until 1950, has finally wound up its affairs and ceased to exist. It is fitting that we should pay tribute to the activities of the enthusiastic women who took up the cause of infant welfare so successfully. I should not like this year to pass without mention of their sound achievements. It is particularly gratifying to them to know that the infant mortality rate has fallen consistently throughout this period. After the dramatic fall in mortality over the last two or three years we might have expected an even greater decline in 1954. Unfortunately this has not occurred but it has at least remained substantially the same as in 1953.

Members of any Health Department team have a unique opportunity of observing the pattern of life around them because of their close association with human problems. From time to time it is helpful to make use of these opportunities in an attempt to obtain information to guide our thoughts and actions. Prompted by our primary interest in the young child we have, this year, made an investigation into the habits of a representative sample of the families of Bolton with regard to the use of the Health Service by children under the age of one year, and the amounts of vitamins and unprescribed medicaments given to these infants. The results are interesting and lead us to conclude that health education on these matters needs to be pressed. Full details are given in the body of the report.

I have mentioned in this introduction only some of the problems which have occurred and the new fields of activity embarked upon. Other matters and routine work are described fully in this report. None of these activities would have been possible without the wholehearted co-operation of all members of the Health Department and the Health Committee who have been very sympathetic to the expansion of our services during the past year.

Ronald W. Wilest

Medical Officer of Health.

Health Department,
Civic Centre,
Bolton, Lancs.

April, 1955.

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at 31st December, 1954

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Deputy Superintendent	Miss J. MacEachern, S.R.N., S.R.F.N., H.V. Cert.

HOME NURSING

Superintendent	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V. Cert.
Assistant Superintendent	Mrs. E. J. Lee, S.R.N.

MIDWIFERY

Non-Medical Supervisor	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V. Cert.
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DAY NURSERIES

Supervisor	Miss L. W. Booth, R.S.C.N., S.C.M., H.V. Cert.
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SANITARY INSPECTION

Chief Sanitary Inspector	T. Williams, M.R.S.I., M.S.I.A.
Deputy Chief Sanitary Inspector ..	N. Ryce, M.R.S.I., M.S.I.A.

CLERICAL STAFF

Chief Clerk	T. Ryder, D.P.A., A.C.C.S.
Administrative Assistant	W. Greenhalgh

MENTAL HEALTH SERVICE

Duly Authorised Officers	J. F. Bennett E. L. Mayoh
Supervisor - Occupation Centre ..	Miss M. E. Tyler, Dip. N.A.M.H.

HOME HELP SERVICE

Home Help Organiser	Mrs. A. G. Barber
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AMBULANCE SERVICE

Superintendent	V. T. Williams
Deputy Superintendent	H. Baber

ANALYST

Borough Analyst	F. Morris, A.M.C.T., F.R.I.C.
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BATHS AND WASHHOUSES

Managers	Bridgeman Street Baths A. Markham High Street Baths W. Cameron Moss Street Baths & Washhouse J. L. Gibson Rothwell Street Washhouse .. A. L. Duckworth Turkish Baths W. Burns
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PART I

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Infant and Neo-Natal Mortality

Deaths from Cancer

SUMMARY OF STATISTICS, 1954

COUNTY BOROUGH OF BOLTON

Position	Lat. 53° 35' N. Long. 2° 27' W.
Elevation above sea level	... ..	230 ft. to 1,450 ft.
Geological Formation	... ..	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1954, 44.587")	... ..	57.144"
Area in Acres (Land and Inland Water)	... ..	15,279
Population (Census 1921)	... ..	178,683
„ (Census 1931)	... ..	177,250
„ (Census 1951)	... ..	167,162
„ (Estimated Civilian Population, 1954)	... ..	165,500
New Houses Certified including Flats, 1954	... ..	710
Existing buildings altered to provide dwelling accommodation, 1954	... ..	Nil
Estimated No. of Houses in the Borough at 31st December, 1954	... ..	56,390
Rateable Value at 1st April, 1954	... ..	£1,181,936
Rate at 1d. in the £ estimated to produce	... ..	£4,755
Births	... ..	2,379
*Birth Rate (Corrected)	... ..	14.51
Stillbirths	... ..	61
Stillbirth Rate (per 1,000 total Births)	... ..	25.00
Deaths	... ..	2,240
*Death Rate (Corrected)	... ..	13.66
*Average Death Rate (1945-1954)	... ..	13.82
*Heart and Circulation Death Rate	... ..	7.09
*Cancer Death Rate	... ..	2.22
*Death Rate from diseases of the Respiratory System	... ..	1.51
*Pulmonary Tuberculosis Death Rate	... ..	0.19
Infant Mortality (Deaths under one year per 1,000 live births)	... ..	28.5
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	... ..	0.42
Puerperal Death Rate (per 1,000 total Births)	... ..	0.82

ENGLAND AND WALES -

*Birth Rate	... ..	15.2
*Death Rate	... ..	11.3
Infant Mortality (Deaths under one year per 1,000 live Births)	... ..	25.5
Diarrhoea and Enteritis (under two years), (Death rate per 1,000 life Births)	... ..	0.8

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,379 live births to Bolton residents, 1,225 males and 1,154 females. The birth rate per 1,000 of the population was 14.51.

Of all the live births 459 occurred at home, 1,050 in Bolton District General Hospital, 271 in Haslam Maternity Home, 231 in Havercroft Maternity Home and 328 in Heaton Grange Maternity Home. The remaining births took place in institutions and homes outside Bolton.

Stillbirths:

The number of stillbirths was 61, giving a stillbirth rate of 24 per thousand total births.

Deaths:

There were 2,240 deaths (1,086 males, 1,154 females), giving a corrected death rate of 13.66 per thousand of the population.

A total of 758 persons, whose usual place of residence was in the county borough, died outside the borough; of these 676 died either in the Bolton District General Hospital or in Townleys Annexe.

Non-residents who died in the area numbered 162.

The following table shows the principal causes of death and the age groups affected.

Summary of the Principal Causes of Death, 1954

Cause of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	45-	65-	75-
Tuberculosis, Respiratory ..	31	21	10	—	—	—	1	10	17	1	2
" Other	6	4	2	—	—	—	—	2	4	—	—
Syphilis	12	7	5	—	—	—	—	1	9	2	—
Measles	—	—	—	—	—	—	—	—	—	—	—
Other infective and parasitic diseases	4	2	2	—	—	1	—	1	1	1	—
Malignant Neoplasm—											
Stomach	67	32	35	—	—	—	—	1	21	24	21
Lung & Bronchus ..	65	57	8	—	—	—	1	5	42	13	4
Breast	32	1	31	—	—	—	—	1	13	7	11
Uterus	16	—	16	—	—	—	—	—	11	4	1
Other malignant and lymphatic neoplasms ..	187	97	90	—	—	—	1	11	65	55	55
Leukaemia & Aleukaemia ..	8	3	5	—	1	1	—	2	2	1	1
Diabetes	18	2	16	—	—	—	—	—	2	11	5
Vascular lesions of nervous system	337	131	206	—	—	1	1	5	74	113	143
Coronary disease, angina ..	305	200	105	—	—	—	—	4	90	125	86
Hypertension with heart disease	63	24	39	—	—	—	—	2	10	24	27
Other heart disease	363	130	233	—	—	—	2	12	38	90	221
Other circulatory disease ..	105	50	55	—	—	—	—	2	16	27	60
Influenza	12	2	10	—	—	—	—	—	5	1	6
Pneumonia	40	14	26	6	1	—	—	1	3	12	17
Bronchitis	179	118	61	1	—	—	—	3	48	62	65
Other diseases of respiratory system	19	13	6	1	—	—	2	2	5	6	3

Cause of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	45-	65-	75-
Ulcer of stomach and duo- denum	15	11	4	—	—	—	—	2	6	5	2
Gastritis, enteritis and diar- rhoea	4	1	3	1	—	—	—	—	1	—	2
Nephritis & Nephrosis ..	28	10	18	—	—	—	2	7	7	9	3
Hyperplasia of Prostate ..	9	9	—	—	—	—	—	—	1	1	7
Pregnancy, childbirth and abortion	2	—	2	—	—	—	—	2	—	—	—
Congenital malformations ..	29	15	14	20	—	—	—	2	4	3	—
Other defined and ill-defined diseases	184	82	102	38	2	2	1	9	38	37	57
Motor vehicle accidents ..	15	10	5	—	—	—	3	6	4	—	2
All other accidents	60	26	34	1	—	3	2	4	11	17	22
Suicide	25	14	11	—	—	—	—	10	9	4	2
TOTALS	2,240	1,086	1,154	68	4	8	16	107	557	655	825

Deaths from Puerperal Causes:

Two deaths connected with childbirth were assigned to the borough by the Registrar General. One took place in the Bolton District General Hospital and the other was subsequently certified as having occurred in a hospital in a nearby town. The maternal mortality rate was 0.82 per thousand of all births.

Infant Mortality:

The following table shows the number of infant deaths from various groups of disease:—

Cause of death	Age at death					
	Under 4 weeks	4 weeks to 3 mths.	3 to 6 months	6 to 9 months	9 to 12 months	Total for each cause
Pneumonia	2	2	2	—	—	6
Other respiratory diseases	1	1	—	—	—	2
Gastritis and diarrhoea ..	—	1	—	—	—	1
Prematurity	24	—	—	—	—	24
Congenital malformations	11	6	2	1	—	20
Accidents	—	1	—	—	—	1
Birth injury	7	—	—	—	—	7
All other causes	2	4	—	—	1	7
TOTALS	47	15	4	1	1	68

Infant Mortality Rates for Selected Causes, 1945-1954 per thousand live births:

Cause Groups	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Respiratory ..	9.7	7.5	5.9	7.6	7.7	5.1	12.5	6.4	7.4	3.4
Gastritis and diarrhoea ..	3.7	2.6	2.9	3.1	0.7	2.4	1.6	1.3	—	0.4
Prematurity ..	15.4	12.4	13.3	14.1	11.5	12.6	15.4	7.6	8.6	10.0
Congenital malformations	4.9	8.2	7.7	4.5	6.6	9.1	4.0	5.9	5.3	8.4
All other causes	13.4	7.6	7.1	8.9	4.0	6.3	7.3	7.2	6.6	6.3
TOTAL RATE— BOLTON ..	47.1	38.3	36.9	38.2	30.5	35.5	40.8	28.4	27.9	28.5
TOTAL RATE— ENGLAND AND WALES	46	43	41	34	32	29.8	29.6	27.6	26.8	25.5

The infant mortality rate amongst the legitimate children was 29.29 and amongst the illegitimate children, 15.99 per 1,000 live births in each category.

Deaths under Four Weeks:

There were 47 deaths of infants under four weeks, giving a neo-natal mortality rate of 19.76 per thousand live births.

The causes of death during the first four weeks of life were as follows:—

Cause of death	0-7 days	8-14 days	15-21 days	22-28 days	Total under 29 days
Pneumonia	—	—	2	—	2
Other respiratory diseases	—	—	—	—	—
Atelectasis	1	—	—	—	1
Prematurity	22	2	—	—	24
Congenital malformations	7	2	2	—	11
Accidents	—	—	—	—	—
Birth injury	7	—	—	—	7
Other causes	2	—	—	—	2
TOTALS	39	4	4	—	47

Deaths from Cancer

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

SITE	1954		1953		1952		1951		1950		1949		1948		1947		1946		1945	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Stomach	67	2.99	70	3.316	77	3.394	78	2.938	74	3.135	53	2.343	69	3.123	60	2.618	62	2.769	57	2.634
Lung & Bronchus	65	2.90	66	3.126	69	3.041	48	1.808	39	1.652	41	1.812	35	1.584	35	1.527	30	1.339	24	1.109
Breast	32	1.43	35	1.658	40	1.763	29	1.092	19	0.805	31	1.370	37	1.674	37	1.614	38	1.697	33	1.524
Uterus	16	0.71	17	0.805	20	0.881	20	0.755	17	0.720	26	1.149	22	0.995	15	0.654	22	0.983	15	0.693
Other Sites	187	8.35	175	8.290	176	7.757	185	6.968	203	8.601	175	7.736	195	8.827	188	8.202	161	7.191	157	7.255
Total Deaths from Cancer	367	16.38	363	17.195	382	16.836	360	13.559	352	14.915	326	14.412	358	16.206	335	14.616	313	13.979	286	13.216
TOTAL DEATHS (All Causes) . .	2,240		2,111		2,269		2,655		2,360		2,262		2,209		2,292		2,239		2,164	

PART II

LOCAL HEALTH SERVICES

Care of Mothers and Young Children

Midwifery

Health Visiting

Home Nursing

Vaccination and Immunisation

Ambulance

Loan of Nursing Equipment — Convalescence

Home Help

Mental Health

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Clinics:

Two clinics were held by a medical officer each week at the Civic Centre for cases booked for domiciliary confinement. There were 96 sessions in all with an average attendance of 26 patients per session. Health Visitors and Midwives were in attendance.

ATTENDANCES:

New bookings...	...	...	...	555
Return visits	...	...	...	1,808
Post-natal visits	...	...	...	93
TOTAL ATTENDANCES				<u>2,456</u>

Patients referred to the Bolton District General Hospital for consultant opinion numbered 71, of whom 49 were admitted to hospital for confinement. The reasons for referring these cases to the Obstetrician were as follows:—

	No. OF CASES
DIRECTLY CONNECTED WITH PREGNANCY:	
Malpresentation	10
Ante-partum haemorrhage	5
Post maturity	7
Pre-eclamptic toxæmia	11
Cephalo pelvic disproportion	10
Multiple pregnancy	8
Rhesus negative with anti-bodies	2
ASSOCIATED CONDITIONS:	
Anaemia	2
Pyelitis	1
Bronchiectasis	1
Heart Murmur	1
Tuberculosis	1
Post-operative amputation of cervix	1
Sub-acute appendix	1
Loss of power (hands and feet)	1
Compassionate grounds	5
Low blood pressure...	4
TOTAL	<u>71</u>

RELAXATION CLASSES:

The Physiotherapist held classes on five mornings per week as follows:—

Monday and Wednesday:—

Ante-Natal patients who attended Local Authority clinic at the Civic Centre.

Tuesday, Thursday and Friday:—

- (a) Patients referred by family doctor.
- (b) Patients referred by Maternity Department of the Bolton District General Hospital.
- (c) Patients who attended the Ante-Natal clinics of the three Maternity Homes which were held in the Civic Centre on these mornings.

ROUTINE CHEST X-RAY:

It was possible by courtesy of the Consultant Radiologist and Chest Physician, to arrange, as from December, for all expectant mothers attending the Local Health Authority's Ante-Natal clinics to have a routine chest X-ray in the Chest Centre.

ROUTINE BLOOD SPECIMENS:

Blood samples were taken from each expectant mother on her first attendance at the ante-natal clinic for laboratory examination for haemoglobin, Rhesus factor and Wasserman reaction. A total of 802 specimens were taken and these included 102 re-examinations of the blood of those mothers who were found to be Rhesus negative on initial examination and required testing for anti-body formation at a later date.

Of the 555 haemoglobins estimated at the first visit and 21 re-estimated later, the following results were obtained:—

HAEMOGLOBIN	PERCENTAGE OF PATIENTS
40 — 50%	0.9
51 — 60%	2.4
61 — 70%	12.3
71 — 80%	33.5
81 — 90%	32.6
91 — 100%	16.0
Over 100%	2.3

From these routine blood examinations, 8 cases were discovered with a positive Wasserman reaction and were referred to the Special Clinic for treatment.

Mothers with a low haemoglobin evaluation were re-estimated eight weeks before the expected date of delivery. Iron therapy in the form of ferrous sulphate was given to all expectant mothers. Orange juice and vitamin tablets were available at the ante-natal clinic until July. After that date, supplies were obtained from the Welfare Food counter in the Health Department waiting room.

Ante-natal Records with the relevant notes of previous pregnancies were made available from the Bolton District General Hospital and the Maternity Homes for the information and guidance of the domiciliary midwives.

Child Welfare Centres:

There has been no change in the number and location of Child Welfare Centres. They were held at the following places:—

CENTRE	DAY
Civic Centre	Monday afternoon
Chalfont Street	do.
Deane	do.
Tonge Fold	do.
Chorley Old Road	Tuesday afternoon
Halliwell	do.
Civic Centre	Wednesday afternoon
Rosehill	do.
Astley Bridge	Thursday morning
Civic Centre	Thursday afternoon
Daubhill	do.
Delph Hill	Friday afternoon
Tonge Moor	do.
The Withins	do.
Lever Edge Lane	Saturday morning (fortnightly)

The number of children attending the centres was 4,388 and the total number of attendances at the fifteen child welfare centres was 38,687.

Attendances at Child Welfare Centres

Age of Child	First Attendances	Subsequent Attendances	Sessions	Seen by Doctor at Child Welfare Centre		
				Mother's Request	H.V's Request	Routine
0—1 yrs.	1,906	28,366		5,165	1,368	5,076
1—2 „	65	5,116		780	209	602
2—5 „	52	3,182		582	111	308
TOTALS	2,023	36,664	709	6,527	1,688	5,986

TOTAL: ... 38,687

TOTAL: ... 14,201

The number of children referred to hospital consultants by the medical officers with the consent of the family doctor was 60 as follows:—

Chest Physician	...	...	...	...	1
E.N.T. Surgeon	...	...	...	...	5
Ophthalmic Surgeon	...	...	...	...	18
Orthopaedic Surgeon	...	...	...	...	10
Paediatrician	...	...	...	...	11
Dermatologist	...	...	...	...	7
General Surgeon	...	...	...	...	9
TOTAL	...	...	...	...	61

One child was referred to two consultants.

Vaccination of children at the centres was continued throughout the year and 734 vaccinations were carried out of which 722 gave a satisfactory result. Six hundred and eighty-two of the children were under one year of age.

Advice was given by health visitors to individual mothers and to groups of mothers on the care and management of infants and toddlers. The subjects discussed included feeding, weaning, teething, sleep, clothing, walking and habit training. Talks were also given on the value of vaccination and immunisation.

A team of voluntary helpers numbering 64 in all continued to give assistance in a non-professional capacity at all Child Welfare Centres.

Welfare Foods:

On the 28th June, 1954, the duty of distributing welfare foods was transferred to local health authorities under Section 22 of the National Health Service Act, 1946.

The transfer from the Bolton office of the Ministry of Food to this Authority was effected without difficulty. The transfer concerned not only functions but also remaining stocks and transferable stationery. The final transfer took place on the 14th July, 1954.

DISTRIBUTION OF WELFARE FOODS:

Welfare foods were distributed to beneficiaries through the Civic Centre Distributing Centre which was open daily, and through fourteen Child Welfare Centres (including two run under the auspices of the Catholic Women's League).

The following figures show the amounts of welfare foods issued to beneficiaries over the period 28th June, 1954, to the 21st January, 1955:—

National Dried Milk	... 49,885 tins	—Weekly average	1,662 tins
Cod Liver Oil...	... 14,408 bottles	— „ „	480 bottles
Vitamin A & D Tablets	... 4,410 packets	— „ „	147 packets
Orange Juice	... 56,515 bottles	— „ „	1,884 bottles

Approximately 75% to 80% of the above issues were made from the Civic Centre Distributing Centre.

TO INSTITUTIONS, ETC.:

The following figures show the quantity of welfare foods issued from the central store to institutions, etc., during the period 28th June, 1954 to the 21st January, 1955:—

EDUCATION DEPARTMENT	Cod Liver Oil	... 703 bottles
(For Schocls)	Orange Juice	... 2,634 bottles

(The Education Department is now supplied direct from the Ministry of Food depots).

NATIONAL HEALTH SERVICE	National Dried Milk ...	204 tins
INSTITUTIONS	Orange Juice	288 bottles
DAY NURSERIES	National Dried Milk ...	102 tins
	Cod Liver Oil	646 bottles
	Orange Juice	2,004 bottles

A stock of welfare foods for transfer to the distributing centres was maintained in the central store in the Civic Centre.

Throughout the period, Child Welfare Centres have maintained stocks just adequate to cover their immediate needs. The stocks have been replenished weekly on the day of the clinic from the central store. The small cupboard capacity at most distributing centres makes weekly replenishment necessary, but this method also helps to ensure that stocks are not held beyond their date of expiry.

METHOD OF PAYMENT:

Payment for National Dried Milk (10½d.) and Orange Juice (5d.) is made by affixing postage stamps of the correct value to the appropriate welfare food tokens. This method has proved to be satisfactory, particularly as it dispenses with the need to handle cash, and as the tokens and the cash value are combined, the transactions are easily checked and recorded.

Care of Unmarried Mothers:

In conjunction with the Bolton Moral Welfare Association, arrangements have been made for the adequate care and welfare of 19 unmarried mothers. Several attended the ante-natal clinic at the Civic Centre and later were maintained in suitable homes for varying periods. All were able to contribute to the cost of their maintenance.

Homes for Mothers and Children:

Five families—5 mothers and 12 children—were admitted for varying periods to Brentwood Recuperative Centre, Cheshire, at part or full cost to the Authority depending on means. These families took advantage of the facilities and instruction offered and it was encouraging to note that there was a marked improvement in all cases after their stay at Brentwood.

Premature Babies:

A total of 168 live premature babies were notified.

Of these, 93 were born in hospital,

35 were born at home and 8 of them transferred to hospital,

40 were born in Nursing Homes and 2 of them transferred to hospital.

There were 28 premature still births,

and 27 premature babies died during the first month of life.

Analysis of Premature Births

	Birth Weight				Total Births	Total Deaths in First 24 hrs.	Total Survivals to 28 dys.
	3 lbs. 4 ozs. or less	Over 3 lbs. 4 ozs. to 4 lbs. 6 ozs.	Over 4 lbs. 6 ozs. to 4 lbs. 15 ozs.	Over 4 lbs. 15 ozs. to 5 lbs. 8 ozs.			
BORN IN HOSPITAL							
Total	14	25	14	40	93	—	—
Died within 24 hrs.	7	3	—	1	—	11	—
Survived 28 days..	2	19	14	39	—	—	74
BORN IN MATERNITY HOME							
Total	—	—	7	31	38	—	—
Died within 24 hrs.	—	—	1	—	—	1	—
Survived 28 days..	—	—	6	30	—	—	36
BORN IN MATERNITY HOME - TRANSFERRED TO HOSPITAL							
Total	—	1	—	1	2	—	—
Died within 24 hrs.	—	—	—	—	—	—	—
Survived 28 days..	—	—	—	—	—	—	—
BORN AT HOME AND NURSED AT HOME							
Total	—	—	2	25	27	—	—
Died within 24 hrs.	—	—	—	—	—	—	—
Survived 28 days..	—	—	2	24	—	—	26
BORN AT HOME AND TRANSFERRED TO HOSPITAL							
Total	1	3	1	3	8	—	—
Died within 24 hrs.	1	1	—	—	—	2	—
Survived 28 days..	—	1	1	3	—	—	5
					168	14	141
PREMATURE STILL BIRTHS							
Born in Hospital..	12	4	3	3	22		
Born in Maternity Home	2	1	2	—	5		
Born at Home ..	—	1	—	—	1		

PREMATURE BABY CARE:

Premature babies born at home may be transferred when necessary to the Premature Baby Unit at Bolton District General Hospital. Equipment can also be supplied to midwives from the Borough Ambulance Station when it is thought desirable to nurse a premature baby at home.

Infant and Neo-Natal Mortality:

There were 47 deaths in the first month of life, which was equivalent to a rate of 19.76 per 1,000 live births, compared with 18.9 in 1953.

Deaths in the first year of life numbered 68—equivalent to a rate of 28.5 per 1,000 live births, compared with 28 in 1953. The rate for England and Wales was 25.5 per 1,000 live births.

Stillbirths:

The stillbirth rate was 25 per 1,000 total births. The rate for England and Wales was 24 per 1,000 total births.

Illegitimacy:

There were 126 illegitimate live births of which 2 died. There were 8 stillbirths. The proportion was 5.29% of all live births in the Borough compared with 4.6% for England and Wales.

Day Nurseries:

There were 286 places available at the six nurseries administered by the Health Department. The accommodation and attendances were as follows:—

Nursery	Accommodation	Average Daily Attendance
Arkwright Street	44	41.00
Newport Street	60	49.32
Park House	35	23.53
Shaw Street	50	39.75
Merehall	47	37.67
Roxalina Street	50	38.59
TOTAL	286	229.86

The total number of children who attended during the year was 657.

The waiting list at the beginning of the year was 57 and at the end of the year it was 27.

Park House Nursery also reserved accommodation for 15 resident children at the request of the Children's Committee to assist in the carrying out of duties under Section 13(vi) of the Children Act, 1948 during the year 50 children were accommodated under this arrangement.

Analysis of Reasons for Attendance

DAY NURSERIES: No. of children on Register at 31/12/54	Ark- wright Street	Mere- hall	New- port Street	Park House	Roxa- lina Street	Shaw Street	Total
	47	50	71	33	53	53	307
Children whose mothers were—							
Employed in/as:—							
Mills	36	31	34	15	30	32	178
Clothing Factories	2	7	6	—	4	3	22
Nurses, etc.	—	3	3	4	—	2	12
Offices	1	—	6	4	1	2	14
Engineering Works	—	2	4	1	2	5	14
Shop Assistants	1	3	7	4	4	4	23
Paper Works	—	—	1	—	3	—	4
Canteens	—	—	—	—	1	1	2
Other Occupations	5	3	5	3	5	2	23
In poor health	1	—	1	—	—	—	2
In hospital	—	1	2	2	1	1	7
Deceased	—	—	—	—	1	1	2
Other children admitted on social grounds	1	—	2	—	1	—	4
TOTALS	47	50	71	33	53	53	307

In the above were included the following:—

Mothers separated or divorced	4	3	7	5	5	5	29
Widows	—	1	3	—	—	2	6
Unmarried Mothers	8	6	8	3	1	4	30
Number of children attending during year	103	106	154	68	121	105	657
Referred from Children's Department				50 resident			50

Total children attending including resident children 707

CHARGE FOR DAY NURSERY ACCOMMODATION:

The minimum charge was 2/6d per day and the maximum charge was 11/3d per day, varying according to the result of assessment on the approved scale. Cases of hardship, on application, were referred to a Special Sub-Committee for further consideration and alteration of charge if necessary.

A summary of daily charges is shown below for those children in attendance at the year end.

CHARGES PAYABLE AT 31.12.54	NO. OF CASES
2/6d – 3/1d per day	134
4/1d – 6/3d „ „	119
7/9d „ „	12
9/6d „ „	9
11/3d „ „	15
TOTAL ...	289

There were 36 appeals against assessments affecting 49 children. Of these, 18 appeals were accepted affecting 30 children, and 18 appeals were refused affecting 19 children.

INFECTION:

There were mild outbreaks of chickenpox, measles, German measles, mumps and sonne dysentery distributed in the following way:—

Number of Cases

NURSERY	Measles	German Measles	Chicken-pox	Mumps	Sonne Dysentery
Arkwright Street	—	—	5	2	—
Newport Street	2	—	21	8	—
Park House	—	2	15	1	—
Shaw Street	1	—	2	1	11
Merehall	—	—	6	—	22
Roxalina Street	—	—	6	—	—

Routine medical inspections of the children were carried out by the medical staff and every child was offered immunisation against whooping cough and diphtheria. There were only six refusals. No cases of whooping cough were reported in the nurseries throughout the year which suggests that immunisation was an effective procedure in this rather vulnerable type of community.

STAFF:

At the 31st December, the staff consisted of:—

Day Nursery Supervisor	1
Matrons... ..	6
Deputy Matrons	5
Wardens	5
Nursery Nurses	23
Nursery Assistants	11
Nursery Students... ..	18
TOTAL STAFF	69

TRAINING OF NURSERY NURSES:

Since April, 1954, students employed in residential nurseries administered by the Church of England Society have received theoretical instruction with students from local day nurseries, nursery schools and classes, at the Nursery Training Centre, 40 Chorley New Road.

Students spend one term each year at the centre after which they return to their nurseries for practical experience with children.

The course of training for the National Nursery Examination Board Certificate covers a period of two years and the scheme of training is designed to develop resourcefulness and individual potentialities, and generally, to make the candidate better able to meet the demands of her work. The course has proved a valuable method of "bridging the gap" for girls of 16 years of age who later wish to embark on a nursing career and take up training in hospitals. Twenty-seven students obtained the Certificate of the National Nursery Examination Board and of these, 8 had been recruited by the Local Health Authority. After qualification, some of the nurses were employed in local day nurseries or in nursery schools or classes, whilst others commenced hospital training.

Nurseries and Child Minders Regulation Act, 1948:

Twelve supervisory visits were paid to the six industrial nurseries which provided accommodation for 240 children.

There were isolated cases of measles, German measles, mumps and chicken-pox, and 18 cases of sonne dysentery at one industrial nursery in January.

There were no registered Child Minders in the Borough.

Physiotherapy:

Massage and Remedial Exercises were given to suitable children with minor degrees of postural defect sent by medical officers from the Child Welfare Clinics. In addition, a few spastic cases were given massage and muscle re-education exercises. Once weekly classes were held to teach correct breathing and postural exercises to children referred from the Chest Clinic.

Ultra Violet Light sessions were held daily, Monday, Wednesday and Friday afternoons being devoted to the treatment of children referred from the Child Welfare Clinics, and Tuesday and Thursday mornings for the treatment of school children. Relaxation classes for expectant mothers were held on Monday and Wednesday mornings in conjunction with the domiciliary ante-natal clinics until the beginning of August when it was found necessary to hold them each morning from 9.0 a.m. to 10.30 a.m. to enable mothers who attended the Nursing Homes' clinics to take part. From September, patients sent by their own doctors were included in the classes.

SUMMARY OF WORK:

MASSAGE AND EXERCISES

No. of patients	...	...	312
Treatments given...	...	...	1,586
Sessions held	...	...	118
No. of new patients	...	...	90

ULTRA VIOLET LIGHT (SCHOOL CHILDREN)

No. of patients	...	...	753
Treatments given...	...	...	3,876
Sessions held	...	...	103
No. of new patients	...	...	300

ULTRA VIOLET LIGHT (INFANTS)

No. of patients	...	...	744
Treatments given...	...	...	4,734
Sessions held	...	...	146
No. of new patients	...	...	357

RELAXATION CLASSES

Domiciliary Cases	...	...	302
Nursing Home Cases	...	...	77
Family doctors' cases	...	...	5
Hospital Cases	...	...	2

Dental Treatment:

On Tuesday afternoon of each week, inspection and treatment of mothers and young children was carried out at Charles Street Clinic. The two part-time dental officers who were also general dental practitioners in the town, left the service because of their increased commitments. It was necessary, therefore, to make alternative arrangements in order to keep the service going. Consultation with the local dental profession revealed that there were no other private practitioners willing to take on this work, consequently, the matter was put before the Education Committee and they agreed that one session per week by two of the school dental officers should be made available for maternity and child welfare dental work. The officers now work in twin dental surgeries at Charles Street. The total number of sessions held during the year was 75.

The Authority did not employ its own dental technicians and arrangements were made with independent dental laboratories for any necessary work. Cases requiring radiography were referred to the X-ray Department of the Bolton Royal Infirmary.

In the early days of the scheme, a medical officer was available to administer general anaesthetics but it was later found more convenient for the dental officers to assist one another in this respect. The services of the Consultant Dental Surgeon to the Hospital Management Committee were available if necessary.

Analysis of Priority Dental Care

	Examined	Needing Treatment	Treated	Made Dentally Fit
Expectant and Nursing Mothers	144	140	127 ..	78
Children under five	236	184	169	164

	Extractions	Anaesthetics		Fillings	Scalings or Scaling and gum treatment	Silver Nitrate treatment	Dressings	Radio-graphs	Dentures provided	
		Local	General						Complete	Partial
Expectant & Nursing Mothers . .	430	114	79	64	5	—	136	5	16	7
Children under five	394	25	171	14	—	17	23	—	—	—

All patients attending Ante-Natal Clinics were given appointments at the Dental Clinic for routine inspection and treatment if necessary. Pre-school children were referred by the medical officers and health visitors in the course of their normal duties.

Local hospitals holding ante-natal clinics, and general medical practitioners, were informed of the facilities available at the dental clinics and this resulted in an increase in the numbers of pre-school age children and mothers treated. The sessions were well attended and this new service appears to have been appreciated by the patients.

Dental inspections were carried out in all the Authority's Day Nurseries and treatment was offered to those children found to be in need of it. These inspections will be repeated at regular intervals and it is hoped subsequently to have a number of mothers in attendance so that they may be informed in detail of any treatment required and given advice on how best to ensure healthy mouths for their children.

The service also assumed responsibility for the care of children attending the Occupation Centre in Cotton Street and an inspection was carried out on the premises. Such treatment as was considered advisable was completed and arrangements were made for the early treatment of any emergencies that may arise. This inspection also will be repeated regularly.

Family Planning:

Arrangements have been made with the Bolton Branch of the Family Planning Association for advice to be given to persons attending the Local Health Authority's clinics when thought necessary on professional grounds.

For most of the year the clinic was held in hired rooms in various parts of the town, but on application being made to the Health Committee it was agreed that the Association should have the use of the Health Department on one evening a week, and since the 1st November, 1954, clinics have been held weekly on Monday evenings. The facilities available in the Health Department have been very much appreciated by the Association and has led to a more congenial atmosphere for the work of the clinic.

MIDWIFERY

The provision of institutional accommodation for midwifery has not changed during the year and is provided by the Obstetrical Department of the Bolton District General Hospital and at the three Maternity Homes within the borough. Together, these institutions were responsible for dealing with 1,957 births. There has, however, been a serious reflection from the activities of the institutions on the Domiciliary Midwifery Service which was asked to deal with only 464 births in the mothers' own homes as against 573 in 1953. Domiciliary births, therefore, accounted for only 19% of all births relating to Bolton mothers, which is probably one of the lowest percentages in the country.

The numbers of midwives notifying their intention to practise in accordance with the rules of the Central Midwives' Board were:—

In Hospital and Maternity Homes	...	...	32
In Domiciliary Practice	...	...	17

Of the domiciliary midwives, 8 were municipal midwives; 2 were engaged as temporary relief midwives by the Local Health Authority; 1 was engaged in private practice; 3 acted as maternity nurses only, and 2 midwives from other areas attended patients. The Non-Medical Supervisor of Midwives also acted in an emergency. The number of midwives remaining in domiciliary practice on the 31st December was 9 (7 were municipal midwives and 2 were in private practice).

Domiciliary Confinements:

Municipal Midwives delivered 450 children at 447 confinements and visited each patient twice daily for the first three days after confinement, and then daily up to the fourteenth day after delivery. In certain circumstances the number of routine visits was increased. The following is a summary of the visits paid:—

Ante-natal visits	...	...	2,956
Nursing visits during the puerperium	...	7,868	
Post-natal visits	...	188	
			<hr/>
TOTAL	...	11,012	<hr/>

Private midwives conducted a total of 14 deliveries making a total of 464 children born at home.

All midwives employed by the Local Health Authority were qualified to administer analgesics. Nitrous oxide and air was administered in 296 cases, and pethedine was used in 181 cases. The Ambulance Service was responsible for transporting the nitrous oxide apparatus to patients' homes.

Notifications:

In accordance with the rules of the Central Midwives' Board, the following notifications were received from midwives in:—

	Domiciliary Practice	Maternity Homes
Notification of Stillbirth	5	15
Notification of Artificial Feeding	26	141
Notification of Death of Child	2	1

In addition, 251 notices of the commencement of artificial feeding relating to mothers normally resident in Bolton, were received from the Bolton District General Hospital.

Two notifications of puerperal pyrexia were received from the Maternity Homes, in relation to patients delivered there, but in neither case was it necessary to take any administrative action to prevent the spread of infection.

Medical Aid:

Midwives sought medical aid on 123 occasions from family doctors for the following conditions:—

RELATING TO THE MOTHER:	NO. OF CASES
ANTE-NATAL CONDITIONS:	
Ante-partum haemorrhage	3
Toxaemia of pregnancy	4
Abortions	1
Others	3
DURING LABOUR:	
Prolonged 1st stage	3
Mal-presentations	9
Delay in 2nd stage	7
Others	6
Post-partum haemorrhage or retained placenta	6
Perineal tears	36
Puerperal rise of temperature	3
Other Puerperal conditions	9
Miscellaneous conditions	2
RELATING TO THE CHILD:	
Prematurity	8
Discharging eyes	9
Asphyxia	6
Other conditions	8
TOTAL	123

The obstetrical emergency team from the Bolton District General Hospital was called out on 14 occasions to patients suffering from shock, ante-partum haemorrhage and post-partum haemorrhage, and gave valuable assistance to midwives and family doctors. Increased use was made of this service to ensure the safety and quick recovery of the mother where complications were threatened or had arisen. The team was transported to the patients' homes by the Authority's Ambulance Service vehicles.

Maternal Mortality:

One maternal death was notified from the Bolton District General Hospital. The patient was a primipara aged 26, who was booked for delivery at the Bolton District General Hospital and attended the hospital ante-natal clinic regularly. She was admitted two days previous to confinement with a history of excessive vomiting. Delivery was by forceps and produced a lacerated foetus. The mother died the day after delivery. The cause of death as confirmed by post-mortem examination was:—

I(a) Acute liver necrosis

I(b) Pregnancy—full term

II Forceps delivery—local anaesthetic

Staff:

Although there was an obvious falling-off in domiciliary confinements the staffing position was acute for the earlier period of the year. As a result of resignations and retirements the number of municipal midwives was reduced to 4. The work of the department was continued only as a result of being able to obtain the services of two domiciliary relief midwives from retired personnel. This was an unsatisfactory situation which the Council had to face up to in view of the fact that it was not possible to recruit further midwives under the existing conditions of service. When the Council agreed to allocate municipal houses to midwives, and to grant essential user car allowances, the crisis was overcome and it was possible to appoint 3 further full-time midwives. The situation was further improved by the Council implementing a scheme for the loan of money towards the purchase of midwives' own cars. At the end of the year 2 midwives had availed themselves of the facilities for car purchase, and a third was about to do so. The efficiency of the service has been tremendously improved as a result of these extensions of amenities. All midwives have a telephone installed by the Corporation. For those midwives without cars the emergency means of transport from the Ambulance Service pool of vehicles is still available.

District Midwifery Training:

A paradoxical situation arose from the increased number of institutional confinements at the expense of domiciliary confinements, when at the same time, pupil midwives had to be trained on the district from these very institutions themselves. Further difficulties arose by the increased number of pupil midwives accepted onto the district in order to complete the second period

of their training. Nine pupil midwives as against 7 in 1953 completed their training on the district.

