[Report 1957] / Medical Officer of Health, Bolton County Borough.

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COUNTY BOROUGH OF BOLTON

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1957

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

HEALTH COMMITTEE, 1957-58

Chairman: Councillor A. Hutchinson

Vice-Chairman: Councillor Mrs. N. Vickers

Alderman Mrs. E. A. Ashmore, J.P.
Alderman H. Jones, J.P.
Alderman B. Vickers, J.P.
Councillor Mrs. D. Berry
Councillor A. Bickerstaffe
Councillor J. Brogden
Councillor J. A. Childs
Councillor W. Dabbs
Councillor W. Glynn
Councillor Mrs. F. T. F. Keogh, J.P.
Councillor J. Marshall
Councillor J. R. Monks, G.M.
Councillor H. Taylor
Councillor W. Walsh

Co-opted Members:

Dr. B. Thornley
Mr. W. Crumblehulme
Mr. A. G. W. Smith

Sub-Committees

Accounts
Maternity and Child Welfare, After-Care and Mental Health
Baths, Wash-houses, Lavatories and Ambulance
Insanitary Areas and Premises
Smoke Abatement
Provision of Dustbins
Appointment of Staff
Problem Families
Smokeless Zone—Financial Assistance
Day Nursery Charges
Accommodation for Recovered Mental Patients

A COMMON FORM OF FOOD CONTAMINATION

* * *

Meal mites found in tapioca and typical of insect infestation of various cereals, imported nuts and dried fruits.

* * *

Magnification 250

THESE CONTAMINANTS ARE NOT READILY VISIBLE TO THE NAKED EYE—LEADING TO DIFFICULTIES FOR BOTH TRADER AND SAMPLER. THE FAULT IN IMPORTED GOODS OFTEN RESTS OVERSEAS. STRICTER IMPORT CONTROL IS ESSENTIAL.

* * *

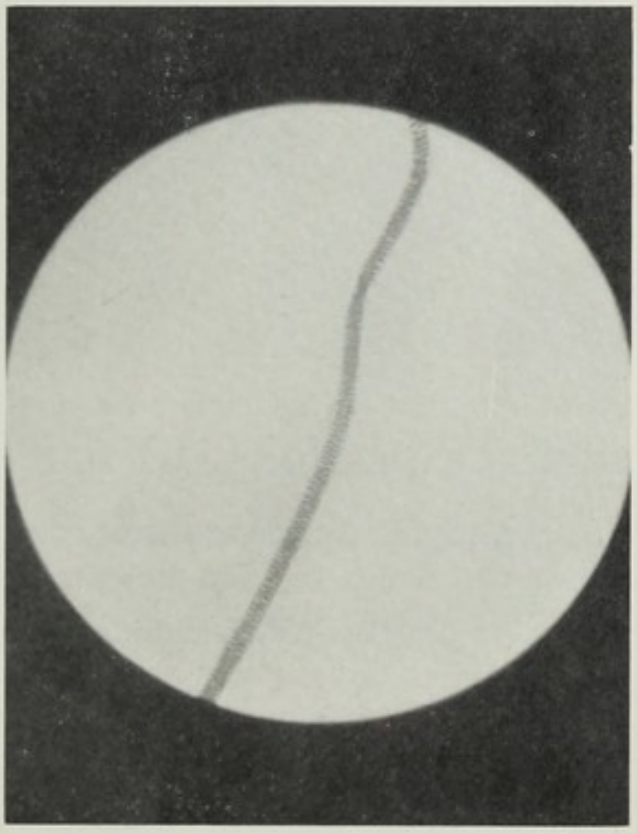
Rodent hair found in shelled walnuts.

Specimen from chocolate whipped cream walnut.

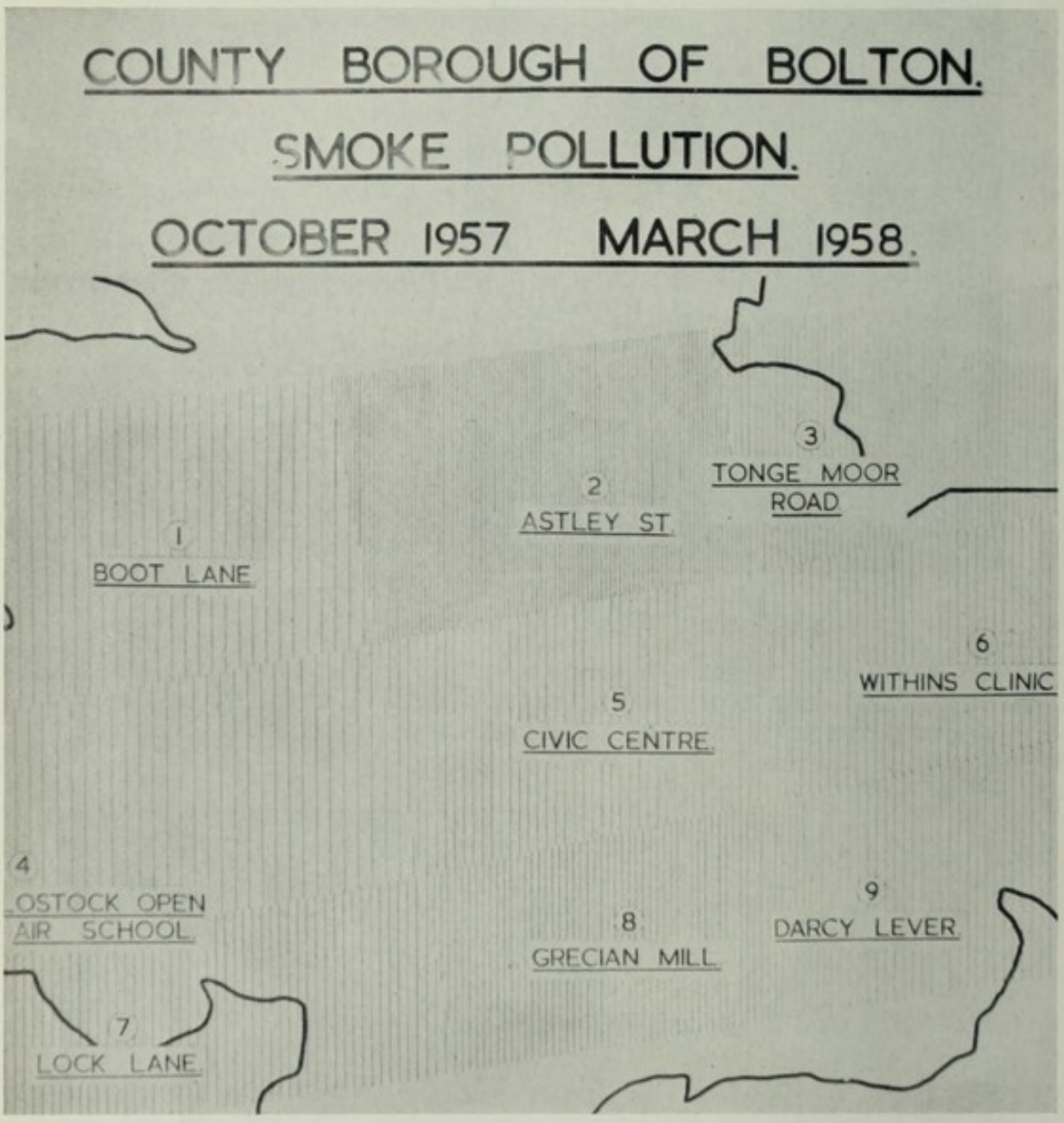
* * *

Walnuts are also susceptible to contamination by mites.

* * *



Magnification 250



NINE NEW STATIONS FOR DAILY VOLUMETRIC ANALYSIS

Smoke, sulphur dioxide and some potentially dangerous hydrocarbons are measured.

Darker shading indicates greater smoke pollution.

INTRODUCTION

"Why should not reports be transmitted at fixed periods from all the hospitals and medical charities in the kingdom to a central board? The regulation would prove beneficial beyond all calculation, both to patients within the house and to those out of doors."

THOMAS BEDDOES, (1760-1808) Physician, in an essay on Preventive Medicine.

The above quotation taken from a modern standard work on certain aspects of medical history is the only one devoted to preventive medicine in a book of almost a thousand pages. This is not surprising in view of the apparent indifference which one encounters on all sides, both professional and lay, towards our own branch of medicine. We are all aware of the now only too well-known jibe perpetrated by the official representatives of our employers that we are administrators with some knowledge of medicine. I have recently even heard of an official of no mean ability—not a doctor—refer seriously to medical officers of health as third rate doctors! I was also painfully surprised to hear an eminent member of our profession at a national conference not very long ago state, in criticism of our service, that administration never had and never would cure a single patient. Taking his statement literally I suppose he is correct, but I wonder how far even curative medicine would progress without the backing of a sound administrative system? When we consider preventive medicine, undoubtedly the modern public health department would be inefficient and chaotic without sound administration. Is it seriously supposed that the saving of life from diphtheria, whooping cough or tuberculosis, and the alleviation of social tensions and difficulties, and the steady routine work of home care and home nursing is not a worthwhile pursuit? All these matters and many more can only be conducted satisfactorily through a sound administration. The history of public health shows quite clearly that one of the first aims of preventive medicine is to attempt to create order out of chaos and only then can we start to practise the elements of preventive medicine. Many of my colleagues in office at the time of the inception of the National Health Service Act when many of their clinical duties were taken away from them, no doubt felt that they too were to become third-rate doctors and many were unduly depressed. That was a mistaken attitude to adopt because after all their duties before the Act in connection with curative medicine were largely administrative. I find it difficult to understand these ill-considered notions of our functions. In my experience, the health department of to-day is a far busier place than ever it was before and is doing a worth while job which is complementary to all the other branches of the profession, and is equally important. Perhaps the difficulty lies in the fact that the clinician, having effected a cure, has a grateful human being as witness, whereas the many hundreds of people who are prevented from having some illness or distress are entirely unknown, or if they do realise the source of their benefit they have difficulty in appreciating it because it comes from what to them is a largely impersonal body rather than from the individual doctor. Given the right attitude to preventive medicine this should not distress us. Our compensation and comfort come from the long-term results and that is why I find encouragement from the annual assessment of our work which is necessary in the production of an Annual Report. At this time of the year we see the good results of our work and we also see our defects. It is not merely a report of work done, but is and should be an annual pointer to further efforts. It also acts as a record which is invaluable on many an occasion for reference purposes when considering what should further be done for the community benefit. I am sure that Thomas Beddoes—even though he was a clinician—would have

appreciated this point of view even if some moderns are not impressed by such records. I think that the year has been one of solid achievement in which I am quietly satisfied with the progress made, but at the same time, conscious that much remains to be done.

We are often told that a Health Department is an ideal source from which research should emanate because of the accumulation of facts and data within the department. I am not sure that under modern conditions the Health Department is, in fact, geared to large scale work of this kind, particularly when national results are usually more important than local findings from the point of view of drawing out the general implications. However, there still remains scope for small scale activities which can be equally important. This has become evident this year in our activities on smoke abatement. The Health Committee agreed to our setting up nine new measuring stations positioned as illustrated in the beginning of this report. The object was firstly to obtain a base line measurement of atmospheric pollution against which our future activities on smoke abatement could be measured, and secondly, to determine more accurately than had been possible hitherto, where the greatest pollution existed in order that our future policy with regard to smoke control areas could be determined. It was expected that this would be a long-term project which, of course, it will be, but after only six months' experience, some worth while facts have already been brought to light. From the purely local point of view it is obvious that a trough of low level pollution crosses the town from South-West to North-East in the direction of the prevailing wind. It is in this trough that our control areas are situated and it is not unreasonable to suggest that the areas may have contributed to this result. It seems also that the most grossly polluted area is in the contiguous zones of North, West, Halliwell and Astley Bridge wards—a very useful pointer indeed for our next effort towards the introduction of more smoke control areas, and supports us in the resistance we had to promote against the pressure to limit our early smoke control areas to the peripheral housing estates. A more important result of this work of national value is the clear finding that the concentration of polycyclic hydrocarbons which are potentially carcinogenic, follows the concentration of smoke and not that of sulphur dioxide. This might have been expected, but it is as well to have had it proved. We are well aware that our efforts at smoke control with our present knowledge cannot do much towards the reduction of sulphur dioxide in the atmosphere, and this fact has led many people to question the value of smoke control. There are, of course, many reasons why we should tackle the smoke problem, even if we cannot defeat sulphur dioxide. Economic and aesthetic reasons alone would demand that we paid attention to it, but this new finding that carcinogens also follow the track of smoke should make us even more enthusiastic.

Approval has been given to two new smoke control areas during the year. They are contiguous with the existing smokeless zone in the town centre so that we now have an area of 146 acres under control. A most successful provincial meeting of the Royal Society of Health on smoke abatement was held in the Town Hall in March and was attended by some six hundred people. Later in the year an exhibition on the same subject sponsored by the Consolidated Smokeless Fuels Federation was also held in the Town Hall.

The yearly vital statistics are always of interest, but owing to the low levels to which the mortality rates have fallen, they have to be interpreted with great care. The death rate has risen slightly, and the birth rate has fallen; both of them trends which might well have been expected owing to the changing age structure of our society. I am sorry to see that the infant mortality rate has risen since last year from 23.9 to 25.6 per thousand live births. Perhaps last

year we were very fortunate, considering that we live in an industrial area, in having the rate only very slightly above the national average. However, if we read this rate in conjunction with others, the picture is a little brighter. For instance, the stillbirth rate has dropped considerably as has the perinatal mortality rate, and the number of premature live births was higher than the previous year. This means probably that more children are being born alive who would hitherto have been stillborn, and this can be interpreted as a step in the right direction towards the saving of child life even though this year, unfortunately, a number of them seem to have died at a later age thus increasing the infant mortality rate. The interesting analysis of accidents in the home given later in the report reveals that there were no child deaths from this cause, all the deaths being in elderly people. The fact that the majority of these elderly people died from the effects of fracture of the femur is very striking. Fortunately, suicidal deaths have decreased from the very high level noted last year.

Since this report was prepared, the findings of the Local Committee of Professional Representatives appointed by the hospitals, general practitioners, and health departments, on Ante-Natal Care, have been published. It has taken a long time to produce this report, but much valuable information has been obtained and there is every possibility of an improvement now in this service. Municipal ante-natal clinics continue to have very much the same number of attendances as in previous years. There has been no falling off as has been noted in other areas, but that is probably due to the fact that the level of domiciliary confinements in Bolton is as low as it can possibly go. On the other hand, attendances at child welfare centres, and home visits by the health visitors to young children have all shown a welcome increase. There is need for serious consideration in the near future of the building of new clinics instead of using premises which were never meant for the purpose. We should do all we can to encourage mothers to bring their children to our clinics. All these efforts are directed towards the saving of infant life and it may seem a contradiction to mention the support given to the local branch of the Family Planning Association which is doing exceedingly good work.

It should never be forgotten, however, that these clinics are not birth control clinics. They are essentially family planning clinics, interested not only in the medical and social aspects of too large families, but also in promoting pregnancy where difficulties arise. This, however, is a tremendous international problem and one which raises emotions associated with religion, or economics, or customs, and is probably the most important problem facing mankind today. Eastern countries have realised the threat to our species far more quickly than has the rest of the world, and they are tackling the problem more realistically, albeit at the moment, ineffectively. The pressure of populations is something which we shall all have to reckon with within the next few decades and much of our hard won progress may well be threatened by it. In spite of our national pride in the care of our children I have always been puzzled to understand why the advantages of welfare foods are not appreciated by more than a small proportion of those eligible to receive them. Year by year mothers taking advantage of these foods have continued to fall in number and this in spite of the rising cost of living and the financial advantage of obtaining free or cheap welfare foods. Certainly, the recent rise in price of welfare dried milk has caused a sudden fall in demand, but the neglect of this scheme was in evidence long before.

The vaccination and immunisation programme has been remarkably successful. Last year I expressed a fear that because of a fall in the number of immunisations against diphtheria, we might be feeling the effect of resistance

on the part of parents because of the complex programme of vaccinations which we now undertake. Fortunately, this has not proved to be the case and I must congratulate Bolton mothers on their steadiness and enthusiasm in the face of much adverse publicity particularly with regard to poliomyelitis vaccination. Nearly 50 per cent of children in the first year of life have been vaccinated against smallpox which is far above anything I could have expected, and far higher than the pre-1948 figures when vaccination was compulsory! Some areas report as few as 4 per cent of children vaccinated against smallpox. The use of triple antigen against diphtheria, whooping cough, and tetanus, is proving very popular and has undoubtedly assisted in keeping the diphtheria immunsation rate at a high level. Over 77 per cent of the child population are immunised against diphtheria. It is stated that 75 per cent may be sufficient to keep the disease in check. The effect of whooping cough immunisation may be being felt this year although it is too early to say, but the dramatic fall in the number of whooping cough notifications has been very encouraging and seems to indicate that immunised children have a six to one advantage over the non-immunised with regard to risk of getting the disease.

All vaccinations against poliomyelitis which are now increasing in number because of the better supplies of vaccine, are carried out in the Health Department, and I am grateful to the family doctors of Bolton for not pressing to have this vaccine at their own disposal. I am sure that it is far more convenient to all of us whilst the vaccine remains in short supply for the scheme to be administered from one point.

Much progress has been made in the field of mental health. During the year only 9.2 per cent of all admissions to mental hospitals have needed to proceed to certification. This huge percentage of voluntary admission is in tune with modern ideas on the treatment of the mentally ill and fully in accordance with the recommendations of the Royal Commission on Mental Health. The Commission's report, when implemented, will bring much more work to the Health Department. Fortunately we have proceeded gradually to equip ourselves for these new responsibilities by the provision of staff and the liaison which we have set up with the hospitals. It is very gratifying to see the change within the last eight years with regard to the accommodation of Bolton patients. In 1950, 75 per cent of mentally ill patients from Bolton had to go to hospitals well away from Bolton, but with the gradual development of the work done at the Bolton District General Hospital, only 20 per cent now have to go elsewhere. This is a great advantage not only to the patients and relatives, but to the mental welfare officers.

In furtherance of our plans towards the ideas expressed by the Royal Commission, our community case work has gone up by 15 per cent over the previous year, and the psychiatric social club and the day hospital have helped us in our day to day work, and we are gradually working towards a relationship with the hospitals which is in the best traditions of a good mental health service. At the time of writing, our service has had further encouragement by the approval just given by the Ministry for us to proceed with the building of a new Adult Occupation Centre this financial year, and it is hoped that the Council will take every advantage of this approval. One difficulty encountered this year has been the misunderstanding which many people have had of the supervisory service which we are able to give to mental defectives. The mistaken idea that supervision is a stigma on the recipient has had to be strongly challenged, and the very great advantages which can be bestowed, if necessary, have had to be emphasised. We shall never be able to fulfil our true function for mental defectives until everyone is convinced that our activities are essentially beneficient and have nothing to do with police work.

The adulteration of food by "foreign bodies" or insects has given us a good deal of trouble during the past year. Illustrations of the type of "foreign body" encountered are given in the report and these are fairly easily dealt with, but of course, constant vigilance is necessary to prevent this sort of thing happening. But a very great difficulty has arisen with regard to imported food, particularly walnuts and cereals. Large numbers of samples have been taken of these commodities and a very high proportion of them have been found to be infested with mites and rodent hairs. The first difficulty is that these contaminants are not easily seen by the naked eye and are therefore troublesome to sampler and trader alike. Secondly, the commodities are largely imported and it is easy in any attempted legal action for the trader to put up a warranty defence, but the Act is not applicable extra-territorially. It would seem that the Ministry are the only people who can possibly step in here to remove this highly undesirable contamination of food. The Corporation have taken this matter up with the Ministry, but in spite of our insistence, a long time has elapsed without receiving any satisfaction and we still await the results. Micro photographs of some of these contaminants are reproduced in this report.

I hope that as a result of energetic action taken this year, that our previous disregard of certain duties under the Pharmacy and Poisons Act have been rectified. It is easy to neglect what may seem at first sight to be a very small duty of registering persons who sell poisons under Part II of the Act, but unfortunately, any neglect could have serious consequences as we found on careful investigation. The Poisons Rules are extremely complicated and it is not surprising that traders who sell these poisons as only a small part of their business, are not acquainted with the safety precautions which have to be taken, and it is easy to overlook the danger to children, and indeed adults, to the practice of selling dangerous liquids in lemonade bottles—tragic results can follow. A review of the situation is given in Part V of this report and there are also illustrations of some of the incorrect containers used for the sale of liquid poisons.

One of the most dramatic incidents of the year was the Fylde Street disaster in September when many people were rendered homeless by a ground subsidence which wrecked many houses and made others dangerous to live in. Although this was primarily an engineering responsibility, the Health Department had a good many anxieties particularly with regard to the water supply of the area which could easily have become contaminated because of the fracture of one of the main sewers serving Farnworth. I am glad to say that the public health inspectors, realising the potential source of disease in this occurrence, set about the problem with a will. The full story is given elsewhere, but it is pleasing to note that in spite of all the difficulties, no illness has been traced to this unfortunate episode. Sewage was flowing freely everywhere, including cellars, water supplies were in danger, and canteen facilities had to be prepared for the workers on the spot. The immediate danger was therefore overcome without alarm or illness, but a long-term danger still remains in that the sewer has now been diverted through an open channel which is, in fact, an open sewer three-quarters of a mile in length. Chlorination of this sewage is proceeding. Constant sampling of both the sewage and water supplies are essential and this also is proceeding. So far, this open channel has only been experienced during the winter months, but I am extremely anxious as to what will happen during the summer time and particularly during the fly breeding season. I sincerely hope that this channel can be done away with at the earliest opportunity.

Attendances and charges at day nurseries have received a considerable amount of attention from the Committee during the past twelve months and

the full story of their deliberations is given in the report. These discussions led to the decision to close Newport Street Day Nursery as from the beginning of 1958. The falling attendances made the situation imperative to tackle, but the disconcerting factor was that whilst attendances at Corporation Day Nurseries were falling, there was no shortage of applicants for Industrial Day Nurseries and indeed, industrialists opened additional premises for the accommodation of school children during the holidays, and at least one mill was making provisions for the opening of another day nursery. The Committee are fully aware of the necessity to retain accommodation for social cases and it is interesting to note that since Newport Street Nursery was closed, the proportion of social cases in attendance has risen from 30 to 50 per cent.

The one dismal feature of the year's work is the virtual disappearance of the priority dental service for mothers and young children dictated by shortage of dental staff. I see no hope in the near future of this being remedied.

It is very pleasing to see the expansion of the work of the physiotherapist, particularly at Lostock Open Air School and on behalf of children referred from consultants and school clinics, for breathing exercises in connection with chest and ear, nose and throat conditions.

After several years of staffing difficulties the Home Nursing Service has at last settled down to a stabilised position. It is four years now since we made the novel experiment of conducting the service on a non-residential basis and also district training by the same method. It would appear that the experiment has been successful and I am very pleased that we have been able to reach such a very satisfactory conclusion because it was always a matter of conjecture whether we should be successful or not. The work done by the nurses has been increasing year by year, but it would seem that now we have reached the peak and to have settled down to a situation whereby we can meet the demands made upon the staff. Parallel with this, the issue of nursing equipment from the Health Department which has been growing rapidly each year has also reached a peak and a further increase in demand does not seem likely. The laundry service, on the other hand, is still in a period of expansion.

There have been no new developments in the Ambulance Service and here again, after a considerable expansion for some years, we seem to have reached a point at which we are stabilised. The policy of having a liaison officer from the Ambulance Service at the Infirmary has continued to pay very great dividends—his work has expanded much to the satisfaction of all concerned. Originally he had only the responsibility for the turn-round of vehicles and patients in connection with the outpatient department, but now he has taken on the responsibility for all transport requests for the County Borough of Bolton, and to a large extent, for Lancashire County Council in this area, with the agreement of the latter, so that in addition to his original work he has, during the year, dealt with 18,000 transport requests.

There has been no expansion in the Home Help Service, but there is a definite increase in pressure for service. More cases are being served but there has been no increase in the total number of hours worked. More part-time helps have been employed as against full-time helps, but naturally, the number of hours given to each recipient has had to fall.

Apart from the epidemic of influenza which started at the end of September, we have had no undue anxiety about infectious disease. The pattern of the influenza epidemic was followed very closely and I am very grateful to those general practitioners who gave me early information of cases so that we were well aware of the onset of the epidemic almost before it had started. In fact, the Asian influenza virus was isolated in Bolton in August long before the

disease reached epidemic proportions. The peak of the epidemic was at the beginning of October having started in school children and later affecting adults. Most of the deaths occurred in the elderly. The offer of influenza vaccine by the Ministry came too late for the North of England, and only 83 Bolton persons accepted vaccination. The epidemic spread down the country from North to South so that the real effects of vaccination can only be judged from the South of England.

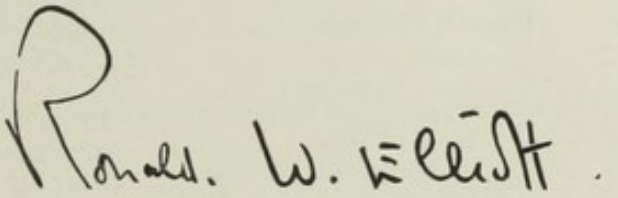
The progress of slum clearance and deferred demolition has proceeded according to the Council's plan, but the complex provisions of the Housing Repairs and Rents Acts, 1954 and 1957, have caused a considerable amount of work for the public health inspectors in connection with certificates of disrepair. The volume of work has been such that special committee arrangements have had to be made to deal with applications. It is expected that greater pressure will be experienced in 1958.

The Foot and Mouth Disease outbreak which lasted for six or seven weeks at the end of the year was another very time-consuming matter for the public health inspectors. In Bolton, unlike practically every other authority, the issuing of licences is not a police matter but is undertaken by the Health Department, and licences involving 11,500 animals had to be issued.

I am grateful to the Committee for having assisted the Borough Analyst in the greatly expanded work which he has had to undertake by the provision of up-to-date apparatus in the form of a spectrophotometer and a photo-electric reflectometer which have been invaluable for smoke, and food and drug analysis.

Every effort has been made to obtain a static mass radiography unit for Bolton. This, of course, is a matter of policy for the Regional Hospital Board. However, the medical profession in Bolton are strongly in favour of this, particularly as the Ministry have suggested that these units should be used in a static role rather than as mobile units. The Corporation went to a great deal of trouble to persuade the Regional Hospital Board to this view and also to offer accommodation in the centre of the town, at least for a trial period. However, this did not appear to be acceptable to the Board. This is regrettable, as it will be seen from this report that routine X-ray for special groups of people has been instrumental in discovering a number of new cases of tuberculosis and is the only way of really tackling the tuberculosis problem effectively.

There have been a considerable number of changes in the staff during the year and I would like to express my good wishes to all of them in their new spheres of life, and my appreciation of the help they have given me. The new members I welcome, and express my appreciation to them and to all other members of the Health Department for the loyal and close support I have had from them during the past year, and to the Health Committee for their interest and encouragement.



Medical Officer of Health.

Health Department,
Civic Centre,
Bolton, Lancs.

May, 1958.

Table of Contents

PART III

PART IV

PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1957

MEDICAL STAFF

Medical Officer of Health	Ronald W. Elliott, M.D., M.Sc., D.P.H.
Deputy Medical Officer of Health	Hugh Bryant, M.B., Ch.B., D.P.H. (Resigned 30/4/57)
	Reginald D. Haigh, M.B., Ch.B., D.P.H., M.M.S.A., D.R.C.O.G., D.C.H. (Commenced 1/7/57)
Assistant Medical Officers of Health and School Medical Officers	F. R. Calvert, M.B., Ch.B., D.P.H.
	G. C. Galea, M.D., D.R.C.O.G., B.Sc., Ph.Ch.
	Rosa M. Galloway, M.B., Ch.B.
	G. A. Levell, M.R.C.S., L.R.C.P., D.P.H.
	Eve M. Mawdsley, M.B., Ch.B., D.C.H. (Commenced 4/11/57)
	Margaret T. McCaffrey, M.B., B.Ch., B.A.O., D.C.H., D.P.H.
	Audrey Seddon, M.B., Ch.B., D.R.C.O.G. (Part-time)

NURSING STAFF

Superintendent Nursing Officer	Miss M. Davies, S.R.N., S.C.M., Q.I.D.N., H.V.Cert. (Commenced 8/4/57)
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.
Deputy Superintendent	Miss M. Thistlethwaite, S.R.N., S.C.M., H.V.Cert. (Resigned 31/12/57)

MIDWIFERY

Non-Medical Supervisor	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
Assistant Non-Medical Supervisor	Mrs. M. E. L. Gooddy, S.R.N., S.C.M.

DAY NURSERIES

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

PUBLIC HEALTH INSPECTION

Chief Public Health Inspector	T. Williams, M.R.S.H., M.A.P.H.I.
Deputy Chief Public Health Inspector	N. Ryce, M.R.S.H., M.A.P.H.I.

CLERICAL STAFF

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

MENTAL HEALTH SERVICE

Senior Mental Health Officer	R. A. Johnson
Mental Health Welfare Workers	J. F. Bennett
	E. L. Mayoh
	Mrs. A. Morris
Supervisor—Occupation Centre	Miss M. E. Tyler, Dip. N.A.M.H.

HOME HELP SERVICE

Home Help Organiser	Mrs. A. G. Barber (Resigned 14/2/57)
	Mrs. W. Barber (Commenced 1/4/57)

AMBULANCE SERVICE

Superintendent	V. T. Williams
Deputy Superintendent	H. Baber

ANALYST

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

BATHS AND WASHHOUSES

Managers	Bridgeman Street Baths	A Markham
	High Street Baths	A Markham
	Moss Street Baths & Wash-house	J. Shotton (Resigned 8/7/57)
	Hennon Street Slipper Baths	B. A. Broadway (Commenced 3/9/57)
	Rothwell Street Wash-house	A. L. Duckworth
	Turkish Baths	W. Burns

PART I

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Infant Mortality

Deaths from Cancer

SUMMARY OF STATISTICS, 1957

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. 1887-1957, 44.642″)	48.049″
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, 1957)	162,900
New Houses Certified including Flats, 1957	317
Existing buildings altered to provide dwelling accommodation, 1957	Nil
Estimated No. of Houses in the Borough at 31st December, 1957	56,899
Rateable Value at 1st April, 1957	£1,715,663
Rate at 1d. in the £ estimated to produce	£6,600
Births	2,383
*Birth Rate (Corrected)	14.6
Stillbirths	53
Stillbirth Rate (per 1,000 total births)	21.8
Deaths	2,256
*Death Rate (Corrected)	15.0
*Average Death Rate (1948-1957)	13.9
*Heart and Circulation Death Rate	6.97
*Cancer Death Rate	2.29
*Death Rate from diseases of the Respiratory System	2.06
*Pulmonary Tuberculosis Death Rate	.10
Infant Mortality (Deaths under one year per 1,000 live births)	25.6
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	Nil
Puerperal Death Rate (per 1,000 total births)	.82
Illegitimacy Rate (per 1,000 total births)	51.7

ENGLAND AND WALES:

*Birth Rate	16.1
Stillbirth Rate (per 1,000 total births)	22.4
*Death Rate	11.5
Infant Mortality (Deaths under one year per 1,000 live births)	23.0

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,383 live births to Bolton residents, 1,214 males and 1,169 females. The birth rate (corrected) per 1,000 of the population was 14.6.

Of all the live births, 397 occurred at home, 1,137 in Bolton District General Hospital, 291 in Haslam Maternity Home, 232 in Havercroft Maternity Home and 293 in Heaton Grange Maternity Home. The remaining births took place in institutions and homes outside Bolton.

There were 167 premature live births.

Stillbirths:

The number of stillbirths was 53, giving a stillbirth rate of 21.8 per 1,000 total births.

There were 28 premature stillbirths.

Deaths:

There were 2,256 deaths (1,098 males, 1,158 females) giving a corrected death rate of 15.0 per 1,000 of the population.