The closing of the District Nurses' Home which used to house the pupil midwives during their district training, made it necessary for an arrangement to be made with the Teaching Midwife to accept the pupil into her own home. For this purpose the Corporation paid accommodation allowances to the midwife. In order to cover the training work adequately, another midwife was approved by the Central Midwives' Board as a Teaching Midwife making 3 such Teaching Midwives in all. Since only two of the Teaching Midwives were able to accept pupils in their own homes, negotiations with the Hospital Management Committee for the use of some of their accommodation for pupil midwives have resulted in a more satisfactory arrangement. Pupils in future will reside at "Newlands" Nursing Home at the expense of the Local Health Authority and receive their district training from the Teaching Midwives.

Refresher Course:

The Non-Medical Supervisor of Midwives and one Municipal Midwife each attended a Refresher Course of one week's duration.

HEALTH VISITING

Staff and Training:

At the end of December the staff consisted of:—

- Superintendent Health Visitor/School Nurse
- Deputy Superintendent Health Visitor/School Nurse
- 23 Health Visitors/School Nurses
- 3 Student Health Visitors
 - A Tuberculosis Visitor with H.V. and B.T.A. Certificates
 - A Tuberculosis Visitor with H.V. Certificate
 - A Tuberculosis Visitor with B.T.A. Certificate

Miss F. Holden, Superintendent Health Visitor, left at the end of April to take up another appointment.

Miss F. E. Hunt was appointed as Superintendent Health Visitor and commenced work in the department at the beginning of August.

Five health visitors left during the year. One health visitor returned to Bolton and was re-appointed. Six student health visitors trained in Bolton under the Bursary Scheme and were successful in obtaining their Certificates and commenced duty in the department. Another student who completed the Bolton Course independently was appointed as a tuberculosis health visitor.

Practical instruction to student health visitors was given in the department. One health visitor, a tuberculosis visitor and a school nurse attended a Refresher Course at Liverpool in September arranged by the Women Public Health Officers' Association. Student nurses from the local hospitals attended on alternate Mondays in the department throughout the year as part of their general training. During December, 4 student health visitors from the Manchester Training Centre spent a week in the department.

Home Visits:

The health visitor's work is rapidly expanding and embraces not only Maternity and Child Welfare but the whole pattern of family life. This is shown by the increased number and varied type of visits paid. Health visitors are appreciative of the widening scope, year by year, of their work and of the added opportunities for service in many fields.

The following is a summary of the domiciliary visits undertaken:—

Analysis of Home Visits

First visits to expectant mothers	...	...	...	...	...	202
Subsequent visits to expectant mothers	...	...	...	...	...	86
First visits to newly-born babies	...	...	...	...	...	2,376
Subsequent visits under 1 year	...	...	...	...	...	13,277
Visits to children 1-2 years	...	...	...	...	...	7,090
Visits to children 2-5 years	...	...	...	...	...	12,945
Infant death enquiries	...	...	...	...	...	18
Infectious disease visits	...	...	...	...	...	97
Visits to school children	...	...	...	...	...	954
Miscellaneous Visits and visits regarding Special Surveys...	...	...	...	...	...	2,482
After-Care Visits	...	...	...	...	...	450
Chronic Sick Visits	...	...	...	...	...	1,402
TOTAL	...	...	...	...	...	41,379

Tuberculosis Visiting:

The 3 full-time tuberculosis visitors paid 3,207 visits to 3,009 households and attended 646 clinics and other sessions at the Chest Clinic.

Expectant Mothers:

A large number of first visits were made at the request of the Bolton District General Hospital to assess suitability for home confinement when no medical grounds existed to necessitate admission to hospital. Subsequent visits to expectant mothers were also made at the request of the hospital in respect of those mothers who had defaulted in their attendance at ante-natal clinics.

In April, health visitors commenced health education group talks to mothers attending the Civic Centre ante-natal clinics and also to mothers attending ante-natal clinics at the Bolton District General Hospital.

Child Welfare:

The greater part of the health visitors' time was devoted to children, and an increased number of visits was paid to children under one year of age in an attempt to maintain the lowered infant mortality rate achieved in recent years.

Paediatrics:

A health visitor continued to attend twice weekly at Out-Patient Clinics and ward rounds with the Paediatrician. The health visitor has a knowledge

of the social background of these small patients which is passed to the Paediatrician. On return to the Health Department the health visitor gave relevant facts regarding the progress of the children in hospital or attending the Out-Patient Clinic, to the health visitor of the area in which the children lived. This two-way service has proved of great value to all concerned in the children's welfare. In the new year, an extra Out-Patient Clinic incorporating the after-care of premature babies will be attended by a health visitor.

Problem Families:

Unfortunately there are still many problem families in the borough and much of the health visitors' time and energy was spent in trying to eradicate the fundamental causes. This involved constant visiting and supervision and consultation with various social organisations and official departments in an attempt to rehabilitate these people to normal community life.

Geriatrics:

The increasing number of elderly people who often live alone has absorbed a greater amount of the health visitors' time. These old people were visited as often as other duties permitted. As a result, the aged were made aware of the voluntary and statutory bodies which exist to help them and also of the facilities which the department can offer. Cases needing assistance were brought to the notice of the health visitors through many channels such as the family doctor, home nurses, Welfare Department, home helps, relations or neighbours. There were 434 social enquiries from Bolton District General Hospital. Each enquiry necessitated a report by a health visitor on home conditions. The reports were taken into account by the Geriatric Physician when assessing the degree of urgency or need on social grounds for a hospital bed. Since July, the Consultant Physician of the Regional Hospital Board engaged on geriatric work has been accompanied on one half day per week by a health visitor who was conversant with the social background of old people, when he has visited the homes of the aged sick. It is hoped to increase the visiting time of this team in the near future. In this way, information is made available to all district health visitors and other agencies responsible for old people's welfare. A weekly consultation was held between a member of the Welfare Department and the Health Visitors' Section where information was pooled regarding welfare of individual aged persons.

Liaison with the Hospitals:

It will be noted from the above paragraphs that excellent opportunities exist for the pooling of all facts and relevant information between the Ante-Natal, Paediatric and Geriatric Units of the Hospital and the Local Health Authority Service.

Liaison with Family Doctors:

The close association which has been developed in Bolton between the family doctors and the health visitors over the past twelve months, has created a better understanding of each other's problems and led to an increase in the valuable social work carried out on behalf of difficult problem cases.

This better working relationship started in December, 1953 when, at the request of the Local Medical Committee, a meeting was arranged between general practitioners and health visitors. Since that time, both doctors and health visitors have expressed, on frequent occasions, their satisfaction of the new arrangements. It is now common practice for health visitors to either telephone or call on family doctors to discuss a wide variety of problems. Doctors are also finding it useful to telephone to the Health Department or call to discuss problems with the Superintendent Health Visitor or the health visitor of the district, and this type of working arrangement is becoming increasingly familiar. During the course of the year, in order to help the doctors, they have each been supplied with a map of the County Borough marking the various health visitor areas, so that at any time they may communicate with the health visitor in whose area any of their patients needing help reside. This year of happy working conditions culminated in December, 1954 by another meeting in the Health Department between the doctors and health visitors which was very well attended. The kind of activity which is encouraged is exactly that laid down in a report which was accepted by both the British Medical Association and the Society of Medical Officers of Health, details of which were published in full in the Annual Report for 1953.

Special Investigations:

The health visitors have continued to help in the B.C.G. Survey which is being carried out by the Medical Research Council (Tuberculosis Research Unit). Social information is supplied at the request of the Unit and help is given to members of the Unit attending annually in Bolton to review the cases.

A special survey on the question of the amount and type of medicament administered to children under the age of one by their parents, without medical advice, was carried out during the latter part of 1954. The object of this enquiry was to determine the danger (if any) of family medication to children at an early age. The results of the survey are reported elsewhere.

HOME NURSING

Considerable changes have taken place in the administration of the Home Nursing Service. For many years the Nurses' Home in Chorley New Road has been the headquarters. This large building was meant to act not only as an administration centre but to give residential accommodation to the nurses. Recent trends have caused a change in outlook of domiciliary nurses who now prefer to live privately rather than in an institution. For some time, the Nurses' Home accommodated merely a handful of nurses and it was obviously uneconomical to keep it going. Consequently, after much negotiation the home was closed and handed over to another department of the Corporation. At the same time, more modern and suitable accommodation was made available in the Health Department from which to conduct a service which was entirely non-residential. The changeover took place in August and by the end of the year the service had settled down to its new role and was proving much more satisfactory and convenient to both the nurses and the Health Department in general.

Staff:

The nursing staff on the 31st December, 1954, was as follows:—

1 Superintendent	
1 Assistant Superintendent	
5 Queen's Nurses	(full-time)
3 Queen's Nurses	(part-time)
7 State Registered Nurses	(full-time)
3 State Registered Nurses	(part-time)
5 State Enrolled Assistant Nurses	(full-time)
1 State Enrolled Assistant Nurse	(part-time)

TOTAL STAFF: 26 Equivalent in full-time staff - 22

Approved establishment including Administrative Nursing Staff - 33.

A Deputy to the Superintendent was appointed towards the end of the year, but she did not take up her duties until the new year.

Resulting from a continued shortage of staff, the number of visits fell short of what was desirable for many patients. The most urgent cases, however, received morning and evening visits and in a few instances three and four visits daily were made. These visits had to be arranged at the expense of the less urgent patients.

Experience has shown that the Home Nursing Service has by far the most frequent changes of professional staff than of any other section of the Department. Resignations and recruitment are constantly taking place and it has seemed impossible, in spite of frequent advertising, to obtain a full establishment. Many of the nurses are married women, and part-time staff must be recruited to help maintain even a minimum service. It is hoped that the recent recognition of Bolton as a Training Centre for Queen's Nurses will assist in further recruitment.

Administration:

It became necessary because of the new arrangements to alter the method of administration of the service since no nurses were now resident and available for emergency duty. Consequently, it was arranged for a member of the staff to be on duty each evening until 10.0 p.m. to attend emergency calls and to deal with patients requiring late evening injections. It will be necessary to increase the number of nurses on evening duty when the staffing position improves. Normally, nursing visits were made between the hours of 8.30 a.m. and 1.0 p.m. and again between 2.30 p.m. and 6.0 p.m. Another member of the staff was on duty in the new headquarters until 6.30 p.m. after which all calls for service from general practitioners were automatically transferred to Ambulance Control which was then able to get in touch quickly with the nurse on duty. The policy of supplying a limited number of telephones to home nurses helped in the smooth running of this new scheme.

Analysis by Age and Condition:

Condition	AGE GROUPS		
	0-4 years	5-64 years	65 years and over
MEDICAL NURSING:			
Pneumonia	17	69	41
Influenza, pleurisy, bronchitis and other chest conditions	48	337	149
Ear, nose and throat conditions (chiefly tonsillitis and otitis media)	56	193	6
Rheumatism, arthritis, etc.	—	53	56
Diseases of the heart	—	127	403
Cerebral haemorrhage	—	51	201
Thrombo-phlebitis	—	10	34
Paraplegia	—	32	5
Gastritis, colitis and kindred conditions	—	24	16
Constipation	18	72	69
Threadworms	3	5	—
Diabetes	—	13	54
Cancer	—	72	76
Skin conditions including eczema, dermatitis, shingles and impetigo	6	16	21
Anaemia, debility and old age	—	198	182
Other medical conditions	22	65	25
X-ray preparations	—	157	33
SURGICAL NURSING:			
Post-operative dressings and nursing care	—	67	28
Burns and scalds	5	11	12
Fractures	—	6	26
Abrasions and lacerations	—	43	10
Gynaecological conditions	—	27	62
Puerperal conditions	—	10	—
Abortions	—	3	—
Other surgical conditions	3	21	4
SEPTIC CONDITIONS:			
Mastitis and breast abscesses	—	49	—
Boils, carbuncles and other septic conditions	16	169	22
Varicose ulcers	—	24	35
INFECTIOUS DISEASES:			
Pulmonary tuberculosis	—	91	4
Erysipelas	—	4	—
Measles	3	—	—
MINOR OPERATIONS:			
Tonsillectomy	5	—	—
Circumcisions	3	—	—
TOTALS	205	2,019	1,574
GRAND TOTAL	3,798		

More than 40% of the cases nursed were in the age group 65 years and over. Usually, these patients because of their poor general condition, require a larger number of visits than the younger groups. Although the number of new cases nursed compared with the previous year has increased only slightly, the number

of visits paid by the nurses has increased by more than 11,000. This has been done without any increase in staff and has therefore necessitated less time being spent on each patient. This was an undesirable feature of being unable to recruit sufficient staff.

Transport:

Four cars were available solely for the use of home nurses. An experiment was tried by introducing motor assisted cycles but these have proved to be too light for the heavy district work involved. A more satisfactory light-weight motor cycle was purchased, as an experiment, towards the end of the year, and so far, seems to have proved its worth. It is anticipated that more of these vehicles will be introduced in the coming year. Other members of the staff used bicycles supplied by the Corporation or their own bicycles for which they received payment. Other nurses prefer to use Corporation buses, the fares being refunded to them. Casual user motor car allowances were approved for the Superintendent, the Deputy Superintendent and one member of the nursing staff. For emergency night visits the Ambulance Service occasionally had to assist in transporting the nurse.

Nursing Equipment:

Prior to the Home Nursing Service being administered from the Health Department, small items of nursing equipment were distributed from the Nurses' Home, and large items from the Health Department. Now, with the more compact system of administration, all items of nursing equipment are issued from the nursing headquarters in the Health Department. A description of the amount of equipment and the loans effected is given elsewhere.

Summary of patients nursed:

Patients being nursed on the 1st January...	...	...	497
New patients attended during the year	...	...	3,301
TOTAL			3,798

The work carried out month by month is shown progressively as follows:—

Month	Number of Patients being nursed at beginning of month	New Cases	Number of Patients being nursed at end of month	Nursing Visits
January	497	315	553	8,038
February	553	272	530	7,690
March	530	293	541	7,950
April	541	277	557	7,740
May	557	251	573	7,815
June	573	230	550	7,527
July	550	250	570	7,455
August	570	238	610	8,020
September	610	229	592	8,036
October	592	284	615	7,861
November	615	284	898	8,393
December	898	378	681	9,384
TOTALS ..		3,301		95,909

An increase in the work carried out is clearly seen by the following comparison with last year, of the number of cases and visits made:—

YEAR	NEW CASES	VISITS
1953	3,297	84,519
1954	3,301	95,909

Well over one-third of the visits – 40,335 in all – were made for the purpose of giving hypodermic and intramuscular injections of such drugs as insulin, mersalyl, penicillin and streptomycin.

Disposal of Cases:

The outcome of cases ceasing to receive nursing attention is analysed below:—

	Convalescent	Removed to Hospital	Died	Removed from books for Other Reasons	Totals
January	130	29	47	53	259
February	150	37	61	47	295
March	144	40	42	56	282
April	111	50	40	60	261
May	125	25	36	49	235
June	130	37	40	46	253
July	113	31	33	53	230
August	99	29	21	49	198
September ..	108	33	40	66	247
October	140	33	41	47	261
November ..	135	43	44	49	271
December ..	178	43	41	62	324
TOTALS ..	1,563	430	486	637	3,116

The number of cases being nursed at the year end was 681.

Refresher Courses:

Three nurses attended Refresher Courses arranged by the Queen's Institute of District Nursing. Two attended a Course in Exeter from the 3rd to the 10th September, and one at Roffey Park, Horsham, from the 24th to the 30th October.

Queen's Nurse Training:

It is now some years since Bolton was recognised as a Training Centre by the Queen's Institute of District Nursing. However, towards the end of the year that status was regained and training will start once more on the 1st March, 1955. It was obvious that the standard method of training with resident pupils in a training home, could not be carried out with the new arrangements in Bolton. It was therefore decided that for an experimental period of two years the Course should be non-residential. To avoid duplication of effort it was not thought desirable for the theoretical training to be arranged in Bolton and consequently arrangements were made with the Manchester Training Home for the month's theoretical course to be carried out there. Bolton pupils subsequently return to the Health Department for the completion of their training period. It is hoped that as a result of this recognition, there will be an improvement in the recruitment to District Nursing in the town and thus provide a better service to the community.

VACCINATION AND IMMUNISATION

Vaccination against Smallpox:

There were no cases of smallpox anywhere in the vicinity of Bolton, and consequently there has been no special stimulus as there was in 1953 to cause an increase in the number of people requesting vaccination.

The Health Department was, however, more concerned with the number of children below the age of five years, who were protected, and in this respect the results were encouraging—

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1952	...	...	639
1953	...	...	1,255 (local cases of smallpox)
1954	...	...	1,076

The total of 1,076 cases indicated a steady return to a recognition by parents of the continuing danger of smallpox. The staff of the child welfare clinics were constantly stressing this fact and the results for the year were satisfactory, even taking into consideration the artificial bulge of vaccinations in 1953 as a result of the presence of smallpox in the area.

The age of choice is about three months, when a healthy child tolerates vaccination with the minimum of reaction, and this can then be followed soon after by protection against diphtheria and whooping cough with little or no inconvenience. The largest number of children was in fact vaccinated before the age of six months, and these were spread fairly evenly throughout the year, falling off slightly during the winter when seasonal illness—chiefly catarrhal conditions—interfered to some extent.

The following table shows the number of persons vaccinated or re-vaccinated:—

	Age at date of Vaccination					TOTAL
	Under 1 year	1 to 2 years	2 to 4 years	5 to 14 years	15 years or over	
Number vaccinated ..	993	34	49	41	135	1,252
Number re-vaccinated ..	—	1	7	32	203	243

The important fact was the increasing number of infants who received primary vaccination. Of all the births for the year in question, 23% of children under the age of one year were vaccinated in 1952. This figure rose to 34% in 1953 and to 42% in 1954.

Included in the above figures are 751 persons vaccinated by family doctors, and from who record cards were received.

Monthly Analysis of Primary Vaccinations

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Plus*	TOTAL
Under 3 months	10	9	8	8	12	14	16	18	22	17	23	18	—	175
3— 6 „	54	58	58	53	73	44	68	52	60	67	62	31	20	700
6—12 „	8	7	12	7	11	10	13	7	11	11	12	7	2	118
1— 2 years	2	2	3	3	5	3	3	2	3	3	1	1	3	34
2— 4 „	2	2	3	—	4	6	4	4	3	3	8	2	8	49
5—14 „	4	5	3	3	3	—	4	2	3	3	2	1	8	41
15 years and over	12	9	9	16	13	9	14	12	6	7	6	5	17	135
TOTAL:	92	92	96	90	121	86	122	97	108	111	114	65	58	1,252

* Notifications received too late for inclusion in 1953 Report.

Immunisation against Diphtheria and Whooping Cough:

It is necessary to maintain a constant effort in order to bring before parents the vital importance of maintaining a high percentage of the child population in a condition of full immunity.

Although immunisation against diphtheria has not been generally advocated until the end of the first year of life, it is the custom in Bolton and is being increasingly recognised elsewhere that it is desirable to give a combined antigen of diphtheria and whooping cough at a much earlier age. The first year of life is the most dangerous period for whooping cough infection, and therefore the combined immunisation is now carried out as early as the fourth month. The course is then completed by the sixth month and the child enjoys immunity during its second six months, thus avoiding the possibility of early and severe damage to the lungs which whooping cough may cause.

A letter was circulated to all parents of new-born babies, explaining these facts and the health visitor on her primary visit was able to re-inforce the argument and arrange if possible for the new baby to attend the clinic at four months of age for its first injection. This arrangement has shown signs of working well. The injections at an early age caused no trouble to the babies, and the mothers appeared to appreciate the opportunity of obtaining immunity for their children at an early age.

The fact that we were able to offer combined protection was a great advantage in view of the fact that diphtheria has become an almost unknown disease, and the fear of it was consequently absent. Whooping cough, on the other hand, was still rightly feared and the parents were generally pleased to obtain protection for their children from both diseases at the same time. Immunisation procedure against diphtheria only has consequently fallen from 400 in 1953 to 220 in 1954.

The new arrangements regarding immunisation at four months of age came into operation in August and were in force, therefore, for only four months of the year. It was therefore satisfactory to note that as many as 174 babies were protected with combined antigen compared with 804 in the age group 9-11 months inclusive. This gave a satisfactory total for the first year of life of 978 immunisations compared with 626 in 1953. The whole theme of the year's work has been to obtain immunity against diphtheria and whooping cough at a much earlier age than hitherto.

In the remaining four years of pre-school life the number of immunisations ran fairly parallel to the previous year.

Many parents unfortunately still left primary immunisation until the child entered school, but some improvement has taken place and the number has fallen from 900 in 1953 to 537 in 1954.

An examination of the numbers of children who received either primary or reinforcing injections in school showed a considerable drop from similar figures for 1953, but the explanation lies in the fact that in 1953 all children up to eight years of age were offered protection. The practice this year has been to immunise only children in their year of entrance, i.e. 5-6 years of age, thus continuing the policy of earlier immunisation which, though leading to a decline numerically, will eventually mean that the more susceptible members of the community will be protected. Older children were treated on request from the parents.

Combined immunisation has been the usual procedure in Bolton since 1952. It is hoped that we shall soon see a fall in the number of notified cases of whooping cough as a result. At first glance the figure for 1954 was very satisfactory - 167 notifications compared with 593 in 1953. It is, however, too early yet to judge by this alone since the incidence of whooping cough varies greatly from year to year. Future years may, however, prove that this disease like diphtheria is definitely susceptible to control.

Diphtheria Immunisation in relation to Child Population

Age Groups	Percentage of mid. year Population completely immunised
Under 1 year	42.5
Aged 1-4 years	72.8
Aged 5-14 years	80.3
TOTAL UNDER 15 YEARS . .	75.8

Source of Immunisation

	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Re-inforcing Injections (Diphtheria only & Whooping Cough and Diphtheria combined)
No. of children immunised at Child Welfare Centres ..	21	1,286	36
No. of children immunised in Schools	142	387	558
No. of children immunised by General Practitioners and for whom a record card was received in the Health De- partment	57	364	83
TOTALS	220	2,037	677
GRAND TOTAL ..		2,934	

Age at Immunisation

Age	Completely Immunised			Re-inforcing Injections (Diphtheria only & Whooping Cough and Diphtheria combined)	TOTAL
	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Whooping Cough * only		
4-8 months	—	174	—	—	174
9-11 "	27	804	3	—	831
1-2 years	28	526	7	—	554
2-3 "	10	60	2	—	70
3-4 "	5	37	3	3	45
4-5 "	13	36	3	35	84
Total 0-5 years	83	1,637	18	38	1,758
5-6 years	98	392	1	528	1,018
6-7 "	30	5	—	84	119
7-8 "	7	2	—	12	21
8-9 "	2	1	—	2	5
9-10 "	—	—	—	2	2
10-11 "	—	—	—	4	4
11-12 "	—	—	—	2	2
12-13 "	—	—	—	2	2
13-14 "	—	—	—	2	2
14-15 "	—	—	—	1	1
Total 5-14 years	137	400	1	639	1,176
GRAND TOTAL	220	2,037	19 *	677	2,934

*Whooping Cough immunisations only are **NOT** included in total figures

Number of cases of Diphtheria in 1954 1
 Number of deaths from Diphtheria in 1954 Nil
 Number of cases of Whooping Cough notified 167
 Number of deaths from Whooping Cough in 1954 ... Nil

Children Immunised against Whooping Cough only

Age Group									
	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	5-6 years	6-7 years	7-8 years	8-9 years
Number ..	3	7	2	3	3	1	—	—	—
TOTAL	19								

This figure includes 9 immunisations carried out by General Practitioners, 9 carried out at Child Welfare Centres and 1 at School.

Diphtheria Immunisation

The following table shows the number of children immunised during the past thirteen years.

Age at date of inoculation	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	TOTAL
Under 1 yr.	8	18	97	54	103	425	756	799	835	698	651	671	1005	0-5 years 6,693
1-2 years	981	1017	844	1253	1121	1037	1115	657	606	670	638	588	554	
2-3 "	669	281	179	243	171	101	103	124	94	76	100	79	70	
3-4 "	681	267	75	120	128	67	59	48	72	60	63	43	42	
4-5 "	753	257	53	68	105	69	75	58	53	46	56	90	49	
5-6 "	513	206	58	53	54	36	100	114	93	58	164	260	490	5-10 years 9,712
6-7 "	297	156	23	49	59	17	77	94	83	35	163	249	35	
7-8 "	269	150	17	41	67	11	33	37	63	21	64	151	9	
8-9 "	192	137	21	26	57	16	20	26	54	5	32	162	3	
9-10 "	154	126	14	26	54	20	16	23	43	1	2	26	—	
10-11 "	130	156	16	23	54	4	5	9	7	2	1	10	—	10-15 years 7,935
11-12 "	125	171	19	6	43	5	3	—	9	—	—	17	—	
12-13 "	78	214	21	15	35	2	1	1	2	—	1	10	—	
13-14 "	117	187	20	16	12	1	—	—	—	—	1	15	—	
14-15 "	27	69	8	2	2	1	1	—	1	—	—	5	—	Over 15 years 6,057
15 years and over	—	—	3	—	3	18	2	1	2	6	1	2	1	
TOTALS ..	4994	3412	1468	1995	2068	1830	2366	1991	2017	1678	1937	2378	2258	30,39

Propaganda

I should like to thank members of the Executive Council for their help in allowing the Clerk of the Council to circulate a personal letter from the Medical Officer of Health to all parents of children receiving their first medical card. This has helped greatly in telling parents of newly born children of the advantage of having the child vaccinated against smallpox and immunised against whooping cough and diphtheria at an early age. The letter invites the parents to get in touch with the nearest child welfare centre or family doctor in order to obtain this service.

AMBULANCE

There has been no change in the service area during the year, and the Ambulance Section continued to supply a full service within the County Borough and also to act as agents for Lancashire County Council in the area of Turton Urban District Council. The following tables show the total mileage and the total number of patients carried during the past three years.

Total Mileage

	1952	1953	1954
Ambulances	94,052	79,592	76,792
Sitting Case Vehicles	59,657	72,928	79,712
TOTALS	153,709	152,520	156,504

Total Number of Patients Carried

	1952	1953	1954
Ambulances	25,365	19,749	18,642
Sitting Case Vehicles	10,806	17,353	24,180
TOTALS	36,171	37,102	42,822
Average mileage per patient . .	4.25	4.1	3.65

The most significant point was the increase of 5,800 patients over those carried in 1953. There has been, at the same time, an increase of 4,000 miles but the average mileage per patient has been reduced by almost one-eighth. The Service has now been controlled by radio for the first complete year, and this undoubtedly has had much to do with the reduction in mileage per patient. The other factor in this reduction was undoubtedly the increased use of sitting case vehicles, and a second ambulance of this type was delivered in March.

For the first time, the number of patients carried in sitting case vehicles has exceeded the number carried by stretcher vehicles. Latest figures show that of every five patients carried by the Ambulance Service, three travel in one of the sitting case ambulances. It is believed that this proportion can be increased with good results and a third sitting case ambulance has been ordered for delivery in 1955. During the past year the two sitting case ambulances ran a total of 24,062 miles and carried 13,967 patients, giving an average mileage per patient for this type of vehicle of 1.72 miles.

As in 1953, the overall increase in the total number of patients carried was partly the result of the opening of additional out-patient clinics at the Bolton District General Hospital. In part during 1954 it has been the result of the acceptance, by the Local Health Authority Service, of the responsibility for the transferring of many more patients between hospitals within the Bolton and District Hospital Management Committee Group than hitherto. Some inter-hospital transport is still carried out by the hospital authorities.

The following tables show the monthly mileages run and the number of patients carried, first for the County Borough area and secondly for the Turton area of Lancashire County Council.

Bolton Only

Mileage and Patients each month

MONTH	PATIENTS			MILES		
	Am- bulances	Sitting Case Vehicles	Total	Am- bulances	Sitting Case Vehicles	Total
January	1,905	1,439	3,344	6,712	4,994	11,706
February	1,722	1,231	2,953	5,955	4,169	10,124
March	1,464	1,770	3,234	6,248	5,682	11,930
April	1,295	1,794	3,089	5,466	5,445	10,911
May	1,338	2,019	3,357	5,409	6,000	11,409
June	1,315	1,999	3,314	4,979	5,893	10,872
July	1,378	1,834	3,212	5,758	5,269	11,027
August	1,657	1,796	3,453	6,010	6,053	12,063
September .. .	1,463	2,100	3,563	5,716	5,675	11,391
October	1,419	2,128	3,547	5,987	5,782	11,769
November .. .	1,408	2,234	3,642	5,584	6,215	11,799
December .. .	1,440	2,334	3,774	5,844	6,784	12,628
TOTALS ..	17,804	22,678	40,482	69,668	67,961	137,629

Turton Only

Mileage and Patients each month

MONTH	PATIENTS			MILES		
	Am- bulances	Sitting Case Vehicles	Total	Am- bulances	Sitting Case Vehicles	Total
January	60	140	200	664	1,273	1,937
February	55	85	140	534	802	1,336
March	56	114	170	574	1,143	1,717
April	48	89	137	420	689	1,109
May	64	91	155	579	706	1,285
June	80	95	175	656	795	1,451
July	76	106	182	491	1,006	1,497
August	81	133	214	654	931	1,585
September	85	119	204	704	782	1,486
October	87	135	222	641	1,019	1,660
November	71	215	286	627	1,342	1,969
December	75	180	255	580	1,263	1,843
TOTALS	838	1,502	2,340	7,124	11,751	18,875

The figures given above indicate that although there was an increase in patients carried each month compared with the corresponding month in 1953, the difference only became really significant in April. Most of this increase was undoubtedly the result of the inter-hospital transport agreement, but the influence of a wet summer has probably also made itself felt. It would appear that in bad weather transport may be requested for patients who in better travelling conditions would be allowed to go to hospital by public transport.

During the year, arrangements were made for the transport by rail of four patients.

Emergency Calls:

The tables set out below illustrate the sort of emergencies to which the Service has been called to render assistance. It is an unfortunate fact that the number of patients carried from road accidents rose by almost 25% during the year. In the home the number of burns and scalds remained consistently high, as did the number of accidental poisonings. Although the Ambulance Service carried more maternity cases than in 1953, it was called upon less frequently to carry the municipal midwives and the gas and air apparatus. This would appear to reflect a downward trend in the number of domiciliary confinements.

Bolton emergencies

TYPE OF CASE	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	2	7	3	4	1	—	1	2	5	1	7	—	33
Scalds	5	5	4	8	2	4	2	5	9	3	2	5	54
Falls	23	16	24	22	17	19	22	24	17	23	19	19	245
Gas and Electricity Mishaps	4	5	1	1	3	6	1	—	1	2	2	2	28
Poisonings	6	2	3	4	5	3	3	2	2	6	3	1	40
Collision with structures	—	1	1	3	2	1	2	—	2	—	—	1	13
Cuts from sharp implements	1	1	1	3	2	4	2	2	6	3	2	5	32
Falling objects	—	—	—	—	4	—	—	—	—	2	1	1	8
Trapping of limbs	2	—	2	—	3	—	1	—	1	1	—	3	13
Foreign bodies in eye	—	—	—	—	—	—	—	—	—	1	—	1	2
Miscellaneous	—	1	2	1	—	—	—	—	—	1	—	2	7
TOTAL OF ALL ACCIDENTS IN THE HOME ..	43	38	41	46	39	37	34	35	43	43	36	40	475
Road Accidents	32	20	17	28	42	32	47	32	39	34	27	41	391
Collapse	35	20	38	36	31	18	32	29	36	37	34	35	381
Industrial Accidents	17	20	25	14	15	16	17	21	22	24	28	15	234
Sudden Illness	14	12	12	14	23	15	23	12	26	15	13	19	198
Falls in the Street	43	19	31	18	12	11	12	16	23	16	18	16	235
Children injured at school or at play	12	12	20	23	28	33	20	53	47	24	18	8	298
Violence:—													
Fights and Drunks	2	5	3	4	2	10	2	—	3	5	1	8	45
Assault	—	4	—	4	—	1	—	5	1	—	—	3	18
Drowning	—	—	—	—	3	—	1	3	—	—	2	1	10
Hanging	—	1	—	—	1	—	1	—	—	1	—	1	5
Railway Accidents	—	—	—	1	—	1	—	1	—	—	1	1	5
Sporting Accidents	7	—	—	—	—	—	—	3	2	1	2	—	15
Attacks by Animals	—	—	—	2	—	—	1	1	—	1	1	—	6
Horse-riding accidents	—	1	—	—	—	—	1	—	—	—	—	—	2
Fairground accidents	—	—	—	—	—	—	2	—	—	—	—	—	2
Swallowing foreign bodies	—	—	2	4	2	—	—	2	—	—	—	1	11
Perambulator accidents	1	—	—	1	—	—	—	—	2	—	—	1	4
Miscellaneous	1	4	1	—	—	2	2	—	1	2	3	4	20
TOTAL EMERGENCIES ..	207	156	190	195	198	176	195	213	245	203	184	194	2,356
MATERNITY CASES ..	146	154	153	141	151	150	151	148	151	127	114	123	1,709
Births in Ambulance	—	3	—	—	—	1	1	—	—	—	1	—	2
Born before arrival of Ambulance	—	—	2	1	1	—	1	—	—	1	—	1	6
TOTAL MATERNITY CASES	146	157	155	142	152	151	153	148	151	128	115	124	1,721
LONG JOURNEYS (60 miles or more) ..	5	3	6	3	8	8	9	15	7	6	3	8	8
TRANSPORT OF MIDWIVES AND GAS AND AIR APPARATUS ..	63	50	56	41	72	69	58	58	56	60	37	48	66

Turton District Emergencies

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	-	-	-	-	-	-	-	-	1	-	1	-	2
Scalds	1	-	-	-	-	-	-	-	-	2	-	-	3
Falls	-	-	2	1	1	-	1	-	1	-	-	-	6
Gas and Electricity													
Mishaps	1	-	-	-	-	-	-	-	-	-	-	-	1
Poisonings	1	-	-	-	1	-	-	-	1	-	-	-	3
Cuts from sharp implements	-	-	-	-	-	1	-	2	-	-	-	-	3
Falling objects ..	-	-	-	-	-	-	1	-	-	-	-	-	1
Trapping of limbs ..	-	-	1	-	-	-	-	-	-	-	1	-	2
TOTAL OF ALL ACCIDENTS IN THE HOME	3	-	3	1	2	1	2	2	3	2	2	-	21
Road Accidents ..	3	-	1	6	1	-	1	2	2	3	3	3	25
Collapse	1	-	1	1	2	2	-	3	1	-	-	-	11
Industrial Accidents	2	4	1	-	-	1	2	-	1	2	-	3	16
Sudden Illness ..	2	-	-	-	2	-	-	-	-	-	-	-	4
Falls in the Street ..	-	-	-	-	-	-	-	-	1	-	-	3	4
Children injured at school or at play ..	-	-	1	2	2	2	2	-	3	-	4	-	16
Violence—													
Fights and Drunks	1	-	-	-	-	-	-	-	-	-	-	-	1
Assault	-	-	-	-	-	1	-	-	-	-	-	-	1
Drowning	-	-	-	1	-	-	-	-	-	-	-	-	1
Railway Accidents ..	-	-	1	-	-	-	-	-	-	-	-	-	1
Sporting Accidents ..	-	-	-	-	1	-	-	-	-	-	-	-	1
TOTAL EMERGENCIES ..	12	4	8	11	10	7	7	7	11	7	9	9	102
TOTAL MATERNITY CASES	7	5	11	7	3	4	5	8	8	8	9	2	77

National Coal Board

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
Industrial Accidents ..	5	5	5	4	7	8	3	11	8	5	8	10	79

Total Mileage . . . 710

Accommodation:

The installation of radio control made essential some reorganisation of the station office. A small extension was built and it is now possible for the direct control of the service to be carried out without the intervention of other matters.

Vehicle Strength at 31st December:

MAKE	H.P.	REG. No.	PURCHASE DATE
AMBULANCES			
Austin	16	CWH 606	20. 4.48
Austin	16	DBN 226	29.10.48
Austin	16	DBN 250	5.11.48
Commer	14	DBN 386	30.11.48
Austin	16	DBN 444	20.12.48
Austin	16	DBN 555	20. 1.49
Austin	16	DBN 800	6. 4.49
Austin	27	EWB 345	23. 8.51
SITTING CASE AMBULANCES			
Morris	16	FWH 333	13. 3.53
Morris	16	GBN 999	10. 3.54
SITTING CASE CARS			
*Austin	16	CWH 626	28. 4.48
Austin	16	EBN 355	4.10.50
Austin	16	EWB 111	4. 6.51
*Austin	16	EWB 222	6. 6.51

*Indicates vehicle not fitted with radio equipment

Staff at 31st December:

Superintendent
 Deputy Superintendent
 4 Shift Leaders
 24 Drivers
 2 Male Attendants
 2 Female Attendants
 1 Motor Mechanic
 1 General Labourer/Greaser

Civil Defence – Ambulance Section:

The Ambulance Section had a total complement of 168 volunteers at the end of the year.

A comprehensive course of Civil Defence Organisation, Ambulance Department Organisation and Routine, Ambulance Loading Drill, Care and Maintenance of Vehicles, Map Reading and Damage Control, continued and attendance were good.

During August, a Civil Defence Ambulance was allocated to the Section and volunteers have received driving instruction and further training in vehicle maintenance.

A Civil Defence recruiting campaign was held during October and 12 ambulance manned by Ambulance Section volunteers took part in a convoy which toured various districts of the town.

LOAN OF NURSING EQUIPMENT - CONVALESCENCE

Loan of Nursing Equipment:

The number of articles made available to patients in their own homes was increased in amount and variety. In the majority of cases the loan was made to ease the work of the home nurse in her routine activities in the home. No charge was made for the loan of articles, which were provided on the recommendation of family doctors, the hospitals, or the Department's nursing Officers. The following table shows the issues made during the year:—

	Total Number in Use or Available for issue:		Number of Issues during 1954	Number in Stock, 31st Dec., 1954
	31st Dec., 1953	31st Dec., 1954		
Bed Pans	89	131	197	2
Air Rings	120	174	206	0
Tan-Sad Invalid Chairs	16	29	18	3
Self-propelled Chairs	0	1	3	0
Bed Rests	70	94	96	0
Chair Night Commodes	5	8	4	0
Blankets (pairs)	5	5	0	5
Sheets (pairs)	3	3	0	3
Pillow Cases	6	6	0	6
Crutches (pairs)	3	5	4	1
Urine Bottles	40	64	61	6
Feeding Cups	9	12	7	0
Pillows (Flock)	6	6	6	0
Hot Water Bottles	10	10	5	8
Rubber Sheets	138	234	239	44
Bed Cradles	5	12	19	0
Wilo Air Beds	1	4	0	4
Rubber Slipper Bed Pans	2	2	4	0
Dunlopillo Mattresses (Single)	1	2	4	0
Feather Pillows	24	6	12	6
Fracture Boards	4	4	8	0
Male Day and Night Urinals	2	2	0	0
Biscuit Mattresses	2	2	0	0
Adult Cot	1	1	0	0
Wooden Single Beds	0	3	1	2
Spring Interior Mattresses	0	3	1	2
Single Iron Beds	0	3	1	0
Single Mattresses	0	3	3	0
Junior Tan-Sad Invalid Chair	0	1	0	1
Douche Cans	0	4	0	4

Total number of articles issued in	1954	...	...	899
" " " " " "	1953	...	...	901
" " " " " "	1952	...	...	522

CARE OF BEDRIDDEN PATIENTS:

In October the Health Committee agreed in principle to an expansion of the scheme for the loan of nursing equipment in order that certain difficult cases nursed by the home nurses could be given more frequent changes of

bed linen. This is particularly important for the incontinent case which has created a considerable amount of work for both the home nurses and home helps. The scheme, which will be implemented in 1955, will mean an expansion in the amount of bed linen being made available for suitable cases and the collection and laundering of the soiled linen at frequent intervals. The Hospital Management Committee have been extremely helpful in this respect in offering, for a trial period of three months, to carry out this laundry service on behalf of the Authority. It is hoped by this means to increase the comfort of patients and ease the task of the Health Department staff.