A total of 733 persons whose usual place of residence was in the county borough, died outside the borough; of these, 663 died either in the Bolton District General Hospital or in Townleys Annexe.

Non-residents who died in the area numbered 136.

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

Summary of the Principal Causes of Death, 1957

Cause of Death	No. of Deaths	Males	Females	0–	1–	5–	15–	25–	45–	65–	75–
Tuberculosis, Respiratory	17	10	7	–	–	–	–	1	10	4	2
„ Other	1	1	–	–	–	–	–	–	1	–	–
Syphilitic disease	9	4	5	–	–	–	–	–	7	1	1
Diphtheria	–	–	–	–	–	–	–	–	–	–	–
Whooping Cough	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infections	–	–	–	–	–	–	–	–	–	–	–
Acute Poliomyelitis	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	–	–	–	–	–	–
Other infective and parasitic diseases	11	2	9	1	–	–	1	–	2	3	4
Malignant Neoplasm—											
Stomach	52	27	25	–	–	–	–	1	14	16	21
Lung & Bronchus	85	75	10	–	–	–	–	6	48	21	10
Breast	39	–	39	–	–	–	–	3	11	7	18
Uterus	19	–	19	–	–	–	–	3	11	3	2
Other malignant and lymphatic neoplasms	178	86	92	–	1	–	–	8	60	50	59
Leukaemia and Aleukaemia	6	3	3	–	–	1	–	2	1	1	1
Diabetes	14	4	10	–	–	–	–	–	3	6	5
Vascular lesions of nervous system	357	133	224	–	–	–	–	3	58	118	178
Coronary disease, angina	320	197	123	–	–	–	–	9	88	112	111
Hypertension with heart disease	74	34	40	–	–	–	–	1	10	26	37

Cause of Death	No. of Deaths	Males	Females	0–	1–	5–	15–	25–	45–	65–	75–
Other heart disease	290	106	184	–	–	–	1	10	48	60	171
Other circulatory disease ..	95	49	46	–	–	–	2	1	8	25	59
Influenza	65	34	31	1	3	–	1	4	26	17	13
Pneumonia	127	73	54	12	2	–	1	7	24	28	53
Bronchitis	122	57	65	–	–	–	–	1	30	45	46
Other diseases of respiratory system	21	12	9	–	–	–	1	2	8	4	6
Ulcer of stomach and duodenum	17	13	4	–	–	–	–	2	3	7	5
Gastritis, enteritis and diarrhoea	9	6	3	–	–	–	–	1	3	3	2
Nephritis and Nephrosis ..	12	7	5	–	–	–	–	2	6	2	2
Hyperplasia of Prostate ..	11	11	–	–	–	–	–	–	1	4	6
Pregnancy, childbirth and abortion	2	–	2	–	–	–	–	2	–	–	–
Congenital malformations..	18	12	6	8	4	2	–	1	2	–	1
Other defined and ill-defined diseases	180	85	95	36	4	1	3	6	47	32	51
Motor vehicle accidents ..	16	10	6	–	1	2	1	5	2	3	2
All other accidents	58	27	31	3	–	1	3	2	6	11	32
Suicide..	29	18	11	–	–	–	–	2	16	5	6
Homicide and Operations of War	2	2	–	–	–	–	–	–	2	–	–
TOTALS	2,256	1,098	1,158	61	15	7	14	85	556	614	904

Deaths from Puerperal Causes:

Two maternal deaths occurred in the borough during 1957, giving a maternal mortality rate of 0.82 per thousand of all births.

Infant Mortality:

There were 61 deaths of infants under one year, giving an infant mortality rate of 25.6. The primary causes of infant deaths are shown in the following table.

Cause of Death	Age at Death					Total for each cause
	Under 4 weeks	4 weeks to 3 mths	3 to 6 months	6 to 9 months	9 to 12 months	
Pneumonia	–	4	1	1	–	6
Bronchitis..	–	1	–	–	–	1
Other respiratory diseases	5	2	–	–	1	8
Congenital Malformations	4	2	1	3	1	11
Prematurity	24	–	–	–	–	24
Cerebral haemorrhage ..	3	–	–	–	–	3
Other causes	4	–	3	–	1	8
TOTALS	40	9	5	4	3	61

Deaths under Four Weeks:

There were 40 deaths of infants under four weeks, giving a neo-natal mortality rate of 16.8 per 1,000 live births. The rate for England and Wales was 16.5.

Cause of Death	0–7 days	8–14 days	15–21 days	22–28 days	Total under 29 days
Prematurity	24	–	–	–	24
Cerebral haemorrhage	4	–	–	–	4
Atelectasis	4	–	–	–	4
Congenital Malformations	–	2	2	–	4
Other Causes	4	–	–	–	4
TOTALS	36	2	2	–	40

Perinatal Mortality:

The perinatal mortality rate is the number of stillbirths added to the number of infant deaths during the first week of life, expressed as a rate per thousand total births, both live and still. This death rate is a measure of the hazards to the foetus and newborn baby which are present during the latter months of pregnancy and in the period immediately after birth.

A considerable number of the deaths in the first week are due to injuries and asphyxia sustained during birth. Also included amongst the deaths in the first week are those babies who die from congenital abnormalities which are so severe as to make a continued separate existence impossible.

Prematurity is the principal cause of death in the first week of life. It is necessary to actively investigate the factors which are associated with prematurity as many conditions which result in a premature birth may be prevented by adequate ante-natal supervision.

It is also important to assess the part played by the continuance at work of the mother during the latter months of pregnancy.

The following table shows the infant mortality rate, neo-natal mortality rate, stillbirth rate, perinatal death rate and the death rate of infants aged one week but under one year, for the last ten years.

	1948	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Infant Mortality Rate	38·2	30·5	35·5	40·8	28·4	27·9	28·5	25·7	23·9	**25·6**
Neo-natal Mortality Rate	22·0	18·0	20·0	23·0	16·5	18·9	19·8	14·2	15·9	**16·7**
Stillbirth Rate	26·8	27·5	19·3	24·1	27·6	23·0	25·0	24·7	26·7	**21·8**
Perinatal Death Rate	49·2	45·6	37·8	39·6	45·4	39·5	42·0	38·2	42·2	**37·5**
Deaths of infants aged 1 week but under 1 year per 1,000 total births	18·5	13·2	17·3	21·5	12·8	11·5	12·2	12·9	7·8	**10·3**

Fatal Accidents in the Home:

Nine males and 22 females died as a result of accidents in the home. The majority of people who died were elderly. It is pleasing to note that no child died as a result of an accident in the home although two babies, one aged 5 months and one aged 3 months, died from asphyxia caused by inhalation of food. Though this unfortunate event can occasionally result from faulty feeding technique it is not strictly accurate to place these deaths amongst those due to an accident unless one accepts a very broad definition of the word.

FRACTURES OF THE FEMUR:

This condition, as a result of an accident in the home, was the principal cause of death in fatal home accidents.

Thirteen females and 4 males died after sustaining a fracture of the femur. All the females were over the age of 70 years and the mean age was 79.8 years. The ages of the 4 males were 85, 78, 69 and 56 years respectively. The man aged 56 years had a pathological condition which explains why a man of this age should succumb from this injury which is nearly always confined to people who have exceeded the allotted span of three score years and ten.

Fracture of the femur seems to be much more likely to occur in persons of spare build. The obese and those of ample proportions are probably less commonly affected. The lean and elderly are often lean because they have an inadequate diet and for this reason their intake of calcium is below minimal requirements. The calcium in the bones is mobilised to compensate for the reduced dietary intake and therefore the bones become decalcified and much more brittle than normal.

Health visitors fully appreciate that elderly people, particularly women, need help and advice and it is important to advise them on diet. One wonders whether there is a need for a cheap milk scheme for the elderly as well as for the under fives.

BURNS:

No child died from burns during the year, but 2 females aged 83 and 69 years, and 1 male aged 82 years, died from burns resulting from falling on or near an open fire.

COAL GAS POISONING:

Some elderly persons have a much impaired sense of smell and this may include a loss of ability to smell coal gas. A slow leak may not be detected and a poisonous amount of carbon monoxide may accumulate without the person being aware of anything wrong.

Three women aged 75, 76 and 79 years died from carbon monoxide poisoning as did a male aged 75 years and a male aged 78 years. In no case was there any fault in an appliance or in the pipe supplying the gas. According to the coroner's verdict, gas taps had been turned on or left on in error.

Details of the remaining 6 fatal home accidents are as follows:—

	Cause of Death
Male—age 65 years	Fracture of skull sustained when he fell in neighbour's garden.
Female—age 76 years	Bronchopneumonia following Colles' fracture of left wrist caused by falling down steps.
Male—age 93 years	Cerebral haemorrhage following a blow on the back of the head sustained through falling in the home.
Female—age 50 years	Cerebral haemorrhage due to a fall at home.
Male—age 33 years	Cerebral haemorrhage and fracture of skull caused by falling downstairs.
Female—age 66 years	Fracture dislocation of the cervical spine caused by falling downstairs at home.

Suicide:

Twenty-five deaths were due to suicide and once again coal gas poisoning was responsible for most of the deaths. Fewer deaths were due to suicide than in 1956 when the number was 36. Home accidents caused more deaths than suicide.

The following table shows the distribution of deaths according to age, sex and the method of suicide employed:—

	Age Group					
	15–44		45–64		65 and over	
	Male	Female	Male	Female	Male	Female
Coal Gas Poisoning	1	–	4	4	2	2
Barbiturate Poisoning	–	–	–	3	1	2
Hanging	–	–	1	–	2	–
Drowning	–	–	2	1	–	–
Totals	1	–	7	8	5	4

Deaths from Cancer

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

	1957		1956		1955		1954		1953		1952		1951		1950		1949		1948	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Stomach	**52**	**2·30**	59	2·66	55	2·57	67	2·99	70	3·32	77	3·39	78	2·94	74	3·14	53	2·34	69	3·12
Lung & Bronchus	**85**	**3·77**	78	3·51	60	2·81	65	2·90	66	3·13	69	3·04	48	1·81	39	1·65	41	1·81	35	1·58
Breast	**39**	**1·73**	35	1·58	38	1·78	32	1·43	35	1·66	40	1·76	29	1·09	19	0·81	31	1·37	37	1·68
Uterus	**19**	**0·84**	19	0·86	12	0·56	16	0·71	17	0·80	20	0·88	20	0·75	17	0·72	26	1·15	22	1·00
Other Sites	**178**	**7·89**	184	8·29	171	7·99	187	8·35	175	8·29	176	7·76	185	6·97	203	8·60	175	7·74	195	8·83
TOTAL DEATHS FROM CANCER	**373**	**16·53**	375	16·90	336	15·71	367	16·38	363	17·20	382	16·83	360	13·56	352	14·92	326	14·41	358	16·21
TOTAL DEATHS: (All Causes) ..	**2,256**		2,220		2,138		2,240		2,111		2,269		2,655		2,360		2,262		2,209	

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:

Ante-natal clinics conducted by Health Department staff were held twice weekly, on Monday and Wednesday mornings in the Health Department for patients who had booked a municipal midwife and were to be confined at home. Altogether, 96 clinics were held with an average attendance of 25 patients at each session. Expectant mothers wishing to book a midwife for domiciliary confinement did so at these clinics. In some cases the subsequent ante-natal care was undertaken by the general practitioner, but otherwise the patients continued to attend the Civic Centre clinics by appointment throughout pregnancy and were invited to attend for a post-natal examination six weeks after delivery. The average attendance has not declined contrary to reports from some other areas. Other ante-natal clinics were held at the hospital for hospital cases and at the Health Department for maternity home cases, but were not conducted by Health Department staff.

ATTENDANCES:

New bookings	530
Return visits	1,825
Post-natal visits	60
TOTAL ATTENDANCES ...	2,415

The number of post-natal examinations was very small. The 60 patients attending were in response to 183 written requests to mothers who had not 'booked' a doctor to attend them. This was disappointing having regard to the importance of the examination, a fact which was stressed both by the midwife after delivery and subsequently by the health visitor.

STAFF:

The staff in attendance at each clinic were:—

1 medical officer
2 health visitors
1 midwife and in some cases a pupil midwife

The midwives each attended the clinic in turn once every four weeks and where possible the patients were given appointments to correspond with their own midwife's attendance at the clinics. One of the health visitors was responsible for health education and she spoke to the patients at the clinic both individually and in groups, explaining such subjects as normal labour and demonstrating the use of the analgesic apparatus. The other health visitor was employed in routine clinic duties.

CASES REFERRED FOR CONSULTANT OPINION:

Patients were referred to Bolton District General Hospital for the following reasons:—

Directly connected with pregnancy:	No. of Cases
Rhesus negative with anti-bodies	1
Multiparity	8
Pre-eclamptic toxaemia	6
Breech presentation	2
Cephalo-pelvic disproportion	5
Difficult obstetric history	1
Foetal death in utero	1
Severe prolapse	1
Associated Conditions:	
Anaemia	6
Unsuitable home conditions	3
Tuberculosis	2
History of brain tumour	1
Total	37

Blood Examinations:

All patients when they first attended the clinic had a sample of blood taken for investigation in the haemotology department of the Bolton Royal Infirmary. The routine tests were haemoglobin estimation, determination of Rhesus factor and Wasserman or Kahn reaction. Where the patient was found to be Rhesus negative the specimen was further investigated for the presence of anti-bodies and the test was repeated in the case of multiparae on a further specimen taken during the 32nd week of pregnancy. A repeat haemoglobin estimation during the last eight weeks of pregnancy was also done in all cases where it was indicated.

A.B.O. blood grouping was not considered necessary.

The following specimens were taken:—

For haemoglobin estimation	651
For Rhesus factor	512
For Wasserman or Kahn reaction	486

One patient had a positive Kahn reaction and 8 patients a doubtful positive Wasserman reaction and were referred to the Diagnostic Clinic for further investigation. Ninety patients were Rhesus negative and one had Rhesus anti-bodies.

Chest X-ray:

By courtesy of the chest physician all patients were given an appointment to have a chest X-ray at a special session for expectant mothers on Thursday afternoons in the chest clinic. Unfortunately, it was not possible for the X-ray sessions to be held at the same time as the ante-natal clinics. Altogether, 313 patients attended for the X-ray and as a result, 2 expectant mothers were discovered to have active tuberculosis hitherto unsuspected. Both were referred to the chest physician and subsequently admitted to a sanatorium.

VACCINATION AGAINST POLIOMYELITIS:

From the 4th December it became possible to offer vaccination against poliomyelitis to all expectant mothers attending the clinic. By the end of the year 61 patients had received first injections.

IRON THERAPY:

Because of the frequent occurrence of apparent anaemia in expectant mothers "Fersolate" tablets were issued to all patients as a routine prophylactic measure. In many cases where the patient had a severe degree of anaemia and was too far advanced in pregnancy for reliance on oral iron therapy alone, arrangements were made through the general practitioners for intra-muscular iron to be prescribed, the midwives being responsible for giving the injections.

PHYSIOTHERAPY:

Instruction in relaxation exercises was provided during the clinic sessions by the physiotherapist who was in attendance in an adjoining room.

WELFARE FOODS:

Welfare foods were available during all clinic sessions from the counter in the waiting room and patients were encouraged to take advantage of the scheme.

MATERNITY PACKS:

Maternity packs containing all the necessary sterile equipment for the confinement were supplied free to all mothers who had arranged to be delivered at home. Four hundred and thirty-four such packs were issued during the year.

DENTAL ARRANGEMENTS:

Unfortunately owing to the shortage of dentists on the Local Authority staff the special priority clinic for expectant mothers had to be discontinued at the end of March and only emergency work was done after this.

LIAISON:

Co-operation with the hospitals and general practitioners has been excellent. The hospital records of previous confinements have been made available for the information of the clinic staff and they have been of invaluable assistance in many cases. Also where a patient had attended the hospital booking clinic but not been accepted for hospital confinement, copies of the blood and X-ray reports were forwarded to the Local Authority clinic when the patient subsequently attended to book a midwife. This has saved repetition of routine tests.

As before, the general practitioner has been kept fully informed of his patient's attendances at the clinics. A full report, including details of the blood tests, has always been sent to the general practitioner when a patient first attended the clinic, and subsequent reports were sent in those cases where the general practitioner had been engaged. The midwives have also been sent full reports of their patients' attendances at the clinic.

MINISTRY OF HEALTH CIRCULAR NO. 9/56:

The professional representatives of the three branches of the service dealing with maternity—hospitals, family doctors, local health authority—met on several occasions. The agreed report of their deliberations was not

complete by the end of the year. The exchange of opinions has, however, been of real value. Discussion has covered a wider field than that of ante-natal care which was the original purpose of these meetings.

Child Welfare Centres:

Once again there has been no change in the pattern of welfare centre organisation and the sessions were conducted in 13 premises—a total of 29 sessions per fortnight. All the sessions were held weekly with the exception of the one at Lever Edge Lane which was held fortnightly on Saturday mornings.

It is an established practice not only in Bolton but elsewhere that apart from certain central clinics the peripheral centres work in premises, often church schools, which are not built for the purpose and which have many disadvantages. In a time of national economy it may not be the most appropriate time to suggest the desirability of replacing these peripheral clinics by purpose-built centres. They would be able to deal with the many-sided activities of child welfare work much more efficiently and would be more attractive to parents. I know that much can be done by improvisation, but the history of child welfare centres since they started at the beginning of this century has been shadowed constantly by various national crises both in war and peace so that one begins to despair after so many years of ever being able to offer to staff and public alike anything more than indifferent accommodation from the point of view of modern requirements.

In spite of this, an increasing amount of work is being carried out and this is reflected statistically by the fact that more children are attending the clinic each year. In 1957 there were nearly 1,700 more attendances than in the previous year. The full details are as follows:—

Centre	Day	No. of Sessions	Total Attendances
Civic Centre	Monday afternoon	47	2,391
Chalfont Street	do.	47	2,549
Deane	do.	47	2,194
Tonge Fold	do.	48	1,682
Chorley Old Road	Tuesday afternoon	50	3,870
Halliwell	do.	49	3,773
Civic Centre	Wednesday afternoon	49	3,467
Rosehill	do.	49	3,320
Astley Bridge	Thursday afternoon	50	3,019
Civic Centre	do.	51	2,558
Daubhill	do.	50	3,780
Delph Hill	Friday afternoon	48	2,796
Tonge Moor	do.	50	2,989
The Withins	do.	49	3,332
Lever Edge Lane	Saturday morning (fortnightly)	23	725
	Totals:	707	42,445

The above figures when broken down into attendances by age group are much more instructive as shown in the following table:—

Attendances at Child Welfare Centres

Age of Child	First Attendance	Subsequent Attendances	Seen by Doctor at Child Welfare Centre		
			Mother's Request	H.V's Request	Routine
0—1 year	1,985	32,155	3,530	545	5,579
1—2 years	108	4,803	352	76	238
2—5 ,,	95	3,299	307	65	236
TOTALS:	2,188	40,257	4,189	686	6,053
TOTALS:	42,445		10,928		

In spite of efforts to get parents to bring their children regularly to the centres, we found that the increase in attendances is almost entirely in the child's first year of life and little or no improvement has occurred in subsequent years. We have tried to improve this by giving special appointments to parents of toddlers to bring their children along at the beginning of a child welfare session at several of the centres but the response to these invitations has been poor. The object of the appointments was to give the children a thorough medical examination, but only 133 children were brought along as a result of these special appointments. A further 310 children were given a thorough medical examination when they attended the clinics with their parents for other reasons. It would seem that complacency after the first year of life when a child has physically established itself in the community is a failing of most parents.

The centres are fully staffed by health visitors and doctors to give the parents the full advantage of any help they may require. Apart from the mass of help and advice given by these officers and the facilities available for immunisation, teaching, and welfare foods supplies, it has been necessary to refer 71 children to consultants. These were referred as follows:—

Referred to Ophthalmic Physician	21
,, ,, Dermatologist	4
,, ,, Paediatrician	16
,, ,, Orthopaedic Surgeon	9
,, ,, General Surgeon	9
,, ,, Chest Physician	1
,, ,, Department of Education of the Deaf	2
,, ,, Ear, Nose and Throat Surgeon... ...	9
TOTAL	71

VOLUNTARY WORKERS:

The ranks of these useful and enthusiastic workers has further diminished and we now have 50 voluntary workers who come along regularly to help with the routine running of the centres. I should like to thank them very much for

their efforts and to express the appreciation of the Committee and officers of the department for the work they have done throughout the year. They are unfortunately, however, not being replaced as they retire and it would seem that the compelling motive which keeps the present voluntary workers busy on behalf of the community is not widespread amongst the ladies of the town as a whole. I wish we could get more interested persons for this work which I am sure they would find rewarding, but the stress of modern life does not seem to be conducive to many people being able to take up these activities. No doubt the time will come very soon when paid workers will have to be used to carry out the work now being done by the voluntary workers, but I sincerely hope that the idea of voluntary work in this connection will not disappear.

Care of Unmarried Mothers:

The Corporation have continued to take advantage of the valuable work of the Bolton Moral Welfare Association in the care of unmarried mothers and their babies. The Association employ a Moral Welfare Officer who has carried out extremely valuable work on behalf of the Corporation. An annual grant is paid to the Association by the Corporation for this purpose and in addition, any maintenance charges required for individual cases, where necessary, are met.

Nineteen unmarried mothers were cared for under this scheme for periods varying up to three months and they were accommodated as follows:—

St. Anne's Maternity Home, Heywood	6 cases
The Grange Maternity Home, Wilpshire, Blackburn ...	8 cases
St. Monica's Maternity Home, Kendal	2 cases
The Methodist Maternity Home, Manchester	3 cases

All the cases were paid for partly by the Local Authority and partly by the mother herself.

Homes for Mothers and Children:

The Authority make use of the facilities at Brentwood Recuperative Centre from time to time for the rehabilitation of families who have got themselves into social difficulties and are unable to retrieve themselves by their own efforts. This type of work links up very closely with that of the Prevention of Problem Families. It was necessary to send only one family consisting of the mother and her four children during 1957 and the family spent a month at the Centre at the cost of the Authority.

Family Planning:

The Bolton Family Planning Association conducted two family planning sessions each week; one in the Health Department in the Civic Centre on Monday evening from 6.30 to 7.30 p.m. and the other at the Friends' Meeting House, Tipping Street, on Friday evening from 6.30 to 7.30 p.m. The latter clinic was started up about the middle of 1956 to relieve the pressure on the Civic Centre. Originally it was held in the mornings, but it has now been changed to an evening session.

The patients are referred on medical grounds and 42 sessions were held at each clinic. A total of 1,860 women attended at the Civic Centre of whom 454 were new patients. At Tipping Street 442 women attended of whom 156 were new patients.

Distribution of Welfare Foods:

Welfare foods were distributed daily from the public counter in the Health Department waiting room at the Civic Centre, and also from the fifteen child welfare centres when in session.

The child welfare centres included two belonging to the Catholic Women's League, which both closed towards the end of the year.

The following amounts were issued during the period 1st January to 31st December, 1957:—

	Total Issues	Weekly average to 5th April, 1957	Weekly average from 6th April, 1957
National Dried Milk ...	54,384	1,373 tins	937 tins
Cod Liver Oil	17,365 bottles	— 21,854 bottles in 1956	
Orange Juice	117,761 „	— 115,035 „ „ „	
Vitamin A & D Tablets ...	8,550 packets	— 9,140 packets „ „	

Approximately 70 per cent of the above issues were made from the Health Department distributing centre which was open during normal office hours.

Welfare foods were issued from the central store at the Health Department to the following institutions during 1957. The figures are included in the above totals.

National Health Service Institutions	National Dried Milk ...	378 tins
	Orange Juice	612 bottles
Day Nurseries	National Dried Milk ...	39 tins
	Cod Liver Oil	576 bottles
	Orange Juice	1,872 bottles

From the 6th April, 1957, the price of National Dried Milk was increased from 10½d. per tin to 2/4d. per tin, and from the 1st November, 1957, the issue of orange juice for children over two years of age was discontinued.

Following the increase in price of National Dried Milk it will be seen that there was a noticeable reduction in sales.

Day Nurseries:

The attendances at the nurseries have continued to decline and this is reflected in the following table which gives the accommodation available and the average daily attendances for the past three years:—

Nursery	Accommo-dation	Average daily attendance		
		1955	1956	**1957**
Newport Street	60	51·61	52·53	**42·36**
Park House	50	33·12	32·82	**27·64**
Shaw Street	50	35·65	35·74	**37·52**
Merehall	47	38·09	34·30	**33·70**
Roxalina Street	50	31·88	29·32	**31·90**
Totals	257	190·35	184·71	**173·12**

The total number of children who attended during the year was 550.

The waiting list at the beginning of the year was 21 and at the end of the year was 25.

With the above data in mind the Health Committee decided to review the charges being made for day nursery accommodation since this was felt by some members to be a cause of the declining attendances. It was obvious, however, right from the beginning that the question of charges could not be dealt with in isolation and consequently a full review of the nurseries from the point of view of charges, type of accommodation, suitability and future usage, as well as a consideration of other nursery accommodation in the town, for example in industry, would have to be made. I therefore submitted a full report on these matters to the Committee the conclusions of which were as follows:

1. There is a greater demand for day nursery places in Bolton than would appear from the attendances at the Local Health Authority's nurseries.

2. The demand is proved by the rapid turnover of children in the nurseries; the popularity of industrial nurseries; the subsidy by industry of children in Local Health Authority nurseries, and the large number of children who are minded by people other than their parents, as well as the popularity of the nursery school.

3. In addition, the nursery nurses' training scheme requires for the completion of its syllabus, day nursery accommodation without which the course must cease thus causing a loss to the Education Department and industry.

4. The low attendances at the Local Health Authority's nurseries are undoubtedly due to the high level of charges. A change in the scale of charges, whether by reducing the maximum or making a flat rate at a suitable level, would probably soon fill the nurseries.

5. Experience so far has been that a reduction in the number of nurseries, without altering the scale of charges, does not fill the remaining nurseries. It is doubtful, however, if this process can be continued indefinitely and a further reduction of nurseries under the present scheme might lead to overcrowding.

6. Under the present scheme, it would appear that attendances at day nurseries have stabilised themselves on the present pattern at the present level of charges.

7. Bolton charges are almost the highest in all comparable authorities, but the expenditure per 1,000 population is by no means the highest.

8. There is a need which is really urgent, for admission of children of cases of social hardship, which would require three nurseries. These cases must be catered for as part of our duties under the National Health Service Act. A point to remember here, however, is that with a further reduction in nurseries we may reach a situation whereby the nurseries become known as institutions for the children of unmarried mothers (who form the largest group). This stigma should be avoided.

9. From Appendix 2 it will be seen that quite clearly the worst nurseries from the structural point of view are Newport Street and Merehall. They are, however, both in advantageous situations; the one readily near public transport and the other in a centre of dense population as well as near public transport.

10. Any further reduction in nurseries would increase the travelling distance of those children left attending the nurseries. One must consider this at its worst very early in the morning in winter time and possibly late at night under the same circumstances, and its consequent affect upon young children.

11. The question of whether to retain the present number of day nurseries or to reduce their number, or to reduce the charges, must be a matter for the Committee.

12. Bearing this in mind, the only logical conclusion to be drawn if it should be found necessary to reduce the number of nurseries and bearing in mind the evidence given above, would be to replace on or near the present sites by purpose-built nurseries both Newport Street and Merehall and closing all the other nurseries; or alternatively, and only as a second best, to retain Shaw Street, Roxalina Street and Park House, and closing Newport Street and Merehall.

After due consideration the Committee agreed and the Council finally decided to alter the scale of charges in existence so that the higher adjusted incomes, i.e. those over £13 per week, would benefit by some reduction in the daily charge. The following are the resolutions approved by the Council.

(*a*) That the following amendments be made in the existing scale of charges for children attending the day nurseries, viz.:—

Gross weekly earnings of parents (after deduction of £1 for each dependent child after the first)	*Existing daily charge*	*Amended daily charge*
	s. d.	s. d.
Exceeding £13 but not exceeding £13 10s. ...	6 3	6 0
„ £13 10s. but not exceeding £14 ...	7 9	6 6
„ £14 but not exceeding £15	9 6	7 9
„ £15	11 3	9 3

(*b*) That priority in the admission of children to the nurseries be given to cases of social hardship.

(*c*) That the Newport Street Day Nursery be closed, with effect from the end of January, 1958.

The minimum charge remains at 2/6d per day but the maximum charge has been reduced from 11/3d to 9/3d. These changes came into effect as from the 11th November, 1957.

As a result of this alteration to the scale of assessment, charges in respect of 65 children were reduced. The situation at the end of the year is given in the following table and for comparison purposes those at the end of 1956 are also tabulated.

Charge payable at end of year		No. of Cases	
1956	**1957**	1956	**1957**
2/6d – 3/10d per day	**2/6d – 3/10d per day**	116	**121**
4/1d – 6/3d „ „	**4/1d – 6/-** „ „	66	**42**
7/9d „ „	**6/6d** „ „	10	**6**
9/6d „ „	**7/9d** „ „	11	**15**
11/3d „ „	**9/3d** „ „	35	**50**
	TOTALS:	238	**234**

Where two children from one family have attended a nursery the charge has been reduced for the second child to a half of the scale for the first child. This has resulted in a reduction of appeals requiring consideration.

During the year 13 appeals against assessment affecting 16 children were considered by a special sub-committee. Of these, 7 appeals affecting 10 children were successful and 6 appeals affecting 6 children were refused.

SOCIAL CASES:

At the time when the report referred to above was being prepared, that is about the middle of 1957, the number of social cases in attendance at the nurseries amounted to about 30 per cent of the total attendances. A subsequent analysis following on the closure of Newport Street Day Nursery shows an interesting change in pattern in that more social cases were being accommodated and this type of case actually accounted for approximately 50% of all attendances. The following gives the result of a recent analysis:—

Reason for Attendance	Park House	Shaw Street	Merehall	Roxalina Street	Total
Parents separated	8	9	14	7	38
Parent divorced	1	2	–	1	4
Widowed mother	1	1	1	1	4
Unmarried mother	9	8	7	6	30
Mother in hospital	1	–	2	1	4
Husband in prison	–	3	–	1	4
Parent deceased	–	1	–	1	2

STAFF:

Following the closure of Arkwright Street Day Nursery in January 1956, there has been no further decline in the number of staff employed. The position at the 31st December was as follows:—

Day Nursery Supervisor	1
Matrons	5
Deputy Matrons	4
Wardens	5
Nursery Nurses	16
Nursery Assistants	5
Nursery Students	12
TOTAL STAFF	48

Every effort has been made to absorb as many of the staff from Newport Street Nursery into the remaining four nurseries. The vast majority of the staff has been so absorbed.

Analysis of reasons for attendance

Day Nurseries:	Newport Street	Park House	Shaw Street	Mere-hall	Roxalina Street	Total
No. of children on Register at 31/12/57	28	48	57	50	51	234
Children whose mothers were—						
Employed in/as:—						
Mills	6	29	31	30	36	132
Clothing Factories	5	1	3	1	2	12
Nurses, Teachers, etc.	2	2	2	1	2	9
Retail Business	–	1	3	–	–	4
Offices	5	2	4	2	–	13
Engineering Works	1	–	4	1	–	6
Shop Assistants	2	5	1	3	1	12
Paper Works	1	1	–	–	1	3
Canteen and Cafes	1	1	2	2	1	7
Other Occupations	3	3	4	7	7	24
In hospital	–	2	–	1	–	3
In poor health	–	1	–	–	–	1
Deceased	–	–	1	–	1	2
Other children admitted on social grounds	2	–	2	2	–	6
TOTALS	28	48	57	50	51	234
In the above were included the following:—						
Mothers separated or divorced	5	6	8	11	7	37
Widows	2	–	1	1	1	5
Unmarried Mothers	2	9	7	7	6	31
Number of children attending during year	106	111	113	105	115	550

INFECTION:

Apart from measles and influenza there were very few cases of infection.