Admission to Convalescent Homes:

At the request of family doctors and, in some cases, of hospitals, 17 adults and 8 children were sent to convalescent homes for varying periods after having been interviewed by members of the Authority's medical staff. The Department has received valuable help in finding accommodation from several voluntary bodies. In 8 cases the whole cost of convalescence was borne by the Authority. The other patients met part of the cost after being assessed on an approved scale.

HOME HELP

From the statistics given in this report it would seem that the Home Help Service has reached the stage whereby its future usefulness can only be safeguarded by an extension of its scope, an increase in staff, and the expenditure of more money. Each year since the service was constituted in its present form, an increased number of applications for help have been received, and at the same time, a commensurate increase in the staff and wages available has not been possible. This places the Organiser in considerable difficulty and has led to the only possible solution whereby the increased number of patients have had to receive less service than in previous years. This is not a satisfactory state of affairs, and quite apart from the needs of the patients themselves, leads to a situation needing more and more administrative effort in order to satisfy, at least partially, the ever growing need. Fortunately, for the coming financial year the Council have agreed to increase expenditure on the Home Help Service which it is hoped will relieve the difficulties considerably.

It is a well-known fact that people are living longer, but unfortunately this does not necessarily mean that all are enjoying good health during those extra years; the burden of the aged and chronic sick is increasing and is reflecting itself severely on both the Home Help and Home Nursing Service as well as leading to increased social work on the part of health visitors.

Cases assisted by Home Helps:

	Maternity	Tuberculosis	Chronic Sick and Aged	Others	TOTAL
	55	14	752	176	997
New cases included in above	53	8	379	142	582

The total number of cases being served at the year end was 521.

The progressive monthly totals were as follows:—

MONTH	No. of Cases on the books at beginning of month	New Cases	No. of Cases on the books at end of month
January	415	54	426
February	426	49	414
March	414	70	431
April	431	49	443
May	443	49	447
June	447	38	445
July	445	38	451
August	451	53	474
September	474	32	471
October	471	50	484
November	484	54	522
December	522	46	521

The gradually increasing use of the service, particularly by the chronic sick and aged, follows the same trend as in 1953, and is clearly shown by the above monthly totals. Amongst the patients in receipt of help, old age pensioners, of whom the majority were chronic sick, were still by far the most in need of help and accounted for 92% of all cases at the end of December. Some old people had relatives who assisted in every way but many of them were unable to get meals and other necessities because of the domestic or employment commitments of their families or friends during the day.

Amount of service given in an average week:

The figures shown below give an indication of the service provided in a representative week in 1954.

14 patients were in receipt of 1 hour but less than 2 hours per day

78 " " " " " 2 hours " " " 3 " " "

16 " " " " " 3 " " " " 4 " " "

7 " " " " " 4 " " " " 5 " " "

1 patient was " " " 5 hours per day

2 patients were " " " more than 5 hours per day

The remaining 295 cases were in receipt of one or more half days per week.

Two confinement cases were in receipt of full-time help during this particular week.

The above figures show an increase on last year's figures of 9 more patients in receipt of daily help and 100 patients in receipt of weekly help.

The growing need for the Home Help Service seems to be irrefutable.

The average number of cases actually served during the latter few weeks of the year was 407 per week.

Payment for Service:

The number of patients paying for the service at any one time varied throughout the year, but of the 997 cases assisted, the charges were distributed in the following way:—

	Free of Cost	Part Cost	Full Cost
Tuberculous Case	9	4	1
Chronic Sick and Aged	543	151	58
Maternity Cases	—	32	23
Others	80	41	55
TOTALS	632	228	137

The proportion of cases receiving free service increases year by year. In 1951 it was 44%, in 1952 - 53%; 1953 - 62%, and in 1954 it was 63%.

Staff:

The number of home helps employed at 31st December, was:—

Full-time	... 39	} = 3,673 hours per week.
Part-time	... 83	

The average gross weekly wages bill was £434 15s. 1d.

The Home Help Organiser was assisted by two full-time visitors whose duties consisted of determining whether patients were in need of either more or less service than they were actually receiving, making any necessary adjustment, and re-assessing financial circumstances from time to time. Visits of this kind also served the purpose of ensuring that patients were getting the type of help best suited to their needs.

An Assistant Home Help Organiser and one full-time clerk dealt with enquiries at a central office in the Health Department and assisted in the internal organisation of the service.

Assessment of Charge:

The Council's standard charge of 2/3d. per hour was not altered. Many patients, of course, were not able to meet this charge and they were then assessed on the Corporation's Scale and an appropriately reduced charge made. In certain circumstances where the assessment scale led to difficulties there was a scheme whereby individual cases of hardship could be brought before the Appeals Committee and a charge, if any, imposed to meet the merits of the case.

Determination of Need for Service:

Each new patient was interviewed and studied from the point of view of need bearing in mind not only environmental conditions but the help which could be made available by relatives or friends. At this first visit the financial

circumstances were also enquired into in order that a correct assessment could be made. It was usually possible to deal with urgent cases immediately but only at the expense, from time to time, of withdrawing help from the less urgent though still needy cases who required help only with domestic cleaning. It was a practice never to leave patients without service who were not able to provide themselves with meals or fires. Visiting was carried out by the administrative staff on frequent occasions and at least every six to eight weeks in long-term cases, and more frequently where the need was not likely to be lengthy. In a service of this kind where use must be made of every hour of service, frequent checks are essential to prevent abuse.

Recruitment and Training of Home Helps:

Many of the home helps are women of 45 or more who may have certain domestic responsibilities of their own and who are rather more likely to be absent from work for medical reasons than would younger people. This has led to considerable difficulties and to a relatively high sickness rate. It is necessary, therefore, to be constantly recruiting new home helps to fill in the gaps. Although it has been possible to do this in the past from women known to other members of the staff, this source of recruitment has been insufficient during the past year and it was necessary to issue public advertisements. Two full-time male home helps have been employed and have been of very great benefit to the service. Free bus fares were allowed to all home helps whilst travelling on duty. Rates of pay and conditions of service were those proposed by the National Joint Council. Overalls were supplied to all home helps, extra ones being available for those in attendance on tuberculous and other infectious cases. Special precautions were taken with regard to those volunteers who attended tuberculous patients and only those helps in the higher age groups were selected. Periodical X-rays were offered to those at risk.

All suitable home helps undergo a period of training arranged through the Education Department and run at the Women's Institute. These training facilities have been of great value in assisting home helps to receive more detailed and technical knowledge on the use of cooking equipment and in food preparation, as well as other domestic matters of importance to all concerned in the running of a home. Home helps completing this course satisfactorily were presented with a badge to wear on duty.

Night Attendant Service:

It has been found as a result of experience, that seriously ill old people are sometimes left alone in their own homes at night without any sort of assistance whatsoever. Many of these cases may be in need of hospital accommodation but for various reasons admission has been delayed. Sometimes too, there may be relatives and friends willing to help but a long chronic illness makes it difficult for them to be available every night. Under these circumstances, to relieve a difficult situation, the Council have agreed to provide a Night Attendant Service through the Home Help Service for use in really necessitous cases. A panel of women is being formed for this purpose and service will be provided from the panel only at the request of a medical practitioner. A fee of 15s. 0d. per night is payable to the night attendant and the patient will be expected to pay the whole or a proportion of this fee in accordance with the Corporation's scale of assessment, if possible.

MENTAL HEALTH

The Maternity and Child Welfare, After-Care and Mental Health Sub-Committee, consisting of the Mayor, the Chairman, Vice-Chairman and eleven members of the Health Committee, have been delegated by the latter with its Mental Health functions. Meetings occur at monthly intervals. The Medical Officer of Health is administratively responsible for the service assisted by the two duly authorised officers.

The Council have agreed to an alteration in the establishment of the Mental Health Section and have given authority for the employment of a total staff consisting of 1 Senior Mental Health Officer and 4 Duly Authorised Officers and Mental Health Social Workers. This establishment will be implemented as the work of the section develops.

Liaison with the Regional Hospital Board and the Hospital Management Committees was of mutual benefit to them and the Local Health Authority. Requests for case histories and reports were complied with and home supervision of patients was undertaken. There was a free interchange of information.

Under the provisions of Section 28 of the National Health Service Act 1946, mentally ill patients who might otherwise have been admitted to hospital were assisted and help and guidance was given to those discharged from hospital or on licence.

Periodic meetings which were arranged between the Consultant Psychiatrist and the duly authorised officers have assisted considerably, by interchange of information, in the correct disposal of and advice to patients. At the discussions the officers assisted the psychiatrist by supplying home circumstance reports and were able to make personal contact with those patients requiring assistance before they reached an advanced stage of mental illness requiring certification. Thirty-one such meetings took place during the year. When requested, the medical staffs of the Mental Hospitals and Mental Deficiency Institutions, have freely given advice which has frequently resulted in the solution of difficult problems. Their help is greatly appreciated.

None of the Mental Health functions of the Local Health Authority was delegated to voluntary associations.

Psychiatric Social Club:

The Club was formed in April and members met once a week in the evening at the Occupation Centre which has been placed at their disposal. The selection of suitable members was made by the Consultant Psychiatrist and included both out-patients and former hospital patients. The Psychiatrist attended the meetings and was assisted by two medical officers from the Psychiatric Ward of the local hospital. The Club has been named the "Happy Circle Club" by the members themselves and was conducted by a Committee of four members consisting of a Chairman, a Secretary, and two others, together with the two duly authorised officers who offered help and guidance. Members arrived between 7.30 p.m. and 8.0 p.m., and from 8.0 p.m. to about 9.15 p.m. the Committee organised debates, brains trusts, discussions, lectures, films, and other items of common interest. Light refreshments were afterwards served and members then formed into groups for various recreational activities until about 10.15 p.m. The attendances have averaged about fifteen members each evening. Periodic open evenings were arranged when members were entitled to bring along a relative or a friend.

Instruction:

One of the duly authorised officers attended a six-day Refresher Course for Mental Health Workers at Holly Royde Residential College, Didsbury, Manchester.

The duly authorised officers gave practical instruction to four student health visitors on the work of the authorised officer and mental health worker, and the procedure and application of the Lunacy and Mental Deficiency Acts.

Account of Work undertaken in the Community:

UNDER SECTION 28 OF THE NATIONAL HEALTH SERVICE ACT:

There were 49 visits as follows:—

Visits in connection with the completion of social histories of patients admitted into mental hospitals	... ..	14
Visits made to the homes of patients discharged from mental hospitals and reports made as to their welfare	... ..	35

UNDER THE LUNACY AND MENTAL TREATMENT ACTS 1890-1930:

The duly authorised officers investigated the circumstances of 118 persons who needed treatment for mental disorder. They were admitted to mental hospitals under the following sections of the Lunacy Act, 1890:—

Section 16	11 men	8 women
Section 20	41 men	45 women
Section 21(1)	6 men	7 women

The Bed Bureau, inaugurated by the Regional Hospital Board in November 1950, continued to play an important part in the selection and distribution of patients needing hospital accommodation. There has been delay in admission of acute patients from time to time but the main problem of the border-line senile demented still remains to cause considerable difficulty and will continue to be felt until further hospital provision is made. Many of these cases were not suitable for accommodation under the provision of Part III of the National Assistance Act, and although there were occasions when, owing to a physical disability, it was possible to have them admitted to an ordinary hospital, the majority needed nursing care separate and apart from such hospitals and from mental hospitals. Nine such cases, all females, were awaiting admission at the end of the year.

Voluntary admissions were encouraged as much as possible and have shown a steady increase in number. All suitable cases were referred to the Area Psychiatrist who held bi-weekly clinics at each of the two local hospitals, and during the year 178 patients, 85 men and 93 women, were admitted into mental hospitals as voluntary patients under Section 1 of the Mental Treatment Act, 1930. In addition, 363 visits were made in connection with the preparation of case notes of persons alleged to be of unsound mind, and 195 interviews with relatives took place in the Health Department. There were 227 men and 113 women receiving treatment in mental hospitals on the 31st December.

The following 259 patients ceased to be under care and treatment in hospitals during the year.

AGE GROUP					MALES	FEMALES
Under 20 years...	...	...	...	...	1	1
20 to 35 years	...	...	...	...	29	24
35 to 45 years	...	...	...	...	19	29
45 to 55 years	...	...	...	...	23	30
55 to 65 years	...	...	...	...	31	24
Over 65 years	...	...	...	...	20	28
TOTALS:					123	136

CIVIL STATUS					MALES	FEMALES
Married	...	...	...	...	54	60
Single	...	...	...	...	50	50
Widowed	...	...	...	...	19	26
TOTALS:					123	136

LENGTH OF STAY IN HOSPITAL					MALES	FEMALES
Up to 3 months	...	...	...	...	71	81
3 months to 6 months	...	...	...	...	25	19
6 months to 1 year	...	...	...	...	8	9
1 year to 2 years	...	...	...	...	2	11
Over 2 years	...	...	...	...	17	16
TOTALS:					123	136

UNDER THE MENTAL DEFICIENCY ACTS, 1913-1938:

PARTICULARS OF CASES REPORTED DURING 1954:	UNDER AGE 16		AGE 16 AND OVER	
	M.	F.	M.	F.
At school or liable to attend ...	7	5	—	—
On leaving special school	—	—	4	3
Police or other Courts	—	—	—	—
Other sources	—	—	—	—
	<hr/>	<hr/>	<hr/>	<hr/>
TOTALS:	7	5	4	3

DISPOSAL OF ABOVE CASES:					
Placed under supervision	...	7	5	4	3
Removed to institutions	...	-	-	-	-
TOTALS:	7	5	4	3	..... 1

There were 115 visits made to the homes of mental defectives under statutory and voluntary supervision, and reports were made on the general care and home conditions.

The following visits were made at the request of the Medical Superintendents of Mental Deficiency Institutions.

Visits to the homes of mental defectives who were being considered for holiday and short licence 5

Visits in connection with progress reports of mental defectives who were on long licence from institutions... ..	27
Visits on home circumstances on behalf of patients who were about to be seen by the Statutory Visitors for the purpose of recertification in accordance with the requirements of Section 11 of the Mental Deficiency Acts	64

On the 31st December, the number of mental defectives found subject to be dealt with and who were under some form of supervision in the community, including those on licence from institutions, was 162. The number of mental defectives under care in institutions and places of safety was 194, making a total of 356.

Six medical officers are approved by the Authority for the purposes of Sections 3 and 5 of the Mental Deficiency Act, 1913. They are, the Consultant Psychiatrist to the Local Hospital Management Committee, and 5 members of the medical staff of the Health Department. The latter are also approved by the Minister of Education in connection with Section 57 of the Education Act, 1944. Ascertainment of mental defectives is carried out by these officers.

Details of defectives subject to be dealt with

	UNDER AGE 16		AGE 16 AND OVER		TOTAL
	M.	F.	M.	F.	
Under Statutory Supervision...	27	16	49	57	149
Under Guardianship	—	—	—	1	1
In "Place of Safety"	1	1	—	—	2
In Institutions	10	9	88	85	192
On Licence from Institutions ...	—	—	4	—	4
Under Voluntary Supervision...	1	1	4	2	8
TOTALS	39	27	145	145	356

None of the patients in the community was neglected or ill-treated and the home supervision and control has been such that during the year none of the 162 cases had been before a Court.

Classification of mental defectives awaiting vacancies in institutions at the end of the year

				UNDER AGE 16		AGE 16 AND OVER			
IN URGENT NEED				M.	F.	M.	F.		
Cot and chair cases				—	1	—	—		
Ambulant low grade				1	—	—	—		
Medium grade				1	—	1	—		
High grade				—	—	—	—		
NOT IN URGENT NEED									
Cot and chair cases				2	1	—	—		
Ambulant low grade				3	1	—	1		
Medium grade				2	—	2	3		
High grade				—	—	—	1		
TOTALS				9	3	3	5	.....	20

The situation regarding accommodation in institutions for mental defectives showed no improvement and was most unsatisfactory. Great difficulty was experienced in obtaining beds for all classes of patients and institutional care was thought to be essential for the above four cases listed as "in urgent need".

Occupation Centre:

The Occupation Centre was opened at the former Cotton Street Day Nursery, after suitable adaptation, on the 6th January, 1954, with accommodation for 35 mentally defective children of school age. The premises consist of prefabricated buildings which did not require very much adaptation, although new equipment and furnishings for the training of backward children were necessary.

Throughout the year the staff was as follows:—

- 1 Supervisor (Qualified)
- 2 Assistants (Unqualified)
- 1 Part-time Guide Assistant
- 1 Cook and the equivalent of
- 1½ Domestic Staff.

There were 26 defectives on the register at the end of the year, 14 boys and 12 girls. The average attendance was 21 per day. As this was the first provision of its kind in the town, all the children attending had received no previous training. This caused many difficulties and it was thought desirable to fill the places gradually at first until the children had settled down.

Mentally defective children were selected for admission by a medical officer of the staff in consultation with the supervisor of the Centre. The same doctor attended monthly for medical inspection, and dental inspection was made and any necessary treatment given each term. Daily instruction was given in speech training. The Centre was open Monday to Friday during school terms.

The children were collected from various meeting points near their homes by a special 'bus, which was accompanied by one of the supervisory staff of the Centre. They arrived at the Occupation Centre at 9.30 a.m. The children received a mid-morning drink and hot lunch which was cooked at the Centre. During the day they were given training in clean habits and personal hygiene, social behaviour, simple handicrafts, gardening and physical activities. At 3.30 p.m. the children returned by 'bus to the same meeting points, where they were met by their parents. During the period they were at the Centre every attempt was made to improve their social knowledge and capabilities.

There is no doubt that the provision of this Centre has been a great help to the mentally defective children of the town. It is expected that more will attend during the coming year, and so receive the great advantage offered by this form of training.

PART III

CONTROL OF INFECTIOUS DISEASE

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence and Mortality:

The following summary gives the number of cases of notifiable disease, other than tuberculosis, which have been notified or otherwise ascertained.

Disease	Total Cases Notified	No. of Cases after Correction
Diphtheria	8	1
Dysentery	612	615
Acute Encephalitis	3	3
Enteric Fever (including Paratyphoid)	3	2
Erysipelas	34	34
Malaria	1	1
Measles	672	672
Meningococcal Infection	9	4
Ophthalmia Neonatorum	2	2
Pneumonia:		
Acute Primary	123	123
Acute Influenzal	33	33
Acute Poliomyelitis	3	1
Puerperal Pyrexia	3	2
Scarlet Fever	149	149
Smallpox	—	—
Whooping Cough	167	167
Food Poisoning	53	53

The following table gives the numbers of notifications of notifiable diseases, after correction of diagnosis, during each of the last ten years:—

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Diphtheria	125	87	18	9	32	20	12	—	—	1
Dysentery	5	7	—	4	1	28	294	202	263	615
Acute Encephalitis	—	—	—	—	—	—	—	1	1	3
Enteric Fever (including Paratyphoid)	1	1	—	—	6	—	2	1	2	2
Erysipelas	43	22	30	48	36	30	24	39	22	34
Malaria	—	1	—	—	—	—	1	—	1	1
Measles	1324	239	2082	2360	522	1881	1800	2369	1308	672
†Cerebro-spinal Fever	7	5	16	3	2	—	—	—	—	—
†Meningococcal Infection	—	—	—	—	—	3	2	—	7	4
Ophthalmia Neonatorum	6	8	4	3	2	1	1	—	—	2
*Pneumonia	92	132	91	125	85	56	214	273	—	—
„ Acute Primary	—	—	—	—	—	—	—	—	94	123
„ Acute Influenzal	—	—	—	—	—	—	—	—	21	33
Acute Poliomyelitis	—	2	36	1	9	5	1	9	3	1
Puerperal Pyrexia	4	2	7	8	7	3	4	5	7	2
Scarlet Fever	308	182	229	636	296	149	448	351	246	149
Smallpox	—	—	—	—	—	—	—	—	—	—
Whooping Cough	151	264	231	363	431	583	278	220	593	167
Food Poisoning	—	—	—	—	—	4	46	54	66	53

*The figures prior to 1953 include all forms of Pneumonia.

†From 1950 onwards, Cerebro-spinal Fever has been notifiable as 'Meningococcal Infection'.

Trends:

For the first time since 1951, a case of diphtheria has occurred in the borough. The child concerned had not been immunised.

The number of cases of measles was small until August when a progressive increase occurred until the end of the year. The disease in early 1955 will no doubt reach epidemic proportions. This is to be expected from our knowledge of the epidemiological behaviour of measles. The number of cases of whooping cough notified weekly was low throughout the year except for a temporary rise in July.

The most marked feature of the year has been the large number of cases of dysentery. Each year for the past three years the number of cases has increased and this trend was continued in 1954. The epidemic started in the early months and reached its maximum in March. The infection was wide-spread and therefore control was particularly directed towards persons handling food or dealing with young children, but in spite of the large number of cases amongst young children, only two of our day nurseries were affected. The vigilance of the matrons in excluding children on suspicion of diarrhoea and in educating their staffs was probably the main factor in preventing more outbreaks.

There was a slight reduction in the number of cases of food poisoning notified, and only one large outbreak occurred.

Notifiable infectious diseases no longer cause many deaths. It is, therefore, important that control measures should not, without sound reasons, accentuate the disturbance caused by the disease in the life of the town. Accordingly, such measures are aimed at those persons whose occupation gives them greater opportunities of disseminating infection, except for certain diseases such as smallpox where strict control is still of the utmost importance.

Deaths from Infectious Diseases, 1945-1954 inclusive:

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Diphtheria	2	3	3	—	—	1	—	—	—	—
Dysentery	—	1	—	—	—	—	—	—	—	—
Diarrhoea and Enteritis under 2 years of age ..	8	8	10	6	2	5	5	3	—	1
Acute Encephalitis	3	4	9	1	3	—	1	2	—	*2
Enteric Fever (including Paratyphoid)	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	1	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—
Measles	10	—	3	1	—	1	2	—	3	—
Meningococcal Infection ..	3	2	3	1	1	—	—	—	—	—
Ophthalmia Neonatorum ..	—	1	—	—	—	—	—	—	—	—
All forms of Pneumonia ..	69	85	91	72	64	78	103	74	112	51
including:										
Acute Primary Pneumonia									36	16
„ Influenzal „									2	3
Acute Poliomyelitis	—	—	6	—	—	2	—	3	1	—
Puerperal Pyrexia	—	2	4	—	—	—	—	—	—	—
Scarlet Fever	1	—	—	1	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—
Whooping Cough	3	2	5	2	2	2	—	1	1	—
Food Poisoning	—	—	—	—	—	—	—	—	—	—

* Includes 1 death from Encephalitis Lethargica

Diphtheria:

Eight cases of diphtheria were notified but only one was confirmed. This was a boy aged 4 years, who had not been immunised. He was still in hospital at the end of the year. Of the other notifications, one, a boy aged 1 year, was admitted to isolation hospital and finally diagnosed as measles; another, a woman aged 34 years, was admitted to hospital and died, the post mortem revealing the true diagnosis to be infective encephalitis. In the remaining cases the provisional diagnosis of diphtheria was not confirmed. For the fourth year in succession there was no death from this disease.

Dysentery:

There was a considerable increase in the number of cases of dysentery notified or otherwise ascertained, the figures being more than double the highest recorded in any of the previous three years.

An outbreak occurred at an Industrial Day Nursery in January, when one member of the staff and 19 children were affected.

Two outbreaks, one in a nursery school and one in a primary school, occurred in February. In the former case three members of the staff and 21 children were affected, and in the latter one member of the staff and 23 children were involved.

As it was obvious that the disease was now widespread, especially among young children in the town, the practice of control was altered to avoid undue interference with the activities of the community. An outline of the general principles in use will be found later in this section of the report. These were based on the recommendations of a special committee of the Medical Research Council who have been investigating the problem of dysentery due to *Shigella sonnei*.

In April there was an outbreak at one of the Authority's day nurseries, when 11 children were affected.

In May two outbreaks occurred. The first was in another of the Authority's nurseries, involving two staff and 22 children; the second in a nursery school affecting 17 children and one member of the staff. The latter outbreak was thought to be due to a symptomless carrier amongst the staff, who had been responsible for serving school meals.

As an illustration of the problems encountered in the households of food handlers, it is worth recording that four persons living at a small dairy farm were found to be excreting *Shigella sonnei*. The farm supplied seven households with raw milk and sent the remainder to a local firm for pasteurisation. No evidence of infection was found amongst the households supplied with raw milk. The farmer concerned voluntarily refrained from handling the milk or cans until he was treated and found to have three negative faecal specimens.

Encephalitis:

Two cases of acute post-infectious encephalitis occurred, both following attacks of chicken pox; the patients were girls aged 5 years, and 2 years 3 months. They were originally admitted to hospital with a diagnosis of meningitis.

A woman aged 34 years was notified as suffering from infective encephalitis. The patient, who later died, was admitted to hospital originally as a case of suspected diphtheria.

Encephalitis Lethargica:

One person was reported as having died from encephalitis lethargica. She was an elderly lady who had contracted the disease in her youth.

Enteric Fever (including Paratyphoid):

There were two confirmed cases of paratyphoid fever, both due to *Salmonella* paratyphi B. The first was a boy aged 8 years, concerning whom investigations did not reveal the source of infection. The second was a service-man aged 20 years who had recently returned from Egypt. It was subsequently learned that an outbreak of paratyphoid B fever had occurred in this man's unit, and that the infection was contracted abroad.

A woman aged 35 years was admitted to hospital with a provisional diagnosis of paratyphoid fever, but this was not confirmed on investigation.

A register was kept of all persons known to have suffered at any time from infection by *Salmonella* typhi or paratyphi. Periodically, faecal specimens from these persons were obtained and submitted for bacteriological examination. At the end of the year there was no one on this register known to be excreting the organism.

In view of reports of the finding of *Salmonella* typhi in an imported brand of tinned cream in Birmingham, enquiries were made amongst local wholesalers to ascertain whether this commodity was on sale in the borough. One chain of shops only had handled this particular brand of tinned cream, but, in view of complaints of a bitter taste, all stocks had been withdrawn before the report from Birmingham was received. It was estimated that 50 tins of this product had been distributed in Bolton without any apparent ill affect.

Malaria:

One case of malaria was reported which on enquiry was found to be a relapse of an infection previously contracted abroad.

Measles and Whooping Cough:

There was a reduction in the incidence of both these diseases compared with 1953, i.e. 672 cases of measles against 1,308, and 167 cases of whooping cough as against 593. There was no death from either disease. Towards the end of the year the number of cases of measles began to increase.

Meningococcal Infection:

There were 4 confirmed cases of meningococcal infection. Nine cases were notified, of which one was subsequently found to be mumps, another two were post infectious encephalitis due to chicken pox, and in three of the remainder the diagnosis was not confirmed. The remaining confirmed case was admitted to the isolation hospital as undulant fever and subsequently found to be a case of meningococcal septicaemia.

Ophthalmia Neonatorum:

Two notifications were received and in both these cases the infection was slight and cleared up readily.

Pneumonia:

The number of cases of acute primary pneumonia notified increased from 94 in 1953 to 123 in 1954; notifications of acute influenzal pneumonia increased over the same period from 21 to 33. The deaths from all forms of pneumonia numbered 51. Although the number of pneumonia notifications has increased, the incidence was still lower than that recorded in 1951 and 1952.

Poliomyelitis and Polioencephalitis:

Three cases of acute poliomyelitis were notified but in only one patient, a woman aged 37 years, was the diagnosis substantiated. A month prior to notification she had experienced a stiffness in her left shoulder with loss of power and 'pins and needles'. This had cleared up but she was left with general weakness of the left arm with wasting of the upper arm and forearm and weakness of the triceps. The diagnosis was therefore retrospective, and based on the history. There was no history of any injection into the limbs.

No cases of acute polioencephalitis were reported.

Puerperal Pyrexia:

Two cases were notified – neither serious – and the condition settled within two or three days.

Scarlet Fever:

There was a reduction in the number of notifications – 149 as against 246 in 1953. As in recent years the cases occurred mainly amongst school children and were extremely mild in character. There were no serious complications in those patients admitted to isolation hospital.

Smallpox:

There were no notifications of cases or suspected cases nor was it necessary to carry out surveillance of contacts.

Food Poisoning:

There was a reduction in the number of known cases compared with 1953. The incidence for the past five years was as follows:—

1950	...	...	...	4 cases
1951	...	...	...	46 „
1952	...	...	...	54 „
1953	...	...	...	66 „
1954	...	...	...	53 „

The 53 cases comprised 25 persons involved in four outbreaks and 28 "single" cases.

The first outbreak originated in the canteen of a local firm. Eleven persons were affected. The interval between ingestion and onset varied between 21

and 58 hours, the average being 37 hours. The symptoms varied from nausea and abdominal pain in the mild cases, to abdominal pain, vomiting and diarrhoea in the severe cases, vomiting occurring in 7 cases and diarrhoea in 3 cases. No patient sought medical attention, but three were absent for periods from a half to two days. The illness continued for 8 to 72 hours, with an average duration of 32 hours. Examination of faecal specimens showed that one of the persons affected was excreting *cl. welchii*, as were also two of the canteen workers. One of these workers had experienced symptoms on the evening before the day on which it is thought the food in the canteen was infected. She had, however, returned to work and had been engaged in the preparation of meat paste sandwiches which were served during the morning break; the sandwiches were the only food consumed by all the patients. It seems probable that this worker may have been responsible for the outbreak in spite of the fact that she, along with her colleagues, had attended a series of lectures on catering hygiene. Although they were all aware that she had been suffering from suggestive symptoms the previous night and was, in fact, still 'off colour', the need for her exclusion from work was not appreciated.

The second outbreak affected two children in the same household. Neither the method of infection nor the infective agent were identified.

The third outbreak affected four persons and originated at a children's birthday party. The circumstances suggested that infection had taken place in the home, probably from a cooked meat product. No food was available for examination, and none of the persons concerned was prepared to co-operate by submitting specimens for examination. It was not possible, therefore, to ascertain either the agent or vehicle of infection.

The fourth outbreak affected four members of the same household, and may have been caused by roast turkey which had been used over a period of a few days in sandwiches, none of which was available for examination. The circumstances of the outbreak suggested poisoning by *staphylococcus enterotoxin*.

The following organisms were found in specimens of faeces submitted by patients in the 28 "single" cases:—

Salm. Typhimurium	...	...	...	11
Salm. enteritidis var. jena	...	...	...	1
Staph. aureus	...	...	...	3
TOTAL	...	...	...	<u>15</u>

In the remaining 13 cases no organism was isolated.

In none of the "single" cases was it possible to identify the vehicle of infection.

Brucellosis:

One case was brought to the attention of the department. The patient, a girl aged 12, was admitted to the isolation hospital with a pyrexia of unknown origin and subsequently found, by seriological examination, to be infected with *brucella abortus*. The only possible cause of infection was the domestic milk supply which was not pasteurised. Some two weeks later the girl had a further relapse, but since that time has been well.

Investigation and Control of Infectious Diseases:

The sanitary inspectors and health visitors carried out control visiting making a total of 851 visits as follows:—

Routine investigations	...	659
Surveillance visits	... ..	102
Miscellaneous visits	... ..	90
TOTAL		851

Pathological Specimens:

A total of 3,626 pathological specimens was collected and sent to the Department of Pathology at the Bolton Royal Infirmary for examination.

DYSENTERY SPECIMENS:

During the year the procedure for the control of dysentery was modified, as stated previously. The present scheme is as follows:—

A. CASES OR SYMPTOMLESS EXCRETORS:

(i) ADULTS:

Food handlers or handlers of infants or young children, or other cases where special risk is involved, e.g. persons engaged as follows—

at Waterworks, Hospitals, or in the Medical, Nursing, Dental, Ambulance, Health Visiting, Midwifery, Home Nursing, or Home Help Services—

Exclude and refer for treatment. Allow 48 hours, then take THREE samples at daily intervals which should be 'negative' before returning to work. In the case of symptomless carriers, they may be engaged on work not involving risk until treatment and 'negative' sampling is complete.

(ii) ADULTS:

Non-handlers. No exclusion if free from symptoms, but treatment should be carried out.

(iii) SCHOOL CHILDREN:

Exclude those with symptoms only if over 7 years of age, and both cases and symptomless excretors if below 7 years of age. Allow back when symptom free except those under 7 years of age, who should have ONE 'negative' stool before returning.

(iv) NURSERY AND NURSERY SCHOOL CHILDREN:

Exclude until THREE 'negative' specimens obtained at daily intervals. Sampling to start 48 hours after completion of treatment.

B. FAMILY CONTACTS:

- (i) Food handlers and handlers of infants and young children and other cases of special risk. (See A(i)). Exclude or engage on work not involving risk of infection.

Sample:—If 'negative' return to work.
If 'positive' treat as in A(i).

- (ii) ADULTS:
Non-handlers. No exclusion. No action.
- (iii) SCHOOL CHILDREN:
Over 7 years of age. No action. No exclusion.
Under 7 years of age. No exclusion but sample, and if 'positive' deal with as in A(iii).
- (iv) NURSERY AND NURSERY SCHOOL CHILDREN:
Exclude pending ONE 'negative' specimen.

The above is likely to hold for the majority of cases. Special circumstances need modifications, e.g. epidemic in a closed community, or in the instance of food handlers living in family suspected of being infected.

OTHER SPECIMENS:

If food poisoning was suspected, samples of faeces were obtained from all patients and all persons in the household who were engaged in the food trade or in any other occupation in which they may have special opportunities of spreading infection.

On a provisional diagnosis of diphtheria, nose and throat swabs were taken from each member of the household. In the case of scarlet fever, nose and throat swabs were taken from any member of the household engaged in the food trade or whose occupation gave a special opportunity for spreading infection.

The following table shows the numbers and types of specimens examined, and the results obtained:—

Specimens	Examination for	Positive	Negative	Total taken
Faeces	Sh. Sonnei	1,004	1,973	2,977
"	Salm. paratyphi B	—	48	48
"	Salmonellae (Others)	33	115	148
"	Cl. Welchii	12	26	38
"	Staphylococci	19	29	48
"	"Food Poisoning Organisms"	*	78	78
"	Organisms causing Gastro-enteritis	*	138	138
	TOTAL FAECES SAMPLES	1,068 (31%)	2,407 (69%)	3,475
Throat Swabs	C. Diphtheriae	—	33	33
Nose "	"	—	33	33
Throat "	B-haemolytic Streptococci	3	41	44
Nose "	"	1	38	39
Throat Swab	Vincent's organisms	1	—	1
" "	For C. Diphtheriae and B-haemolytic streptococci	—	1	1
	TOTAL NOSE AND THROAT SWABS	5 (3%)	146 (97%)	151
	TOTAL SPECIMENS	1,073 (30%)	2,553 (70%)	3,626

*"Positive" included under the appropriate organism

Control of Persons whose occupations might spread infection:

Persons in the food trade who were found to be suffering from, or were carriers of, any form of intestinal infection, were excluded from employment. This was achieved in all but one case by voluntary arrangement. The remaining case concerned the parents of a child who had been excluded from one of the Authority's day nurseries on suspicion of dysentery. Sampling revealed that the child and both its parents were excreting *Shigella sonnei*. The parents had their own fishmonger and greengrocer shop, and, despite persuasion, failed to make suitable arrangements to obviate the risk of spreading the infection. It was necessary, therefore, to serve a notice on both persons under the Public Health (Infectious Diseases) Regulations, 1953. On receipt of this, the two persons concerned refrained from handling food and engaged other labour until proved free from infection. The notice remained in force for ten days before being withdrawn and compensation was subsequently paid.

In the case of food handlers who were contacts of gastro-intestinal infection, efforts were made to secure voluntary exclusion, or temporary transfer to duties not involving the handling of food. Advice on food hygiene and personal cleanliness was given by the sanitary inspectors. Generally speaking, both employers and employees co-operated well.

The table below shows the number of persons to whom special attention was directed in view of their occupations.

Category	Examinations for				TOTAL
	Sonne Dysentery	Other Intestinal Infections	Scarlet Fever	Diphtheria	
FOOD HANDLERS					
Positive	28	3	2	—	33
Negative	52	10	14	—	76
NURSERY STAFF					
Positive	8	—	—	—	8
Negative	14	2	—	—	16
HOSPITAL STAFF					
Positive	5	3	1	—	9
Negative	8	2	3	—	13
SCHOOL STAFF					
Positive	4	—	—	—	4
Negative	9	4	1	—	14
DOMESTIC HELPS					
Positive	1	—	—	—	1
Negative	—	3	—	—	3
TOTALS	129	27	21	—	177

School and Day Nursery staff found to be infected were excluded from employment until they and their families were proved free from infection.

I should like to thank the staff of the Pathological Laboratory at the Bolton Royal Infirmary for their help, and to the people of Bolton who, in the main, willingly carried out any advice given to them. Much of the work of investigation and control could not have been done without this valuable assistance.

Certificates for National Insurance Payments:

Certificates were issued in accordance with the authority given to the Medical Officer of Health under Ministry of Health Circular 115/48 for the purposes of National Insurance sickness payments, in respect of 9 contacts or carriers of infectious disease who, because of their employment, were potentially dangerous in the spread of infection.

TUBERCULOSIS

Dr. J. B. Mitchell, Consultant Chest Physician, and Dr. D. A. Woodeson, Senior Chest Physician, have supplied the following information.

Notifications:

The number of new cases notified was 87 compared with 96 in 1953. Seventy-nine of the new cases were respiratory, and 8 were non-respiratory.