Number of Cases

Nursery	Measles	German Measles	Chicken-pox	Mumps	Whooping Cough	Sonne Dysentery	Influenza
Newport Street	41	–	–	6	–	–	26
Park House ..	24	–	–	–	–	–	15
Shaw Street ..	3	–	–	4	1	–	10
Merehall ..	16	–	–	–	–	–	6
Roxalina Street	2	2	–	2	–	–	4

Every child was offered immunisation against whooping cough and diphtheria and tetanus. There were 6 refusals.

Routine medical inspections were carried out by members of the medical staff.

TRAINING OF NURSERY NURSES:

Forty-two students of the Bolton Training Centre were awarded the certificate of the National Nursery Examination Board. They were recruited from the following sources:—

Local Health Authority	2
Local Education Authority	15
Church of England Children's Society...	19
Wigan Local Health Authority	6
TOTAL	42

After qualification some of the nurses were employed in day nurseries, nursery schools or classes locally; others returned to the nurseries under the control of the Church of England Children's Society.

Nurseries and Child Minders Regulation Act, 1948:

The 6 industrial nurseries which provided accommodation for 240 children were visited on several occasions by the Supervisor of the Day Nurseries and were found to be satisfactory.

The infection in these nurseries included cases of measles, german measles, chickenpox and influenza, and 14 cases of sonne dysentery at one nursery.

An interesting development was the interest taken by some industrial firms in providing accommodation for school children during the long summer holidays whilst their mothers were at work, and the application in respect of the premises to be used by five mills were granted after inspection had shown them to be satisfactory. In addition to these, an application has been received from another mill for the provision of regular day nursery facilities. This application is in the process of investigation.

Once again, there were no applications for the registration of child minders under the above Act so that we are still without any registration of this type in the Authority's area.

A special enquiry has, however, been made through the health visitors to determine the degree of child-minding outside the terms of the Nurseries and Child Minders Regulation Act, and the position in September when the enquiry was made showed that 209 children were being minded by relatives and 103 by other people. There may be many more than these, but these are the only ones known to the health visitors. Since these minders are not liable to registration, the health visitors are carrying out supervision as a normal part of their duties.

Dental Treatment:

Dr. D. Davies, the Principal School Dental Officer, has given me the following information and comments.

The year has seen a severe curtailment of dental facilities available to expectant and nursing mothers and children of pre-school age due to the loss of staff in the school dental service, the officers of which have also undertaken this work. The resignation of a full-time dental officer in December of 1956 reduced the number of dentists available for the routine inspection and treatment of these priority classes to one.

For the first three months of the year the existing scheme was carried on with this reduced staff. Children and mothers were referred by medical officers and health visitors to the maternity and child welfare session at Charles Street School Clinic on Tuesday afternoons where both inspection and treatment were carried out, the only alteration being that patients referred for a general anaesthetic were necessarily treated at a session previously devoted exclusively to school children.

Unfortunately at the beginning of April the remaining officer resigned her full-time appointment and became employed part-time on a sessional basis. At this time it became impracticable to provide a regular session for the priority classes exclusively and indeed, to provide a full service of inspection and treatment. It was decided therefore that only patients requiring emergency treatment should be referred to the clinic and that no particular session be devoted to this work, but that it be done in conjunction with the treatment of school children. This is far from satisfactory but unavoidable while the dental strength is so inadequate being now at its lowest level since the end of the war, and only three-tenths of what is regarded as our minimum staffing requirement.

Inevitably the work carried out was largely the extraction of aching and septic teeth and, in the case of mothers, the provision of artificial substitutes. This work, of course, is of prime importance under present circumstances to the priority classes yet it is but a travesty of the preventive service which was surely envisaged in the National Health Service Act of 1946.

Mechanical work in connection with the provision of dentures was carried out for us by independent dental technicians, a total of 22 dentures being made during the year. Dental radiography was undertaken for the 7 patients requiring it at the Robert Galloway Clinic.

Children attending the Occupation Centre were again inspected, treatment being provided at the Robert Galloway Clinic for all found in need of it with the exception of one child with a chequered medical history who was referred to the dental department of Bolton District General Hospital.

Dental arrangements

Number of officers employed at end of year on a salary basis in terms of whole-time officers to the maternity and child welfare service:—	
(1) Senior Dental Officer	—
(2) Dental Officers	—
Number of officers employed at end of year on a sessional basis in terms of whole-time officers to the maternity and child welfare service	1/11th
Number of dental clinics in operation at end of year	1
Total number of sessions (i.e. equivalent complete half days) devoted to maternity and child welfare patients during the year	26
Number of dental technicians employed in the Local Health Authority's own laboratories at the end of the year...	—

Analysis of Priority Dental Care

	Expectant and Nursing Mothers	Children under five
Examined	88	67
Needing treatment	79	60
Treated	79	53
Made dentally fit	46	52
Extractions	226	115
Anaesthetics: Local	18	–
General	21	45
Fillings	21	5
Crowns and Inlays	–	–
Scalings and Gum Treatments	24	–
Silver Nitrate Treatment	–	1
Dressings	21	9
Radiographs	7	–
Dentures: Partial	9	–
Complete	13	–

Physiotherapy:

The work of the physiotherapist can be divided into three main categories.

The first category of patient is that of children referred from child welfare clinics for remedial exercises and massage to remedy postural defects and other minor deformities.

Closely allied to this work are the breathing exercises and postural exercises given to children referred from the chest clinic and from the aural surgeon as well as from the school clinics. These children usually have asthmatic conditions or nose and throat abnormalities or post-operative difficulties. This facility has proved very popular and increasing numbers of cases are being referred. The experiment of offering the facilities for breathing exercises to children at the Lostock Open Air School has been continued since it has proved so successful. The children receive daily sessions of exercises in two classes of 15 to 16 children each and are conducted by the staff of the school. The staff themselves have received instruction from the physiotherapist who visits periodically.

The third activity of the physiotherapist is in conducting ultra-violet light sessions which were held each afternoon. Patients referred from the child welfare clinics attended three times a week and school children twice a week. After two years during which the number of cases referred dropped considerably, there has been a recovery during 1957. It has been noticed before that when the weather is poor the number of cases referred increases.

Finally, relaxation classes for expectant mothers have taken up more and more time, and sessions are now conducted each morning in the Health Department. Patients are referred from the nursing home ante-natal clinics, from family doctors, from the Local Authority ante-natal clinics, and also from the Bolton District General Hospital. In each case the number of mothers referred has increased considerably over the previous year.

SUMMARY OF WORK:

	MASSAGE AND EXERCISES	BREATHING AND POSTURAL EXERCISES
No. of Patients	197	213
„ „ Treatments	807	632

The above figures include 46 new patients for massage, and 87 new patients for breathing exercises, and 111 sessions were held.

	ULTRA-VIOLET LIGHT	
	INFANTS	SCHOOL CHILDREN
No. of Patients	444	514
„ „ Treatments	2,958	2,756
„ „ Sessions	135	94
„ „ New Patients	206	200

	EXPECTANT MOTHERS—RELAXATION CLASSES		
	NO. OF PATIENTS	NO. OF NEW PATIENTS	NO. OF ATTENDANCES
Domiciliary Midwifery Service ...	227	95	576
Nursing Homes	327	138	763
Own Doctors	28	17	78
Bolton District General Hospital	21	10	60

MIDWIFERY

The decreased number of births in 1957 as compared with the previous year has not altered the general pattern of place of confinement. There has been a reduction in confinements conducted by all three services. The biggest reduction seems to have been at the maternity homes. There was only a slight reduction in domiciliary births. This would seem to suggest as has previously been suspected that in Bolton we have probably reached the minimum of domiciliary confinements and that those mothers who are confined at home prefer to do this.

Distribution of Confinements:

The following table gives the distribution of confinements as between the three services for a number of years since 1939:—

	1939	1947	1948	1952	1953	1954	1955	1956	**1957**
Total Births	2,442	3,382	2,906	2,423	2,490	2,440	2,302	2,558	**2,423**
Domiciliary Births ..	1,057	1,203	1,026	476	573	464	404	425	**405**
Bolton District General Hospital	720	1,104	901	1,010	986	1,050	1,101	1,223	**1,176**
Maternity Homes (3) ..	*326	†1,059	974	851	864	830	785	910	**842**

*Only Haslams open.

†First complete year of operation of three Maternity Homes.

The balance of births is accounted for by births at out-of-town addresses or by general practitioners.

Professional Meetings on the Maternity Service:

The Professional Meetings representative of all three services concerned with midwifery and which were inaugurated in 1956 by the Chairman of the Local Hospital Management Committee, continued their meetings throughout 1957. The field covered during this time has been widened from the original concept of a conference on ante-natal care and its relationship to toxaemia of pregnancy. Members of the committee have received opinions from general practitioners and midwives in both the hospital and domiciliary services and the discussion on these matters and the assessment of the information received has gone on throughout the year. No final report has yet been issued, but it is hoped that this will be completed early in 1958.

Practising Midwives:

The midwives who notified their intention to practise in accordance with the rules of the Central Midwives Board were:—

In Hospital and Maternity Homes 20

In Domiciliary Practice 13

Eight of the midwives in domiciliary practice were employed by the Local Health Authority; 3 acted as private maternity nurses; and 1 midwife from an adjoining area attended one patient. One private maternity nurse who notified her intention to practise did not, in fact, attend any patients in Bolton.

Domiciliary Staff

After considerable changes in 1956 the staff became more settled during 1957. There were no resignations and consequently no new appointments. Unfortunately, one midwife was off duty for the first six months of the year through sickness.

The town has now been divided into four domiciliary midwifery areas with two midwives serving each area. As far as possible midwives in their own area deal with patients in that area. This has led to a much better system of distribution of cases and a better service to the patients as well as being more convenient for the midwives.

Midwives now make a practice of getting in touch with the family doctor whenever a case is booked in order to give the practitioner an opportunity of expressing his wishes with regard to the conduct of the case.

Five midwives received motor car allowances as 'essential users'; the other three preferred not to have cars. Midwives are entitled to participate in the scheme for the assisted purchase of cars and several have done so.

Because of the low level of domiciliary midwifery it was reported last year that those midwives with general nursing training would carry out a certain amount of district nursing. This has continued during 1957 but to a lesser extent than previously.

Domiciliary Confinements:

Domiciliary midwives attended 399 confinements. Private midwives attended 3 confinements. Each patient was visited twice daily for a minimum of three days after delivery and then daily up to the fourteenth day. Visits made by the midwives were as follows:—

Ante-natal visits	4,996
Nursing visits during the puerperium	7,368
Post-natal visits	151
TOTAL	12,515

The nursing visits given above include those made to 57 patients who were discharged from hospital before the tenth day. This is a considerable reduction on the figure of 167 which had to be dealt with in 1956. It appears to be the normal practice of the hospitals to discharge patients on the tenth day and we arrange for these patients to be attended by health visitors when they get home. The 57 cases mentioned above were those discharged before the tenth day and needing the services of a midwife.

Each midwife is now supplied with a "Tecota" Inhaler for the administration of Trichloroethylene. In 1957—

Trichloroethylene was administered in 227 cases

Nitrous Oxide was administered in 43 cases

Pethidine was used for 168 cases

A few patients refused to have any form of analgesia. Now that Trichloroethylene is so readily and conveniently available, the use of nitrous oxide is gradually being dispensed with. It would seem that the times when nitrous oxide is used is when the midwife's apparatus is being subjected to laboratory testing and it is not possible to obtain spare apparatus or borrow from another midwife at short notice. In this respect the new ruling that in future testing of the apparatus will be needed once in only twelve months as against once in six months, will be an added advantage.

Notifications:

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

	Domiciliary Practice	Maternity Homes
Notification of Stillbirth	5	6
Notification of Artificial Feeding	38	176
Notification of Death of Child	1	1
Liability to be a source of infection	1	–

In addition, the Bolton District General Hospital notified the commencement of artificial feeding concerning 151 mothers normally resident in Bolton.

Notification of Puerperal Pyrexia:

Six notifications were received from the following sources:—

Bolton District General Hospital	2
Maternity Homes...	3
Domiciliary Midwives	1

All these cases were mild. Two of them were due to tonsillitis, and 2 to urinary infections. In 2 cases the cause was not known but the patients quickly recovered.

Medical Aid:

Medical aid was sought by domiciliary midwives on 132 occasions from family doctors for the following conditions:—

	No. of Cases
Relating to the Mother:	
Ante-natal Conditions:	
Ante-partum haemorrhage	7
Abnormal presentations	3
High blood pressure and toxaemia	5
Other medical conditions	3
During Labour:	
Premature labour	4
Prolonged labour	5
High blood pressure	1
Mal-presentation	4
Obstetric shock	3
Post-partum haemorrhage	11
Perineal tear	37
Twins	1
Emergency calls—unbooked cases	2
Abortions	2
Stillbirths	4
Other conditions	2
Puerperium:	
Puerperal rise of temperature	8
Secondary post-partum haemorrhage	2
Phlebitis	6
Other conditions	2
Relating to the Child:	
Prematurity	1
Abnormalities	2
Asphyxia	1
Discharging eyes	11
Diarrhoea	1
Other conditions	4
Total	132

Calls for medical aid to the three maternity homes numbered 58 in respect of Bolton mothers.

Flying Squad:

The Obstetric Emergency Team from the Bolton District General Hospital was called on by domiciliary midwives on eight occasions for the following reasons:—

Post-partum haemorrhage ... ... (One of these patients had a retained placenta and another suffered from obstetric shock)	6
Obstructed labour	1
Breech delivery (doctor in attendance)	1

District Midwifery Training:

Seven pupil midwives took their Part II training under the care of domiciliary teaching midwives. It has not been possible, owing to the rapid change-over in staff during 1956, to have approved any other midwives on the staff for teaching purposes. We have, therefore, only one teaching midwife. This is unsatisfactory and it is hoped to remedy the situation as soon as possible. In order to give some relief to the one teacher we have continued with the temporary arrangements with the County Authority for a county midwife to take a pupil under her care whenever this is necessary. The scheme seems to be working very satisfactorily and I am very grateful to the County Medical Officer for these arrangements.

I am also grateful to the Hospital Management Committee for continuing to allow us the use of accommodation at Newlands Nursing Home for pupil midwives doing their Part II training in the Bolton district.

Refresher Courses:

Two midwives who were due for refresher courses during 1957 attended courses at London and Bangor respectively.

Maternal Mortality:

In 1956 two maternal deaths occurred in the borough. One woman died from bronchopneumonia and renal failure following a septic abortion. A woman died during the influenza epidemic from bilateral lobar pneumonia due to influenza and mitral stenosis soon after a normal full-term delivery.

In addition, a woman died five weeks after childbirth the cause of death being—

1(a) Heart failure

1(b) Acute nephritis

The latter death is not included by the Registrar General as a maternal death for the determination of the maternal mortality rate.

HEALTH VISITING

Staff:

At the end of the year the staff comprised:—

Superintendent Nursing Officer
Deputy Superintendent Health Visitor/School Nurse
Centre Superintendent
1 Health Visitor engaged solely on problem families
23 Health Visitor/School Nurses
3 Tuberculosis Health Visitors
3 School Nurses
1 Clinic Nurse

TOTAL: 31 plus 3 administrative staff
AUTHORISED ESTABLISHMENT: 40 plus 3 administrative staff

In addition to the above, 4 student health visitors commenced training in September at the Technical College on the Course run by the Queen's Institute of District Nursing. Six student health visitors completed their training at the Technical College in June, were successful in passing their examination, and joined the staff of the department. A qualified health visitor joined the staff in December. Seven health visitors resigned from the department during the year, 5 to take up appointments elsewhere, and 2 for domestic reasons.

There were some changes in the staffing pattern compared with previous years. A Superintendent Nursing Officer was appointed and combines the duties of responsibility for the Health Visiting service with that of co-ordination of the other nursing services of the department. To counterbalance this change, the Deputy Superintendent Health Visitor is assisted in her work by a Centre Superintendent so that there has been a slight increase in the administrative staff in the section. To ease the work of the health visitor in the clinics, a clinic nurse has also been appointed. She is not health visitor qualified.

Staff Training:

The policy of sending our health visitors on training courses at intervals of a few years in order to keep them up to date with modern developments, has been continued. Two health visitors attended the summer school at Bedford College, London, arranged by the Royal College of Nursing, for two weeks. Two other health visitors attended the winter school at Bedford College, London, arranged by the Women Public Health Officers' Association, for eleven days. One of the tuberculosis health visitors attended a one week's course at Cardiff arranged by the National Association for the Prevention of Tuberculosis.

With the increasing use of the Department of Education of the Deaf at Manchester University particularly on behalf of very young deaf children, it was considered necessary to have a health visitor trained in the methods in use in the department so that follow-up work could be carried out on the children in attendance at the University department. Consequently, a health visitor was seconded to the department for three weeks and I am grateful to Professor A. W. G. Ewing for arranging this.

Continuing our policy of developing the service for deaf children, arrangements were made for twelve health visitors to attend a series of lectures and practical demonstrations given by the staff of the University Department of Education of the Deaf. The demonstrations were aimed at training the health visitors in the detection of deafness at an early age in children so that training could be carried out as soon as possible. Following these demonstrations the work of screening has now been started by the health visitors at some of the nurseries in Bolton and also in the homes of children where there is any suspicion of deafness.

The Annual Conferences of the National Association for Maternal and Child Welfare, and the Women Public Health Officers' Association, were attended by members of the staff.

The usual winter series of lectures for the nursing staff of the department has continued on the lines started several years ago. The object has been to bring before the nursing staff matters of importance in day-to-day work and recent developments in social science. The following lectures were given:—

Recent trends in Public Health	... by Dr. Ronald W. Elliott, Medical Officer of Health
The Work of the Children's Department	... by Mr. P. E. Varey, Children's Officer
Public Health Problems in the Far East	... by Professor Fraser Brockington, Department of Social and Preventive Medicine, Manchester University
The Medical Aspects of Food Hygiene	by Mr. T. Williams, Chief Public Health Inspector
Deafness in Young Children	... by Miss Carlill, Lecturer, Department of Education of the Deaf, Manchester University
The Emotional Problems of Adolescence	... by Dr. T. R. Malloy, Consultant Child Psychiatrist, Booth Hall Hospital

Training of Student Nurses and Other Visitors:

The Medical Officer of Health and the Deputy Medical Officer of Health have given lectures to the student nurses at the Bolton Royal Infirmary and the Bolton District General Hospital in accordance with the requirements of the General Nursing Council's syllabus. In addition to this, practical experience of the work of a Public Health Department has been given to all the nurses in training at the hospitals by their attending periodically in the Health Department in order to see the work of the health visitors and the home nurses.

Pupil midwives taking their Part II training for the Central Midwives Board examination attended the child welfare centre for instruction on child care in accordance with their syllabus.

All health visitor students attending the course at the Technical College in Bolton received their introduction to Public Health by a visit to the Health Department right at the beginning of the course. Six of these students subsequently were attached to the department for their practical training.

Practical training and demonstration for a few days was also given to student health visitors from the Manchester Technical College course.

Three doctors studying for the Diploma in Child Health received practical experience in various aspects of public health work in the department.

Home Visits:

The increasing amount of clinic work associated with the various immunisation programmes and other unavoidable work indoors often tends to obscure the primary function of the health visitor which is to visit the homes of those persons requiring assistance such as those containing young children or aged persons. The many and varied calls made on the health visitor's time over and above home visiting increases year by year, but nevertheless, in spite of this the health visitors have been able to increase their number of home visits compared with previous years. The over-all pattern of visits is shown in the following table:—

Analysis of Home Visits

First visits to expectant mothers	298
Subsequent visits to expectant mothers	305
First visits to newly-born babies	2,360
Subsequent visits under 1 year	14,907
Visits to children 1–2 years	8,222
Visits to children 2–5 years	17,056
Infant death enquiries	11
Infectious disease visits	69
After-care visits	201
Chronic sick visits	2,736
Home Help visits (Assessment and re-assessment of need for service)	1,138
Home visits to school children	1,031
Visits in connection with Priority Re-housing on medico-social grounds	92
Visits in connection with the B.C.G. Survey—Medical Research Council	442
Visits in connection with other surveys	210
Miscellaneous visits (family doctors, Assistance Board, Moral Welfare, W.V.S., Blind, Probation Office, etc.)	614
Ineffective visits to households	7,779
TOTAL	57,471

In the course of this work 37,817 families were visited.

The types of visit which tend to be more time-consuming than any other were those paid to old people and to the chronic sick. These, as might be expected, have increased and are tending to increase year by year. The more time the health visitors spend on these persons, the more needs are discovered which require attention.

The selective visiting of children under the age of five years is inevitable due to the pressure of other work, but it is doubtful whether this is entirely satisfactory since the ideal should be regular visits to the homes of all young children rather than choosing those who seem at first sight to need special attention.

Tuberculosis Visiting:

The three full-time health visitors who combine the work of tuberculosis visiting with that of attendance at the chest clinic sessions have carried out the following visits:—

No. of visits to households	2,366
No. of visits to patients	2,445
No. of ineffective visits	500

The above work is in addition to that already analysed in connection with ordinary home visiting. In spite of the somewhat decreased number of tuberculous cases in the community, the visiting has been maintained and even increased over previous years. This is a satisfactory situation because it means that more attention can be given to the individual case.

Geriatrics:

One health visitor was responsible for liaison with the Geriatric Physician and geriatric department of the Bolton District General Hospital and this system works very well. The health visitor accompanies the Consultant and his Registrar on domiciliary visits and together they paid 233 home visits during the year. In addition, routine social investigations on behalf of the geriatric department for patients on the waiting list were carried out in 251 instances.

Paediatrics:

The very useful liaison between the Paediatric Physician and the health visitors has continued with the generous help given by Dr. W. Dickson. The health visitors attend the paediatric out-patients and the ward rounds for the mutual exchange of information between the clinicians and the social workers.

Health Education at Ante-Natal Clinics:

The difficult task of giving talks to expectant mothers at the ante-natal clinics on the subject of mothercraft may need to be reviewed in view of the difficulties which the health visitors have found in teaching in a very busy and crowded clinic. This applies both to the ante-natal clinic at the Bolton District General Hospital and to our own at the Civic Centre. It is essential for quiet and effective teaching, for special facilities to be available which are not there at present. However, it is hoped that this situation may be rectified by holding the mothercraft sessions at different times and by special invitation to the mothers.

Attendance of Health Visitor at a Group Practice Surgery:

This interesting development started in 1956 and has continued successfully in 1957. A health visitor paid a weekly visit to a general practitioner's surgery in a group practice where she was given special facilities for interviewing any patient who required assistance on social or domestic grounds. The following type of problems were referred:—

Problems with breast feeding
Weaning problems
Maternity Benefits
Cases for reference to National Assistance Board
Cases for reference to Ministry of Pensions and National Insurance
School children with minor ailments
Domestic problems

The doctors and the health visitors concerned were convinced that this type of work was fully justified, was useful to the patients and was especially useful in connection with problems concerning the chronic sick. Much useful work can be done by the health visitors as a result of this initial contact by follow-up visits in the home.

Liaison:

I should like to offer my thanks on behalf of the health visitors to a great many people who assisted them in their difficult task of attempting to improve the social conditions of their patients. On all sides the health visitors express appreciation of the very close co-operation which they obtain from such organisations as the National Assistance Board, the Bolton Moral Welfare Association, the National Society for the Prevention of Cruelty to Children, the Women's Voluntary Services, the medical, nursing and lay staffs of the hospitals, and the family doctors to mention but a few.

Special Investigations:

The follow-up work for the Tuberculosis Prevention Unit of the Medical Research Council has involved the health visitors in 442 visits.

Other national surveys from time to time are readily accepted as part of our contribution to research in the field.

The Prevention of Problem Families:

This work was in addition to that carried out on established problem families by the visitor working from the local headquarters of the National Society for the Prevention of Cruelty to Children and was meant to be in the nature of prevention although there was obviously a very indeterminate dividing line between the two.

The health visitor appointed solely for this work has had 68 families under her supervision during the year.

REASONS FOR THE CASE COMING UNDER CARE:

Incompatibility and/or desertion	11	
Domestic difficulties	9	
Illegitimacy	8	
Ignorance and low mentality	9	
Indolence and intemperance	9	
Widowed, with young family	3	
Sickness, poverty and debts	6	
Instability of one or other parent	7	
Too large family—too small income	6	
TOTAL	68	families

RESULTS OF HEALTH VISITOR'S ACTION:

Returned to health visitor as no longer in need of special supervision	12	families
Old cases retained under special supervision	18	,,
New cases being investigated and supervised	26	,,
Temporary cases returned to district health visitor for supervision after overcoming a short crisis	12	,,

The cases referred back to the district health visitor were those who did not require any further intensive visiting although supervision was still necessary.

Assistance was required from other agencies in 18 cases as follows:—

5 were referred to the Probation Officer
2 were referred to the National Society for the Prevention of Cruelty to Children
4 were referred to the National Assistance Board
3 were referred to the Marriage Guidance Council
3 were referred to the Family Planning Association
1 was sent to the Brentwood Recuperative Centre

An interesting change in the reasons for families coming under care has developed this year. Previously the larger proportion of families was referred because of bad housing, but this year the emphasis seems to have been on marital disharmony and this type of case is proving extremely difficult to deal with. It is impossible to list the ways in which the health visitor has to use her skill in assisting these families. Many approaches have to be made to individuals, to voluntary agencies and to statutory bodies of all kinds in order to solve what appear to the family almost insuperable difficulties. Almost any social agency, from the probation officer to the debt collector and second-hand dealer, seem to have some part to play in the rehabilitation of these people.

The total number of visits paid by the Health visitor to these families during the year was 1,716.

The work is best illustrated by examples. The following is a brief summary of a case which was brought to a reasonably satisfactory conclusion:—

> A family consisting of father, mother and one child, living in a house where a foreclosure on the mortgage was about to be made because of arrears. Mr. X had been going out daily on the pretext of going to work, but no money was forthcoming. The health visitor at last got National Assistance for the family. The man was taken to the Employment Exchange to try and get work. The house was in an appalling state of filth and disrepair. Water and electricity were turned off. Employment was found for Mr. X, but he was soon sent to prison for debts. Whilst he was in prison the health visitor tried to sort out things at home with Mrs. X and to get rid of the filth. On discharge from prison, work was found for Mr. X, but he was soon discharged. Eventually, after many efforts by the health visitor and the Area Officer of the National Assistance Board, Mr. X found himself employment and seems to have reformed. Soon afterwards he found employment for his wife at the same factory. This seems to be working satisfactorily and a great difficulty has been overcome.

The next case has only a moderately satisfactory outcome:—

> The family consisted of parents and four children aged one to seven years. The mother was physically not strong and was unable to read or write. She had been left without parents at an early age and at seventeen years of age was keeping house for her two elder brothers. The father was brought up in an institution and knows little of his background. Mrs. Y was difficult to approach, was sullen, truculent, and cold in manner. Mr. Y. was not very robust and his health kept

him in a low wage earning group. With limited resources Mrs. Y. tried hard to keep the family together but with not very great success. Consequently, the mother and children were sent to Brentwood Recuperative Centre for a time where there was a marked improvement. Unfortunately, whilst they were away Mr. Y. suffered a breakdown in health and was unable to work for several months. He too was dealt with by rehabilitation with the help of the Ministry of Labour and National Service at the Leicester centre in the hope that he might find better employment after training in order to get rid of the chronic state of poverty.

The next case illustrates the frustration of this type of work and how important it is for constant supervision of some of the difficult families:—

The family consisted of father, daughter and two sons, plus an illegitimate child of the daughter. The family was referred by the Education Department because the youngest boy was playing truant from school, and bad conditions were reported from the home. The mother of the family deserted it just after the youngest boy was born. The daughter at this time was only seven years of age. The father of the family was a 'ne'er-do-well' and spent all his money on drinking and betting. The house was just a place to sleep, the children being fed and clothed but little else. There was no love or affection. At sixteen years of age the daughter gave birth to an illegitimate child which, under the chaotic conditions existing in this home, caused the health visitor a considerable amount of anxiety. The filth and neglect of the house was indescribable, but some idea of it may be gained from the fact that there had been a burst water pipe under the bedroom floor boards for many months which was spraying water all over the place and no attempt was made to do anything about it. A cage of pet mice was fitted to the sink draining board and the whole house was filthy and smelly. It was felt that improvement was being obtained since the daughter worked well and was eager to be taught, but it was necessary even to pay Sunday visits to this house since this was the only way of making contact with the father. All appeared to be going well when the daughter disclosed that she was again pregnant. This was extremely discouraging and it was obvious that very great efforts and sympathy would be needed to do anything at all to help this family.

The Care of Problem Families by the N.S.P.C.C. Visitor:

Complementary to the work of the special health visitor on Problem Families, there is in Bolton a woman visitor on the staff of the local branch of the National Society for the Prevention of Cruelty to Children who works in close co-operation with the department and with the Co-ordinating Committee for the Care of Children.

This visitor, for the year ending 31st December, 1957, has had 39 cases under her supervision. Of these 11 were closed as 'satisfactory' and 7, after unsustained progress, were handed back to the Inspector of the N.S.P.C.C. Eleven new cases were taken on involving 33 children. All told 657 visits of supervision and 516 miscellaneous visits to public officials, voluntary organisations, etc., were made.

HOME NURSING

There have been no changes in the administration of the service which has continued on a non-residential basis and controlled from the headquarters at the Civic Centre. Nurses reside in their own homes. The Home Nursing Section is open from 8.30 a.m. to 6.30 p.m. and during that time all the work of the section is channelled from the headquarters. After 6.30 p.m. there is a rota of nurses for late night work. Calls after 6.30 p.m. are automatically transferred to the Ambulance Control room where the officer on duty makes the necessary arrangements for the night duty nurse to deal with any emergency. Several nurses can be communicated with by telephone at home.

Staff:

The staff at the 31st December was as follows:—

	Superintendent	
	Deputy Superintendent (Resigned 31/12/57)	
12	Queen's Nurses	(Full-time)
3	Queen's Nurses	(Part-time)
5	State Registered Nurses	(Full-time)
6	State Registered Nurses	(Part-time)
4	State Enrolled Assistant Nurses	(Full-time)
2	State Enrolled Assistant Nurses	(Part-time)
TOTAL NURSING STAFF: 32	Equivalent in full-time staff—28 excluding administrative staff, an increase of 6 over last year.	

In addition, 5 students were taking the Queen's Nurse Training Course.

Included in the above are 5 male nurses full-time.

After several years of staffing difficulties we have at last reached a satisfactory and apparently stable position and at the end of the year the equivalent of a full establishment was reached if we include the time available from the students. This is a very pleasing situation and must lead inevitably to more contented staff. So often in the past has it been noticed that the vicious circle of few staff, increasing case loads, and exhaustion, have led to still further resignations. It is hoped that we can maintain this present much more satisfactory arrangement. Apart from the benefit to the staff, the patients receive more adequate attention than can be given by harassed, over-worked nurses.

Statistics of Cases and Visits:

In showing overleaf the number of cases nursed in 1957, a comparison has been made with the previous three years.

	No. of patients being nursed at beginning of month in each year				New Cases				Nursing Visits			
	1954	1955	1956	**1957**	1954	1955	1956	**1957**	1954	1955	1956	**1957**
January ..	497	681	817	**889**	315	328	308	**266**	8,038	8,835	10,481	**9,823**
February..	553	721	809	**896**	272	267	344	**237**	7,690	8,307	9,966	**8,584**
March ..	530	716	845	**894**	293	309	354	**283**	7,950	8,866	10,645	**9,520**
April ..	541	732	854	**918**	277	314	233	**238**	7,740	8,616	9,671	**9,556**
May ..	557	746	864	**888**	251	267	249	**242**	7,815	9,057	10,734	**9,769**
June ..	573	744	869	**893**	230	221	196	**226**	7,527	7,939	9,421	**8,926**
July ..	550	748	833	**906**	250	249	225	**208**	7,455	8,278	8,189	**9,536**
August ..	570	763	861	**924**	238	225	205	**234**	8,020	8,694	9,071	**9,557**
September	610	768	835	**930**	229	225	215	**230**	8,036	8,193	8,133	**8,869**
October ..	592	775	842	**936**	284	266	226	**305**	7,861	9,113	9,211	**10,168**
November	615	805	870	**915**	284	256	226	**195**	8,393	9,558	9,318	**9,328**
December	898	812	872	**906**	378	303	256	**262**	9,384	10,330	9,323	**9,713**
TOTALS:					3,301	3,230	3,037	**2,926**	95,909	105,786	114,163	**113,349**

Patients being nursed on the 1st January... ...	889
New patients attended during the year	2,926
TOTAL CASES NURSED	3,815

In much the same way as the staff has stabilised itself this year, so has the number of cases and visits. For several years there has been a rapid rise in the number of nursing visits carried out, but we seem now to have reached the peak. This is very important because hitherto it has been quite obvious that the dispersal of effort over more and more cases meant that the individual case was not being nursed to the nurse's satisfaction. Now that staff has increased and stabilised itself, and the number of patients has done likewise, more time can be spent on the individual patient. The tendency which has been noted in previous years for more cases to remain on the books at the end of the year reflects once again the increasing number of old people needing longer periods of nursing.