AGE AND SEX DISTRIBUTION OF NOTIFIED CASES:

Respiratory Tuberculosis

Age in Years	0 to 1	1 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 Up- wards	Total No. of Cases
Males	—	3	1	1	4	5	7	5	9	8	1	44
Females . . .	—	1	2	1	7	8	8	5	1	1	1	35
TOTALS . . .	—	4	3	2	11	13	15	10	10	9	2	79

Non-Respiratory Tuberculosis

Age in Years	0 to 1	1 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 Up- wards	Total No. of Cases
Males	—	—	—	—	—	—	1	1	—	—	—	2
Females . . .	—	—	1	1	—	—	1	1	1	1	—	6
TOTALS . . .	—	—	1	1	—	—	2	2	1	1	—	8

Deaths:

Twenty-six persons were certified as having died from tuberculosis compared with 24 in 1953. Eleven of the deaths occurred in institutions.

The age and sex distribution of those who died was as follows:—

Respiratory Tuberculosis Deaths

Age in Years	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 Up-wards	Total No. of Cases
Males	—	—	—	—	5	1	5	5	2	18
Females	—	—	—	—	2	1	2	2	—	7
TOTALS ..	—	—	—	—	7	2	7	7	2	25

Non-Respiratory Tuberculosis Deaths

There was only one death from Non-Respiratory Tuberculosis. This was a woman in the 45-55 years age group.

Summary of the Work of the Chest Clinic:

An analysis of the work completed over the past seven years is given below:—

Year	1948	1949	1950	1951	1952	1953	1954
No. of Cases Notified	157	119	105	153	127	96	87
No. of Deaths	70	65	43	48	47	24	26
No. of Attendances of new cases ..	890	900	901	1,255	1,454	1,144	1,127
No. of Cases referred from Miniature Radiography Unit	163	31	4	4	148	10	49
Artificial Pneumothorax and Pneumo Peritoneal refills	1,352	1,414	1,455	1,498	2,351	2,200	2,115
No. of Contacts examined	74	92	151	671	580	438	401
B.C.G. Vaccinations performed	—	—	8	47	52	89	94
Total attendances at Clinic	4,846	5,152	5,365	6,772	6,298	6,745	7,354

Following the experience of the country generally, Bolton has experienced in recent years, a fall in the number of notified cases, and in deaths from tuberculosis.

The number of cases on the register at 31st December, was 1,171.

There were 5 deaths amongst cases which had not been notified, 4 of which were respiratory and 1 non-respiratory.

The Care and After-Care of Patients suffering from Tuberculosis:

A responsibility to provide care and after-care for patients suffering from tuberculosis was placed on Local Health Authorities by the provisions of the National Health Service Act, 1946. This responsibility was discharged using the following methods.

STAFF:

It was found advisable to co-ordinate the work of after-care by setting up a panel of officers to act as a case conference, and this was done in March. The panel consisted of two medical officers from the Chest Clinic, two from the Health Department, the superintendent health visitor, a representative from the Housing Department, and one of the tuberculosis health visitors.

The panel had a general duty to co-ordinate the after-care of patients with tuberculosis and dealt with all matters except immediate necessities such as help in the home, financial assistance and loan of sickroom equipment. In particular the panel was responsible for considering applicants for rehousing who claimed priority consideration because of tuberculosis.

Each case of tuberculosis notified, discharged, or about to be discharged from sanatorium, or brought forward for discussion, was considered so that plans could be made to meet, as far as possible, the patient's social and medical needs.

REHOUSING:

The panel considered applications, and was responsible for recommending to the Medical Officer of Health those who needed priority consideration for rehousing on the grounds of tuberculosis. When the panel was first set up the Housing Director supplied a list of 36 patients who had applied for rehousing and had not yet been considered. This list included patients in an active and infectious state, together with others who were quiescent or considered cured, and some suffering from non-pulmonary tuberculosis. Each case was discussed individually.

In addition, 14 other patients applied for consideration making a total of 50 cases to be considered by the panel. Of these, 18 cases were recommended to the Housing Committee for priority rehousing and only two were deferred for various reasons. During the year, 17 cases were rehoused.

Careful consideration was given to the clinical condition and social circumstances of each patient in the light of the long general waiting list of applicants for Corporation houses.

OTHER MATTERS DISCUSSED:

A new record card for tuberculosis home visiting was considered and introduced. The current method of disinfecting sputum was investigated, and a new pattern of sputum flask and liquid disinfectant brought into use.

A meeting was held with the Area Officers of the National Assistance Board in order to establish a closer liaison. As a result arrangements were made whereby the panel were able to know the extent of assistance given to patients by the Board.

The literature available for health education of the public and of patients on the subject of tuberculosis was reviewed, and more up to date pamphlets brought into use.

It was found that the work of contact tracing was facilitated by the discussion of each new case monthly, and it was often surprising how much was known amongst the members about the probable mode of infection.

OTHER AFTER-CARE GIVEN:

By arrangement with the Regional Hospital Board and the Hospital Management Committee, three-twentyseconds of the time of one of the medical staff at the Chest Clinic was devoted to after-care, and each of the three health visitors engaged full-time with the problems of patients suffering from tuberculosis spent four-elevenths of their time in clinic duties. This arrangement provided a continuity of care. Appropriate financial adjustments were made between the authorities concerned.

The Home Nursing Service undertook the nursing at home of 66 patients, most of them requiring streptomycin injections.

Sickroom requisites were loaned when necessary from the Health Department store of equipment without charge.

The Home Help Service gave assistance to 22 patients.

Twenty-seven children were admitted to residential nurseries by arrangement with the Children's Officer. Many of the children were admitted to care because of the mother being in a sanatorium. None was admitted to provide segregation from the source of possible infection.

Contacts of tuberculosis were traced, and at a special clinic for this purpose 401 were examined, 94 being given B.C.G. vaccination.

It is believed that there is a gap in the provision of after-care, particularly when a patient is not eligible for National Assistance and yet the onset of the disease has caused additional expense, e.g. the provision of separate sleeping arrangements for the patients. It has been agreed by the Council that the provision of help in kind to meet this need will be made during the coming year because no voluntary committee exists for this purpose.

All patients thought to be in need of financial assistance were referred to the National Assistance Board and the great help and kind co-operation of the Area Officers was much appreciated. Some patients were also referred to voluntary agencies such as the British Red Cross Society, the British Legion and the Bolton Guild of Help.

As the need arose, the Disablement Resettlement Officer, together with the Chest Physician concerned, interviewed patients to try and find suitable employment.

B.C.G. Vaccination of School Children:

The Council approved a scheme for the vaccination of school children in their fourteenth year and after confirmation by the Minister of amendments to the Council's Proposals under Section 28 of the National Health Service Act, work commenced in October, 1954. The general practitioners were informed through the Weekly Bulletin issued to them by the Medical Officer of Health, so that they would be on the look out for any possible complications. Sixteen schools with an enrolment of 1,331 children of this age group were involved in the scheme. The parents were first sent a consent form and an explanatory letter with the result that 884 – over 66% – consented to their children being tested and receiving the vaccine if necessary. Then the completed consent forms were collected by the headmaster of each school and returned to the Health Department where the appropriate B.C.G. cards were prepared. The next stage was to perform the primary skin tests which were done at school and read there three days afterwards when those children with a 'negative' reaction were given B.C.G. vaccine (single intradermal injection

over the deltoid insertion). For all children the Mantoux 10 T.U. skin test was used. Of the 836 children tested, 301 gave a 'positive' reaction - 34.9% - 6 gave a doubtful reaction and it is proposed to re-test these children with 100 T.U. Five hundred and twenty children were 10 T.U. 'negative' and of these 507 were vaccinated. Seven children were not given the Mantoux test because of various lesions of the skin. One child though 'negative' was referred to the Chest Clinic because of his general condition. Nine consent forms were returned by children who were tuberculosis contacts, and of these, 7 already attended the Chest Clinic and arrangements were made for the other 2 children to do so. The above figures give the position as at the end of February, 1955.

At the time of writing, 120 children had been given a post vaccination 10 T.U. skin test and have shown 100% conversion. Of those children showing a 'positive' reaction to the preliminary skin test, 120 have so far been X-rayed using the Odelca Camera, and 3 have been recalled for larger films for the following reasons:—

- (i) Collapse of vertebrae (T 4)
- (ii) Flare L. hilum
- (iii) Mediastinal shadow of uncertain origin

I should like to record my appreciation of the co-operation of the chest physicians, the family doctors and the head teachers in giving this new scheme such a good start.

B.C.G. Vaccination for suitable contacts of cases of tuberculosis was still carried out, as hitherto, but by the staff of the Chest Centre, unlike the above scheme which was conducted entirely by Health Department staff.

Mass Radiography:

Dr. D. C. Lindars, the Medical Director of No. 4 Mass Radiography Unit of the Manchester Regional Hospital Board, has supplied the following information concerning the work of his Unit at the Health Exhibition from January 18th to 23rd inclusive.

The Unit was in operation in the Health Department and was linked up by propaganda with the Prevention and After-Care stand at the Exhibition. The Unit staff were on duty at this stand to encourage persons attending the Exhibition to go round to the Health Department to have a Chest X-ray. Suitable publicity material appeared on the stand. The Unit was open to the public from 10.0 a.m. to 8.0 p.m. each day. In the early stages of planning it was thought that the numbers passing through the Unit would be much less than its normal capacity of about 120 per hour, and in order that the Unit would not be under-worked, it was arranged for special groups to attend for X-ray at suitable times. Such groups included ante-natal cases, members of Corporation staff in contact with children, and cases specially sent by the general practitioners. With these arrangements it was hoped that the Unit would complete between 1,500 and 2,000 examinations during the week. In actual fact the Unit became almost overwhelmed with members of the general public and 4,213 examinations on miniature film were made. This sudden influx of people for X-ray led to certain difficulties which were eventually overcome by the provision of clerical staff from the Health Department and technical personnel from the Hospital Management Committee. Ninety-eight persons were recalled for a large film and in order to relieve the Chest Clinic

staff, the technical personnel of the Unit were made available on four afternoon sessions. Persons needing clinical interview were seen at the Civic Centre by the Medical Director. Urgent cases received immediate appointment to attend the Chest Clinic. All persons requested to attend for a large film or interview did so with one exception and for this person, special arrangements were made later. All repeat examinations and interviews were completed within two weeks of the close of the Exhibition. I should like to record my thanks to the Unit staff and the Chest Clinic staff for the way in which the extra work placed on their shoulders was dealt with so efficiently. Nine new cases of active respiratory tuberculosis were discovered of whom 5 were sputum positive, and 8 of the cases were admitted to sanatoria. Seven of the cases were from members of the general public; one was a private practitioner's case, and one was discovered in the ante-natal group. This short survey was undoubtedly an unqualified success.

The following tables give a summary of the work done during the Exhibition week and the final disposal of cases.

Ultimate Diagnosis of Persons referred for Further Investigation

TABLE I

	MALES			FEMALES			
	General Public	Referred by Private Practitioner	Persons in contact with children X-rayed at request of M.O.H.	General Public	Referred by Private Practitioner	Ante-Natal	Persons in contact with children X-rayed at request of M.O.H.
Total examined ..	1,470	49	10	2,507	54	28	95
Normal or no significant abnormality ..	1,445	45	10	2,492	51	27	94
Referred for further investigation ..	25	4	—	15	3	1	1
Active respiratory tuberculosis ..	3	1	—	4	—	1	—
Inactive respiratory tuberculosis ..	7	1	—	3	—	—	—
Intrathoracic new growth							
Malignant ..	1	—	—	—	—	—	—
Benign	1	—	—	1	—	—	—
Pneumoconiosis ..	2	—	—	—	—	—	—
Bronchiectasis ..	2	2	—	2	—	—	—
Others	9	—	—	5	3	—	1
TOTALS	2,965	102	20	5,029	111	57	191

Classification and Disposal of Non-Tuberculous Abnormalities

TABLE II

Abnormality	Males	Females	Total	Disposal
Congenital abnormality of bony thorax and lungs	23	31	54	No further action
Chronic bronchitis and emphysema	5	2	7	3 For further investigation
Pneumonia, non-tuberculous ..	—	1	1	1 " " "
Broncho-pneumonia, non-tuberculous	—	2	2	2 " " "
Consolidation of unknown cause ..	1	1	2	2 " " "
Bronchiectasis	3	3	6	6 " " "
Pulmonary fibrosis	3	4	7	2 " " "
Pneumoconiosis	2	—	2	2 " " "
Basal fibrosis	19	18	37	No further action
Pleural thickening	9	2	11	1 For further investigation
				1 Lost sight of at Chest Clinic
Intrathoracic new growth	2	1	3	3 For further investigation
Cardio-vascular lesion, acquired ..	11	38	49	5 " " "
Post-operative rib defect	1	2	3	No further action
Dextro-cardia	—	1	1	1 " " "
Sarcoidosis	—	1	1	1 For further investigation
TOTALS	79	107	186	

Classification and Disposal of Tuberculous Abnormalities

TABLE III

Abnormality	Males	Fe- males	Total	Rate per 1,000	Disposal
Inactive primary respiratory tuberculosis ..	6	15	21	4.98	No further action
Inactive post-primary respiratory tuberculosis ..	20	16	36	8.54	3 Supervision at Chest Clinic 6 Observation at Chest Clinic 2 Failed to attend for second follow-up examination at Chest Clinic
Active post-primary respiratory tuberculosis ..	4	5	9	2.14	25 No further action See Table IV

Disposal of the Cases of Active Respiratory Tuberculosis

TABLE IV

	Admission Sanatorium	Placed under supervision at Chest Clinic
MALES		
Sputum positive ..	2	—
Sputum negative ..	2	—
FEMALES		
Sputum positive ..	3	—
Sputum negative ..	1	1

VENEREAL DISEASE

Dr. Philip S. Silver has kindly supplied the following information about the work of his clinic.

On the whole there has been no change in the incidence of venereal disease, beyond the fact that early syphilis has now completely disappeared from the Bolton area.

The following table gives a summary of the number of new cases amongst Bolton residents over the past 11 years.

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Syphilis	93	121	151	162	113	97	93	44	58	48	36
Gonorrhoea	159	205	237	125	102	104	77	80	64	50	60
Other Conditions ..	384	458	473	390	463	449	481	405	334	316	333
TOTALS	636	784	861	677	678	650	651	529	456	414	429

No cases of syphilis in the first year of infection were seen at all. The total number of new cases of syphilis seen at the clinic from the Bolton area was 36, a decrease of 12 on the previous year.

Of the 18 cases referred to the clinic from the various ante-natal centres, only 4 were found to be suffering from syphilis. This again shows the value of routine ante-natal blood testing.

There were 61 cases referred from the School Health Service, Children's Department and the Moral Welfare Workers, all suffering from non-venereal diseases.

Six cases of syphilis defaulted from treatment, but these were offset by 13 who returned to treatment as a result of follow up.

The members of the clinic staff carried out 180 domiciliary visits for the purpose of ascertaining the cause of non-attendance and persuading re-attendance at the clinic.

Sixty new cases of gonorrhoea were referred in the year, which is slightly more than the previous year. Three hundred and thirty-three patients attended for routine investigation, and were found to be suffering from non-venereal disease. This figure is similar to the previous year.

PART IV

ENVIRONMENTAL HYGIENE

Work of the Sanitary Inspector

Housing

Air Pollution

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Report of the Borough Analyst

Statistical Tables

WORK OF THE SANITARY INSPECTOR

Staff:

The Chief Sanitary Inspector assisted by the Deputy Chief Sanitary Inspector have ably supervised this section of the department in spite of staffing difficulties and rapidly increasing commitments.

Special consideration was given by the Corporation to an improvement of the staffing position, and as a result, the establishment of sanitary inspectors was increased as follows:—

Number of specialist sanitary inspectors (engaged on smoke abatement, housing and slum clearance and inspection of meat and other foods)... From 5 to 11

Number of district sanitary inspectors (dealing with general complaints, housing repairs, food preparation premises and food hygiene, infectious disease enquiries, etc.)... .. From 12 to 16

At the close of the year there were eleven vacancies for district sanitary inspectors and advertisements have so far brought no response. There were six vacancies for specialist inspectors, but one post was filled by retention of the services of a meat inspector who was due for retirement; and three of the other five posts were expected to be taken up by newly appointed men early in 1955.

In addition there were six full-time pupil sanitary inspectors and all the posts were filled at the end of the year.

Five rodent operatives were employed inter alia for the destruction of rodents and insect pests. One of these men also carried out the duties of a mortuary attendant. In charge was a working foreman who allocated the duties and workplace of the others.

Complaints:

A total of 3,540 complaints was received and investigated. A summary is given below.

	NUMBER RECEIVED
Housing Defects	1,454
Choked and defective drains	425
Accumulations of offensive matter	36
Relative to unsound food	496
Verminous premises:—	
(a) Bed Bugs	9
(b) Rat and mouse infestations	847
(c) Cockroaches and other insect pests	28
Keeping of animals and poultry	22
Unsatisfactory milk supplies	10
Miscellaneous	213
TOTAL	<u>3,540</u>

Standing Commitments:

Premises Subject to Routine Inspection

TYPE OF ESTABLISHMENT	No. OF PREMISES
Common lodging-houses	2
Houses-let-in-lodgings	176
Moveable dwellings	25
Bakehouses	375
Basement bakehouses	5
Fish friers	208
Registered premises, Sec. 14 Food and Drugs Act, 1938	599
Industrial canteens	105
Other catering establishments	95
Miscellaneous food preparing premises	82
Ice cream premises – manufacture	35
„ „ – sale only	551
Meat Shops	218
Slaughterhouses	6
Dairies	10
Milk shops	690
Food shops	1,400
Licensed premises (On-)... ..	280
„ „ (Off-)	173
Food stalls	150
Vehicles – Meat	15
„ – Milk	165
Factories (Mechanical)	2,535
„ (Non-Mechanical)	224
Shops... ..	996
Outworkers' premises	132
Factory chimneys	205
Hairdressers' premises	261
Places of entertainment	42
Clubs	30
Offensive Trades	7
Knacker's Yard	1
Registered premises, Rag Flock, etc. Act, 1951	16
Pet shops (Pet Animals Act, 1951)	14

Detection of Sanitary Defects:

Summary of Visits and Inspections

NATURE OF VISIT										No. OF VISITS
Dwelling-houses for housing defects under Public Health Act:—										
(a) After complaint	...	...	...	...	...	...	...	...	...	1,916
(b) Subsequent visits	...	...	...	...	...	...	...	...	...	3,995
Dwelling-houses under Housing Acts:—										
(a) After complaint	...	...	...	...	...	...	...	...	...	76
(b) Subsequent visits	...	...	...	...	...	...	...	...	...	1,554
(c) Certificates of disrepair	...	...	...	...	...	...	...	...	...	220
Infected dwelling-houses:—										
(a) After notified infectious disease (other than tuberculosis)	...	...	...	...	...	...	...	...	...	586
(b) Contacts	...	...	...	...	...	...	...	...	...	188
(c) Fumigations after infectious disease	...	...	...	...	...	...	...	...	...	—
Schools and church halls	...	...	...	...	...	...	...	...	...	7
Swimming baths	...	...	...	...	...	...	...	...	...	2
Water Sampling:—										
(a) Swimming baths	...	...	...	...	...	...	...	...	...	—
(b) Dwelling-houses	...	...	...	...	...	...	...	...	...	68
Business premises	...	...	...	...	...	...	...	...	...	241
Cinemas, dance halls, billiard halls	...	...	...	...	...	...	...	...	...	11
Offensive trade premises	...	...	...	...	...	...	...	...	...	162
Stables, piggeries, keeping of animals	...	...	...	...	...	...	...	...	...	122
Houses-let-in-lodgings	...	...	...	...	...	...	...	...	...	25
Factories Acts, 1937 and 1948:—										
Factories with mechanical power	...	...	...	...	...	...	...	...	...	428
Factories without mechanical power	...	...	...	...	...	...	...	...	...	40
Outworkers' premises	...	...	...	...	...	...	...	...	...	5
Common lodging-houses	...	...	...	...	...	...	...	...	...	3
Underground rooms	...	...	...	...	...	...	...	...	...	—
Hairdressing premises	...	...	...	...	...	...	...	...	...	68
Tents, vans and sheds	...	...	...	...	...	...	...	...	...	14
Smoke abatement:—										
re Prior Approval applications	...	...	...	...	...	...	...	...	...	2
re Smokeless zones	...	...	...	...	...	...	...	...	...	1,121
Smoke observations	...	...	...	...	...	...	...	...	...	497
Smoke investigations	...	...	...	...	...	...	...	...	...	66
Revisits	...	...	...	...	...	...	...	...	...	165
Combustion readings	...	...	...	...	...	...	...	...	...	1
Deposit gauge visits...	...	...	...	...	...	...	...	...	...	187
Fairgrounds	...	...	...	...	...	...	...	...	...	9
Drainage:—										
Conversion from waste water to water carriage system	...	...	...	...	...	...	...	...	...	404
Miscellaneous tests and inspections	...	...	...	...	...	...	...	...	...	246

NATURE OF VISIT	No. OF VISITS
Public sewers	30
Watercourses and ditches	12
Land and tips	8
Septic tanks and cesspools	2
Sanitary conveniences – including Public Houses	77
Miscellaneous visits	2,295
Visits not inspections	3,033
Verminous premises:—	
(a) Rats and mice (i) after complaint or from survey	241
(ii) subsequent visits	75
(b) Bug infestations: No. of premises visited	9
No. of premises where definite infestation existed	9
(c) Cockroaches	28
(d) Other vermin	28
Inspections for supervision of food:—	
Unfit foodstuffs other than meat	2,567
Slaughterhouses and coldstores	1,475
Butchers' shops (Public Health (Meat) Regulations, 1924 to 1952)	630
Food and Drugs Act, 1938 – Section 13:—	
Bakehouses	162
Fish shops, grocers and greengrocers	776
Factory canteens	10
Restaurant kitchens, fish friers, etc.	242
Hotel and beerhouse bars and cellars:—	
(a) Day inspections	77
(b) Night inspections	72
Food and Drugs Act, 1938 – Section 14:—	
Ice cream premises (Heat Treatment Regs., 1947 – 1952)	240
Sausage manufacturers	119
Preserved meat preparation premises	285
Preserved fish preparation premises	54
Milk and Dairies Regulations, 1949: Food and Drugs Act, 1938 – Section 68:—	
Milk sampling for bacteriological examination	131
Contraventions of Milk and Dairies Regulations	227
Dairies	239
Foodshops Act, 1950 – Section 38... ..	422
National Assistance Act, 1948 – Section 47	—
Diseases of Animals Acts and Orders	1,925

Notices Served:

Action taken to secure abatement of nuisances and to enforce the appropriate statutory enactments was as follows:—

Nature of Notice	Public Health Act	Food and Drugs Act, Sections 13 & 14 and Food Handling Byelaws	Factories Acts 1937 and 1948	Byelaws: Hairdressers Miscellaneous
No. of informal notices served	1,315	129	32	236
No. of informal notices complied with . .	553	90	20	181
No. of statutory notices served	867	—	—	—
No. of premises concerned	581	—	—	—
No. of statutory notices complied with . .	586	—	—	—
No. of premises concerned	300	—	—	—
No. of cautionary letters sent by Town Clerk	162	—	—	—

Housing Defects and Legal Proceedings:

A summary of general housing defects or disrepair of property where it was necessary to take legal proceedings, and the results of such proceedings are given below.

CASE No.	STATUTE	DETAILS OF CONTRAVENTION	RESULT
1	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of defective window frames and perished plasterwork	Nuisance Order made against owner and costs of 14/6 imposed
2	Public Health Act, 1936—Sections 93 and 39	Failure to comply with abatement and statutory notices in respect of leaking roof, defective plaster, defective sash cords, defective rain water pipe and defective pointing.	Nuisance Order made against owner and a fine and costs of £1/13/ imposed
3	Public Health Act, 1936—Section 95	Continued failure to comply with a Nuisance Order	Fine of £15 imposed on owners
4	Public Health Act, 1936—Section 39	Failure to comply with a statutory notice in respect of defective eavesgutter and rainwater pipe	Fine of £1 imposed on owner/occupier
5	Public Health Act, 1936—Section 39	Continued failure to comply with a statutory notice in respect of defective eavesgutter and rainwater pipe	Fine of £2 imposed on owner/occupier

In addition, there were seventeen summonses issued but withdrawn due to the work having been done before the date of the hearing.

Sanitary Improvements Effected:

Action was taken under either the Public Health Act or the Housing Acts.

NATURE OF IMPROVEMENT	No. OF IMPROVEMENTS
Floors repaired	49
Internal walls repaired	481
Ceilings repaired	207
Doors and windows repaired	322
Stairs repaired	15
Roofs repaired	248
Chimneys and flues repaired	64
Eavesgutters repaired	188
Rainwater pipes repaired	104
Soil and waste pipes repaired... ..	62
External walls repaired	57
Yards, paths, gates, etc., repaired	14
Sanitary conveniences repaired	196
"Tippler" conversions	2
Refuse accommodation repaired	201
Drains repaired	114
Fire-ranges repaired	43
Sinks, water supplies, wash boilers, etc., repaired ...	39
Miscellaneous	33

HOUSING

Clearance Areas:

The Minister of Housing and Local Government confirmed the Bolton (Derbyshire Row) Compulsory Purchase Order, 1939, on the 8th March, 1954, subject to certain modifications in respect of properties already demolished.

The area contained 23 houses coloured "pink" and 2 houses, 1 garage and 2 plots of land coloured "grey". Objections were made by the owners of the "grey" properties.

The Order became operative on the 4th May, 1954, and rehousing of 53 persons concerned was completed by the beginning of September, 1954. Most of the houses have now been demolished and preparatory work for the laying of the foundations of the new Council properties on the cleared site has been commenced.

Details of the Bolton (East Ward No. 5) Compulsory Purchase Order were submitted to the Minister of Housing and Local Government on the 11th March, 1954. This area included 129 dwelling-houses and 5 combined shops and dwelling-houses. Approximately 325 persons will require rehousing. The Minister received written objections in respect of 28 houses and statements of the principal grounds of unfitness were forwarded to each objector.

A Public Inquiry was held on the 5th October, 1954, when 8 persons raised objections to the Corporation's proposals. The result of the Inquiry is awaited.

Housing Repairs and Rents Act, 1954:

The above Act became operative on the 30th August, 1954, and under its provisions the Corporation is required within one year from the commencement of the enactment to submit proposals for dealing with unfit houses to the Minister of Housing and Local Government.

A preliminary survey for this purpose has been commenced, the houses being grouped in the following categories:—

Group I	...	...	Essentially sound houses
Group II	...	...	Slum houses
Group III	...	...	Dilapidated houses which are repairable
Group IV	...	...	Houses capable of improvement

In certain areas where there are known to be large numbers of unfit houses, house to house inspections have been carried out and approximately 800 houses have so far been inspected.

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:—

NEW ACTION:

Houses represented under S.11 of the Housing Act, 1936	...	95
Demolition Orders made	...	41
Closing Orders made	...	29
Undertakings not to re-let for human habitation accepted	...	1

COMPLETED ACTION:

Houses demolished	...	44
Persons re-housed	...	98
Houses closed	...	33
Persons re-housed	...	96

Where the Corporation has re-housed overcrowded tenants from unfit houses, measures have been taken to prevent the houses being re-let.

The Corporation has demolished one house due to the default of the owner in complying with a Demolition Order.

Housing Inspections:

INSPECTION OF DWELLING HOUSES

1. (a) Dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	1,992
(b) Inspections made for the purpose	...	5,549
2. (a) Dwelling-houses (included under sub-head (1) above) which were inspected under the Housing Consolidated Regulations, 1925, as amended by the Housing Consolidated Amendment Regulations, 1932	...	895
(b) Inspections made for the purpose	...	895

REPAIRS – INFORMAL ACTION

Unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health Act or Housing Acts	...	553
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ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936

Houses in which defects were remedied after service of formal notices—

(a) by owners	... .. .	300
(b) by Local Authority in default of owners	... .. .	66

HOUSING ACT, 1936

Houses made fit after service of formal notices (Sections 9, 10, 11 and 16)—

[illegible]

Survey of Derelict Houses:

The survey commenced in 1953 has been continued and 4 derelict houses have been demolished.

**Certificates of Disrepair – Rent and Mortgage Interest Restrictions
(Amendment) Act, 1933 – Section 12:**

One hundred and forty-two applications were received from occupiers of houses requesting certificates of disrepair, a certificate being issued in each case after the payment of a fee of one shilling.

Certificates of Disrepair and/or Suitability of Houses for Occupation – Housing Repairs and Rents Act, 1954 – Sections 23 and 26:

The provisions of the Rent and Mortgage Interest Restrictions (Amendment) Act, 1933, Section 12 were replaced by the above sections of the Housing Repairs and Rents Act, 1954, since when 86 applications for certificates as to the state of repair and/or suitability for occupation of houses were received. Of these, 83 were granted on payment of a one shilling fee. Applications from owners for revocation of certificates were received in 6 cases and appropriate certificates were issued in 2 cases. A total of 223 certificates of disrepair were outstanding at the end of the year.

AIR POLLUTION

Industrial Smoke:

Much work remains to be done in Bolton to reduce the volume of smoke from dwelling-houses and industrial premises. It is thought, by some, that the smoke from industrial undertakings can be completely abolished, but this is not, at the present time, in all cases practicable.

There are many mechanical stokers now operating in Bolton which are not smokeless, but the volume of smoke emitted, when supplies of suitable fuel are available, gives no cause for concern. Unfortunately, the right type of fuel is not always supplied. The directorate of one large cotton mill converted their boiler house plant to mechanical sprinkler stokers of an approved design, at a cost of £7,500. The coal supplied recently to this mill is of a strongly caking type, and the fire-bed requires frequent attention; in consequence, every time the fire is raked to admit air, dark smoke is emitted.

It would appear that many of the industrial installations cannot rely on the same grade of fuel being supplied, not merely consistently, but even for comparatively reasonable length of time.

In view of the capital expenditure to be incurred in the modernisation of the railway undertakings by converting the installations from steam to electricity and diesel engines it would seem worthwhile to arrange the distributive organisation so as to enable the right type of coal to be consistently delivered to industrial installations where it can be most efficiently used, with due regard to the type of plant and the possibility of smoke nuisance.

There are powers in Bolton intended to prevent smoke by enabling new installations or improvements in industrial boiler house plants to be approved by the Corporation prior to such plants being installed. It is intended that proposed installations should be notified to the Corporation who have set up a special panel – referred to as the Prior Approved Panel – to consider schemes for improvement of industrial boiler house plants with a view to the prevention of smoke nuisance.

The Panel was served by a Consultant Engineer on boiler house practice; the Regional Engineer of the Ministry of Fuel and Power; an Engineer nominated through local industry; the Borough Engineer; the Medical Officer of Health and the Chief Sanitary Inspector. A code of requirements has been drawn up by the Panel which states in general terms the circumstances in which proposals will be approved.

During the year three schemes were submitted for consideration by the Panel.

A proposed installation of a new boiler of the cast iron sectional type with an underfeed mechanical stoker was approved.

One application was withdrawn in order that certain modifications proposed by the Panel to obviate the risk of grit emission might be considered.

One of the proposals which was approved was the outcome of a direct request by the Health Department for the installation of mechanical stokers following the notification of excessive smoke emission from the factory boiler house chimney.

Smokeless Zone:

The Bolton (Town Centre) Smokeless Zone Order, which has been made in respect of an area of approximately 86 acres in the town centre, was confirmed by the Minister of Housing and Local Government on the 3rd April 1954, and became operative on the 1st November, 1954. Soon after the Minister's confirmation was received, a circular letter was distributed to all occupiers of premises within the zone setting out the main provisions of the Order and inviting any person, if he so desired, to apply for advice from the Corporation's technical officers. This measure undoubtedly contributed greatly to the smooth transition to smokeless combustion which, from the inception, was almost complete.

It was, however, necessary to call attention to some smoke emissions, but on investigation these were usually found to result from the burning of kitchen waste, etc., not for its heat value, but as a ready means of disposal of rubbish.

It was noted that the so-called "smokeless fuels" did, in fact, give rise to some smoke emission, the quantity and duration being dependent on the temperature of the fire on which they were used.

Most of the 162 dwelling-houses in the Zone are old terraced houses which are, however, unlikely to be demolished for many years. The houses are tenanted by persons of limited and, in some cases, very small means. Only a small proportion of the old ranges have been replaced by modern, specially designed, coke burning appliances.

Experience has shown that these old-fashioned ranges in the main living room, which is usually the only one heated, were capable of burning smokeless fuels sufficiently well to provide adequate heating of the room. They did, however, require much more attention when stoked with smokeless fuels than when bituminous coal was used and the absence of draught control appeared to make them even more wasteful of smokeless fuels than they were of bituminous coal. The precise degree of wastefulness was obscured by the fact that the use of bituminous coal was restricted by the rationing system, whereas the supply of smokeless fuel has been completely unrestricted.

It cannot be too often reiterated that to obtain the maximum efficiency in domestic dwelling-houses it is necessary to install the purpose made coke burning appliances, preferably 18" wide, and also it is essential that the grade of coke used should be the right size - this, in the case of an ordinary domestic grate, would be not less than 1½" to 2", the bed of the fire being maintained at a thickness of about 5".

Although six months' notice was given from the confirmation of the Order by the Minister to the date upon which the Zone would become operative, it was found that many householders had taken no steps to install suitable appliances.

The legislation enables lessees or tenants incurring expense on executing works to comply with the Order, to agree with the owner of their premises to make reasonable variations in their terms of lease or tenancy and in the event of disagreement with the owner, to apply to the County Court for an Order making such variations.

In some cases landlords have installed proper appliances, but in many others the occupiers have been content to rely upon the old-fashioned range which, although able to burn smokeless solid fuels, cannot be expected to be satisfactory having regard to cost and labour involved.

A considerable improvement in the quality of gas coke supplied in the Zone has been secured after consultation with the officers of the local Gas Board and the fuel retailers.

Smoke Observations:

In addition to routine observations, 455 official half-hour observations were taken. The results are summarised as follows—

BLACK SMOKE EMISSION		No. OF OBSERVATIONS
Nil	Minutes *	363
Nil to $\frac{1}{2}$	„	22
$\frac{1}{2}$ to 1	„	18
1 to $1\frac{1}{2}$	„	19
$1\frac{1}{2}$ to 2	„	9
2 to 3	„	10
3 to 4	„	4
4 to 5	„	4
5 to 10	„	5
Over 10	„	1
TOTAL:		<u>455</u>

*The byelaw provides that an emission of black smoke for more than two minutes in any period of 30 minutes shall, until the contrary is proved, be deemed to be a "smoke nuisance".

When the emission of black smoke contravened the byelaw, the factory controller was interviewed and a visit to the boiler house was made to ascertain the cause of the nuisance. Advice and assistance were given where possible. In four instances, there was a previous record of excessive smoke emission having been brought to the notice of the firms concerned and consequently statutory notices were served under Section 103, Public Health Act, 1936. On 52 occasions heavy smoke emissions were being made but were not infringing the byelaws. These were dealt with by interviewing the executive and inspecting the plant and in 12 cases, written notices were served under Section 102, Public Health Act, 1936. A further 91 visits were made to boiler plants giving out moderate smoke emission in an effort to secure further improvement.

Most of the larger boiler installations in Bolton were fitted with mechanical stoking equipment and its proportion has been increased during the year by the installation of 48 new machines by eight firms.

Four of the machines are of the Chain Grate type, four are Coking Stokers and the remainder Sprinkler Stokers. Of the forty Sprinkler Stokers, thirty four have been fitted in association with new moving bar self-cleansing furnace grates. One firm has fitted an automatic smoke indicating and recording meter. The total cost of this work was approximately £20,000.

There are a number of boiler plants, which, for a variety of reasons, are not suitable for conversion to mechanical stoking, and a considerable measure of success has been achieved in converting these installations from the burning of bituminous coal to the burning of smokeless fuel. These appliances prior to conversion were consuming 18,500 tons of bituminous fuel per year.

Education of the Public and Boiler House Operatives:

For several years classes in boiler house practice have been held at the Bolton Technical College and the attendances for the sessions 1953-54 and 1954-55 were as follows:—

SESSION	COURSE	NO. OF ENROLMENTS	EXAMINATION RESULTS	
			ENTRIES	PASSES
1953-54	Boiler Operator's Certificate (1 evening per week)	23	14	10
	Boiler House Practice, Inter. (2 evenings per week)	14	8	5
1954-55	Boiler Operator's Certificate	12		
	Boiler House Practice, Inter.	4		
	Boiler House Practice, Final	6		

City and Guilds Fuel Prize of £10 awarded to W. Lomax on results of the Boiler Operator's Certificate Examination in 1953-54.

The general public, although acquainted with the problem of air pollution, probably not fully informed of the evils accompanying a smoke laden atmosphere in an industrial town such as Bolton. Efforts have been made with the support of the local Press to encourage the further use of smokeless fuels.

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES REGULATIONS 1949 to 1954:

No. of Dairies	...	...	...	...	...	...	...	...	...	...	10
No. of Milk Shops...	...	...	...	...	...	...	...	...	...	...	690
No. of Dairy Vehicles	...	...	...	...	...	...	...	...	...	...	165
No. of Milk Distributors	...	...	...	...	...	...	...	...	...	...	865

MILK (SPECIAL DESIGNATION) (PASTEURISED AND STERILISED MILK) REGULATIONS, 1949 TO 1950:

The following licences were granted:—

"Pasteurised Milk" – Producers' Licences	...	...	...	...	...	...	...	...	...	2
" " – Dealers' Licences	...	...	...	...	...	...	...	...	...	72
" " – Supplementary Licences	...	...	...	...	...	...	...	...	...	—
"Sterilised Milk" – Dealers' Licences...	...	...	...	...	...	...	...	...	...	569
" " – Supplementary Licences	...	...	...	...	...	...	...	...	...	—
"Tuberculin Tested (Pasteurised) Milk" – Dealers' Licences...	...	...	...	...	...	...	...	...	...	53
" " – Supplementary Licences	...	...	...	...	...	...	...	...	...	—
"Tuberculin Tested (Sterilised) Milk – Dealers' Licences	...	...	...	...	...	...	...	...	...	—

MILK (SPECIAL DESIGNATION) (RAW MILK) REGULATIONS, 1949 TO 1954:

The following licences were granted:—

"Tuberculin Tested Milk" – Dealers' Licences	...	...	...	...	...	...	...	...	...	37
" " – Supplementary Licences	...	...	...	...	...	...	...	...	...	—
"Accredited Milk" – Dealers' Licences – expiring on 30th September, 1954	...	...	...	...	...	...	...	...	...	5

DAIRIES AND DAIRY VEHICLES:

	Dairies	Dairy Vehicles
No. of Inspections	239	111
No. of Notices served	19	8

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION (DESIGNATED MILK):

The results of samples of milk taken from pasteurising establishments and other dairies, milk distributors, schools and milk shops, for bacteriological examinations, are given on page No. 112.