NEW DISTRICT ROOM IN THE HEALTH DEPARTMENT

(The Nurses' Home was closed in August, 1954)

STUDY ROOM IN THE HEALTH DEPARTMENT

CLASSIFICATION OF CASES NURSED BY CONDITION AND AGE:

Condition	Age Groups		
	0–4 years	5–64 years	65 years and over
Tuberculosis	–	167	12
Other infectious diseases	13	23	9
Parasitic diseases	1	–	–
Malignant and Lymphatic neoplasms	–	90	134
Asthma	–	13	9
Diabetes mellitus	–	27	54
Anaemias	–	113	176
Vascular lesions affecting the Central Nervous System	–	48	215
Other mental and nervous diseases	–	40	25
Diseases of the Eye	3	4	4
Diseases of the Ear	46	40	2
Diseases of the Heart and Arteries	–	208	480
Diseases of the Veins	–	21	37
Upper Respiratory diseases	14	91	26
Other Respiratory diseases	62	162	180
Constipation	8	53	89
Other diseases of the Digestive System	4	51	40
Diseases of the Urinary System and Male Genital organs	3	22	30
Diseases of the Breast and Female Genital organs	–	45	107
Complications of Pregnancy and the Puerperium	–	44	–
Diseases of the Skin and Subcutaneous Tissues	10	82	53
Diseases of Bones, Joints and Muscles	–	68	83
Injuries	4	16	44
Senility	–	2	192
Other defined and ill-defined diseases or disabilities	4	13	5
Diseases not specified	1	156	37
TOTALS	173	1,599	2,043
GRAND TOTAL	3,815		

Nursing Treatments:

INJECTION THERAPY:

	1956	**1957**
Insulin	19,635	**13,646**
Streptomycin	10,148	**12,470**
Penicillin	6,905	**5,831**
Drugs for cardio-renal diseases (Mersalyl, Neptol, etc.)	12,461	**14,078**
Drugs for Anaemia, Debility, etc. (Anahaemin, Cytamen, etc.)	7,260	**8,540**
Miscellaneous	1,908	**1,090**
Narcotics	855	**660**
TOTALS	59,172	**56,315**

The total number of injections has decreased over the past twelve months, but not materially so. Within this broad pattern increases in streptomycin injections and for cardio-renal cases and for blood disorders have been recorded. It is obvious that the large number of injections which home nurses are expected to give nowadays will remain as part of the normal work of the home nurse. This type of therapy in domiciliary nursing has been rapidly increasing for the last few years. The nurses have felt fortified by the fact that they are allowed to carry and to administer adrenalin to any case showing sudden distressing symptoms following injection. This scheme was introduced two years ago with the full knowledge and approval of the Local Medical Committee, and during that time there have been four occasions where sudden collapse has followed an injection. These injections were either of penicillin or mersalyl. On one occasion the adrenalin was the means of obtaining very rapid recovery. In the other three instances, normal nursing attention for shock was given until the arrival of the doctor.

TREATMENT OTHER THAN INJECTIONS:

	1956	**1957**
Enemas	1,809	**1,475**
Bed Baths	8,639	**9,046**
Dressings	16,149	**13,773**
Attention to pessaries	609	**565**
Wash-outs, douches, catheterising	1,376	**1,587**
Bedside nursing	33,612	**37,894**
Preparation for X-ray investigation	176	**107**
Others	3,457	**3,748**
Minor operations	28	**11**
TOTALS	65,855	**68,206**

SUMMARY OF NURSING TREATMENT:

	1956	**1957**
Nursing Care	65,855	**68,206**
Injections	59,172	**56,315**
TOTALS	125,027	**124,521**

The above treatments were given at 114,163 visits, and 113,349 visits respectively.

There is a slight tendency for there to be a swing in emphasis towards general nursing care and away from injections but this may be merely a year to year variation. This, in itself, tends to be rather more time consuming in that general nursing treatment takes longer to carry out than the average injection. An interesting comment for which there seems to be no adequate explanation is that there have been fewer cases of diabetes mellitus dealt with during the year and there were 6,000 less visits for insulin injections than in the previous year.

Disposal of Cases:

Month	Fully recovered	Removed to Hospital	Died	Not recovered but not requiring further nursing	Total
January ..	123	43	52	41	259
February ..	114	43	50	32	239
March	121	44	48	46	259
April	136	34	62	36	268
May	106	39	45	47	237
June	115	25	36	37	213
July	73	34	43	40	190
August.. ..	101	37	38	52	228
September ..	84	45	48	47	224
October ..	182	36	58	50	326
November ..	98	36	37	33	204
December ..	123	43	53	22	241
TOTALS ..	1,376	459	570	483	2,888

Transport:

The four cars owned by the Corporation were in constant use by the home nurses. This form of transport has been augmented during the year by the Council's approval to essential car allowances being granted to 6 home nurses. This means that 6 nurses may also apply for assistance in the purchase of cars under the Council's scheme. At the end of the year 4 nurses had been granted a car allowance and 3 nurses had applied for financial assistance for the purchase of their own cars. An analysis of the work done on various districts with and without cars has proved conclusively that somewhere in the region of twice as much work can be got through with a car than without. These measures have been very popular with the nurses and have cut down one of the most arduous parts of their duties, namely, travelling between patients. Although we have three motor scooters which are in use they have not proved as popular. Bicycles are provided for other nurses and travelling allowances on buses for those who prefer this form of transport.

Queen's Nurse Training:

Training of home nurses has continued on the lines of the two previous years the practical part being taken in Bolton and the theoretical part in the Manchester Training Home. Seven students were trained during the year and were successful in passing the Queen's Institute of District Nursing examination. All were trained for our own staff and none came from outside authorities. The scheme was on a non-residential basis.

Training of Hospital Nurse Students:

Arrangements have been made for lectures to be received by student nurses training in the Bolton Royal Infirmary and the Bolton District General Hospital from members of the staff of the Health Department. These lectures were followed up by visits to the Health Department and some of the time of these visits was taken up by the students accompanying the home nurses on their rounds in order that they may gain an insight into the social aspects of illness. Fifty-six nurses from the two institutions attended during the year.

Combined Home Nursing and Midwifery:

Certain of the midwives carried out some home nursing duties. This scheme was started last year because of the limited number of domiciliary confinements available for midwifery staff. Although this type of work has continued, the circumstances during the year have been such that much less use has been made of the midwives for home nursing duties.

Nursing Equipment:

A detailed list of equipment loaned to patients is given on page 72.

Laundry Service:

During the autumn and winter this service was used to the utmost capacity. A total of 125 incontinent patients have been assisted, often for very long periods. An average of 24 patients have had deliveries of clean bed linen each day. The remainder had deliveries two or three times weekly. Departmental transport was used to deliver and collect laundry which was cleansed through the facilities kindly offered by the Hospital Management Committee.

Treatment Sessions in the Health Department:

Ambulant patients who were well enough to attend the Home Nursing Section of the Health Department did so if it was convenient to them to receive their injections. This has been well appreciated both by the nurses and by the patients and does, quite considerably, cut down the travelling time and case load of the home nurses. Treatment was made available between 2.30 p.m. and 6.30 p.m. each day. In all, 4,924 attendances were made by 91 patients.

VACCINATION AND IMMUNISATION

Vaccination against Smallpox:

It is encouraging to see an increase in the number of children vaccinated in infancy. It is necessary to continue to urge mothers to have children vaccinated in the first few months of life as smallpox uncommonly visits this country and not many mothers are aware that it remains a potential danger in spite of its absence. At the clinics mothers are advised to have baby vaccinated when he is 3 or 4 months old so that he has finished with this procedure and is ready for the combined diphtheria, whooping cough, tetanus prophylactic when he reaches 4 or 5 months of age. Also it is important that the child should be vaccinated in early infancy as the risk of the serious complication, vaccinial encephalitis, is less likely to occur if vaccination takes place at this age than if it takes place when the child is older or if primary vaccination is done in adult years.

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1952	 639	
1953	 1,255	(local cases of smallpox)
1954	 1,076	
1955	 1,098	
1956	 1,073	
1957	... ... **1,248**	

Whilst the figures in the previous three years remained almost unchanged the increase in 1957 was very satisfactory as in that year 49% of children under one year were vaccinated.

Most of these vaccinations were carried out by medical officers working in the Infant Welfare Centres. However, general practitioners vaccinated children as follows:—

Under 1 year	323
1–5 years	68
TOTAL	391

This total is included in the figure for 1957 given above.

SUMMARY OF VACCINATIONS:

	Age at date of Vaccination							TOTAL
	Under 3 months	3 to 6 months	6 to 12 months	1 to 2 years	2 to 4 years	5 to 14 years	15 years and over	
No. Vaccinated ..	175	866	133	30	44	51	183	1,482
No. Re-vaccinated	—	—	—	2	18	33	336	389

Record cards were received from general practitioners during 1957 relating to persons vaccinated in 1956 which had not been previously recorded, as follows:—

PRIMARY VACCINATION	Under 1 year	14
	1–4 years	4
	5–14 years	2
	15 years and over ...	2
RE-VACCINATION	15 years and over ...	10

These figures are included in the above totals.

PERCENTAGE OF CHILDREN VACCINATED IN RELATION TO BIRTHS DURING THE YEAR:

1952—23% of children under 1 year vaccinated
1953—34% " " " " " "
1954—42% " " " " " "
1955—46% " " " " " "
1956—41% " " " " " "
1957—49% " " " " " "

Vaccination against Poliomyelitis:

Vaccination against poliomyelitis, which was started in 1956, continued during 1957 and for the first time the programme continued throughout the year. There was no suspension of vaccination during the summer months as was the case in the previous year.

In 1956 the vaccine was issued for use only in Local Authority Clinics but in 1957 family doctors were able to take part in the scheme. However, after discussions between the Medical Officer of Health and the Local Medical Committee it was decided that the Local Health Authority should continue to be responsible for the entire poliomyelitis vaccination programme in the town.

Children born in the years 1947 to 1954 inclusive were eligible for vaccination and later in the year children who were born in 1955 and 1956 were included.

Immunisation sessions were held in the Civic Centre every Saturday morning throughout the year. This is felt to be the most convenient time as medical and nursing staff are available and most mothers who work are free to accompany their children. Moreover, no interference with the school curriculum occurs when the children attend on this day.

The number of children vaccinated varied from time to time according to the supply of vaccine which was not constant throughout the year.

Of children in the age groups mentioned above approximately 30% were registered for vaccination. It is a matter for regret that the proportion was not greater but undoubtedly the large amount of publicity associated with the vaccination scheme has had an effect on the numbers, as not all the publicity was favourable. There is little doubt, however, that the public are becoming more confident in view of the large number of vaccinations which have taken place without ill effect.

In November the Minister of Health announced the new plan for extending the scope of the poliomyelitis vaccination programme made possible by the decision to import Salk vaccine from North America and by the increase in the supply of British vaccine brought about by a second manufacturer commencing production. Vaccination was now offered to all children born in the years 1943 to 1956 and to children born in 1957 who had reached the age of 6 months. Vaccination was also offered to expectant mothers, general medical practitioners and their families, local authority ambulance staff and their families and also the families of hospital staff who nurse poliomyelitis patients. The increased confidence in the vaccine was eventually demonstrated by an overall acceptance rate of over 40% which is a significant increase on the 30% mentioned above.

In some of the special groups mentioned the acceptance rate was very much higher.

The total number of children and adults waiting to be vaccinated at the end of December was 7,637.

The total number of children vaccinated in 1957 was 3,895 and not a single abnormal reaction occurred which was sufficiently severe to bring to our notice. Indeed, it is probably true to say that no immunisation procedure yet devised is so free from undesirable reactions or side effects. Only exceptionally is a slight inconvenience caused and when this occurs it amounts to little more than a mild and short lived pain at the site of injection.

Reports continued to be sent to the Medical Research Council Statistical Research Unit on all cases of poliomyelitis which occurred in children born in the years 1947 to 1954 inclusive. Since vaccination started not a single case of poliomyelitis has occurred in a vaccinated individual in Bolton.

Immunisation against Diphtheria, Whooping Cough and Tetanus:

The timing of the various immunisations has remained unaltered during the year:—

VACCINATION AGAINST SMALLPOX Preferably at 3 months of age.

PRIMARY IMMUNISATION ... (against Whooping Cough, Diphtheria and Tetanus) ... At 4 months old, completing the course at 6 months.

BOOSTER IMMUNISATION ... ... At 5–6 years. This is usually carried out either at the Infant Welfare Centre, or at school during the first school year.

POLIOMYELITIS VACCINATION ... Over the age of 6 months.

Diphtheria Immunisation in relation to Child Population

Age Group	Percentage of mid-year Population completely immunised
Under 1 year	53·2
Aged 1–4 years	55·7
Aged 5–14 years	87·9
TOTAL UNDER 15 YEARS ..	77·4

Source of Immunisation

	Diphtheria Immunisation only	Combined Whooping Cough & Diphtheria	Triple Antigen	Tetanus only	Re-inforcing Injections (Diphtheria only and Whooping Cough and Diphtheria combined)
No. of children immunised at Infant Welfare Centres	20	147	1,022	1	50
No. of children immunised in Schools	170	229	—	—	985
No. of children immunised by general practitioners and for whom a record card was received by the Health Department ..	14	190	170	–	78
TOTALS	204	566	1,192	1	1,113
GRAND TOTAL ..	3,076				

In November, 1956, the Ministry of Health agreed with the Corporation's suggested scheme of using a triple antigen incorporating antigens against diphtheria, whooping cough and tetanus for primary immunisation in infancy.

This scheme came into operation in January, 1957, and was used throughout the year.

Single antigens are still available at the Child Welfare Centres for mothers who desire the child to be immunised against only one disease, or to be immunised against all three but with single antigens. The triple antigen provides immunity against the three diseases with only three injections and infants are not subjected to eight injections which would be the case if single antigens were used. Moreover, the infants gain their immunity in about three months instead of eight months when the triple antigen is used.

The time factor is important as well as the reduced number of injections because many mothers regularly attend the Child Welfare Centres in the first few months of the infant's life, but as the child gets older the attendance becomes less regular and so injections may be missed. Health Visitors now spend less time visiting defaulters and can spend time doing more useful work.

Only 20 infants were immunised against diphtheria alone and 1,022 received 3 injections of triple antigen.

The very slight risk of "provocation poliomyelitis" which may be caused by the injection of combined antigens has been considered and it has been decided that this risk is very small and against it must be weighed the psychological dangers of giving multiple injections to an infant, and also the very real practical difficulties involved in ensuring that mothers attend on the many occasions necessary when single antigens are used. However, the position will be very closely watched and if a number of cases of poliomyelitis occur in the town our policy will be critically re-examined and the possible suspension of immunisation will be considered.

The total number of children immunised in the year was 3,076 which is a slight increase on the total for 1956. This total includes 1,023 children who gained immunity to tetanus and for the first time in Bolton a considerable number of children were immunised against this disease.

A possible advantage of active immunisation against tetanus would be that following an injury anti-tetanus serum need not be given, a booster dose of tetanus toxoid being given instead. Each year two or three deaths occur in the country from anaphylaxis, or allergy following the administration of anti-tetanus serum. In future years an increasing proportion of children will have been immunised against tetanus, and anti-tetanus serum will be less needed and the ill effects which occasionally follow its use should not occur.