One sample was found to be unsatisfactory. The milk was tuberculin tested (pasteurised) and the sample, taken at a local dairy in the month of June, failed to pass the phosphatase test. An inspection of the pasteurising plant revealed mechanical defects. These have been remedied and subsequent samples were found to be satisfactory.

BIOLOGICAL SAMPLING OF MILK:

There were 106 samples of milk taken for examination for tubercle bacilli. The samples were taken or purchased from farms, dairies and roundsmen in the borough. In 2 instances where milk was sampled from farms the samples contained tubercle bacilli and the information was referred to the Ministry of Agriculture and Fisheries Veterinary Service for investigation at the farm. The infected beasts were indentified, removed from the herds and slaughtered.

Four of the samples containing tubercle bacilli were from milk produced on farms outside the borough. The Medical Officer of Health for Lancashire County Council and also the Divisional Veterinary Officer for the Ministry of Agriculture and Fisheries were notified. In 2 cases infected animals were discovered, removed from the herd and slaughtered. In one case an animal was removed from the herd before the enquiries commenced and was slaughtered at the knacker's yard. Enquiries are continuing on the fourth case.

BRUCELLOSIS:

In consequence of a case of brucellosis, occurring in a twelve year old girl, samples of the milk supply were taken, but proved to be negative. Arrangements have been made for regular examination of raw milk supplies for brucella infection.

BACTERIOLOGICAL EXAMINATION OF MILK VESSELS:

Routine samples of rinses from churns and bottles were taken. The results are given on page No. 112.

Where milk vessels were found to be unsatisfactory, advisory visits were made to the dairy concerned and cautionary letters were sent. In all cases subsequent examinations resulted in satisfactory reports.

In addition, legal proceedings were twice instituted against a local dairy for supplying milk in dirty bottles; fines of £10 and £50 were imposed.

MILK DISTRIBUTION:

There has been little change in the number and types of dairy vehicles, many of which are still horse-drawn. Cautions have been necessary in some instances to ensure a satisfactory standard of cleanliness. Wherever possible, persuasion was used, fortified when necessary by service of notice under the Milk and Dairies Regulations. Eleven notices for contraventions were served and all were complied with.

SAMPLING OF MILK FOR CHEMICAL ANALYSIS:

Details of sampling are given on page No. 110. Fifteen samples were unsatisfactory. Legal proceedings were instituted in two cases as follows:—

	DETAILS	ACTION TAKEN
Case No. 1	Milk samples contained extraneous water – 5.1% and 11.5%	Fines totalling £20 and £2 2s. 0d. costs imposed
Case No. 2	Milk sample (hot milk) contained extraneous water – 33.2%	Fine of £5 and £2 2s. 0d. costs imposed.

The remaining 12 unsatisfactory samples were dealt with administratively by special visits to the farm dairies and inspection of dairy equipment. In all cases advisory and cautionary letters were sent.

Milk – Special Designations – Specified Area:

From the 1st October, 1954, the use of the special designation “accredited” was not permitted. Also from that date the Milk (Special Designations) (Specified Areas) (No. 2) Order, 1954 came into force in the borough. The effect of the Order was that all milk sold by retail must conform to the requirements of the Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949 – 1953, or the Milk (Special Designation) (Raw Milk) Regulations, 1949 and 1950. From the 1st October, 1954, specially designated milk was either “tuberculin tested milk” which is “raw” untreated; or “pasteurised milk” or “sterilised milk”, both of which are treated by heat. All milk was bottled at the dairy and the use of cans and dippers was made illegal in Bolton. The change-over was effected smoothly. Advice was requested by, and given to, farmers concerned. It was only necessary to send one warning letter to a farmer concerning deliveries into the borough. The two pasteurising establishments in the town are undergoing alterations to meet the increased consumption of heat treated milks.

In addition, arrangements for the final viewing and examination of pasteurised milk in one dairy were improved by the installation of fluorescent screens and the employment of personnel to prevent the possibility of bottled milk being distributed with dirt and foreign body contamination.

Bacteriological and Chemical Examination of Ice Cream:

The results of the analysis of 151 samples of ice cream which were taken for bacteriological examination are given on page No. 112. There were 42 samples reported to be unsatisfactory according to the provisional bacteriological grading standards of the Sub-Committee of the Public Health Laboratory Service.

The sanitary inspectors secured improvements by visiting manufacturing premises and investigating defects and by giving suitable advice. Contraventions of the appropriate legislation were the subject of written notices. There were no cases requiring institution of legal proceedings.

When the unsatisfactory samples were produced outside the borough, the manufacturers were notified, and a copy of the laboratory report was sent to the public health department concerned.

Eight samples of ice cream were taken for chemical analysis and the samples proved to be satisfactory.

Ice Lollies:

In connection with reports of small quantities of lead in ice lollies, visits and enquiries were made of local manufacturers and at shops to check on the manufacture and tinning of ice lolly moulds, but it would appear that no work of this nature is carried out locally. However, investigations are being continued.

Inspection of Meat and Other Foods:

The inspection of human food at slaughterhouses, markets and food shops required 5,474 visits to be made by the inspectors.

MEAT INSPECTION:

The rate of slaughtering was as follows:—

	CATTLE	CALVES	SHEEP	PIGS	TOTAL
Average Weekly "Kill"	198	36	1,092	270	1,596
Maximum Weekly "Kill"	263	39	2,170	392	2,864

The following table shows the number of animals slaughtered and inspected at the private slaughterhouses and the public abattoir:—

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Total number killed and inspected..	6,467	3,881	1,912	56,751	14,035
All diseases except Tuberculosis:					
Whole carcasses condemned.. ..	—	2	24	26	11
Carcasses of which some part or organ was condemned	410	939	3	1,140	75
Percentage of the number inspected affected with disease other than tuberculosis	6.34	24.24	1.41	2.05	.61
Tuberculosis only:					
Whole carcasses condemned.. ..	—	68	4	—	13
Carcasses of which some part or organ was condemned	126	1,065	—	—	151
Percentage of number inspected affected with tuberculosis ..	1.94	29.19	.21	—	1.16

SPECIAL INFECTIONS OR CONDITIONS FOUND:

Parts of carcasses and organs were condemned and destroyed in 4 cases of localised infection by *cysticercus bovis*.

Udders affected with mastitis were condemned in 940 cases.

Foodstuffs Condemned

	TONS	CWTS.	QRS.
Meat (Fresh)	60	10	—
Meat (Tinned)	—	13	1
Boiled Ham (Tinned)	1	15	3
Tongue and Corned Beef (Tinned) ...	1	11	—
Fish (Fresh)	—	16	—
Milk (Tinned)	—	11	2
Poultry and Rabbits	—	1	1
Fresh Fruit and Vegetables	11	4	2
Tinned Fruit and Vegetables	3	13	—
Provisions (Miscellaneous)	4	1	—
TOTAL	84	17	1

Disposal of Condemned Meat:

Following upon the decontrol of meat rationing it was necessary to make suitable arrangements for the collection of condemned meat at the five private slaughterhouses and at the public abattoir. All carcasses and offals condemned at these establishments are collected by the Cleansing Department and conveyed to the steam digester at Raikes Lane.

The Corporation decided to make a monetary payment to the owners for such condemned meat at a rate of £7 per ton for meat and £1 per ton for offals, the cost being borne equally by the Cleansing and Health Committees.

Slaughterhouses:

In 1939, there were fourteen private slaughterhouses in use in Bolton, but the slaughtering facilities at the public abattoir were not used to full capacity.

On the 13th April, 1954, shortly before decontrol of meat by the Ministry of Food, consultations were held between the Bolton and District Butchers' Guardian and Benevolent Association and the Corporation at which estimates were made of the required number of cattle units for which slaughtering facilities would be required.

As a result, five private slaughterhouses were relicensed and are now in use, together with the public abattoir. The occupiers of three of the private slaughterhouses which were closed under Section 61 of the Food and Drugs Act, 1938, appealed to the Ministry of Food, and a Local Enquiry was held, but the Minister, after consideration, approved the Corporation's resolution regarding the closure of these private slaughterhouses.

The attention of the Corporation was directed by the Minister to the shortage of hanging space for offals and for pigs at the public abattoir and the dumping of heads and inedibles outside the abattoir. These matters have been referred to the Markets Committee and are being given attention.

The Corporation have, for many years, wished to have a new public abattoir and a deputation visited the Ministry of Food to press the claims of Bolton prior to the decontrol of meat. The matter now appears to await the implementation of Government policy on the concentration of slaughtering.

Slaughter of Animals Acts, 1933 to 1954:

Fifty-three licences were issued to slaughtermen.

Diseases of Animals Acts:

TUBERCULOSIS ORDER, 1938:

Twenty-two cows were slaughtered under the above Order. Post mortem examinations resulted in 15 carcasses and organs being totally condemned. Seven carcasses were found fit for human consumption.

ANTHRAX ORDER, 1938:

Two cases of suspected anthrax in cattle were investigated. In each case, there was a negative report.

FOWL PEST ORDER, 1936:

No cases of fowl pest were reported.

SWINE FEVER ORDER, 1938:

The investigation of two reports of suspected swine fever amongst pigs produced positive results; a total of 48 pigs was involved and all were slaughtered.

FOOT AND MOUTH DISEASE ORDER, 1928:

No outbreaks occurred within fifteen miles of the borough.

Food and Drugs Sampling for Chemical Examination:

The following samples of foods and drugs were submitted to the Borough Analyst:—

	Genuine	Unsatisfactory	Total
Food Samples:			
Formal	422	28	450
Informal	630	10	640
Drug Samples:			
Formal	—	—	—
Informal	25	5	30
TOTALS	1,077	43	1,120

Full details of the above samples are given in Table I on pages No'd. 116 to 117.

A bottle containing a mixture for the treatment of peptic ulcer was being sold by a local firm of dispensing chemists and was found to be unsatisfactorily labelled. This was a contravention of Section 11(1)(a) of the Pharmacy and Medicines Act, 1941. A warning letter was sent and a written explanation accepted. Suitable labels are now attached.

LEGAL PROCEEDINGS:

SAMPLE	ACTION TAKEN
Shredded Beef Suet (10.2% deficient in beef fat)...	Fine - £6 plus £1 1s. 0d. costs
Scotch Barley (Infested with Mites) ...	Fine - £3 3s. 0d. plus 10/6d costs.
Lentils (Infested with Mites)...	Fine - £3 3s. 0d. plus 10/6d costs.

In all other cases warning letters were sent.

Legal proceedings for unsatisfactory milk samples are detailed under the heading "Sampling of Milk for Chemical Analysis" on page No. 97.

Food Hygiene:

The numbers and types of food premises together with details of establishments registered under Section 14 of the Food and Drugs Act, 1938, are shown on page No. 85.

The number of dairies registered under the Milk and Dairies Regulations, 1949, is given on page No. 95. Particulars of inspections made are detailed on page No. 87.

EDUCATIONAL ACTIVITY:

A course of lectures illustrated by the Central Council for Health Education's film strips on food poisoning was given to the school meals supervisors. Lectures on food hygiene in connection with emergency feeding were given to the Civil Defence Welfare Section and talks on food hygiene, illustrated by film strips, were given to students on the health visitors' training course at the Technical College.

Foreign Bodies in Food:

Seven complaints were made, three of which came from Bolton residents, the particulars being as follows:—

1. "Insect in a Flour-Cake". On examination, the alleged insect proved to be a small cinder fragment. The bakery concerned was clean and well conducted, and the presence of the foreign body was considered to be accidental; a verbal and written warning was given to the proprietors.
2. "Loaf containing a cockroach". The premises concerned were thoroughly inspected, but without finding any definite evidence of cockroach infestation; the bakery was subsequently thoroughly cleansed and disinfested against these insects.
3. "Insects in Flour Sacks". A report was received from a local bakery suggesting that flour was being delivered to the premises, containing live insects (*Tenebrio molitor*). Examination of the firm's premises failed to reveal any evidence of infestation of their own works, and consequently the matter was reported to the two local authorities from whose districts the flour was being supplied. According to the reports received later from these authorities, the suppliers concerned appeared to be taking all reasonable steps (including HCN disinfestation) to

prevent and eliminate infestation on their premises. On one occasion, however, sacks of flour from one of the firms were found, almost immediately after arrival, to be infested (around the necks of the sacks), and it would seem possible, therefore, that infestation might have occurred during transit.

Three complaints were received from other local authorities as follows:—

4. "Piece of string in a loaf". This object proved in fact to be a small, screwed-up piece of paper. Many of the firm's raw materials were supplied in paper bags or sacks, and as the business was generally well conducted, the presence of the foreign body was considered to have been accidental.
5. "Loaf nibbled by mice". There was no proof in this case as to where the damage had taken place. The bakery concerned was, however, inspected and test-baiting carried out, but although approximately one hundred baits were laid, no evidence of infestation was found.
6. "Insect in a loaf". The insect was *Stegobium paniceum*. The bakery concerned showed no evidence of infestation, was clean and well-managed, and furthermore was being treated at regular intervals, as a precautionary measure, by the Health Department's operator against both insect and rodent pests. It was probable that the insect had been brought into the premises with the flour.

The final complaint related to the alleged finding of a hair in a wrapped chocolate biscuit. The article had been purchased at a railway station buffet in another town, and the complaint was referred to the local authority for investigation and action.

Legal Proceedings:

The Corporation's first prosecution under the byelaws made in accordance with Section 15 of the Food and Drugs Act, 1938, was taken when a fish trader on the Ashburner Street market was fined £1 for smoking whilst handling, wrapping and serving fish. The vendor was seen by an inspector to be serving fish and while the inspector was waiting to speak to him ash from his cigarette was seen to fall onto fish which was then being wrapped. This case received widespread publicity in the press and on the radio.

The proprietor of a bakehouse was fined a total of £28 for offences under the Food and Drugs Act, 1938, and the Factories Act, 1937. The offences related to lack of cleanliness of walls and ceilings, lack of cleanliness of floors (including yard surface), absence of suitable washing facilities and failure to prevent contamination of food and failure to provide adequate lighting in the employees' sanitary convenience.

Legal proceedings were also instituted against a local caterer. Despite numerous warnings in the past his premises were found upon a routine inspection to be in an extremely unsatisfactory state as regards cleanliness. In addition, a small quantity of flour in a bin was found to be infested with insects (*ptinus tectus*). The sanitary accommodation for the single employee was unsatisfactory and no satisfactory personal washing facilities were pro-

vided. The infested flour was formally seized, condemned by a magistrate, and destroyed. Fourteen summonses were issued against this defendant and ultimately fines totalling £52 were imposed. Before the case was heard the defendant had, of his own accord, given up the business at considerable financial loss to himself. There seems little doubt that but for this fact this case would have resulted in the imposition of severe penalties.

Food Manufacture in Corporation House:

A Corporation house was being used for the manufacture of toffee which was afterwards sold on the market in a nearby town. The matter was referred to the Housing Director who took appropriate action to prevent such manufacture since this activity was a contravention of the terms of the letting.

GENERAL SANITATION

Premises without piped mains water supplies:

Fifty water samples were taken from various premises on the Corporation owned Smithills Estate; in many of these cases the samples were taken following works of repair or improvement by the Borough Engineer's Department. Only two of the samples were reported to contain potentially harmful contamination.

Piped mains supplies of water were provided to five premises including one dairy farm, three cottages and a golf club; in the case of the dairy farm and two of the cottages, the supply was provided in compliance with a statutory notice served under Section 138 of the Public Health Act, 1936. In the two latter cases, the work had to be carried out by the Corporation Waterworks Department in default of the owners.

Eighteen samples of water (9 unfiltered, 9 filtered) were taken in connection with the testing of the suitability of a domestic type water filter. These samples represented the conclusion of field tests commenced in 1953 and reported fully in the Annual Report for that year. All the samples of filtered water were reported as satisfactory.

The provision of similar smaller types of filters has been recommended to the owners of twenty-three properties which are not supplied with water from the public mains. Catalogues relative to filters and information regarding the local field tests were supplied and verbal advice was given in each case. As a result, three domestic filters have been fitted. Only two owners have definitely decided not to install the apparatus. The remaining owners appear to favour the installation of filters, but the circumstances differ considerably from one case to another. In many instances special modifications are contemplated, e.g. piping of the supplies, use of joint filters, etc.; these cases are still under review.

Piped Water Supplies:

Employees of the Waterworks Department who undertook duties directly concerned with the water supply were subjected to medical control. All such employees submit one specimen of faeces annually for bacteriological examination. A total of 33 specimens was examined during the year. New employees submit three specimens on three successive days and, in addition, a specimen of blood for a Widal test. No evidence of typhoid, salmonella or dysentery infection was found in any of the specimens examined.

Mr. H. R. Davenport, Waterworks Engineer and Manager, has supplied the following information:—

The water supply of the area and of its several parts was satisfactory both as regards quality and quantity.

The water supply of the area was filtered at five filter stations. Normally, samples of both the raw and filtered water were subjected to full bacteriological examination each week and to full chemical analysis each month by the Borough Analyst. Special examinations and analyses were made as circumstances required.

During 1954, 252 samples of raw and 260 samples of filtered water received bacteriological examination, and 60 samples of both raw and filtered water received chemical analysis. The results showed that generally filtration and treatment of the raw water were necessary, and that the filtered and treated water was of excellent quality, B. Coli being absent in almost all cases. Where 100% bacteriological purity was not obtained a second sample taken immediately proved to be satisfactory. All water is filtered and treated before passing into supply.

From tests made weekly, the final water was shown to have no plumbosolvent action.

No action was required to be taken in respect of any form of contamination.

The public water mains afforded a direct supply to a population of approximately 165,500 and 56,370 dwelling-houses; no supply was afforded to dwelling-houses by stand-pipes.

Factories Act, 1937:

There were 2,793 factories in Bolton which were the subject of 473 inspections, and in 32 instances, written notices were sent to the occupiers. Details of the contraventions found, and improvements secured, are contained in Tables 9 to 12 on pages No'd. 122 to 123.

Houses-let-in-Lodgings:

The law relating to houses-let-in-lodgings was amended with the coming into operation of the Housing Repairs and Rents Act, 1954; in particular, the byelaws relating to such houses are no longer in operation. New standards of enforcement under the new legislation are being prepared with a view to appropriate action being taken in the future and although this preparatory work had not been completed by the end of the year, the indications were that the standards enforceable under the Housing Repairs and Rents Act, 1954, will be lower than under the Local Authority's Byelaws, particularly in relation to such matters as decorations, fire protection, etc.

There are 177 known lodging houses within the borough. With the revocation of the byelaws the registration of such premises by the local authority will disappear and the difficulties experienced in the past in tracing such premises will doubtless be greatly intensified.

During the year, 25 visits and inspections were made.

Common Lodging Houses:

There were two registered common lodging houses providing accommodation for a total of 189 men. The premises were:—

The Salvation Army Hostel, 96-100, St. George's Road.

The Church Army Homes, 20, Crompton Street.

Three inspections were made and notices were served in respect of defects at each common lodging house; the necessary work had been ordered but had not been completed (apart from fire precaution requirements) by the end of the year.

Offensive Trades:

There were seven offensive trades operating as follows:—

- 1 Tannery
- 1 Tripe Works
- 1 Fellmonger
- 4 Rag Yards

There were no byelaws in force for the regulation of offensive trades and the satisfactory standard of cleanliness and general maintenance at present obtaining does not call for adoption of statutory regulations.

Rag Flock and Other Filling Materials Act, 1951:

The Local Authority exercises control over the cleanliness of filling materials in certain upholstered articles and the following samples have been taken from firms registered in the borough:—

Formal Sample of Reclaimed Hair	...	...	...	...	1
Informal Sample of New Cotton Felt...	...	...	...	...	1
" " " Cotton Felt (Grey Wadding)	...	...	...	...	1
" " " Kapok	...	...	...	...	1
" " " Hair and Fibre	...	...	...	...	1
" " " New Layered Fibre	...	...	...	...	1
" " " Washed Flock	...	...	...	...	1
" " " Woollen Felt	...	...	...	...	1
" " " Baled Coir Fibre (Imported)	...	...	...	...	1
" " " Cotton Felt	...	...	...	...	1
" " " Carded Flock	...	...	...	...	1
" " " Willowed Fibre	...	...	...	...	1

All samples were of the required standard of cleanliness as required by the Act.

NEW LEGISLATION

The Rag Flock and Other Filling Materials Regulations, 1954, effect a minor amendment in the Standards of Cleanliness prescribed for filling materials by the Rag Flock and Other Filling Materials Regulations, 1951, by altering the requirements of the impurities test for certain types of woollen felt and woollen mixture felt.

STERILISED RAGS:

Sixteen samples of cleansed rags were taken at the factory of a local manufacturer and certificates of satisfactory sterilisation were issued. The certificates were necessary to accompany rags sent to certain foreign countries.

The sixteen samples taken proved to be of a satisfactory standard.

Pet Animals Act, 1951:

Fourteen premises were licensed and 82 visits were made to inspect the premises and to advise the occupiers as to requirements of the Act. Cautions were necessary in several instances but no legal proceedings were taken. A satisfactory standard has been maintained in the registered establishments.

Hairdressing Establishments:

In accordance with the Bolton Corporation Act, 1949, Section 48, 261 hairdressers' premises were registered. Sixty-eight inspections were carried out, 7 notices were served, and 43 improvements secured.

Conversion of Waste Water Closets:

The Health Committee made an allocation of 500 grants of £8 each for the financial year commencing 1st April, 1954. The 500 grants were allocated and it was made a condition that the work should be completed by the end of December, 1954. By this time, 439 grants had been paid; the persons whose grants were withdrawn have been registered for future consideration. The remaining 61 grants will be paid to further applicants during the remainder of the financial year 1954-1955.

Sewage Disposal:

The following information has been supplied by Mr. F. W. Allen, the Sewage Works Manager:—

Bolton Corporation's responsibilities for sewage treatment ended on the 29th April, 1954, with the formation of the Bolton and District Joint Sewerage Board. This Board consists of representatives of Bolton, Farnworth, Radcliffe, Kearsley, Little Lever, Turton, Whitefield, and Worsley, and has been formed to create a trunk sewerage system and a new regional sewage treatment works which will replace sixteen existing works. The first step towards this end has already been taken with the completion of the Eagley Brook sewer and the closing down of the Eagley Sewage Works. The sewage formerly treated by this works has now been diverted for treatment at the Bolton Sewage Works. The effluent from the latter works was much improved during 1954 as a result of the operation of the intensified aeration machinery noted in the last Report.

Nuisance from Gas Holder:

Numerous complaints were received during the summer from the occupiers of residential and business accommodation in or near the town centre, regarding the emission of smells of gas from the main public sewers. These smells, which were very strong, were due to the discharge of water from the Spa Road gas holders of the North Western Gas Board, for the purpose of enabling necessary repairs to the gas holders to be carried out.

Attempts were made in conjunction with the Borough Engineer and Sewage Works Manager to mitigate the nuisance by controlling the rate of discharge and by diluting it with water pumped into the sewers from the nearby river, but none of these measures proved successful.

The draining of the gas holders has been temporarily discontinued until a suitable means of preventing nuisance can be found.

Pharmacy and Poisons Act, 1953 – The Poisons Rules, 1952:

The Local Authority's list contained the names of 204 persons entitled to sell poisons included in Part II of the Poisons List, for the period 1st May, 1954, to 30th April, 1955.

DISINFECTION AND DISINFESTATION

Disinfection:

The steam disinfector installed at the School Hill Depot is now used principally in connection with the disinfestation of verminous clothing and bedding. Terminal disinfection after minor infectious diseases has been discontinued, except when specially requested. The work undertaken is shown in Table 13 on page No. 124.

Disinfestation:

It has been necessary to give more attention to the destruction of insect pests. Some dwelling-houses in the borough are still bug infested, but these cases are fewer in numbers than in former years, mainly because of the introduction of new insecticides such as D.D.T., and benzine hexachloride. However, the degree of cockroach infestation appears to be higher than it should be for a town the size of Bolton, and in this connection the treatment service has given particular attention to reduction of these pests.

Action taken in relation to insect pests is given in Table 14 on page No. 124.

The main poison used for the destruction of rodents was Warfarin, but other poisons such as zinc phosphide and arsenic were used where appropriate. A summary of work completed is given in Table 15 on page No. 125.

The Borough Surveyor's Department dealt with the destruction of rats in sewers which were given maintenance treatments bi-annually.

A refresher course for rodent operatives arranged by the Ministry of Agriculture and Fisheries, Infestation Control Division in Manchester, was attended by three members of the staff.

The School Hill Depot was supervised by a working foreman who controlled disinfection, disinfestation and mortuary services. The staff, including the foreman, comprised six men whose duties included rodent destruction and, inter alia, destruction of insect pests. One member of the staff was also engaged on mortuary duties.

The experiments referred to in the report for 1953, regarding research on flies of the blue bottle (*Calliphora erythrocephala*, Meig) and green bottle (*Lucilia sericata*, Meig) species were hindered by the wet summer and most of the traps used gave disappointing results as the number of flies caught was small and the bait was often made waterlogged and ineffective. Certain premises in the Hunger Hill area revealed a fairly heavy infestation of blue bottles, but eradication measures abated the nuisance. It may be possible to carry out the experiments during the forthcoming year when it is hoped to confirm the selective properties of certain baits which can be used to attract female flies of the blue bottle and green bottle species in predominant numbers.

At the request of the University of Birmingham, Department of Anatomy, twenty-seven bodies of the common brown rat were forwarded for research purposes in connection with the skull characters of these animals.

Mr. E. Hendy, Curator of Museums, has supplied the following information:—

During the past year rather more insects than usual have been submitted to the Museums Department for identification, mainly from new

property. Very few indeed were significant pests. Plaster in drying often develops a film of fungus which attracts some species of tiny beetle which disappear when the house dries out. Other specimens were found in bathrooms having been attracted there by a light being left on near the open window – a lure to many insects besides moths. Old birds nests in the eaves often harbour populations of beetles which cause alarm when they appear on the floors below, though they can cause no damage.

True pests seem to be growing scarcer, perhaps owing to better cleaning facilities being more generally available, and are mainly those which occur in foodstuffs and are normally detected in the food before processing.

Specimens of the carpet “woolly bear” have occurred for the first time, but they were long dead and had probably been introduced in baled carpet in this condition.

Mortuary:

The mortuary at School Hill forms part of the premises used as a Disinfection and Disinfestation Depot. There was a trained attendant employed on mortuary duties and disinfestation work.

One hundred and fourteen bodies were received during the year. Post mortem examinations were carried out on 111, all of them coroner’s cases.

Municipal Medical Baths:

The cleansing of verminous persons was carried out at the medical bath which is an annexe to the School Hill Depot. The work was done by a part time female attendant and by the foreman of the Depot.

A summary of the cases dealt with is given below:—

	School children		Children under five		Adults	
	Males	Females	Males	Females	Males	Females
Head Infestations	29	228	7	20	—	8
Scabies	5	3	1	2	5	4
Body Lice	—	—	—	—	26	—
	34	231	8	22	31	12
	265		30		43	

REPORT OF THE BOROUGH ANALYST

The work carried out in the Borough Laboratories has again been of varied character.

In addition to the work for the Health Committee, that undertaken for the Waterworks Committee has called for special attention and there has been a greater inclination by other departments to utilise the services of the laboratory.

There has been a slight reduction in the total number of samples examined compared with 1953, but it was still higher than for any other previous year. The reduction is entirely caused by a fall in the number of samples submitted by the Sampling Officer and this was due to the several changes in that appointment.

The food and drug samples have shown a lower adulteration rate than for many years and the percentage of adulterated milks is the lowest I have ever recorded.

Although there is at present no definite legal standard for sausages, those in force until March 1953 should certainly be attainable since meat is no longer subject to control. A number of samples examined have been of lower meat content than was prescribed under the Food Orders. The Ministry of Food have requested Public Analysts to submit quarterly returns of the results of the analyses and purchase price of sausages submitted for examination, but no hint of the re-instatement of standards is made. Provision is made under the Regulations of the Food and Drugs Amendment Act of 1954 for the introduction of such standards, but they have not yet been implemented.

The work on atmospheric pollution continued and reports were forwarded to the Department of Scientific and Industrial Research for national collation.

There has been an appreciable increase of work carried out for the Waterworks Committee and the close liaison so essential between the Engineer and the Chemist has been maintained.

The work of the laboratory has been very exacting for a staff which is numerically less than in any other Public Analyst's Laboratory in the country. I should, therefore, like to record my appreciation of the willing co-operation of each member.

During the year, a total of 4,334 samples has been examined, summarised as follows:—

Food and Drugs	...	...	...	...	...	...	1,120
Designated Milks	...	...	...	...	...	...	490
Ice-Creams (Bacteriological Examination)	...	...	...	...	...	...	151
Rinses from milk bottles, churns, etc.	...	...	...	...	...	...	150
Atmospheric Pollution samples	...	...	...	...	...	...	823
Domestic waters and private supplies to farms, etc.	...	...	...	...	...	...	125
Swimming Bath Waters	...	...	...	...	...	...	98
Fertilisers and Feeding Stuffs	...	...	...	...	...	...	13
Contract Samples	...	...	...	...	...	...	10
Miscellaneous examinations	...	...	...	...	...	...	65
							<hr/> 3,045
Samples for the Waterworks Committee	...	...	...	...	...	...	1,164
Samples submitted by other Departments, Authorities, etc.	...	...	...	...	...	...	125
							<hr/> 125
TOTAL	...	...	...	...	...	...	<hr/>4,334 <hr/>

The number of samples examined during the past six years were:—

	1949	1950	1951	1952	1953	1954
No. of food and drug samples	830	835	1,071	1,078	1,145	1,120
Total No. of all samples	2,251	2,577	3,831	4,010	4,444	4,334

Samples under the Food and Drugs Acts:

The total number of samples submitted was 1,120 of which 43 were adulterated or otherwise unsatisfactory.

The percentage of unsatisfactory samples was 3.8% which is the lowest figure for many years. This was due entirely to the low proportion of adulterated milks, since the percentages of unsatisfactory samples of other foods and drugs were each higher than in 1953.

The proportion of unsatisfactory samples during the past six years has been:—

1949	1950	1951	1952	1953	1954
10.4%	5.7%	6.4%	4.7%	5.1%	3.8%

The particulars of all the samples submitted are listed in Table 1, on page No. 116 and the details of the unsatisfactory samples in Table 2, on page No. 118.

Milk Samples:

The total number was 828 including 15 "Appeal to Cow" samples.

The number of adulterated samples (15, equivalent to 1.8%) was the lowest for more than six years, and one is led to speculate whether it be significant or merely coincidence that out of 208 milks examined since October 1954 (the date on which Bolton became a scheduled area for milk), not one has been found to be adulterated.

In addition, 5 samples were low in non-fatty solids but all were reported as genuine as their freezing points were within the normal range for genuine milk.

The following table shows the average chemical composition of the samples examined during each month of the year, and the yearly average for the past six years, the minimum standard for fat being 3.0% and for solids not fat 8.5%

COMPOSITION OF MILK:

	No. of samples	Fat %	Solids not fat %	Water %
1954				
January	68	3.61	8.83	87.56
February	73	3.48	8.76	87.76
March	78	3.49	8.70	87.81
April	66	3.54	8.69	87.77
May	80	3.57	8.81	87.62
June	70	3.60	8.86	87.54
July	66	3.68	8.82	87.50
August	61	3.67	8.81	87.52
September	58	3.76	8.86	87.38
October	66	3.91	8.88	87.21
November	84	3.81	8.84	87.35
December	58	3.71	8.79	87.50
YEARLY AVERAGE:				
1949	655	3.62	8.79	87.59
1950	543	3.59	8.83	87.58
1951	822	3.59	8.76	87.65
1952	755	3.64	8.80	87.56
1953	817	3.54	8.74	87.72
1954	828	3.65	8.80	87.55

DESIGNATED MILKS:

A total of 490 samples of heat-treated milks have been examined by the tests specified in the appropriate Regulations.

Pasteurised Milk and Tuberculin Tested Pasteurised Milk were subjected to a phosphatase test and a methylene blue test, and Sterilised Milk to a turbidity test.

The phosphatase and turbidity tests, although of different technique, are each indicative of the adequacy of the heat treatment, and the methylene blue test a measure of the keeping qualities of the milk.

One of the conditions of the methylene blue test is that samples must be stored in the laboratory at atmospheric shade temperature not exceeding 65°F, prior to commencement of the test. It has frequently happened during past years, and again during this year when 31 of these tests were declared void because the temperature exceeded 65°F. Significantly, on each of these occasions, other samples, subjected to the same conditions, all satisfied the test.

EXAMINATION OF HEAT-TREATED MILKS :

Designation	No. Examined	Satisfactory	Failed Methylene Blue Test	Failed Phosphatase Test	Failed Turbidity Test	Test Void
Pasteurised ..	170	155	—	—	—	15
Tuberculin Tested Pasteurised ..	140	123	—	1	—	16
Sterilised	180	180	—	—	—	—
TOTALS ..	490	458	—	1	—	31

Apart from the void samples, only one sample failed the specified tests because of insufficient heat treatment or admixture with raw milk.

CLEANLINESS OF BOTTLES AND CHURNS:

A check on the degree of efficiency in the cleansing of equipment at local dairies was made by bacteriological examinations using the procedure recommended by the Ministry of Agriculture and Fisheries, on milk bottles, kits and churns, and also on bottles used for the sale of orange drinks by the dairies.

Of the 124 bottles examined, 24 were found to be in an unsatisfactory condition because of the presence of coliform organisms or excessive numbers of other organisms, and 5 other bottles contained traces of chlorine derived from the solution used for sterilisation.

All the kits and churns were of a satisfactory standard of cleanliness bacteriologically.

Bacteriological Examination of Ice-Creams:

Although there is still no definite legal bacteriological standard for ice-creams and similar products, the methylene blue test is used by most laboratories with a carefully prescribed technique in an effort to obtain results agreeing as closely as practicable in different areas. The larger the number of organisms present in the ice-cream, the more quickly is the blue dye decolourised, and the recording of the time taken for this to happen makes it possible to classify the samples into grades. Under the conditions of the test, samples in Grades 1 or 2 are considered satisfactory.

ANALYSIS:

	Bolton Manufacturers			Outside Manufacturers		
	Wrapped Ice-Cream	Loose Ice-Cream	Total	Wrapped Ice-Cream	Loose Ice-Cream	Total
No. of samples of Grade 1 Standard	6	50	56	13	6	19
No. of samples of Grade 2 Standard	2	24	26	9	—	9
No. of samples of Grade 3 Standard	—	27	27	4	2	6
No. of samples of Grade 4 Standard	—	8	8	—	—	—
TOTALS	8	109	117	26	8	34

The results of the examination of 151 samples are given above. The samples were also examined for the presence of coliform organisms.

Since more attention is paid to the sampling of unwrapped and unsatisfactory samples of ice-cream, they are not strictly representative of the hygienic qualities of this commodity as a whole.

However, from the samples submitted it may be seen that 70% of those manufactured in Bolton were of a satisfactory standard of cleanliness, whereas in a much smaller number from outside manufacturers, over 80% were satisfactory.

Eight samples were submitted for chemical composition and all were in accordance with the standards for fat, milk-solids and sugar content.

Water Supplies to Farms and Cottages:

Many of the farms and cottages on the outskirts of the town have to rely on private springs or wells for their water supply and officers of the Health Department in making surveys of these sites have submitted samples to be examined for their suitability for drinking purposes. Out of 68 such samples submitted, only 2 were classified as unsatisfactory.

In addition to the examination of the town's water supply from the source of treatment, samples have been taken recently from domestic taps at points within the Borough served by the different filter stations. Only one of these 7 samples was found to be of an unsatisfactory standard.

Swimming Bath Waters:

Samples of the water in each of the Public Swimming Baths were taken regularly during periods of use for examination of the purity of the waters. By arrangement with the Education Committee, the local schools which have their own swimming baths were also safeguarded in a similar manner.

The water in the baths is expected to be of the same high quality as that of the drinking water supply. The value of this control lies in the attention which can immediately be given to any water which may have been contaminated. Five samples showed evidence of some contamination at the time of sampling, but in all cases subsequent samples from the same sources taken after an increase in the chlorine dosage, were of a satisfactory standard of purity.

Fertilizers and Feeding Stuffs Act:

Thirteen formal samples submitted under the above Act consisted of 5 Fertilizers and 8 Feeding Stuffs. Each of the fertilizers agreed with the composition declared on the Warranty, but all the feeding stuffs contained some discrepancy, in most cases of a minor character, but outside the limits of variation allowed by the Regulations.

Warning letters were sent and the Ministry of Agriculture and Fisheries notified in appropriate cases.

Atmospheric Pollution:

The chemical investigations necessary for the determination of the degree of atmospheric pollution have been continued throughout the year.

Six deposit gauges situated at selected points within the Borough were used for the collection of soot and rainwater.

At three sites chosen to represent western, central and eastern districts, lead peroxide candles for the measurement of active sulphur gases were in use and at the Borough Laboratories there was a volumetric apparatus for the estimation (every 24 hours) of the smoke and sulphur dioxide concentrations of the atmosphere in the centre of the town. A summary of the results obtained is set out in Tables 3 to 8 on pages No'd. 119 to 121. These results show a high degree of pollution, as is the case in most industrial towns, but it is still too early for any significant reduction to have been recorded as a result of the establishment of a smokeless zone on the 1st November.

Miscellaneous Examinations:

FOR THE HEALTH COMMITTEE:

12 swabbings (contaminated carcase); 8 rinses (from concrete channel); 5 sausages; 3 waters (complaints); 3 dusting powders; 2 foods (contaminated with formalin); 2 bath salts; 2 effluents; 4 surface waters; 1 pump water; 1 pond water; 2 disinfectant fluids; 2 oranges (for Thiourea); 1 orange juice (Vit. C); 3 milk powders; 1 baby's soup (protein); 1 canned beans; 1 human milk; 1 milk (Occupation Centre); 1 deposit in milk; 1 D.D.T. powder; 1 sludge; 1 pear (arsenic); 1 bread (contained meal worm); 1 liquid coffee; 1 drug (morphine); 2 spleens (negative for Anthrax); 1 electric snuff (contained Quillaia Bark).

EDUCATION COMMITTEE AND

BOLTON SCHOOL:

31 Swimming Bath Waters

HIGHWAYS COMMITTEE:

6 Ashes (for sulphates); 4 pond waters;
4 Liquids (contaminated with oil)

CIVIL DEFENCE:

1 Packet of Tablets

ATHERTON U.D.C.:

1 Water; 48 Atmospheric Pollution samples

PRIVATE SOURCES:

16 Cleansed rags (for export); 3 waters;
3 medicines (Vit B1); 2 drugs (morphine);
1 feeding stuff; 1 fibre board (lead con-
tent; 1 pastry (contained fibres).

Sampling for the Waterworks Committee:

The gathering grounds for most of Bolton's water supply consist of upland surfaces and after storage in reservoirs, the raw water is filtered and treated at various stations.

The chemical analyses and bacteriological examinations necessary for the control of that treatment were carried out in the Borough Laboratories. The type of chemical treatment, the efficiency of filters and the purity of the water were all determined by chemical or bacteriological methods.

Chemical analyses of the raw and filtered waters from all the main sources of supply have been carried out each month, and bacteriological examinations each week of the whole of the domestic supply to the town and district.

In addition to the samples of water, a number of miscellaneous examinations have been undertaken at the request of the Waterworks Engineer. In all, a total of 1,164 samples have been examined for his department.

A water classified as of a highly satisfactory standard of bacteriological purity should not contain Bact. Coli in 100 mls of the water, and 95% of the samples of the filtered waters examined during the year were in that category.

The following table gives the latest available results for 1954 of the chemical analysis of filtered water from the main filter stations.

CHEMICAL ANALYSIS OF FILTERED WATERS:

		Sweetloves Sand Filters	Sweetloves Pressure Filters	Heaton Sand Filters	Ferns Park Pressure Filters	Dingle Sand Filters
Total Solids	(Parts per million)	75	100	115	80	70
Free Ammonia	do.	0.01	0.04	Nil	0.02	Nil
Albuminoid Ammonia	do.	0.03	0.02	0.03	0.01	0.01
Nitrate Nitrogen	do.	0.30	0.35	0.10	0.05	0.05
Nitrite Nitrogen	do.	Nil	Nil	Nil	Nil	Nil
Chlorine present as Chloride	do.	16	14	16	14	12
Oxygen absorbed in 4 hours	do.	0.75	1.10	0.85	0.70	1.05
Poisonous metals (lead, etc.)	do.	Nil	Nil	Nil	Nil	Nil
Suspended matter	do.	Nil	Nil	Nil	Nil	Nil
Odour		None	None	None	None	None
Total hardness	do.	35	45	55	30	25
Plumbo-solvency	do.	3.5	1.0	3.5	2.5	3.0
Iron (as Fe)	do.	Nil	0.2	Nil	Nil	<0.1
Aluminium (as Al)	do.	0.4	0.7	0.1	0.2	0.2
Total Residual Chlorine	do.	0.05	0.20	<0.05	0.10	0.10
Hazen number		<5	<5	<5	<5	<5
pH value		6.2	7.7	6.9	6.6	6.4

ENVIRONMENTAL HYGIENE - STATISTICAL TABLES

TABLE 1

Samples of Foods and Drugs Submitted

FOODS:	TOTAL	GENUINE	UNSATIS- FACTORY
Milk	828	813	15=1.8%
Beef Paste	1	1	-
Beer	9	9	-
Butter	15	15	-
Butter Toffee	3	3	-
Cake Mixture	3	3	-
Cereals	26	21	5
Cheese (Processed)	9	9	-
Christmas Cake	2	2	-
Christmas Pudding	1	1	-
Coconut	2	2	-
Coffee	1	1	-
Condensed Milk	5	5	-
Cooking Fat	1	1	-
Cream Filling	1	-	1
Curd, Full Cream	1	1	-
Dried Fruit	10	10	-
Dripping	2	2	-
Essence of Black-currant for cordials ...	1	-	1
Evaporated Milk	1	1	-
Fish Cake	1	1	-
Fish Paste	4	3	1
Glaze Cherries	1	1	-
Ground Almonds	3	3	-
Hog's Fat	1	1	-
Ice-cream	8	8	-
Ice-foam Crystals	2	1	1
Ice-lolly Syrup	5	4	1
Icing Sugar	2	2	-
Iodised Salt	2	2	-
Lard	5	5	-
Lemon Pie Filling	1	1	-
Margarine	9	9	-
Marzipan	1	1	-
Milk Chocolate Novelties	1	1	-
Mincemeat	5	5	-
Mussels	3	3	-
Oatmeal	4	4	-
Orange Crush Compound	1	1	-
Orange Drink	5	5	-
Orange Juice	4	4	-
Pears	1	1	-
Pig's Fry Stew (Canned)	1	-	1
Preserves	11	11	-

Samples of Foods and Drugs Submitted (continued)

FOODS:	TOTAL	GENUINE	UNSATIS- FACTORY
Rum and Butter Spread	1	1	—
Sausages	27	18	9
Self-raising Flour	2	2	—
Shell-fish (bottled)	5	5	—
Shredded Suet	4	3	1
Spirits	26	26	—
Sugar	9	9	—
Sugar Novelties	3	1	2
Sweets	4	4	—
Tea	1	1	—
Vinegar	5	5	—
TOTAL FOODS	1090	1052	38=3.5%

DRUGS:	TOTAL	GENUINE	UNSATIS- FACTORY
Aspirin Tablets	2	2	—
Boric Ointment	1	—	1
Cooling Powders	2	1	1
Cream of Magnesia	1	1	—
Digestive Tonic	1	1	—
Fuller's Earth Cream	1	1	—
Ghonne Tablets	1	1	—
Kormeol Tablets	1	1	—
Lemon, Glycerin and Honey	1	1	—
Menthol and Wintergreen Cream	1	1	—
Milk Sugar	1	1	—
Ointment (healing)	1	1	—
Olive Oil	1	1	—
Orafin (Paraffin Mix)	1	1	—
Paraffin, liquid	1	1	—
Rose Hip Extract	1	1	—
Seidlitz Powders	1	1	—
Sulphur Ointment	1	1	—
Sulphur Tablets	1	—	1
Teething Powders	6	4	2
Zinc and Castor Oil Cream	1	1	—
Zinc, Castor Oil and Friars Balsam Cream	1	1	—
Zinc Ointment	1	1	—
TOTAL DRUGS	30	25	5=16.6%
TOTAL FOODS	1090	1052	38
TOTAL FOOD AND DRUGS	1120	1077	43=3.8%

TABLE 2
Unsatisfactory Samples of Food and Drugs

MILK	7 samples were deficient in fat (from 1.7 to 12.7%), 8 samples contained extraneous water (from 0.4 to 33.2%).
CEREALS	1 formal and 1 informal sample of Scotch Barley, 1 formal and 1 informal sample of Lentils, 1 informal sample of Tapioca were infested with mites and therefore unfit for human consumption.
CREAM FILLING	Informal sample. Contents of four bottles consti- tuting the sample each contained a mould growth, rendering it unfit for human con- sumption.
ESSENCE OF BLACK- CURRANT FOR CORDIALS	Informal sample. Contained 2.7 parts of lead per million instead of not more than 2 parts.
ICE FOAM CRYSTALS	Informal sample. Contained Saponin which is a gastro-irritant and although its presence was declared, it was considered likely to be injurious to health. Subsequent sample from same source was free from Saponin.
ICE LOLLY SYRUP	Informal sample. Contained 2.3 parts of lead per million, instead of not more than 2 parts.
PIG'S FRY STEW (CANNED)	Informal sample. Contents covered with mould growth, rendering it unfit for human con- sumption.
SALMON PASTE	Formal sample. Contained not less than 60% total fish, instead of not less than 70%.
SHREDDED SUET	Formal sample. Contained 72.8% beef fat, instead of not less than 83%.
SUGAR NOVELTIES	2 formal samples. Contained 5 and 7 parts of lead per million, instead of not more than 2 parts.
SAUSAGES	2 informal and 6 formal samples of Pork Sausage were deficient in meat - the total meat content varying between 40 and 63%, whereas in my opinion Pork Sausage should contain at least 65% meat. 1 formal sample of Beef Sausage contained 45% of total meat instead of not less than 50%.
BORIC OINTMENT	Informal sample. Contained a slight excess of Boric Acid (1.34% instead of not more than 1.1%).
COOLING AND TEETHING POWDERS	3 informal samples contained Calomel to the extent of 25, 30 and 38%, one being in excess of the declaration. Although labelled, excep- tion was taken to the presence of Calomel as liable to cause serious illness to children. After being warned, the manufacturer modified his formula.
SULPHUR TABLETS (FRUIT FLAVOURED)	Deficient in sulphur, being labelled 50% sulphur, and containing only 41%.

Legal proceedings and action taken are contained on pages No'd. 100 and 103.

TABLE 3

Atmospheric Pollution
Deposit Gauges

Site	Average Total Monthly Deposit Tons per square mile					
	1949	1950	1951	1952	1953	1954
Tonge Cemetery/Withins Farm	25.4	22.9	25.1	22.7	21.5	26.0
Havercroft	9.7	11.9	17.2	16.5	15.5	16.9
Royal Infirmary .. .	16.9	21.2	24.4	19.5	23.8	23.1
Hulton Lane Hospital .. .	16.3	21.1	21.3	19.1	18.8	18.1
Police Sports Ground .. .	35.9	44.9	29.3	30.0	27.4	33.4
Astley Bridge Cemetery .. .	23.0	19.9	23.8	20.8	21.9	25.4
AVERAGE OF 6 DISTRICTS..	21.2	23.6	23.5	21.4	21.5	23.8

TABLE 4

Atmospheric Pollution
Monthly Deposits in Tons per Square Mile

	Withins Farm		Havercroft		Bolton Royal Infirmary		Hulton Hospital		Police Sports Ground		Astley Bridge Cemetery	
	Insol.	Total	Insol.	Total	Insol.	Total	Insol.	Total	Insol.	Total	Insol.	Total
January .. .	9.2	31.7	4.9	17.5	7.1	20.2	7.9	19.5	17.7	30.1	9.0	25.2
February .. .	7.5	18.0	7.5	17.6	17.7	34.1	12.7	21.9	12.8	22.1	14.1	30.6
March .. .	6.9	20.0	9.1	16.2	4.4	15.6	10.9	17.1	19.6	27.2	19.0	30.6
April .. .	9.1	21.2	2.9	5.5	1.9	11.9	5.5	8.9	10.0	16.8	9.9	15.7
May .. .	13.3	31.6	9.5	17.7	5.8	25.9	9.3	16.8	9.9	22.1	8.2	18.3
June .. .	4.0	20.5	5.4	12.9	5.2	23.4	5.9	11.8	16.1	32.9	7.1	17.9
July .. .	7.4	21.5	2.0	12.7	6.3	21.8	6.4	14.8	4.9	21.0	9.5	22.5
August .. .	11.8	36.6	3.1	13.3	3.5	23.2	7.5	18.3	10.1	33.6	6.4	19.3
September .. .	17.3	35.9	12.9	28.4	5.9	29.7	7.1	17.2	10.0	29.6	8.8	28.1
October .. .	7.7	16.3	6.9	17.3	8.2	22.1	5.8	14.2	29.1	46.0	8.8	28.2
November .. .	5.2	20.9	4.4	15.1	6.7	22.1	4.3	12.6	23.7	37.4	10.9	31.7
December .. .	13.7	37.9	11.2	28.7	8.3	27.3	30.5	44.1	54.6	75.7	11.1	36.2
Average Monthly Deposit ..	9.4	26.0	6.7	16.9	6.8	23.1	9.5	18.1	18.2	33.4	10.2	25.4
ANNUAL TOTALS	112.9	312.1	79.8	202.8	80.9	277.3	114.0	217.2	218.4	400.8	122.9	304.3

TABLE 5
Atmospheric Pollution
Smoke and Sulphur Dioxide Estimations
Daily Averages

1954	Smoke mgms. per cubic metre	Sulphur Dioxide Parts per million
January	0.409	0.149
February	0.460	0.158
March	0.379	0.127
April	0.262	0.088
May	0.227	0.074
June	0.119	0.029
July	0.116	0.029
August	0.141	0.048
September	0.142	0.065
October	0.206	0.085
November	0.373	0.143
December	0.183	0.087
Monthly Average 1954	0.251	0.090
„ „ 1953	0.306	0.103
„ „ 1952	0.296	0.087

TABLE 6
Atmospheric Pollution
Daily Average Concentrations

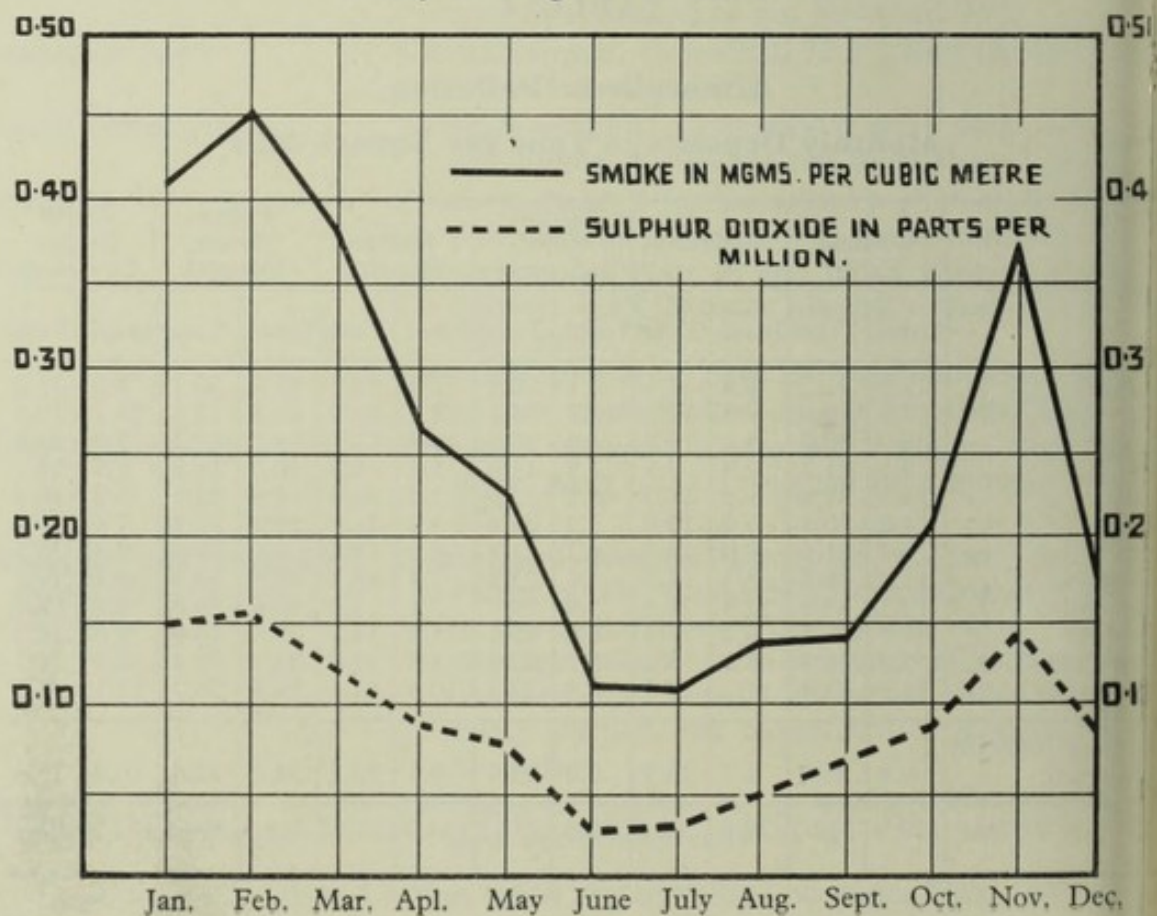


TABLE 7

Atmospheric Pollution

Estimation of active Sulphur gases by Lead Peroxide Method

1954	Mgms. of SO ₃ per 100 sq. cms. per day		
	Havercroft	Civic Centre	Withins Farm
January	2.56	3.11	3.13
February	2.64	3.09	4.55
March	2.50	3.37	3.82
April	1.42	1.78	2.27
May	1.18	1.88	2.35
June	1.08	1.67	2.23
July	0.59	1.47	1.61
August	0.82	1.40	1.97
September	0.95	1.87	2.28
October	1.40	2.75	3.06
November	2.56	3.37	4.09
December	1.84	3.07	3.43

TABLE 8

Active Sulphur Gases

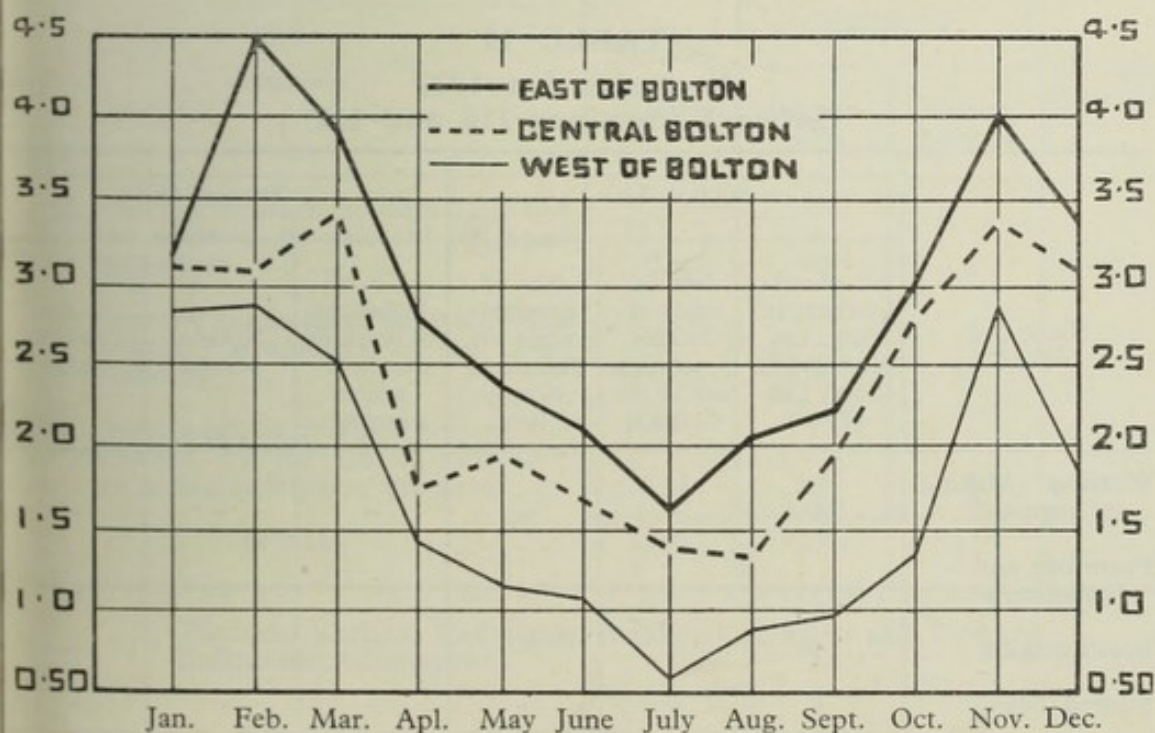
Mgms. of SO₃ per 100 sq. cms per day

TABLE 9
Factories Act, 1937
Places of Employment
Defects Found

Particulars	Number of cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			to H.M. Inspector	by H.M. Inspector	
Want of Cleanliness (S.1)	4	3	—	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperatue (S.3) ..	—	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—	—
Ineffective drainage of floors (S.6) ..	—	—	—	—	—
Sanitary Conveniences (S.7):—					
(a) Insufficient	1	1	—	—	—
(b) Unsuitable or defective	15	15	1	—	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Outwork)	—	—	—	—	—
TOTALS	20	19	1	—	—

TABLE 10
Factories Act, 1937
Outwork (Sections 110 and 111)

Nature of Work	Section 110			Section 111		
	No. of outworkers in Aug. list required by Sect. 110 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing (Making etc.) apparel ..	74	—	—	—	—	—
Furniture and Upholstery ..	53	—	—	—	—	—
Brush making ..	4	—	—	—	—	—
Stuffed Toys ..	1	—	—	—	—	—
TOTALS ..	132	—	—	—	—	—

TABLE 11**Factories Act, 1937****Places of Employment – Improvements Secured**

Cleanliness improved	12
Temperature improved	2
Sanitary Accommodation:—	
Additional accommodation provided	1
Accommodation improved	90
Accommodation reconstructed	—
Ventilation improvements	22
Drainage improvements	4
Miscellaneous improvements	63

TABLE 12**Factories Act, 1937****Places of Employment****Inspection for Purposes of Provisions as to Health**

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspec- tions	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	224	40	2	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	35	428	29	—
(iii) Other premises in which Section 7 is enforced by the Local Authority* (excluding outworkers' premises) ..	34	5	1	—
TOTALS	2,793	473	32	—

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

TABLE 13**Disinfection**

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	68	—	68
Beds	43	—	43
Rooms	80	—	80
Articles	208	144	352
Articles Destroyed	16	—	16

TABLE 14**Disinfestation**

Infestation by	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs	62	—	—	—	62
Cockroach	86	29	—	2	117
Fleas	27	3	—	2	32
Golden Spider Beetles	2	2	—	—	4
Wasps	2	—	—	—	2
Wood Lice	2	1	—	—	3
Body Lice	4	—	—	—	4
Silver Fish	1	—	—	—	1
House Fly	1	—	—	—	1
General Disinfestation	44	—	—	—	44
Others	—	—	—	—	—

TABLE 15
Destruction of Rats and Mice
Prevention of Damage by Pests Act, 1949

	TYPE OF PROPERTY				
	Local Authority	Dwelling Houses	Agri-cultural	All other (including Business and Industrial)	Total
I. Total number of properties in Local Authority's District	151	56,390	243	5,762	62,546
II. Number of properties inspected by the Local Authority as a result of (a) notification or (b) otherwise	(a) 62	581	1	203	847
	(b) 20	118	3	228	369
III. Number of properties (under II) found to be infested with rats	Major 12	—	1	48	61
	Minor 19	434	2	149	604
IV. Number of properties (under II) found to be seriously infested with mice.	33	232	—	135	400
V. Number of infested properties (under III and IV) treated by Local Authority	64	666	2	386	1,118
VI. Number of notices served under Section 4:— (1) Treatment	Nil				
(2) Structural Works (i.e. proofing)	Enforced under Public Health Act, 1936				
VII. Number of cases in which default action was taken by Local Authority following issue of notice under Section 4	Nil				
VIII. Legal Proceedings	Nil				
IX. Systematic control of blocks of buildings	126				

PART V

ADDITIONAL INFORMATION

**An Investigation into the Frequency and Source of Medical Advice,
Unprescribed Medicaments, and the Source of Vitamin
Products given to Babies under one year of age**

Medical Examination of Corporation Employees

**National Assistance Act, 1948 – Section 47
Persons in Need of Care and Attention**

The Incidence of Blindness, Epilepsy and Cerebral Palsy

Work done on behalf of the Children's Committee

**Care of Children Co-ordinating Committee
Problem Families**

Nursing Homes

Cremation

Bolton Medical Bureau

Health Education

Baths and Wash-houses

Meteorological Summary

AN INVESTIGATION INTO THE FREQUENCY AND SOURCE OF MEDICAL ADVICE, UNPRESCRIBED MEDICAMENTS, AND THE SOURCE OF VITAMIN PRODUCTS GIVEN TO BABIES UNDER ONE YEAR OF AGE

It was thought desirable to ascertain the frequency and source of medical advice given to babies in Bolton, although the Survey of 1,000 Families in the Newcastle area had given some information on this point relating to that area. At the same time, information was sought concerning the use of un-prescribed medicaments, and the source of vitamins given to babies.

Accordingly, it was decided to promote an enquiry and for this purpose the homes of all infants born during the months of August, September and October, 1953, were visited by health visitors, who completed enquiry forms. The total number of births in these months was 586, and 503 enquiry forms were completed. Of those not completed, 48 babies had died or removed from the district, and another 35, for various reasons, were not able to give the information.

An analysis of the completed forms shows that the sample, when graded into the five socio-economic classes used by the Registrar-General, was as follows:—

Group I	...	...	...	7	(1.4%)
„ II	...	...	...	41	(8.1%)
„ III	...	...	...	320	(63.6%)
„ IV	...	...	...	66	(13.1%)
„ V	...	...	...	69	(13.7%)

This would appear to be a reasonable cross-section of an industrial town.

Frequency and Source of Medical Advice:

The following table shows the number of times the advice of the family doctor was sought during the first year of life:—

NO. OF TIMES	GROUPS I & II	GROUP III	GROUP IV	GROUP V	ALL GROUPS
1	14 (29.1%)	101 (31.6%)	20 (30.3%)	19 (27.5%)	154 (30.6%)
2	9 (18.8%)	68 (21.2%)	15 (22.7%)	20 (29.0%)	112 (22.2%)
3	8 (16.7%)	37 (11.6%)	4 (6.1%)	5 (7.2%)	54 (10.7%)
4	2 (4.2%)	19 (5.9%)	3 (4.5%)	4 (5.8%)	28 (5.6%)
5	—	8 (2.5%)	5 (7.6%)	1 (1.4%)	14 (2.8%)
6	1 (2.1%)	4 (1.2%)	1 (1.5%)	1 (1.4%)	7 (1.4%)
7	—	2 (0.6%)	—	—	2 (0.4%)
Several	2 (4.2%)	14 (4.4%)	5 (7.6%)	3 (4.3%)	24 (4.8%)

It will be seen that the majority of mothers seek advice from the family doctor for their babies on only one to three occasions during the first year.

Attendances at Hospital:

A total of 73 (14.5%) of babies attended hospital for treatment or advice at some time during the first year. This is made up of—

12½%	of babies in Groups I and II
12½%	„ „ „ Group III
15%	„ „ „ Group IV
24%	„ „ „ Group V

It will be seen that the children in Group V (the unskilled workers) appear to have advice from the hospital much more frequently than those in the other groups.

Attendances at Infant Welfare Centres:

A total of 252 (50%) attended Infant Welfare Centres regularly, and an additional 145 (18.8%) attended on odd occasions. The percentage of regular attenders, divided into social groups, is as follows:—

Groups I & II	...	...	67%
Group III	...	...	53%
Group IV	...	...	48%
Group V	...	...	28%

This shows quite clearly that the Infant Welfare Centre, though attended by a large number of mothers and children, is largely used by those sections of the population who might reasonably be expected to maintain a good standard of mothercraft, and the fact that only 28% of the babies of families classed in Group V attended stresses the great importance of the district health visitor's regular visits to the home.

The setting up of further Infant Welfare Centres does not, by itself, take the place of home visiting, and in many ways it is the mothers who do not attend the Centre who might be expected to need advice and help.

Internal Medicaments:

Enquiry was made concerning the medicaments given internally to babies to find out the frequency of administration of medicines which had not been prescribed or given on medical advice. No account was taken, therefore, of any medicines obtained on the advice of the family doctor, medical officer of the clinic, or a hospital medical officer. All the figures relate to medicines which the parents have given on their own initiative and without receiving instructions to do so from any medical source.

The frequency of administration of unprescribed medicines was approximately the same in each of the socio-economic classes. Only 8 children in the whole sample received no unprescribed medicines for use internally during the first year of their life.

The types of medicines given have been grouped under the following headings:—

TEETHING POWDERS AND MIXTURES:

- 29 infants (5.8%) received some teething powders or mixtures regularly.
- 181 „ (36%) more than once or twice, but not regularly.
- 163 „ (32.4%) once or twice only.

There was no great difference between the socio-economic classes in respect of this type of medicine.

COUGH MIXTURES AND MEDICINES:

Only 2 infants (0.4%) received these regularly. Nine infants (1.8%) received them more than once or twice, and 155 (30.7%) once or twice only.

The medicines included various proprietary preparations and some home-prepared concoctions, including a mixture of black treacle and vinegar for a cough.

SOOTHING AND SLEEPING MIXTURES:

A special note was taken of those receiving aspirin, and the following table shows the frequency of dosage with aspirin and other soothing medicines:—

	ASPIRIN	OTHER SOOTHING MEDICINES
Once or twice	105 (20.9%)	17 (3.4%)
More than once or twice ...	57 (11.3%)	23 (4.6%)
Regularly	1 (0.2%)	1 (0.2%)

APERIENTS:

Aperients are still very commonly given in infancy. The aperients used in this sample included liquid paraffin (13 cases) and castor oil (14 cases).

61 infants (12.2%) received regular aperients.

189 „ (37.6%) had them more than once or twice but not regularly.

152 „ (30.2%) received them once or twice only.

It would appear that the habit of regularly administering aperients or laxatives to children is still commonly practised in this area, in spite of the fact that much has recently been said on the subject of a normal physiological pattern in infancy, and the immense normal variation in regular habits that is known to occur.

Vitamins:

An attempt was made to assess the frequency of vitamin administration and the type of product given to this age group. No account was taken of vitamins prescribed by doctors for specific diseases or conditions. It was interesting to note that apart from the vitamins in the ordinary diet, 11 children (2.2%) were receiving no additional vitamin C; 43 children (8.6%) were receiving no additional vitamin A or D; and 4 (0.8%) were receiving no additional vitamins A, D or C.

Most of the children who were not receiving additional vitamins were in socio-economic Group V.

WELFARE FOODS:

Ninety-seven (19.3%) received no other vitamins but the Cod Liver Oil and Orange Juice available through the Welfare Foods Service. It was interesting to note that the intake of vitamins did not appear to vary with the socio-economic classes in any case.

The following table shows the percentage of children taking welfare foods:—

			COD LIVER OIL	ORANGE JUICE
Occasionally	...	...	53 (10.5%)	37 (7.4%)
For 3 months	...	...	17 (3.4%)	7 (1.4%)
For 6 months	...	...	20 (4.0%)	12 (2.4%)
For 9 months	...	...	19 (3.8%)	3 (0.6%)
Always	...	...	231 (45.9%)	271 (53.9%)

OTHER VITAMIN PREPARATIONS:

			COMBINED VITAMIN A & D PREPARATIONS	PROPRIETARY PREPARATIONS CONTAINING AT LEAST VITAMINS A, D AND C	OTHER VITAMIN C PREPARATIONS
Occasionally	...	...	89 (17.6%)	1 (0.2%)	42 (8.4%)
For 3 months	...	...	34 (6.8%)	— —	8 (1.6%)
For 6 months	...	...	16 (3.2%)	3 (0.6%)	4 (0.8%)
For 9 months	...	...	24 (4.8%)	1 (0.2%)	3 (0.6%)
Always	...	...	112 (22.2%)	6 (1.1%)	66 (13.1%)

Conclusion:

It was surprising to learn that as many as one in seven children attended hospital during the first year of life, and it would be very interesting to see an analysis of the reasons for their attendance if this was available.

It is obvious that large quantities of medicine are given to young children by their parents without the benefit of medical advice. Much of this, it is true, may not be harmful, although recent evidence has suggested that many products in common domestic use have their dangers. Further, the cost of these preparations to the family is an important item of expenditure and, more important still, the habit of taking medicines without medical advice if practised in the family is likely to be continued into the next generation. There is obviously room for a great deal of health education on this matter.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

Medical officers of the department are required to examine employees of the Corporation to determine their fitness for employment and also in connection with the Superannuation and Sickness Payment Schemes. In addition, students wishing to be admitted to a Teachers' Training College are medically examined before entry.

During the year, 1,395 examinations involving 1,383 persons were made for these purposes. A summary of this work is given in the following table:—

Examination for –	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme.. . . .	454	206	16	4
Entry into Sickness Payment Scheme	186	268	14	22
Other medicals, e.g. Fitness to resume employment..	15	—	11	—
Retirement on medical grounds	19	2	18	2
Surrender of part of Retirement Pension to wife ..	4	—	1	—
Fitness to be employed as a teacher.. . . .	40	45	—	—
Fitness to teach after leaving the Bolton Technical Training College	93	63	—	—
TOTALS	811	584	60	28

Two hundred and thirty-four of these persons were sent to Mass Radiography Units, 70 because their employment involved working with children 140 because they were training college students or were awaiting admission to training college, and the remainder at the request of the examining medical officer.

Twelve persons were referred to consultant physicians and surgeons for further opinions.

An analysis of the conditions which caused persons examined for entry into the Superannuation and Sickness Payment Schemes to be found unfit is shown in the following table:—

	Superannuation Scheme		Sickness Payment Scheme	
	Males	Females	Males	Females
Cardiovascular disease (including hypertension)	2	4	4	12
Disease of the Alimentary System	3	—	1	—
Disease of the Chest'	—	—	2	2
Disease of the Nervous System (including mental illness)	3	—	1	2
Gynaecological disorder	—	—	—	1
Epilepsy	—	—	—	1
Disease of Skeletal system.. . . .	1	—	2	1
Hernia	1	—	2	—
Effects of previous injury	—	—	1	—
Other diseases or disorders	6	—	1	3
TOTALS	16	4	14	22

NATIONAL ASSISTANCE ACT, 1948 – SECTION 47

PERSONS IN NEED OF CARE AND ATTENTION

On only one occasion was it found necessary to take action under Section 47 of the National Assistance Act (as amended by the National Assistance Amendment Act, 1951), to remove a person compulsorily to hospital. The patient was an aged and infirm woman, living in insanitary conditions and unable to devote to herself, and not receiving from other persons proper care and attention. She lived in her own house with three sub-tenants. The house itself was filthy and the woman was heavily infested with vermin. There were faeces and urine on the floor, and the patient was incontinent and bedridden. She refused to go to hospital, and consequently, an Order had to be obtained, but her condition deteriorated and she died in hospital before the expiry of the Order, which was for 21 days.

On four other occasions the department was requested to remove a patient compulsorily. Three of the patients were persuaded to go voluntarily, and the case did not appear to come within the terms of the Act.

The first was a man aged 65 who had taken his own discharge from hospital four weeks previously and was suffering from the after-effects of hemiplegia and a burn on his foot. Eventually, he was persuaded to go into accommodation provided by the Welfare Department, under Part III of the National Assistance Act.

The second was a woman aged 77 years living in a triangular shaped little room which was very dirty. She lived alone with two cats, but she managed to do her own shopping. She refused to go into any form of accommodation. The circumstances of this patient were such that, although the conditions were dirty, she was able to look after herself reasonably well, and accordingly her case did not appear to come within the scope of the legislation.

The third was a man aged about 70 who was very senile, living in an indescribably dirty house with broken furniture and littered with scraps of food. Upstairs was an old bed with a couple of Army blankets, the bed being completely wet through. He was brought to the attention of the department by the clergy of the parish, the Welfare Department, and by his brother who was home from Canada. He was willing to go into hospital, and with medical care his condition improved considerably, but not sufficiently for him to be discharged.

The fourth was an elderly woman who, when visited, was lying in bed covered with one dirty blanket, her skin being ingrained with dirt. On the floor was a bucket containing urine and faeces. Although the weather was extremely cold, there was no fire and the only food that could be found in the house was the remains of a loaf, a mouldy lemon, a packet of sugar and a packet of salt. She was allegedly being looked after by a neighbour, an elderly man, but it was not possible to find evidence of the help he was supposed to be giving. The patient was not willing to go to hospital, and arrangements were made to obtain an Order. All the necessary documents were signed, but when a call was paid just before the application for an Order, the patient announced that she was willing to go into hospital. Accordingly, she was removed without an Order. Her condition deteriorated, and she died five days later.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 56 persons at the end of the year, and 52 were on the Register as partially sighted. A total of 70 Forms BD. 8 were completed by ophthalmic surgeons during the year.

The following table shows the age and sex distribution of the persons concerned:—

	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	Total
Males ..	2	—	2	3	2	7	13	2	—	—	31
Females	—	—	4	2	4	10	8	8	2	1	39

A further analysis of these cases by cause and sex follows:—

	MEN'S EYES	WOMEN'S EYES
CONGENITAL AND UNDETERMINED CAUSES:		
Congenital, hereditary and developmental defects	4	5
Myopic error	1	6
Other errors of refraction	—	2
Primary glaucoma	4	6
Primary cataract	17	21
Primary detachment of retina	—	—
INFECTIOUS AND BACTERIAL DISEASES:		
Other venereal diseases (excluding syphilis and gonorrhoea), tuberculosis, septicaemia or trauma	2	—
TRAUMATIC AND CHEMICAL:		
Non-industrial trauma	1	1
GENERAL DISEASE:		
Vascular diseases	1	—
Diabetes	—	5
NO INFORMATION OBTAINABLE	5	2

A follow-up of registered blind and partially sighted persons to determine what treatment, if any, had been recommended, was carried out with the following results:—

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
Number of cases registered during the year in respect of which there was recommended:—				
No treatment	24	8	—	21
Treatment (medical, surgical or optical) ..	11 surgical 3 medical	2 optical	—	1 surgical

The follow-up was carried out by visitors for the blind from the Welfare Department, but in addition the health visitor for the district called on each patient, and continues from time to time to do so.

Of those cases recommended for treatment, the two who needed optical treatment have now received it, but the 12 surgical cases are still awaiting treatment. This is partly accounted for by the fact that many of them are under observation by the ophthalmic surgeon with a view to treatment perhaps one year or two years hence.

Two cases of ophthalmia neonatorum were notified, and in both the condition cleared up under treatment in a few days with no obvious damage to the eye.

No case of retrolental fibroplasia was reported.

At the end of the year 11 blind and 4 partially sighted children were receiving special educational treatment in boarding schools and one blind and 3 partially sighted children had been ascertained as handicapped pupils and were not yet placed in suitable schools.

Epilepsy:

The Chief Welfare Officer states that on the Register of Handicapped Persons there were 10 individuals suffering from epilepsy. In addition, 17 persons were maintained in institutions and colonies for epileptics, and two more were in Old Persons' Homes.

The Local Education Authority provided special educational treatment for six children suffering from this condition. In addition, 54 children attending ordinary schools were known to the authority as having had fits at some period in their lives and, although now, however, free from attacks and able to attend ordinary school, were kept under observation as possible epileptic children. The total number of known cases, therefore, amounts to 89.

Cerebral Palsy:

The Register of Handicapped Persons maintained by the Chief Welfare Officer includes the names of only two persons suffering from cerebral palsy. However, the Local Education Authority were aware of 22 children with this handicap, of whom 7 were not at school. Of those not at school, one was receiving home tuition, 2 were under the age of five, and 4 were extremely severe cases. Of the mentally defective children known to the authority, 8 were suffering from cerebral palsy in addition to the mental handicap. The total number of known cases was, therefore, 32.

Facilities available for Handicapped Persons:

No specific arrangements were made by the Health Department for handicapped persons. The Welfare Committee is responsible, under the National Assistance Act, for adults, and the Education Committee for children over the age of two years who need special educational treatment. The Welfare Department provides the following facilities:—

- (a) FOR THE BLIND – A full range of services as envisaged by Section 29 of the National Assistance Act. Blind persons are provided with instruction in their own homes by home teachers. A workshop is organised and arrangements made for the disposal of produce. Recreation and social facilities are also provided.
- (b) FOR THE DEAF AND DUMB – A voluntary organisation acts as agent for the Welfare Committee, and provides social facilities and handicrafts in the homes.
- (c) FOR THE HARD OF HEARING – Grants are made to local voluntary organisations interested in the hard of hearing.
- (d) FOR OTHER HANDICAPPED PERSONS – The Welfare Department provides home training in handicrafts, special handicraft classes and social facilities for various types of handicapped persons.

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

Medical supervision of children in the care of the Local Authority was undertaken as in previous years by the medical staff of the Health Department. A medical officer and a health visitor devoted one session weekly to the routine examination of the children. "Braxmere" Home was visited monthly and the other scattered homes twice in the year. Children for boarding out in foster homes were examined prior to boarding out, and again one month later, and thereafter, yearly unless there was some special reason for seeing them at more frequent intervals.

In addition to the routine examinations, all children were seen prior to admission to, or discharge from, one of the Local Authority's homes, by one of the medical officers who was available for this purpose on rota.

A total of 563 examinations were made as follows:—

No. of children examined on admission to Homes	...	...	...	115
No. of children examined on discharge from Homes	...	...	...	48
No. of examinations made for the purpose of boarding out...	...	...	...	55
No. of routine examinations: 0 – 1 year	...	...	...	4
1 – 5 years	...	...	...	43
over 5 years	...	...	...	298
TOTAL	...	...	...	563

Nutritional Status:

Examination of children over the age of 5 years revealed that 46.6% were considered by the medical officer to be in a good general condition (A); 51.4% in a fair general condition (B); and 2.0% in a poor general condition (C).

Bolton figures are similar to those for the country as a whole. In 1945, of the primary school leavers examined in England and Wales, 43.7% were in a good general condition (A); 54.2% in a fair general condition (B); and 2.1% in a poor general condition (C).

Defects:

Of the children examined, 67 were found to have one or more defects requiring treatment.

Classification of Defects

No. of defects of	Eyes	...	...	...	...	13
"	"	"	"	Ears	...	5
"	"	"	"	Nose & Throat	...	10
"	"	"	"	Lungs	...	6
"	"	"	"	Speech	...	1
"	"	"	"	Skin	...	15
"	"	"	"	Circulatory System	...	5
Other defects	...	...	...	...	...	20
TOTAL NO. OF DEFECTS ASCERTAINED						75

Twenty-one children were referred to consultants and six to their family doctors for treatment.

A medical report on the children in the care of the Local Authority was issued quarterly by the Medical Officer of Health to the Children's Committee.

When the Elizabeth Ashmore Nursery is opened in 1955, a medical officer will visit and examine the resident children once a month.

**CARE OF CHILDREN CO-ORDINATING COMMITTEE
PROBLEM FAMILIES**

Mr. J. W. Freeman, Children's Officer, has supplied the following information:—

The Care of Children Co-ordinating Committee set up in 1951 in accordance with the suggestions made in the Joint Circular, Home Office 157/50, Ministry of Health 78/50, and Ministry of Education 225/50, has continued to function and has expanded its activities amongst problem families. Monthly meetings were held at officer level with statutory and voluntary services well represented. Quarterly meetings were held at chief officer level. A central register of problem families has been set up and was kept in the Children's Department, to which members of the Co-ordinating Committee had access. Since the formation of the register on the 1st November, 1951, 103 families, involving 348 children, have been notified. Of this number, 79 families (29 old and 50 new), involving 282 children have been dealt with by the Committee during 1954.

Problem families were not difficult to find. In every community there are families "whose conditions of life and social habits are below the accepted minimum."* Health Visitors and School Welfare Officers visited many of the families, but were not able in the normal course of their duties to give them the concentrated attention needed. The Co-ordinating Committee has proved an invaluable means of avoiding overlapping and confusion, and has been able to give systematic help to many families. The appointment of a woman social worker by the National Society for the Prevention of Cruelty to Children, in June, 1954, for detailed work on problem families, has brought in another valuable additional member to the Committee. By wise co-operation and friendly exchange of information between public and voluntary services, much can be done.

The results of the work of the past year are as follows:—

Number of families on live register at 1.1.54 ...	29	involving	126	children
Number of new families added to register ...	50	„	156	„
<hr/>				
TOTAL NUMBER OF FAMILIES AND CHILDREN DEALT WITH DURING THE YEAR	79	„	282	„
<hr/>				

The families were classified as follows:—

- CATEGORY “A” – 31 families involving 100 children do not require further supervision.
- CATEGORY “B” – 40 families involving 160 children have shown improvement but require further supervision.
- CATEGORY “C” – 8 families involving 22 children have shown little or no response and are regarded as chronic cases. All these children are in the care of the Local Authority at present.

* “Problem Families”. *An experiment in Social Rehabilitation, Pacifist Service Units 1945.*

NURSING HOMES

There were two nursing homes situated within the borough boundary both of which were registered under the provisions of the Public Health Act, 1936. One of these was inspected during the year and was found to be satisfactory after minor modifications had been made.

Accommodation was provided in the two homes for acute and chronic medical cases, and the total number of beds at the end of the year was 41.

An application was received for the registration of another nursing home and the premises were inspected. It was felt that neither the premises nor the proposed staffing were satisfactory, and after consultation with the applicant she agreed to withdraw her application.

CREMATION

The Bolton Crematorium at “Overdale” was officially opened on September 16th but did not start functioning until October 11th. The Medical Officer of Health was appointed by the Home Office as Medical Referee to the Crematorium, and the Deputy Medical Officer of Health and a Medical Officer were appointed as Deputy Medical Referees. During the short time that the Crematorium was in operation up to the 31st December, 279 cremations were conducted. One hundred and fifty of these were in respect of persons residing within the borough and 129 in respect of persons residing outside the borough.

BOLTON MEDICAL BUREAU

The Bureau has been functioning since the 1st January, 1954, and is administered from the Ambulance Control Room. A full 24 hour cover was given. The scheme, which is in addition to the existing Rota and Holiday schemes arranged by the Bolton Medical Committee, was started primarily for the convenience of doctors who wished to leave their telephone unattended from time to time. The results of the year's working up to and including the 31st December, 1954, are as follows:—

Number of occasions on which doctors have used the service to notify their absence	260
Number of individual doctors using the service	51
Number of calls made by patients in connection with the scheme	780

It would appear that the Bureau is giving a useful service.

HEALTH EDUCATION

Health Exhibition:

Originally, the Exhibition was intended to be held in 1953 as part of the programme in connection with Bolton's Coronation Celebrations. For many reasons, including changes of staff, this was not possible and the Exhibition was finally held from the 18th to the 23rd January, 1954, inclusive. Six of the rooms in the Bolton Art Galleries were taken over for this purpose. The Exhibition was a joint effort on the part of the Health Department, the Hospital Management Committee and the Executive Council. Considerable support was given by the Ministry of Agriculture and Fisheries particularly in supplying the exhibition stands. The Junior Department of the Bolton School of Art did a considerable amount of work in the preparation of posters and other artistic material. The Exhibition depicted the work of the three branches of the Health Service and in all 28 separate display stands were used illustrating the following subjects:—

ENTRANCE HALL

Information Bureau
Bolton Executive Council

FIRST ROOM

Maternity and Child Welfare
Immunisation and Vaccination
School Health Service
Home Help
Home Nursing
Today and Tomorrow (Prevention of accidents in old age)
Mental Health
Ambulance

SECOND ROOM

Hospital Group Facilities
General Patient Services
Hearing Aids
Pharmacy
Catering
Geriatrics
Maternity and Paediatrics
Psychiatry
Cancer Service
Hospital Equipment
Pathology
Blood Transfusion
Chest Service
Venereal Disease

THIRD ROOM

Prevention and After-Care
Environment Hygiene (Food Hygiene)

FOURTH ROOM

Environment Hygiene (General Hygiene)

FIFTH ROOM

Infestation Control

A Mass Radiography Unit was in constant use during the Exhibition. Propaganda within the Exhibition referred members of the public to the Unit which was situated in the Health Department next door. The basement Lecture Theatre in the Library was taken over for the week for the showing of three films - "Surprise Attack" (All about Smallpox and Vaccination), "Another Case of Food Poisoning", and "The Inside Story" (Discusses the Tuberculosis problem). The films were shown as often as the public demanded and at least on six occasions each day. Admission was free to the Exhibition and the film shows.

In the course of the week, 32,640 people attended the Exhibition and 4,574 saw the Health Education films. Considerable publicity was given to the Exhibition in the press and by means of posters, and also through the cinema and radio. More than 4,200 people were X-rayed by the Mobile Unit.

A Health Exhibition Sub-Committee was set up, the members representing the Local Health Committee, the Bolton & District Hospital Management Committee, the Bolton Executive Council, the Bolton & District Hospital Saturday Council, the local Press, Health Department and Education Department representatives, and a representative from the Ministry of Agriculture and Fisheries. The general policy was decided by this Committee. Detailed arrangements were made by each body representative of all aspects of the Health Services.

Health Services Handbook:

The Handbook was produced in connection with the Health Exhibition and was on sale (price 1s. 0d. per copy) at the Exhibition. Altogether 3,200 copies were sold out of an issue of 5,000. The rest of the copies were distributed to doctors, dentists, chemists, voluntary bodies and others having a direct interest in the Health Services and to whom it was essential to have up-to-date information for the advice of the general public. Like the Exhibition, the Handbook was a joint production of all three branches of the Service and gave detailed information on the Hospital, Local Health and Executive Council Services as well as useful facts in connection with all the voluntary bodies in the town directly or indirectly concerned with health. Income from sale, and advertisements covered the cost of production.

Family Doctor Bulletin:

The Bulletin issued weekly as an experiment a year ago, continued to be issued each Monday throughout the year to all doctors practising in the town.

The Bulletin contains standard information each week on the situation with regard to infectious diseases, and the name, address and telephone number of the Duly Authorised Officer on duty. The rest of the Bulletin is taken up with matters of joint interest to the Health Department and the family doctors, and averages two separate items per week. All told, 109 items of interest and importance have been discussed during the year. The Bulletin is deliberately condensed to one side of a foolscap sheet of paper except under unusual circumstances.

Central Council for Health Education:

Contributions to the fund of the Central Council continue to be made by the Corporation. Arrangements were made for a number of "In-Service" Training Lectures and Courses to be carried out in early 1955. These consisted of a one-day course to Medical Officers and Health Visitors on "The Future of the Child Welfare Centre"; a lecture to Home Helps on "The Healthy Home"; a lecture to Teachers on "Furthering Health Education in school"; and a Course for Children's Department staff on "The Adolescent".

Public Lectures:

In addition to the formal lectures given by certain senior members of the department to the Health Visitors' Training Course held at the Technical College by the Queen's Institute of District Nursing, a number of lectures by various voluntary organisations were given during the year.

Propaganda Material:

Use was made in the Welfare Centres of the mobile show stands provided by The Central Council for Health Education. In addition, a static stand was constructed in the Waiting Room of the Health Department for the display of health education material which is changed periodically. The Central Council leaflets were used as and when required in various sections of the department. The Librarian at the Public Library agreed to disseminate suitable health literature to borrowers of books. As an experiment, copies of the British Medical Association journal "Family Doctor" were sent monthly to each head teacher with the object of providing suitable material for teaching on health matters. After a year's experience it has been found that the majority of teachers welcome this magazine. Sixty-five out of 87 have expressed their desire for continued distribution of the magazine.

Staff Training:

The periodical clinical meetings between the paediatric staff of the Bolton District General Hospital and the Health Department medical staff have continued and have proved most useful. Doctors from the Lancashire County Council Divisions adjacent to Bolton have also attended and the facilities are available to the medical staff of the County Borough of Wigan.

Refresher Courses have been undertaken by various professional members of the department. All such Courses have been sponsored by organisations approved by Government Departments.

BATHS AND WASH-HOUSES

The Baths and Wash-houses were administered under the direction of the Medical Officer of Health. The following facilities were available:—

BATHS:

High Street	1 Plunge 9 Slipper Baths
Bridgeman Street... ..	2 Plunges 25 Slipper Baths
Moss Street	2 Plunges 18 Slipper Baths
Rothwell Street	15 Slipper Baths
Great Moor Street ...	Turkish Baths

WASH-HOUSES:

Moss Street	12 Hand-washing stalls 6 Electric Rotary Washing Machines
Rothwell Street	18 Hand-washing stalls 12 Electric Rotary Washing Machines 1 Coin slot ironing machine

The coin slot ironing machine which was installed in November, 1954 has continued to be a popular amenity. At a charge of 1d. for two minutes the machine was used 40,000 times during the year and the results appear to have justified the experiment.

The following table shows the attendances at the various establishments during the last three years:—

	Swimming Plunges			Slipper Baths			Wash-houses		
	1954	1953	1952	1954	1953	1952	1954	1953	1952
High St. Baths	70,486	65,578	56,575	16,291	16,873	14,606	—	—	—
Bridgeman St. Baths... ..	108,777	84,483	84,880	35,887	34,846	33,546	—	—	—
Moss St. Baths and Wash-houses ...	93,975	92,831	81,244	46,008	40,242	36,750	22,820	26,276	29,979
Rothwell St. Wash-houses	—	—	—	16,008	16,733	17,221	37,296	42,663	47,800
TOTALS ..	273,238	242,892	472,103	114,194	108,694	102,123	60,116	68,939	77,779

Percentage increases or decreases in attendances compared with 1952 were:—

	1953	1954
Plunges	+ 15%	+ 30%
Slipper Baths	+ 6%	+ 12%
Wash-houses	— 11%	— 23%

These changes have not affected the overall income from Baths and Wash-houses.

The attendances at the Turkish Baths have increased by approximately 500 over the preceding two years and were considerably above those for 1951.

YEAR	ATTENDANCES
1951	4,725
1952	6,167
1953	6,163
1954	6,651

The attendances at the swimming and slipper baths have increased by approximately 30,000 and 6,000 respectively. This was the first full year in which the reduction in charges – made in June 1953 – took effect.

It should be noted, however, that the very large increase of 24,000 swimmers at Bridgeman Street Baths is explained by the fact that in 1953 the large plunge was closed for eight weeks for painting and renovation. The swimming baths were surprisingly popular with school children during the holidays when the weather was bad.

Work proceeded during the year on the new slipper baths at Hennon Street and they were officially opened in February, 1955. They include 12 slipper baths for women and 11 slipper baths and 1 shower bath for men. Heat is produced by an oil-fired boiler, which is the first of its kind to be installed in a Bolton bathing establishment.

Each year 150 tickets are awarded to school children who pass the tests set by the Bolton Scholarship Scheme for the Encouragement of Swimming. Holders of the bronze medallion of the Royal Life Saving Society received 234 tickets. Under both schemes the holders of tickets are entitled to free swimming facilities for twelve months, and their attendances are included in the above figures. The figures also include 57,308 attendances by organised parties of school children between April and October under arrangements made with the Local Education Authority.

Facilities were granted to Swimming Clubs for after-hours swimming, for the holding of galas, and for the promotion of water polo matches.

The decline in attendances at the wash-houses continued. This may be due to the increasing use of electric washing machines in the home, the movement of the population to housing estates, and the establishment of commercial "Launderettes" in the vicinity of the wash-houses.

METEOROLOGICAL SUMMARY, 1954

Compiled at Queen's Park Observatory by E. Hendy, F.R.Met.S.

1954	Barometer Inches	Mean Relative Humidity %	Mean of Maximum and Minimum Tempera- ture °F.	Absolute Extremes of Temperature			Sunshine Maximum in one day Hours	Date	Total Rainfall Inches
				Highest °F.	Date	Lowest °F.	Date	Total Amount Hours	
January ..	30.165	89	37.37	54.0	15	21.0	8	40.2	4.555
February ..	29.817	93	35.93	50.7	22	22.4	6	36.9	3.469
March ..	29.780	90	40.58	58.9	11	18.8	2	100.9	2.882
April ..	30.280	80	43.14	59.9	3	32.1	21, 23	176.7	1.035
May ..	30.007	83	50.76	74.5	10	36.8	8	125.0	2.415
June ..	29.938	85	53.71	71.9	3	43.9	1, 12	130.6	4.008
July ..	29.842	83	54.11	68.8	9	41.1	7	111.3	6.901
August ..	29.843	87	55.62	71.2	31	42.1	1	88.7	5.614
September ..	29.802	83	52.90	79.0	1	37.8	18	131.5	4.489
October ..	29.906	88	52.03	67.0	2	30.6	26	60.0	7.941
November ..	29.874	87	42.89	55.1	29	27.9	17	48.1	7.067
December ..	29.780	89	42.80	56.7	2	31.0	24	17.0	6.768
Totals ..	359.034	1037	561.84					1066.9	57.144
Monthly Average ..	29.920	86	46.82					88.9	4.762

Rainfall: Average 1887-1954 = 44.587"

COUNTY BOROUGH OF BOLTON
EDUCATION COMMITTEE



ANNUAL REPORT

OF THE

Principal School Medical
Officer

FOR THE YEAR 1954

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
Principal School Medical Officer

SPECIAL SERVICES SUB-COMMITTEE

Municipal Year 1954-1955

COUNCILLOR (MAJOR) W. WHITTAKER (*Chairman*)
COUNCILLOR MRS. A. A. G. HOPEWELL (*Vice-Chairman*)
ALDERMAN MRS. H. WRIGHT, J.P.
COUNCILLOR MRS. D. BERRY
COUNCILLOR MRS. N. BOWYER
COUNCILLOR G. HASLAM
COUNCILLOR MRS. L. HEYWOOD, J.P.
COUNCILLOR C. H. LUCAS
COUNCILLOR H. NOBLETT
COUNCILLOR MRS. E. M. RYLEY
COUNCILLOR F. SINGLETON
COUNCILLOR E. TAYLOR, J.P.
COUNCILLOR F. TELFORD

MR. A. HOWCROFT (*Co-opted Member*)

MR. A. POPE	”	”
MR. F. WALKER	”	”
MR. T. WILLIAMS	”	”

STAFF OF THE SCHOOL HEALTH SERVICE

Principal School Medical Officer	Dr. Ronald W. Elliott
Deputy Principal School Medical Officer	Dr. Hugh Bryant
School Medical Officers	Dr. John Litt
	Dr. Audrey Seddon
	Dr. Rosa M. Galloway
	Dr. Godfrey C. Galea
	Dr. Margaret T. McCaffrey
	(Commenced 18th January, 1954)
	Dr. Eugene W. Birch
	(Resigned 18th August, 1954)
	Dr. Frank R. Calvert (Part-time)
	(Commenced 27th September, 1954)
	Dr. Geoffrey A. Levell (Part-time)
	(Commenced 17th November, 1954)

School Medical Officers worked part-time in both the Maternity and Child Welfare and School Health Services with the exception of Dr. John Litt, and were appointed as Assistant Medical Officers of Health and School Medical Officers.

Ophthalmic Surgeons	Dr. J. Ratcliffe (Part-time)
	Dr. J. Morrison (Part-time)
Ear, Nose and Throat Surgeon	Mr. G. G. Mowat (Part-time)
Principal School Dental Officer	Dr. Donald Davies
School Dental Officers	Mr. Stanley Bray
	Mrs. Joyce O. Burton
	Mr. George E. Frost
	Mr. Lionel Ordman
	(Commenced 20th April, 1954)
	Mr. E. M. Longton (Part-time)
	(Resigned 29th April, 1954)
	Mr. A. G. W. Smith (Part-time)
	(Resigned 29th April, 1954)
	Mrs. R. M. McKenna (Part-time)
	(Commenced 11th January, 1954)
	(Resigned 7th August, 1954)
	Mr. J. G. Robinson (Part-time)
	(Commenced 4th October, 1954)
	(Resigned 19th November, 1954)
Dental Anaesthetists (Part-time)	Dr. H. J. Simmons
	(Deceased 26th October, 1954)
	Mr. J. B. Davies
Psychiatrist	Dr. Elizabeth Berndt
	(Commenced 4th August, 1954)
Educational Psychologist	Mr. A. E. D. Schonfield
Social Worker	Miss M. Gumuchian
Speech Therapists	Mrs. F. Barber
	Mrs. C. D. Woodcock (Part-time)
	(Commenced 23rd July, 1954)
Superintendent Health Visitor and School Nurse	Miss F. Holden
	(Resigned 30th April, 1954)
	Miss F. E. Hunt
	(Commenced 2nd August, 1954)
Deputy Superintendent Health Visitor and School Nurse	Miss J. MacEachern

NURSING STAFF

On the 31st December, 5 full-time School Nurses and 23 Health Visitors were working part-time on School Health, and part-time on Maternity and Child Welfare work – the equivalent of 11 full-time School Nurses.

The Superintendent Health Visitor supervised the work of the staff and was assisted by her Deputy.

DENTAL ATTENDANTS

There were 5 dental attendants employed on the 31st December.

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Health Department,
Civic Centre,
Bolton.

April, 1955

*To the Chairman and Members of the Special Services Sub-Committee
of the Bolton Education Committee.*

The new Regulations issued by the Minister concerning the routine medical inspection of school children gave some degree of latitude with regard to the age groups and number of groups to be inspected, but we have continued, for the time being, to carry out the inspections in the same manner as hitherto, namely, on entry into school; in the last year of attendance at primary school, and the last year of attendance at secondary school. In this report there is some overlapping of the age groups because of the arrears of work which had been left from previous years. I am pleased, however, to be able to report that this year we have brought our inspections up to date because of the increased amount of medical time available. Approximately twice as many routine inspections have been carried out as in the previous year. This has had a reflection on the number of defects which have been discovered and which have increased in approximately the same proportion. It is not suggested that the health of the children has deteriorated; merely that more defects which should have been brought to light previously have been dealt with. Attendances at Minor Ailments Clinics remained approximately the same as in the previous year. Interesting information is given concerning the presence of parents at routine inspections and it is pleasing to see such a high proportion of entrants having been accompanied by parents. All members of the School Health team have stressed the importance of the opportunity of consultation with parents in order to make the best use of the Service. Unfortunately, in the later age groups, parents do not come to the inspections in the same numbers.

Although the scheme for vaccination against tuberculosis is the responsibility of the Health Committee, the group selected for this work consists of school children in their fourteenth year. This has meant that the Health Department, Teachers and the School Health Service have had to work very closely together in order to obtain success. I should like to express my appreciation of the help given, particularly by the Teachers, in the dissemination of literature and in overcoming the practical difficulties of carrying out the testing and vaccination in the schools. The results of the scheme so far are quite satisfactory.

The Child Guidance Centre now has the services of a Child Psychiatrist. This essential post was filled in August when Dr. Elizabeth Berndt took up duties for two sessions per week. It is very pleasing to see this vacancy filled since the need for regular psychiatric advice has been missed considerably for a long period. I do not doubt but that the work will expand in due course as the availability of the Psychiatrist becomes more widely known.

There has been some slight expansion in the time given to Speech Therapy because of the appointment of a part-time Speech Therapist for two sessions per week in addition to the full-time services of Mrs. Barber. The extra time available from the part-time therapist has been devoted to children at the Lostock Open Air School and at Woodside Special School.

Now that an audiometer has been obtained and a school nurse trained in its use, we have been able to obtain interesting information concerning the hearing ability of special groups of school children. Eventually it is expected that audiometry will be practised as a routine on school children in general or on selected groups of apparently normal children. However, in order to start the scheme it was felt that the need was greatest in those children with known specific defects, consequently, attention was concentrated on remedial classes, the children at the Woodside School for Educationally Sub-Normal Children, and those receiving, or on the waiting list for, speech therapy. It also became our practice to test the hearing of children thought to be backward and undergoing mental testing. The result has been surprising in that such a large proportion of the children failed the test, but it has given us the opportunity of helping these children more than had been possible previously.

Two items of special interest appear in this report from members of the staff; the first from Dr. J. Morrison, the Ophthalmic Surgeon, who gives an interesting account of his work and stresses the great importance of patience in the use of newly fitted glasses in order to obtain the best results, and stimulates us in the School Health Service to recognise the importance of follow-up work on all children for whom glasses have been prescribed. The second item is from the Senior Dental Officer who, realising the tremendous task in front of school dentists, has made a suggestion which in his opinion could be helpful in restoring order in a difficult situation. Perhaps the matters raised by Dr. D. Davies are somewhat controversial but we must all welcome serious attempts to deal with this very big problem.

One thing which stands out clearly in our medical assessment of the value of Lostock Open Air School is the very great improvement experienced by asthmatic children who are in attendance there. It is always difficult to assess debility in mathematical terms when so much rests on general impression. For asthmatics, however, the issue is clear cut and we have here a valuable asset.

For the past two years we have followed up those children found at routine medical inspection to be in a poor general physical condition. It was shown in an analysis which was given in last year's report that the vast majority of these children were in receipt of school meals and/or school milk. The year's experience confirms this situation and only six children in this category were not in receipt of either school meals or school milk.

Infectious diseases have not been a cause for concern during the year and on the whole the number of notifications has been considerably less than might have been expected. Only two diseases have shown any increase in incidence, namely, dysentery and impetigo. In both these instances, experience over recent years has shown that the tendency is in an upward direction. The prevention of dysentery is largely a matter of personal hygiene and is a disease which can only be stamped out by thorough education of everyone concerned in the handling of food in conditions of strict cleanliness; a matter which is just as important within the family as in community feeding. Impetigo, on the other hand, is beginning to return probably due to the fact that the organisms concerned rapidly become resistant to new drugs. More and more we may have to rely on older remedies.

Three medical officers are now approved for the ascertainment of educationally sub-normal children, and this has been partly responsible for the increased number of children who have been ascertained.

For some years, the hospital waiting list for the removal of tonsils and adenoids has been long. However, during 1954 the hospital authorities improved the facilities for this work with the result that the delay in obtaining treatment is now no longer than three months. This is extremely important because if tonsils and/or adenoids have to be taken out the need for action is present when the final medical decision has been made and not at some indefinite time, probably two years ahead, as was the case previously. I should like to thank the hospital authorities for their help in this direction.

I am pleased to report a reduction in the amount of uncleanliness in the heads of school children. Although still very high - 8.3% of the school population - it is considerably lower than last year when the figure stood at approximately 10%. The improvement is probably due to the fact that more time has been spent by the school nurses on this problem and that a greater number of inspections has been carried out during the year; over 50,000 compared with 40,000 in 1953.

Certain information has been included in this year's report bearing on our interest in the future welfare of children who are handicapped. A list is given of the type of defect because of which children have been unable to attend school and have consequently been receiving home teaching. The severity of these conditions is obvious but it is very satisfactory to note that such a large proportion of them were eventually admitted to schools suitable to their capabilities. Information is also given concerning the liaison with the Youth Employment Service and the help we have been able to give in obtaining suitable work on leaving school. The children leaving Thomasson Memorial Special School, although severely handicapped, were able to enter useful occupations.

As the Committee is well aware, the School Health Service has been under a considerable strain because of the lack of clerical staff, but it would appear that some adjustments may be possible to remedy this difficult situation. It is hoped that the Committee will give favourable consideration to these suggestions in due course. Another matter of long term policy is that of school clinic accommodation and it is expected that during the coming year plans will be put to the Committee for its consideration.

Under the trying conditions of the past year, the members of the School Health Service have given me tremendous help and I should like to thank them for their great efforts. I should like to acknowledge too, the co-operation given by the Chief Education Officer and his staff and particularly the teachers for their great assistance.

Ronald W. Weist

Principal School Medical Officer.

GENERAL INFORMATION

No. of School children attending maintained schools...	...	24,568
Nursery School children	...	174
Primary School children	...	17,724
Secondary Modern School children	...	4,587
Secondary Technical School children	...	1,003
Secondary Grammar School children	...	751
Children attending Special Schools	...	329
No. of Schools maintained by the Authority	...	9
Nursery Schools	...	2
Primary Schools	...	71
Secondary Schools	...	15
Special Schools	...	3

ARRANGEMENTS FOR TREATMENT AND SPECIAL EXAMINATIONS

Minor Ailments:

Consultation and Treatment Sessions – Doctor in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT
Robert Galloway Clinic, Ward Street.	Monday and Tuesday, 2.0 p.m., and Thursday at 9.30 a.m.
Charles Street Clinic, off Folds Road.	Wednesday, 2.0 p.m. Saturday, 9.0 a.m.
The Withins School Clinic, Withins Lane, Brightmet.	Wednesday, 9.0 a.m.
Astley Bridge School Clinic, Moss Bank Way.	Monday, 9.0 a.m.

Minor Ailment Treatment Sessions – Nurse only in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT
Robert Galloway Clinic, Ward Street.	9.0 a.m. and 2.0 p.m. Monday to Friday, and Saturday, 9.0 a.m.
Charles Street Clinic, off Folds Road.	9.0 a.m. and 2.0 p.m. Monday to Friday, and Saturday, 9.0 a.m.
The Withins School Clinic, Withins Lane, Brightmet.	9.0 a.m. to 11.0 a.m. Monday to Friday
Astley Bridge School Clinic, Moss Bank Way.	9.0 a.m. Monday and Saturday. 2.0 p.m. Tuesday to Friday.

Treatment Centres with only a school nurse in attendance were conducted at the following schools:—

Brownlow Fold	Thursday morning
Gaskell Street	Thursday morning
Top o'th' Brow	Wednesday morning
Whitcroft Road	Wednesday morning

Dental Surgeries:

The six Dental Surgeries were in operation as follows:—

CHARLES STREET SCHOOL CLINIC 2 Surgeries
Monday to Friday, 9.30 a.m. and 2.0 p.m.
(except Tuesday at 2.0 p.m.), and
Saturday at 9.30 a.m.

ROBERT GALLOWAY CLINIC 2 Surgeries
Monday to Friday, 9.30 a.m. and 2.0 p.m.
and Saturday at 9.30 a.m.

ASTLEY BRIDGE SCHOOL CLINIC 1 Surgery
Monday to Friday, 9.30 a.m. and 2.0 p.m.
and Saturday, 9.30 a.m.

WITHINS SCHOOL CLINIC 1 Surgery
Tuesday, 9.30 a.m.
Thursday, 9.30 a.m. and 2.0 p.m.
and Saturday at 9.30 a.m.

All sessions were for treatment by appointment except on Tuesday and Thursday mornings, which were reserved for casual attendances.

Aural Clinics:

The Consultant Aural Surgeon attended fortnightly at both the Charles Street School Clinic and the Robert Galloway Clinic to see by appointment school children who were referred by the school medical officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attended at the Charles Street and Robert Galloway Clinics for a total of 17 hours per week to examine by appointment children referred by the school medical officers. The Clinics were held as follows:—

Monday afternoon	}	at Charles Street School Clinic
Wednesday morning		
Friday morning		

Monday morning	}	at the Robert Galloway Clinic
Wednesday afternoon		
Friday afternoon		
Saturday morning		

Morning sessions commenced at 9.30 a.m. and afternoon sessions
at 2.30 p.m.

Child Guidance:

The Child Guidance Clinic functioned at the Robert Galloway Clinic. Dr. Elizabeth Berndt, the Child Psychiatrist, commenced work on the 4th August, 1954, and attended at the Clinic on Monday afternoon and Wednesday morning of each week. The Educational Psychologist and the Social Worker also conducted their work from this Clinic.

Speech Therapy:

The Speech Therapy Centre was held in the Robert Galloway Clinic. Children, after ascertainment by the school medical officers as being in need of treatment, attended by appointment. In addition, a part-time Speech Therapist attended for one session each at Lostock Open Air School and at Woodside School (for educationally subnormal children) to give therapy to the children in these schools who were recommended by the school medical officers.

Audiometry:

Audiometric testing of school children by a screening technique was carried out on selected groups. In addition, children seen by the school medical officers in the course of their routine work and thought to have a hearing defect, were tested at the Robert Galloway Clinic at special sessions held for this purpose.

Ultra-Violet Light Treatment:

Children who were recommended by the school medical officers as in need of U.V. Light therapy attended at the Health Department for treatment. The treatment is given by a fully qualified physiotherapist and other staff.

Other Treatment:

Arrangements for other types of special treatment (paediatric, orthopaedic, etc.), were made with the consultant physicians and surgeons of the local hospitals. In each case, the family doctor was consulted before the appointment was made and he was sent a copy of the appropriate report.

MEDICAL INSPECTION OF SCHOOL CHILDREN

The practice of examining each child on entering school, again in the last year of attendance at a primary school, and finally in the last year of attendance at a secondary school, has been continued. There was, however, some overlap of age groups, as shown in the tables below, because of incompleteness of inspections in previous years.

The number of children examined at periodic medical inspections showed a considerable increase in the first and second age groups. Much of this increase was due to children who should have been examined in previous years but because of staffing difficulties were not examined until 1954. This applied particularly to those in the second age group.

Periodic Medical Examinations

Number of children examined in the above Groups:

Entrants - 4, 5 and 6 years	4,536
Primary School Leavers - 10 and 11 years ...	4,284
School Leavers - 14 and 15 years	1,886
TOTAL	10,706
Additional Periodic Examinations	1,843
GRAND TOTAL	12,549

Other Examinations

Special Examinations	9,335
Re-Inspections	9,644
TOTAL NUMBER OF OTHER EXAMINATIONS ...	18,979

During 1954, 18,979 special and re-inspections were carried out compared with 16,890 in 1953.

RESULT OF INSPECTIONS

Defects Found

Defect or Disease	Periodic Inspections		Special Inspections	
	No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Skin	182	187	576	2
Eyes:				
a. Vision	988	914	127	9
b. Squint	117	178	19	—
c. Other.. ..	54	50	72	—
Ears:				
a. Hearing	110	200	144	30
b. Otitis Media ..	65	139	119	4
c. Other.. ..	32	32	86	6
Nose and Throat ..	213	1,033	480	60
Speech	31	192	79	11
Cervical Glands ..	20	447	61	3
Heart and Circulation..	14	143	49	14
Lungs	80	286	135	11
Developmental:				
a. Hernia	11	68	5	1
b. Other.. ..	30	258	19	7
Orthopaedic:				
a. Posture	14	134	8	—
b. Flat Foot	12	106	10	1
c. Other.. ..	64	350	71	7
Nervous System:				
a. Epilepsy	6	32	10	10
b. Other.. ..	8	66	36	4
Psychological:				
a. Development ..	5	42	55	1
b. Stability	4	65	44	10
Other	375	216	452	24
TOTALS	2,435	5,138	2,657	215

The number of defects requiring treatment, found at the periodic medical inspections increased from 1,384 in 1953 to 2,435 in 1954. Those defects requiring observation alone increased from 2,153 in 1953 to 5,138 in 1954.

This increase was expected because more children were examined, especially in the first and second age groups.

Pupils Found to Require Treatment

Age Group Inspected	For defective vision (excluding squint)	For any of the other conditions recorded in previous table	Total individual pupils
Entrants:			
4, 5 and 6 years	242	703	939
Primary School Leavers:			
10 and 11 years	370	323	672
School Leavers:			
14 and 15 years	210	147	326
TOTALS	822	1,173	1,937
Additional Periodic Inspections . .	166	190	347
GRAND TOTALS . .	988	1,363	2,284

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	1954		1953	
	No. of pupils inspected	No. with parent present	No. of pupils inspected	No. with parent present
4, 5 and 6 years	4,536	3,664	2,807	2,309
10 and 11 years	4,284	1,818	2,002	466
14 and 15 years	1,886	15	1,683	32
Additional periodic inspections . .	1,843	103	428	47
TOTALS	12,549	5,600	6,920	2,854

It is most important that parents should, whenever possible, attend. The value of the routine school medical inspection depends to a great extent on the co-operation between parent and school medical officer. The table shows that 3,664 out of 4,536 entrants – over 80% – had a parent present at this first examination. The proportion was considerably lower in the older groups.

MINOR AILMENTS

During the year 4,847 individual children attended the clinics and treatment centres. Of these 2,208 were seen on their first attendance by the medical officer.

Clinic or Centre	No. of individual children who attended	Children seen by medical officer on first visit	No. of subsequent visits to medical officer	Children seen by nurse on first visit	No. of subsequent visits to nurse	Total No. of Attendances
Robert Galloway	1,815	830	394	1,989	5,278	8,491
Charles Street ..	1,622	837	309	2,326	5,090	8,562
The Withins ..	408	267	172	218	714	1,371
Astley Bridge ..	492	274	137	284	758	1,453
Treatment Centres	510	—	—	707	639	1,346
TOTALS ..	4,847	2,208	1,012	5,524	12,479	21,223

The number of visits by children to the treatment centres in schools was as follows:—

Whitecroft Road	287
Top o'th' Brow	407
Gaskell Street	334
Brownlow Fold	318
TOTAL	1,346

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

The following table shows the number of cases treated or under treatment by the Authority or otherwise:—

	Number of cases treated or under treatment	
	By the Authority	Otherwise
Ringworm:		
(i) Scalp	1	—
(ii) Body	9	—
Scabies	2	—
Impetigo	120	1
Other skin diseases	444	55
TOTALS	576	56

The 444 other skin diseases treated by the Authority included:—

Plantar Warts	...	...	...	20
Septic conditions	...	...	...	101
Cuts, abrasions, bruises	...	...	...	95

The number of cases of skin disease treated in clinics has again increased.

Impetigo reached its highest level since 1943 and showed a 60% increase over the number of cases in 1953.

Impetigo treated in School Clinics 1942-1954

Year	No. of Cases	Year	No. of Cases
1942	158	1948	46
1943	133	1949	71
1944	102	1950	45
1945	115	1951	39
1946	99	1952	51
1947	92	1953	74
		1954	120

Defects of the Ear, Nose and Throat:

Four hundred and sixty-one children attended the Aural Clinic for the first time during the year, 232 being referred from routine school medical inspection. A total of 745 attendances was made by 550 children.

There was a considerable reduction in the waiting period before admission to hospital for removal of tonsils and adenoids. At the beginning of the year this period was approximately twelve months, but towards the end of December patients were not delayed longer than three months. This resulted from a decision of the Hospital Management Committee to make extra in-patient accommodation available for this purpose until such time as the waiting list was reduced to manageable proportions. Consequently, the figures for operative treatment which are shown in the following table show an increase over those for previous years. This does not represent a true increase in the number of children recommended for treatment during the year.

	Number of Cases Treated	
	By the Authority	Otherwise
Received operative treatment—		
for diseases of the ear	—	1
for adenoids and chronic tonsillitis	—	404
for other nose and throat conditions	—	7
Received other forms of treatment	403	7
TOTALS	403	419

If the 404 children who received operative treatment for adenoids and chronic tonsillitis, one had tonsils only removed, 7 had adenoids only removed, and 396 had both tonsils and adenoids removed.

Mr. G. Gordon Mowat, the Consultant Aural Surgeon, reports:

"The weekly Aural Clinics have been continued throughout the year and my impression is that there has been an improvement in the health of the school children, particularly with regard to ear disease. The important points are early diagnosis and regular efficient treatment, both of which can be obtained at the clinics.

The improved co-operation between the clinics and the Department of Otolaryngology at the Infirmary, and particularly the transfer of case notes, has facilitated the surgical treatment of Ear, Nose and Throat cases."

Audiometric Testing for Suspected Deafness:

A school nurse attended a course of instruction at the Department of Education for the Deaf, University of Manchester, in the use of the Pure Tone Audiometer. Consequently, it was possible to commence an audiometric survey in April, 1954.

A start was made on those groups of children who might be expected to have a higher incidence of deafness than children in ordinary schools. The results of the survey are given below:—

Sources of children tested	No. of children	Passed	Failed
Remedial Classes	305	258	47
Woodside Special School (Educationally Subnormal) ..	76	61	15
On waiting list for speech therapy or receiving speech therapy	127	106	21
On examination for backwardness	22	16	6
Referred for suspected deafness—			
(a) by school medical officers 108	124	66	58
(b) by aural surgeon 13			
(c) by head teachers 3			
TOTAL NUMBER OF CHILDREN TESTED	654	507	147

The children who failed the sweep test (20 dbs loss at a frequency range of 500 – 6,000 c.p.s.) were recalled for a Pure Tone Audiogram and, after this had been examined by the school medical officer concerned, a decision was made as to whether the child needed to be referred to the Ear, Nose and Throat Consultant or otherwise.

Of the 147 children who failed the sweep test and were later seen by school medical officers, 52 were referred to the Ear, Nose and Throat Consultant; 38 were kept under observation, and 47 were found not to need any special educational treatment. Of the remaining 10, a change of position in class was recommended in 6 cases; one was found to be in need of speech therapy; one was referred to the Educational Psychologist and one was recommended for special educational treatment in a school for the partially deaf. The remaining child was leaving school and the defect was notified to the Youth Employment Officer.

It was not possible to analyse the final disposal of the 52 patients referred to the Consultant Ear, Nose and Throat Surgeon since many of them were still undergoing investigation or treatment at the end of the year.

Diseases of the Eye:

1,641 children were examined for the first time by the Ophthalmic Surgeons. Total attendances numbered 6,756, of which 6,471 were for refraction, repair to glasses and re-examination, and 285 for diseases of the eye.

In 231 cases spectacles were repaired or replaced.

Dr. J. Ratcliffe, the Consultant Ophthalmic Surgeon attending at Charles Street Clinic, reports:—

“I would like to comment on the work of my clinic. This is going on smoothly and a most striking point is that now very few children come for their final test without bringing with them a parent or relative with whom I can have a personal chat. I feel that this is most helpful and necessary.

I would like to point out that nowadays the Orthoptic cases are being referred to the Bolton Royal Infirmary as there is now an Orthoptic Clinic there.”

Dr. J. Morrison, the Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:—

“Excluding diseases or anomalies of the eyes, defective vision in children of ordinary intelligence is associated chiefly with high hypermetropia, high astigmatism of whatever kind, myopia, and squint.

For testing the vision of children unable to read, the ‘E’ test gives reliable results and many children are able to draw the letters in the air with their fingers. The pictorial test of animals and objects does not usually conform with the Snellen standard that the width of the lines composing a figure should be $\frac{1}{5}$ of the width of the figure.

The refractive error can then be accurately measured under atropin cycloplegia, and glasses, if necessary, are prescribed. If there is much refractive error it is not to be expected that glasses will give immediately full standard vision; far from it. For example, a child with 3D of astigmatism will do well to read 6/18 with glasses when first prescribed. But now for the first time in its life it can get clear retinal images; now it has the means to learn to see better and it must strive to do so and not remain content with its old standard of vision. Progress is slow,

but school work becomes easy, and in one or two years vision with glasses should have improved to about 6/9ths, and later on to 6/6ths. Glasses should be worn constantly, encouragement being necessary, especially when teasing by others takes place. Most astigmatism is due to corneal curvative and is permanent.

If a child has 6D of hypermetropia the best visual acuity attainable with a correction may be 6/36ths at first. In these cases improvement is very slow.

Myopia is fortunately rare in children below the age of five, but cases do occur, and here even with glasses the vision at first is poor.

But as a general rule myopia does not develop until later in life; some cases are seen between eight and ten, but mostly after ten. The great difference here is that before myopia came on these children had quite a useful period of normal eyesight, so that when glasses are prescribed, the child with them has full standard vision. It is important that glasses should be worn during the growing years as myopia does not regress, but tends ever to increase. The constant wear of glasses checks the rate of increase so that many myopes by the time the eyes are fully grown (eighteen to twenty years) have still good enough vision to go about many things without wearing glasses, which however will always be required for clear distance vision such as at the theatre.

The usual type of squint is the convergent concomitant one, with one eye predominantly affected.

Treatment should start as soon as is feasible, not only for the correction of the deformity, but also because the vision of the squinting eye drops rapidly on account of "suppression" of its visual function (or "neutralisation" as the French call it). This suppression takes place in order to allow the master eye to get clear vision unimpeded by the blurred and misdirected sight of the squinting eye. Most of these cases have much hypermetropia and a full correction for this is essential. Many cases succeed with the optical correction alone, others may need occlusion of the good eye, a process almost as irksome to those who have to deal with the child as to itself, and one that requires much tact, patience and perseverance. Other cases have so much deviation that operation at an early date is a great help towards future training of the eye. If after a trial of occlusion for a few weeks the squint persists, operation is to be considered, and in old confirmed squints the cosmetic value of operation is of much importance psychologically and socially.

If parents agree to operation they are given a letter with notes on the case for their own doctor with the suggestion that further treatment through the Hospital Services might be advantageous.

Finally, all that has been written above is to be considered subject to Duke-Elder's dictum: 'It is too often forgotten owing to the stress that has been laid upon the geometrical aspect of the resolving power of the eye, that the matter is not and never can be a purely optical one; to consider it in this light is to invest a perceptual process of great complexity with a delusory and fictitious simplicity.' (*Text Book of Ophthalmology*, Vol. 2, p. 1194.)"

The number of cases of eye disease, defective vision or squint, for which treatment was initiated by the school medical officers and given either in the ophthalmic clinic or otherwise, was as follows:—

	Number of cases dealt with	
	By the Authority	Otherwise
External and other conditions excluding errors of refraction and squint	112	4
Errors of refraction (including squint) ..	1,529	48
TOTALS	1,641	52
Number of pupils for whom spectacles were:		
Prescribed	1,304	48
Obtained	1,261	48

These figures show no striking change from those of previous years.

The number of children, by age groups and defects, found at periodic medical inspection to require attention for defects of the eye is shown in the following table:—

Defect	Age Groups Inspected				TOTALS
	Entrants 4, 5 and 6 years	10 and 11 years	14 and 15 years	Additional Periodic Inspections	
Defective Vision..	242	370	210	166	988
Squint	69	29	5	14	117
Blepharitis	8	4	3	2	17
Conjunctivitis ..	2	1	—	—	3
Other	5	19	4	6	34

The number of entrants found to have defective vision was 242 compared with 124 in 1953. This was only to be expected as the number of entrants examined had increased in almost the same proportion. The number of cases of squint likewise showed an increase.

Defective Colour Vision:

Routine colour vision testing was continued for the third age group (school leavers) and was also carried out on some of the children leaving primary school. A total of 44 colour blind pupils were discovered — 42 boys and 2 girls.

The incidence in the 14 and 15 year age group was 3.1 per 100 boys, and 0.1 per 100 girls.

Orthopaedic Defects:

One hundred and seventy-nine children were found to have orthopaedic defects, 90 on periodic medical inspection and 89 at school clinics.

Fifty-eight children were referred to the Consultant Orthopaedic Surgeon at the Bolton Royal Infirmary for advice and treatment.

Uncleanliness:

Routine head inspections were carried out on all school children attending schools maintained by the Authority; 50,775 examinations were made and 2,048 pupils found to be infested with vermin or nits. This represents 8.3% of the registered school population.

'Notices to Cleanse' under Section 54 (2) of the Education Act were issued on 105 occasions (87 girls; 18 boys), and 'Cleansing Orders' under Section 54 (3) on 28 occasions (25 girls; 3 boys). Supplies of cleansing materials were available and fine-tooth combs could be purchased by the parents from the Health Department.

Arrangements were made for the cleansing of unclean and verminous children at the School Hill Cleansing Station which is under the control of the Health Department. Both male and female staff were available. During the year, 29 boys and 228 girls were cleansed; a total of 260 attendances were made. Twenty-eight of these children were cleansed compulsorily after the issue of a 'Cleansing Order', and the remainder attended at the parents' request. In addition, 5 boys and 3 girls were treated at the Centre for scabies.

THE GENERAL CONDITION OF SCHOOL CHILDREN

Results of Examinations carried out at Routine Medical Inspections:

At periodic medical inspection in school, 12,549 children were examined; of these, 3,599 or 28.68% were above average; 8,760 or 69.81% average; and 190 or 1.51% below average. This was generally satisfactory.

The following table gives the details by age groups:—

Age Groups (1)	Number of Pupils In- spected (2)	Above Average		Average		Below Average	
		No.	% of Col. (2)	No.	% of Col. (2)	No.	% of Col. (2)
Entrants (4 - 5 - 6 years) ..	4,536	1,126	24.82	3,294	72.62	116	2.56
Second Age Group (10-11 yrs.)	4,284	1,337	31.21	2,907	67.86	40	.93
Third Age Group (14-15 yrs.)	1,886	639	33.88	1,242	65.85	5	.27
Other Periodic Inspections ..	1,843	497	26.97	1,317	71.46	29	1.57
TOTALS	12,549	3,599	28.68	8,760	69.81	190	1.51

The assessment of general condition depended entirely on the standards adopted by the medical officer concerned and the precise value of these figures is, therefore, doubtful. As is to be expected in an individual matter of this kind, medical officers varied widely in their assessment of the average, but the general picture is useful.

Special Investigation:

An analysis was made of the children in the "Below Average" nutritional group in order to ascertain how many were receiving school meals and milk. The following table shows the results.

Age Groups Inspected	Total	Receiving Dinners	Receiving Milk	Receiving Dinners and Milk	Not Receiving Dinners or Milk
4, 5 and 6 years	116	42	112	40	2
10 and 11 years	40	12	36	10	2
14 and 15 years	5	4	5	4	—
Other Periodic Inspections . .	29	18	26	17	2
TOTALS	190	76	179	71	6

Fewer "Below Average" children were receiving school meals than in 1953, but the number taking milk has increased.

The Milk in Schools Scheme:

The number of children taking milk in school under the above scheme was such as to give an average throughout the year of 79.86% of all children in school. All the milk was derived from sources which were satisfactory as regards to quality and safety.

The School Meals Service:

A total of 2,239,800 dinners was produced in the school kitchens and the average number of children taking meals was 9,503 per day, which is 39.2% of children attending school. As a percentage of the average attendance, this figure is 43.9.

Of the children taking meals, 572 were receiving them free of charge at the end of the year. The meals were produced in five central kitchens and there were fifteen Kitchen/Dining Centres.

IMMUNISATION

Immunisation against diphtheria and whooping cough was offered to children during their first year at school, and not at any time up to the age of 8 years as had been the practice previously. Instead, efforts were made to have primary immunisation carried out before entry to school as being more likely to have a definite effect on the control of these diseases.

A total of 558 children received reinforcing doses on admission to school, and 529 were immunised for the first time — 142 against diphtheria only and 387 against both diphtheria and whooping cough.

DENTAL HYGIENE

Report of the Principal Dental Officer

"In the winter of 1824 there set in a great flood upon Sidmouth, the waves rushed in upon the houses and everything was threatened with destruction. In the midst of this sublime and terrible storm Dame Partington, who lived upon the beach was seen at the door of her house with mop and pattens, trundling her mop, squeezing out the sea water, and vigorously pushing away the Atlantic Ocean."

The Rev. Sydney Smith, 1771-1845

The results of a survey of dental decay carried out in 1953 by seven Local Authorities at the invitation of the Ministry of Education are reported in the Chief Medical Officer's report on *The Health of the School Child* for 1952 and 1953 as showing a 'substantial increase of caries as compared with 1948'. Truly the dental health of this country does not improve. A perusal of these reports issued over the last twenty years reveals that expedient after expedient in the way of limitation of treatment and selection and rejection of patients has in turn been suggested, adopted and abandoned in an effort to counteract the ravages of dental disease.

I wish to suggest that the time has come when we might admit that with our present knowledge and present methods it is an impossibility ever to bring our school children to school leaving age without the loss of permanent teeth and free from diseases of the teeth, and not persist in lamentation, imagining that if only we had more dentists and better equipment we could achieve perfection. Even if we had that number of dentists who could theoretically fill the 34,000 cavities a year that occur in Bolton school children neither the children nor the dentists could endure so harrowing a task.

I suggested in my report for 1952 that if we remove those four teeth (1st Permanent Molars) which in 96% of people become extremely carious then the majority of our children could leave school with healthy functional mouths of pleasing appearance. This matter is of such importance both locally and nationally that I should like to describe in detail our scheme of treatment and to demonstrate at the risk of tediousness how, if each dental officer were responsible for only 3,000 patients we could ensure that every one left school dentally fit.

The week's work of a dental officer would be divided as follows; of 11 sessions one would be devoted to school inspections, 2 to extractions under a general anaesthetic, 2 to anaesthetising for another officer and 6 to fillings. Each week therefore each officer could do 24 courses of extraction (12 a session) and 30 fillings (5 a session). In a year of 46 weeks this amounts to 1,104 treatments by extraction and 1,380 fillings. As for our system of balanced extraction each child needs a general anaesthetic 3 times in its school life of 10 years; this means that 3,680 children can be so treated.

Now that the number of carious teeth in children of 14 years of age has been shown to be 604 per 100 children of which 309 are accounted for by the teeth we earmark for extraction, this leaves 295 for filling. As these teeth begin to decay at the age of 8 this number is spread over the 7 years 8-14 which means that 42 fillings are required each year per 100 children, and as each dental officer would be able to do 1,380 fillings it follows that 3,200 children could be treated. These children of course are the same as those who require the extractions therefore the number which each officer could completely treat is somewhere in the region of 3,200-3,680 and every one could be inspected annually.

Complicated though this may seem when described in this way it oversimplifies the problem because no allowance is made for other forms of treatment. Nevertheless I believe that if we had our full complement of dental officers (8) and one other to cope with the Authority's obligations to Pre-School Children and Expectant and Nursing Mothers, all school children who took advantage of the facilities provided could be sent out into the world dentally fit. At present of course this does not happen as each officer is responsible for some 4,600 children and two officers now devote one session a week to the work of the Health Committee, but we are striving to attain our ideal.

The development of this scheme of treatment is reflected in the increased number of general anaesthetics administered. For the last four years these have been:—

1951	...	...	...	1,354
1952	...	...	...	2,870
1953	...	...	...	3,680
1954	...	...	...	4,938

Certain sessions each week are in part set aside for the treatment of patients attending on their own initiative and it is to these children that the column headed 'Special Inspections' in the table refers. In spite of theorising our first concern surely must be to relieve those children overtaken by pain and sepsis, even though in the past some of them may have attended irregularly or refused our offers of help altogether.

It is sometimes thought that the number of 'specials' is an indication of the inadequacy of a routine dental scheme, but this is a somewhat superficial view. It is true that some of these patients are 'unsatisfactory' from an administrator's point of view and also that many attend only when goaded by toothache, but not all can be thus stigmatised, whereas all who attend unprompted have for one reason or another come to realise the value of dental treatment, and nearly all are willing to undergo whatever is found necessary to make them completely fit. These patients are not treated merely by the extraction of an aching tooth but are given that treatment that will bring them into line with the routine patients. Only exceptionally do we see a patient who requires unavoidable extractions in excess of that.

Orthodontics, a most important branch of children's dentistry, also fits into our overall dental scheme in that by symmetrical extractions overcrowding of the teeth is avoided and the need for complicated orthodontic appliances is minimised. However there are still some patients requiring orthodontic treatment and I am pleased to record that during the year 123 removable appliances were provided with very satisfactory results. This work has made great demands on the X-ray department of the Bolton Royal Infirmary, X-ray control being vital to successful orthodontic treatment, and the time appears to have arrived when serious consideration should be given to acquiring dental X-ray apparatus of our own.

The professional staff has remained fairly constant throughout the year, the resignation of the part-time officers being offset by the appointment of a full-time officer in April. The untimely death of Dr. H. J. Simmons in October deprived us of the service of one of our two dental anaesthetists but it was considered advisable in view of the increased full-time staff not to appoint a replacement but to allow the dental officers to act as anaesthetists to each other. This system for many reasons is working very well.

I would like to mention the continuing co-operation of the head teachers and teachers who willingly helped us to the full, often to their own inconvenience, and so very materially assisted us in our work, and I would also like to record my appreciation of the devotion of the dental attendants without whose loyal assistance the accompanying figures would just about be halved.

Dental Inspection and Treatment:

Number of pupils inspected by the Authority's Dental Officers:—

Periodic Inspections	...	...	...	...	13,103
Special Inspections	...	...	...	...	2,750
TOTAL	...	...	...	...	15,853
Number found to require treatment	...	...	...	...	11,112
Number offered treatment	...	...	...	...	9,934
Number actually treated	...	...	...	...	6,244
Attendances made by pupils for treatment	...	...	...	...	13,155
Half-days devoted to: Inspection	...	...	...	...	67
Treatment	...	...	...	...	1,786
TOTAL	...	...	...	...	1,853
Fillings: Permanent Teeth	...	...	...	...	2,315
Temporary Teeth	...	...	...	...	1,166
TOTAL	...	...	...	...	3,481
Number of teeth filled: Permanent Teeth	...	...	...	...	2,120
Temporary Teeth	...	...	...	...	1,078
TOTAL	...	...	...	...	3,198
Extractions: Permanent Teeth	...	...	...	...	4,031
Temporary Teeth	...	...	...	...	10,534
TOTAL	...	...	...	...	14,565
Administration of general anaesthetics for extraction	...	...	...	...	4,938
Other operations: Permanent Teeth	...	...	...	...	3,558
Temporary Teeth	...	...	...	...	1,475
TOTAL	...	...	...	...	5,033

INFECTIOUS DISEASES IN SCHOOLS

A marked feature of the year has been the large number of cases of dysentery. For the past three years the number has tended to increase, and continued to do so in 1954 with an epidemic starting in the early months. Once again the children affected were mainly in their first two years in primary schools.

An epidemic occurred in February in a nursery school affecting three members of the staff and 21 children.

In May an outbreak occurred in a nursery school affecting 17 children and one member of the staff. This outbreak was thought to be due to a symptomless carrier amongst the staff responsible for serving school meals.

Dysentery was very common among pre-school children, and the pattern of infection in most of the other cases was probably through the family rather than school.

The number of notifications of measles was small during the early part of the year, but in the latter quarter the weekly notifications began to rise and there was evidence that there would be an epidemic in early 1955. This was to be expected from the known epidemiological behaviour of measles.

There was no corresponding rise in the notifications of whooping cough. Although in July 45 cases were notified, the numbers fell again shortly afterwards.

Incidence of Infection:

Disease	Number of Cases												Total
	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	
Scarlet Fever	21	24	25	16	11	7	8	1	5	5	10	7	140
Measles	3	2	8	17	10	18	32	64	44	99	144	224	665
Whooping Cough ..	3	7	6	4	5	17	45	14	16	11	22	16	166
Pneumonia	12	10	8	1	1	3	3	3	1	-	16	10	68
Poliomyelitis (Paralytic)	-	-	-	-	-	-	-	-	-	-	-	-	-
Poliomyelitis (Non-Paralytic)	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric Fever Paratyphoid B.)	-	-	-	-	-	-	-	-	1	-	-	-	1
Dysentery	56	107	128	55	55	31	14	-	6	4	1	3	460
Food Poisoning	1	-	1	2	1	-	2	1	4	4	-	1	17
Erysipelas	-	-	-	-	-	-	-	-	-	-	1	1	2
Diphtheria	-	-	-	-	-	-	-	-	-	-	1	-	1
Meningococcal Infection	-	-	2	-	-	-	-	-	-	-	1	-	3
Acute Encephalitis (Post Infective)	-	-	-	-	-	1	1	-	-	-	-	-	2

Age at Infection:

Disease	Age																Total
	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Scarlet Fever	1	3	8	10	13	31	17	12	7	7	12	6	5	2	6	-	140
Measles	14	51	102	117	95	137	97	35	9	2	2	2	1	1	-	-	665
Whooping Cough . .	13	12	24	27	37	27	10	6	4	4	1	-	1	-	-	-	166
Pneumonia	23	3	17	9	3	4	2	4	-	1	-	1	-	1	-	-	68
Poliomyelitis (Paralytic)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poliomyelitis (Non-Paralytic)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric Fever (Paratyphoid B.)	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Dysentery	18	43	63	66	65	44	35	29	25	25	7	13	9	11	5	2	460
Food Poisoning . .	3	-	1	1	4	-	-	1	1	-	-	3	1	-	-	2	17
Erysipelas	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2
Diphtheria	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Meningococcal	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3
Acute Encephalitis	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	2

REPORT ON PHYSICAL EDUCATION

Physical Education in all its branches continued in popularity and importance in the school curriculum. Schools have their complement of large climbing apparatus and this was used with increasing ability and skill, the children gaining great confidence and strength in their powers of movement.

Excellent results have again been attained in the examination of the Royal Life Saving Society and increasing numbers of certificates awarded by the Education Authority were gained for distance and good all-round swimming.

Games, Athletics and Dancing continue in popularity and courses for teachers were held throughout the year.

The first Netball Rally for Schools was held in November and Special Courses for Cricket Coaching have been held with the result that almost all schools have a qualified cricket coach.

THE WORK OF THE CHILD GUIDANCE CENTRE

Report of the Educational Psychologist

A child psychiatrist, Dr. Elizabeth Berndt, has been appointed, and in addition to work of an educational character, treatment can now be provided at the Centre for emotionally disturbed children. Dr. Berndt attends at the Centre for two sessions a week, but it is expected that this will be increased to three sessions per week during the coming year. A total of 25 children with alleged emotional problems have been referred since August 4th. Of these, 6 children attended on one occasion only, and 9 others have been treated on 4 or more occasions. There were 7 children on the waiting list at the end of the year.

The Psychologist and Social Worker have been mainly concerned during the past year with educational problems, and a full report for the year ending September 30th, 1954, on the development of remedial education work has already been presented to the Committee. Close co-operation was maintained with the Principal School Medical Officer on this aspect of the work. The Deputy Principal School Medical Officer and Speech Therapist have lectured to the remedial teachers. All children in remedial classes or groups have undergone a screening test of hearing, and many have needed ophthalmic treatment.

Some of the children recommended by headteachers as in need of remedial education, have been found to be educationally sub-normal. Children with low Intelligence Quotients on the Selection Examination results, have also been investigated as possibly in need of special educational treatment. This has resulted in an increase in the waiting list for places in the Special School which now stands at 29. A second school for educationally sub-normal children has been included in the 1954-55 building programme so that the problem is likely to be eased in the next 2 years.

The Educational Psychologist also examined children before they were considered for release from the Thomasson Memorial School for Deaf Children back to ordinary schools. In this way a decision was reached only after the educational attainments and intelligence had been assessed. Vocational guidance continued to be provided for school leavers from this special school.

Reasons for attendance at the Centre:

Primarily educational, including remedial classes	...	316
Habit disturbance	...	24
Behaviour disorders...	...	36
Special cases	...	16
Vocational guidance...	...	9
TOTAL NUMBER OF CHILDREN SEEN		401

THE CARE OF CHILDREN ATTENDING NURSERY SCHOOLS, NURSERY CLASSES AND SPECIAL CLASSES

Nursery Schools:

The children in attendance at the two Nursery Schools have been medically examined during the year and a school nurse has attended frequently for general health review.

The following are the relevant statistics for the two nursery schools:—

KAY STREET NURSERY SCHOOL:

No. of children on the roll, December, 1954...	84
No. of children admitted during 1954 ...	56
No. of children transferred to primary schools ...	22
No. of children removed by parents ...	19

PIKES LANE NURSERY SCHOOL:

No. of children on the roll, December, 1954...	90
No. of children admitted during 1954 ...	49
No. of children transferred to primary schools ...	23
No. of children removed by parents ...	21

Nursery Classes:

In addition, there were 34 nursery classes held in infant schools. The children in attendance have been examined but the figures have been included with those for primary schools. A total of 1,002 children attended the nursery classes.

Special Schools:

Periodic visits were paid to each of the three special schools by medical officers; twice weekly to Woodside and Thomasson Memorial Schools, and once weekly to Lostock Open Air School.

Results of Periodic Medical Inspection (excluding Nursery Classes):

DEFECTS REQUIRING TREATMENT:

	NURSERY SCHOOLS	SPECIAL SCHOOLS
SKIN... ..	10	5
EYES:		
Defective Vision	—	24
Squint	7	1
Blepharitis	1	—
Other	—	4
EARS:		
Defective hearing	1	—
Otitis Media	—	3
Other	—	2
NOSE AND THROAT:		
Nasal Catarrh	1	—
LUNGS	4	—
DEVELOPMENTAL:		
Hernia	1	—
Other	2	1
ORTHOPAEDIC:		
Posture	4	—
Other	—	2
OTHER DEFECTS OR DISEASES	12	3
TOTALS	43	45

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS

A total of 552 children were examined during 1954 for employment outside school hours. Thirty-eight of the children applied for Juvenile Performers' Licences under the Employment of Children in Entertainment Rules. An analysis of the type of employment for which application was being made follows:—

TYPE OF EMPLOYMENT	No. OF CHILDREN
Butchers' Assistants	2
Newspaper Delivery	471
Entertainment	33
Shop or Store Assistants	5
Milk Delivery	5
Applications withdrawn after examination ...	36
TOTAL	<u>552</u>

All the children were passed as being medically fit for employment with the exception of one girl who had applied for a Juvenile Performers' Licence.

HANDICAPPED PUPILS

The new Regulations governing the School Health Service and Handicapped Pupils introduced in July, 1953, continued to operate throughout the year.

Ascertainment in 1954:

The following children were ascertained during the year as in need of special educational treatment:—

Blind	1
Partially Sighted	1
Deaf	2
Partially Deaf	1
Educationally Subnormal	35
Epileptic	—
Maladjusted	—
Physically Handicapped	2
Pupils suffering from Speech Defects	65
Delicate	58
TOTAL	<u>165</u>

Accommodation for Children in Special Schools:

At the end of the year, there were 296 handicapped pupils receiving special educational treatment in special schools, and the following table gives details.

HANDICAP	SPECIAL SCHOOL	NO. OF PUPILS	
		BOARDERS	DAY
BLIND	Junior School for the Blind, Liverpool...	2	—
	Royal Normal College for the Blind, Rowston Castle	1	—
	Henshaw's School for the Blind, Manchester	4	—
	Condover Hall, Shrewsbury	1	—
	Overley Hall, Wellington	1	—
	Sunshine Home, Southport	2	—
PARTIALLY SIGHTED	Barclay School, Sunninghill, Berks.	2	—
	Preston School... ..	2	—
	Exhall Grange, Warwickshire	1	—
DEAF	Thomasson Memorial Special School, Bolton	5	9
	Royal School, Manchester	1	—
	Mary Hare Grammar School, Newbury ...	1	—
	Royal Cross School, Preston	1	—
PARTIALLY DEAF	Thomasson Memorial Special School, Bolton	1	9
	Lawns House School, Leeds	1	—
DELICATE	Lostock Open Air Special School, Bolton ...	139	—
PHYSICALLY HANDICAPPED	National Children's Home, Chipping Norton	1	—
	Margaret Barclay School, Mobberley	1	—
	Burton Hill House School, Malmesbury ...	1	—
	Bradstock Lockett, Southport	1	—
	Rest School of Recovery, Liverpool	1	—
EDUCATIONALLY SUB-NORMAL	Woodside Special School, Bolton	—	99
	St. Francis School, Birmingham	1	—
	Great Stony School, Chipping Ongar	1	—
	Jesmond Dene House, Newcastle	1	—
EPILEPTIC	Maghull Homes, Liverpool	2	—
	Colthurst House School, Alderley Edge ...	1	—
	Soss Moss School, Chelford	2	—
	Chalfont St. Peter School, Bucks....	1	—
TOTALS		179	117
TOTAL		296	

The following pupils were ascertained as in need of special educational treatment but at the end of the year, arrangements for accommodation had not been completed:—

Blind	1
Partially sighted	3
Delicate	13
Physically handicapped	3
Educationally sub-normal	29
Deaf	2
TOTAL	51

Total number needing Special School accommodation 347

Special Schools in Bolton:

WOODSIDE DAY SPECIAL SCHOOL FOR EDUCATIONALLY SUB-NORMAL CHILDREN

The numbers of children on the roll and those admitted and discharged during the year are given below.

	BOYS	GIRLS
No. of children on the roll, Dec., 1954... ..	54	45
No. of children admitted during 1954	5	8
No. of children discharged during 1954	10	11

A medical officer visited the school twice weekly and each pupil received a routine school inspection during the year.

THOMASSON MEMORIAL DAY AND RESIDENTIAL SPECIAL SCHOOL FOR DEAF AND PARTIALLY DEAF CHILDREN:

Pupils were admitted from our own and other authorities' areas. With a few exceptions, the children who lived in Bolton or nearby, attended as day scholars; the remainder were resident.

A school medical officer visited the school twice weekly and made 118 examinations at the request of the headmistress and matron, and 98 routine inspections. The Consultant Aural Surgeon paid 6 visits and carried out 139 examinations.

The following children attended during 1954:—

BOLTON AREA:	BOYS	GIRLS
No. of children on the roll, Dec., 1954... ..	13	11
No. of children admitted during 1954	1	—
No. of children discharged during 1954	2	1
OUTSIDE AREAS:		
No. of children on the roll, Dec., 1954... ..	43	24
No. of children admitted during 1954	4	1
No. of children discharged during 1954	10	2

Of the children discharged during 1954, 3 were transferred back to ordinary schools, 1 won a scholarship to the Mary Hare Grammar School, 1 was withdrawn after being found unsuitable, 3 were transferred to other schools for the deaf, including 1 boy to the Royal School for the Deaf, Manchester, for further education, 1 girl returned to her home in Ireland, and 6 are now employed in the following occupations:—

Cashier	Textile Industry
Printing Trade	Brush Making
Apprentice Decorator	Gardening

LOSTOCK RESIDENTIAL OPEN AIR SCHOOL FOR DELICATE CHILDREN:

The school admitted Bolton children only, and was visited by a school medical officer each week during terms.

The physical improvement of the children was generally very marked. Asthmatic children do particularly well and it is almost unknown for such pupils to have even a mild asthmatic attack whilst in residence at the school.

The following table gives details of the number of children in attendance, admitted and discharged during 1954:—

	BOYS	GIRLS
No. of children on the roll at the beginning of the year	75	57
No. of children admitted during 1954	30	22
No. of children discharged during 1954	26	19

An analysis of the medical condition, on admission, of the children in attendance during the year follows:—

MEDICAL CONDITION	NO. OF CHILDREN
Anaemia	4
Asthma	17
Bronchitis	12
Bronchiectasis	4
Cardiac disease	2
Children recovering from primary tuberculosis complex	6
Poor nutritional status... ..	20
Still's Disease	1
General debility	96
Pseudo coxalgia	1
Various other conditions	21
TOTAL	184

Children unable to attend school because of Physical Disabilities:

The service of home teachers was needed for 26 children and a total of 2,023 hours' instruction were given.

The conditions necessitating this service were as follows:—

	BOYS	GIRLS
Rheumatic fever	1	—
Rheumatic endocarditis	—	1
Congenital heart disease	2	—
Haemophilia	1	—
Chorea	1	1
Asthma and bronchitis	1	—
Pleural effusion	1	—
Congenital abnormality of the spine	—	1
Fractured leg	1	1
Spastic paraplegia	1	1
Aphasia and cerebral palsy	1	—
Anterior poliomyelitis	1	—
Hip disease	1	—
T.B. glands of neck	—	1
Adenitis	1	—
Papillomatosis of the larynx (Wears tracheotomy tube)	1	—
Eye operation	1	—
Delicate	—	1
Ectopia vesicae	1	—
Educationally sub-normal and suffering from epilepsy	—	1
Encephalitis	1	—
Educationally sub-normal and incontinent... ..	1	—
TOTALS	18	8

Of these children, 9 boys and 3 girls were eventually admitted to school as follows:—

RESUMED ATTENDANCE AT ORDINARY SCHOOLS:	BOYS	GIRLS
Adenitis	1	—
Papillomatosis of the larynx	1	—
Pleural effusion	1	—
Chorea	1	—
Rheumatic endocarditis... ..	—	1
Fractured leg	1	—
ADMITTED TO OPEN AIR SCHOOL:		
Delicate	—	1
ADMITTED TO RESIDENTIAL SCHOOLS FOR THE PHYSICALLY HANDICAPPED:		
Aphasia and cerebral palsy	1	—
Spastic paraplegia	1	—
ADMITTED TO HOSPITAL SCHOOL:		
Rheumatic endocarditis	1	—
ADMITTED TO DAY SPECIAL SCHOOL FOR EDUCATIONALLY SUB-NORMAL:		
Educationally sub-normal and suffering from epilepsy	—	1
Educationally sub-normal and incontinent... ..	1	—
TOTALS	9	3

Lip-Reading Classes:

A Lip-Reading Class was held once a week at Sunning Hill County Primary School. A qualified teacher of the deaf was in charge of the Centre and 5 partially deaf children attended.

Speech Therapy:

One Speech Therapist was employed full-time at the Speech Therapy Centre and in addition a part-time Speech Therapist was appointed to work in Lostock Open Air School and Woodside School.

The therapist at the Speech Therapy Centre reports as follows:—

WORK OF THE CENTRE:

Patients treated on a once-weekly basis	74
New patients during the year	34
Patients discharged as remedied	14
Patients left to commence work	3
Patients unable to benefit further	2
Patients who left at parents' request	3
Patient gone to Residential School	1

TYPE OF DEFECT TREATED:

	BOYS	GIRLS
Stammering	26	9
Dyslalia	19	8
Cleft palate speech	2	6
Retarded speech development	1	1
Cerebral palsy	2	—

TYPE OF DEFECT REMEDIED:

Stammering	2	2
Dyslalia	6	4
Cleft palate speech	—	—
Retarded speech development	—	—
Cerebral palsy	—	—

More school visits have been undertaken during the year and 138 children were examined. A large proportion of those examined had only slight defects.

Fifty-four appointments were made to interview parents; of these, 12 failed to keep the appointment. Forty-two parents and children were interviewed in the clinic during the year. Of these, 34 were admitted for treatment on a once-weekly basis.

An evening meeting for parents of stammerers was held on the 11th June and was attended by 30 parents. They all stated that they had benefited from the instruction and discussion which followed.

The therapist working in Lostock Open Air and Woodside Special Schools reports as follows:—

No. of children treated at Lostock Open Air School	9
No. of children treated at Woodside Special School	24

Each child receives weekly treatment at the former, fortnightly at the latter.

All patients at these schools are dyslalia cases, except one.

Good progress is being made by the majority of those treated at Lostock; it is less marked at Woodside, as is to be expected because of the backwardness of the pupils.

CHILDREN INCAPABLE OF RECEIVING EDUCATION AT SCHOOL

Approved medical officers of the Authority examined a total of 62 children because of alleged backwardness. Of these, 10 boys and 7 girls were found to be incapable of receiving education at school and were notified to the Local Health Authority under Section 57 (3) of the Education Act, 1944; 7 children of school leaving age were examined and found to require supervision under the provisions of Section 57 (5) of the Education Act. In many cases, children excluded from school as incapable of receiving education, attended the Occupation Centre run by the Local Health Authority.

ADDITIONAL REPORTS

Tuberculosis:

The School Health Service again co-operated with the Medical Research Council in the annual follow-up of those children who were taking part in the trials of anti-tuberculosis vaccines, and which started in 1951.

Ultra Violet Light Treatment:

School medical officers recommended 310 children for ultra violet light therapy and 14 children for repeat courses. The conditions for which treatment was given are shown in the following table:—

Nasal catarrh	}	...	...	...	...	41
Frequent colds						
Bronchial catarrh	}	...	...	...	...	75
Recurrent bronchitis						
Underweight	...	...	...	...	...	32
General debility	...	...	...	...	...	126
Anaemia	...	...	...	...	...	4
Anorexia	...	...	...	...	...	19
Enlarged cervical glands	...	...	...	...	...	6
Asthma	...	...	...	...	...	2
Recurrent tonsillitis	...	...	...	...	...	5
TOTAL						310

The treatment was given in the Health Department by a qualified physiotherapist.

Co-operation with the Youth Employment Service;

When a child reaching school leaving age suffered from a handicap which might cause difficulty in gaining employment in certain occupations or might be such that his health would render it desirable for him to enter certain types of employment, the Youth Employment Officers were informed accordingly by sending to them either Form Y.9 or Form Y.10, whichever was appropriate.

FORM Y.9:

This form was completed in respect of 46 children and was used for children who had relatively minor defects and who were not likely to need registration under the Disabled Persons (Employment) Act, 1944. The conditions for which this form was completed are given in the table below :—

	BOYS	GIRLS
Heart disease	3	3
Artificial right hand... ..	1	—
Congenital absence of left forearm	1	—
Poor vision	2	—
Hernia	1	—
Tendency to attacks of bronchitis	1	1
Asthma	1	—
Epilepsy	—	1
Defective colour vision	29	1
Scars from severe burns of arms and thighs...	—	1
TOTAL	46	

FORM Y.10:

This form was used when a child was likely to need registration under the Disabled Persons (Employment) Act, 1944. Such children were those who had been ascertained as severely handicapped pupils, or who suffered from some major bodily defect which would affect employment, e.g. heart disease involving considerable limitation of exercise; severe asthma; and various forms of crippling defect. The form contains a declaration by the parent that the nature of the disability may be revealed to the Youth Employment Service. This form, therefore, was not completed unless the parent was prepared to sign the declaration. If the parent was not so prepared, Form Y.9 had to be resorted to if, at the discretion of the doctor, it was suitable to the needs of the case.

The form was completed in respect of 2 children, one with amputation of both legs below the knee following an accident, and one suffering from epilepsy.

Cerebral Palsy:

A review of all the children who were reported as suffering from cerebral palsy was carried out by the school medical officers, largely during the school summer holidays. The situation at the end of the year was as follows:—

	BOYS	GIRLS
Admitted to residential schools	2	—
Awaiting admission to residential schools ...	1	2
Admitted to school for the deaf	2	2
Attending ordinary schools	4	2
Unfit to attend school and at home	3	4
TOTALS	12	10

Of those children suffering from cerebral palsy and at home on the 'Out of school' list, one girl was receiving home tuition; 2 (1 girl and 1 boy) were under the age of four; and the remaining 4 were extremely severe cases. A close watch and follow-up is being maintained on these children.