Family doctors have been informed of the telephone number of the office in the Health Department where immunisation records are kept. On enquiry they will be informed of a child's tetanus immunisation state and will then be able to judge if the injured child should be given a booster of tetanus toxoid instead of an injection of anti-tetanus serum.

It is to be hoped that increasing use will be made of the Health Department's tetanus immunisation records in future.

Age at Immunisation

Age	Completely Immunised				Re-inforcing Injections (Diphtheria only and Whooping Cough and Diphtheria combined)	TOTAL
	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Triple Antigen	Tetanus only		
2–8 months	4	150	789	–	–	943
9–11 „	1	92	242	–	–	335
1–2 years	12	68	116	–	–	196
2–3 „	4	8	23	–	–	35
3–4 „	4	8	12	–	10	34
4–5 „	5	21	6	1	85	118
Total 0–5 years	30	347	1,188	1	95	1,661
5–6 years	109	216	1	–	832	1,158
6–7 „	62	2	1	–	175	240
7–8 „	1	1	–	–	7	9
8–9 „	–	–	1	–	1	2
9–10 „	–	–	–	–	1	1
10–11 „	–	–	–	–	–	–
11–12 „	–	–	1	–	–	1
12–13 „	–	–	–	–	–	–
13–14 „	–	–	–	–	–	–
14–15 „	–	–	–	–	–	–
Total 5–14 years	172	219	4	–	1,016	1,411
Over 15 years	2	–	–	–	2	4
GRAND TOTAL	204	566	1,192	1	1,113	3,076

Number of cases of Diphtheria in 1957 ... ... Nil

Number of cases of Whooping Cough notified 73

64 were 5 years and under

9 were over 5 years of age

Number of deaths from Whooping Cough in 1957 ... Nil

As recorded under 'Infectious Diseases' in this report, the number of cases of notified whooping cough has fallen dramatically in 1957 as compared with practically every year since notification of this disease began. For instance, for the previous four years, the notifications have been 319, 244, 167 and 593 respectively. Even taking into account the cyclical epidemic changes, the 1957 figure is very encouraging and may be due to the effects of whooping cough immunisation. It is a difficult disease to assess from the point of view of prophylactic effects of immunisation because of the epidemic periodicity and the fact that whooping cough immunisation probably has a good effect not only in preventing infection, but by modifying the disease markedly so that it may not be easily recognised. Of the 73 cases notified only 15 occurred in immunised children.

If we take the children under 5 years of age as being the most vulnerable group for whooping cough, some interesting and suggestive facts can be extracted. Twelve children under the age of 5 years who had been immunised against whooping cough contracted the disease. Forty-two children under the age of 5 years who had not been immunised against whooping cough contracted the disease. The respective populations at risk were as follows. There were 6,935 immunised children under the age of 5 years, and 4,565 non-immunised children under the age of 5 years. Worked out as a percentage incidence of whooping cough we arrive at the figures 0.91% for non-immunised children, and 0.16% for immunised children, an advantage in favour of the immunised child of the order of six to one which would appear to be highly significant.

The following table shows the number of children immunised during the past fourteen years :—

Age at date of inoculation	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	Totals
Under 1 yr.	97	54	103	425	756	799	835	698	651	671	1005	1323	1205	1278	
1–2 years	844	1253	1121	1037	1115	657	606	670	638	588	554	414	187	196	
2–3 ,,	179	243	171	101	103	124	94	76	100	79	70	110	48	35	0–5 years
3–4 ,,	75	120	128	67	59	48	72	60	63	43	42	58	32	24	7,114
4–5 ,,	53	68	105	69	75	58	53	46	56	90	49	69	37	32	
5–6 ,,	58	53	54	36	100	114	93	58	164	260	490	673	359	326	
6–7 ,,	23	49	59	17	77	94	83	35	163	249	35	88	57	65	
7–8 ,,	17	41	67	11	33	37	63	21	64	151	9	12	4	2	5–10 years
8–9 ,,	21	26	57	16	20	26	54	5	32	162	3	2	2	1	10,258
9–10 ,,	14	26	54	20	16	23	43	1	2	26	–	4	3	–	
10–11 ,,	16	23	54	4	5	9	7	2	1	10	–	3	1	–	
11–12 ,,	19	6	43	5	3	–	9	–	–	17	–	2	–	1	
12–13 ,,	21	15	35	2	1	1	2	–	1	10	–	–	–	–	10–15 years
13–14 ,,	20	16	12	1	–	–	–	–	1	15	–	2	–	–	9,183
14–15 ,,	8	2	2	1	1	–	1	–	–	5	–	–	–	–	
15 years and over	3	–	3	18	2	1	2	6	1	2	1	1	–	2	Over 15 years 2,089
Totals	1468	1995	2068	1830	2366	1991	2017	1678	1937	2378	2258	2761	1935	1962	28,644

AMBULANCE

The Ambulance Service area covered the County Borough and also on an agency basis for the Lancashire County Council in the area of Turton Urban District Council. It also covered the Bolton Collieries of the National Coal Board.

Total Mileage

	1954	1955	1956	**1957**
Ambulances	76,792	75,138	73,726	**64,464**
Sitting Case Vehicles	79,712	87,612	87,852	**93,806**
TOTALS	156,504	162,750	161,578	**158,270**

Total Number of Patients Carried

	1954	1955	1956	**1957**
Ambulances	18,642	18,874	18,802	**15,930**
Sitting Case Vehicles	24,180	31,622	32,563	**33,653**
TOTALS	42,822	50,496	51,365	**49,583**
Average mileage per patient	3·65	3·22	3·15	**3·19**

In my report for 1956 I drew attention to a fall in the *rate of increase* in the total number of patients carried. In 1957 the absolute number of patients fell compared with both 1956 and 1955. Paradoxically, some part of this fall was due to increased sickness—the influenza epidemic of the late autumn which caused the hospital out-patient services to be severely curtailed. This does not, however, account for the bulk of the reduction. It may indeed be the case that the upward trend in the work of the ambulance service has halted, though I see no reason to expect a reversal.

It will be seen that compared with 1956 the mileage per patient has risen—a logical result of the fall in the total number of patients carried. Probably here too we have reached a point from which there will be little further progress or regress. This is suggested by the experience of the past three years, during which time we have made full use of radio control and increasing use of sitting case vehicles. Our experience suggests that, as far as economy in operation is concerned, radio control and a reasonable number of sitting case vehicles are complementary. It may be that we shall discover empirically means of effecting greater efficiency in the service, but it is doubtful if this will be reflected in any further reduction in the average mileage per patient.

Monthly Analysis of work done by the Ambulance Service:

Bolton*

Month	Patients carried by			Miles travelled by		
	Ambulances	Sitting Case Vehicles	Total	Ambulances	Sitting Case Vehicles	Total
January	1,629	2,454	4,083	5,943	6,019	11,962
February	1,356	2,396	3,752	5,104	5,795	10,899
March	1,437	2,665	4,102	5,126	6,278	11,404
April	1,080	2,650	3,730	4,231	6,631	10,862
May	1,203	3,038	4,241	4,708	7,410	12,118
June	1,004	2,675	3,679	4,086	7,364	11,450
July	1,079	2,870	3,949	4,232	7,454	11,686
August	1,234	2,732	3,966	4,673	6,734	11,407
September	1,267	2,533	3,800	4,971	6,872	11,843
October	1,400	2,413	3,813	5,150	6,715	11,865
November	1,358	2,469	3,827	5,027	6,408	11,435
December	1,129	2,743	3,872	4,654	6,482	11,136
TOTALS ..	15,176	31,638	46,814	57,905	80,162	138,067

*Includes agency work for National Coal Board and some 'knock for knock' journeys for neighbouring authorities.

Agency Service for Lancashire County Council in area of Turton Urban District Council

Month	Patients carried by			Miles travelled by		
	Ambulances	Sitting Case Vehicles	Total	Ambulances	Sitting Case Vehicles	Total
January	88	211	299	706	1,476	2,182
February	67	167	234	512	1,175	1,687
March	81	191	272	711	1,163	1,874
April	46	136	182	423	823	1,246
May	68	163	231	530	1,074	1,604
June	59	177	236	537	1,174	1,711
July	66	212	278	565	1,295	1,860
August	77	189	266	638	1,120	1,758
September	64	130	194	595	974	1,569
October	66	123	189	594	1,038	1,632
November	43	197	240	422	1,425	1,847
December	29	119	148	326	907	1,233
TOTALS ..	754	2,015	2,769	6,559	13,644	20,203

Arrangements were made for six patients to be conveyed by rail.

Emergency Calls:

There is very little change in the general pattern of emergency calls responded to during the year compared with previous years except for the service given to midwives in the transport of gas and air apparatus. The number of patients involved here has fallen to less than half compared with the previous year and is probably due to the increased use by midwives of their own transport and also to the diminishing popularity of gas and air analgesia as compared with the increasing number of cases for which the new trichloroethylene apparatus is used. The latter does not require special transport.

Bolton Emergencies and Special Journeys

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	7	–	–	4	1	3	1	1	2	1	–	4	24
Scalds	2	3	3	5	3	7	4	8	2	3	4	6	50
Falls	17	22	24	23	23	20	21	27	20	20	27	34	278
Gas and Electricity Mishaps	1	2	1	2	7	2	4	–	–	1	4	6	30
Poisonings	3	–	3	–	3	2	5	6	–	4	2	3	31
Collision with structures	–	–	1	1	–	–	1	4	2	2	–	3	14
Cuts (other than from falling)	2	2	3	1	8	3	3	5	2	3	1	6	39
Falling objects	–	–	–	1	1	–	–	4	–	–	–	–	6
Trapping of limbs	1	1	2	–	–	2	–	4	1	–	–	–	11
Swallowing foreign bodies (other than poisons)	1	2	2	2	–	1	–	–	–	–	1	–	9
TOTAL OF ALL ACCIDENTS IN THE HOME	34	32	39	39	46	40	39	59	29	34	39	62	492
Road Accidents	15	25	24	33	36	31	35	56	52	44	43	28	422
Collapse	36	24	31	33	34	41	33	29	41	34	41	27	404
Industrial Accidents	19	21	18	15	17	14	11	16	20	19	27	18	215
Sudden Illness	13	20	24	17	10	8	16	25	31	30	17	24	235
Falls in the Street	28	16	23	22	22	22	22	17	10	19	25	20	246
Children injured at school or at play	17	11	32	27	42	54	35	38	22	18	28	13	337
Violence—													
Fights and Drunks	5	1	12	3	3	4	4	8	4	2	5	7	58
Assaults	4	–	4	–	1	–	–	–	–	–	–	–	9
Drowning	–	–	–	–	–	1	–	–	1	–	–	–	2
Falls in shops or places of entertainment	3	6	2	1	1	2	1	–	–	1	–	1	18
Sporting Accidents	4	1	7	3	4	1	1	1	3	2	6	5	38
Attacks by animals and insects	–	–	2	2	–	2	–	3	1	–	2	3	15
Fairground Accidents	3	–	–	–	–	2	6	–	–	–	–	–	11
Hanging	–	–	–	–	–	–	–	–	–	–	–	–	–
Horseriding Accidents	1	–	–	–	–	1	–	1	–	–	–	–	3
Railway Accidents	6	–	1	–	–	1	–	1	–	–	–	1	10
Miscellaneous	11	8	10	6	9	6	26	11	10	5	15	13	130
TOTAL EMERGENCIES	199	165	229	201	225	230	229	265	224	208	248	222	2,645
MATERNITY CASES	129	121	116	126	133	144	149	122	168	131	119	163	1,621
Births in Ambulances	–	–	1	–	–	–	–	–	–	–	–	–	1
Born before arrival of Ambulance	2	2	–	1	1	–	–	–	–	1	–	1	8
TOTAL MATERNITY CASES	131	123	117	127	134	144	149	122	168	132	119	164	1,630
LONG JOURNEYS (60 miles or more)	2	2	1	2	5	7	6	5	3	4	2	2	41
TRANSPORT OF MID-WIVES AND GAS AND AIR APPARATUS	47	21	21	27	20	6	–	15	13	11	11	12	234

Turton District Emergency and Maternity Cases

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Scalds	–	–	–	–	–	1	–	–	–	–	–	–	1
Falls	2	3	1	2	3	–	–	1	1	–	3	–	16
Gas and Electricity Mishaps	1	–	–	–	–	–	–	–	–	–	–	–	1
Poisonings	–	1	–	–	–	–	–	–	–	–	–	–	1
Collisions with structures	–	–	–	–	–	–	–	–	–	–	–	1	1
Cuts (other than from falling)	–	–	–	–	–	–	–	–	–	–	1	–	1
Falling objects	–	1	–	–	–	–	1	–	–	–	–	–	2
Swallowing foreign bodies (other than poisons)	–	–	–	–	1	–	–	–	–	–	–	–	1
TOTAL OF ALL ACCIDENTS IN THE HOME	3	5	1	2	4	1	1	1	1	–	4	1	24
Road Accidents ..	1	1	1	2	7	5	–	3	1	1	2	3	27
Collapse	1	–	3	–	–	–	1	2	1	–	1	–	9
Industrial Accidents	–	2	–	1	2	2	–	–	2	2	3	2	16
Sudden Illness ..	–	–	–	–	1	2	–	–	–	–	–	–	3
Falls in the Street ..	1	–	–	–	1	–	–	1	1	1	–	–	5
Children injured at school or at play ..	1	1	–	3	2	–	–	2	–	–	1	–	10
Falls in shops or places of entertainment ..	–	–	–	–	–	–	–	–	–	–	–	1	1
Horseriding Accidents	–	–	–	–	–	–	–	–	1	–	–	–	1
Miscellaneous	3	–	–	–	1	–	1	–	–	–	–	–	5
TOTAL EMERGENCIES ..	10	9	5	8	18	10	3	9	7	4	11	7	101
TOTAL MATERNITY CASES	6	5	5	3	5	4	9	5	9	9	4	5	69

National Coal Board

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
Industrial Accidents ..	2	2	5	3	8	2	1	4	4	–	5	3	39

Total Mileage for Collieries ... 359

Crash Scheme:

The emergency scheme which has been devised in Bolton and district between the various Authorities concerned has once again not received a severe test. However, an opportunity occurred which tested the efficiency of the scheme on the afternoon of the 19th January when there was a minor railway accident at Bullfield Sidings when a railway engine wrecked a signal box. The full emergency scheme as far as the ambulance personnel were concerned was put into operation. A radio control point was established at the scene of the accident. Ambulance and disaster kits were sent to the sidings and the Bolton Royal Infirmary were alerted. Fortunately there were only a few minor casualties and the whole incident was over after a full inspection of the scene by the ambulance personnel within half an hour. Although of minor importance, the accident did satisfactorily test the arrangements which had been made.

Vehicle Strength at 31st December, 1957:

Make	H.P.	Reg. No.	Purchase Date	Total Mileage
AMBULANCES:				
Austin	16	DBN 226	29.10.48	91,510
Commer	14	DBN 386	30.11.48	75,480
Austin	27	EWH 345	23. 8.51	46,898
Austin	16	JWH 660	9. 3.56	13,473
Austin	16	JWH 699	9. 3.56	16,090
Austin	16	LBN 22	20. 7.57	5,568
SITTING CASE AMBULANCES:				
Morris	16	FWH 333	13. 3.53	61,490
Morris	16	GBN 999	10. 3.54	60,254
Morris	16	HWH 499	6. 4.55	31,324
Bedford	14	LBN 20	8. 3.57	13,853
Bedford	14	LBN 21	21. 3.57	13,425
SITTING CASE CARS:				
Austin	16	CWH 626	28. 4.48	91,625
Austin	16	EWH 222	6. 6.51	129,006

The Council's phased replacement of vehicles continues, and during the year two dual-purpose vehicles and one stretcher-case ambulance were bought. They replaced a car and two ambulances.

Staff at 31st December, 1957:

Superintendent
Deputy Superintendent
1 Liaison Officer (Bolton Royal Infirmary)
4 Shift Leaders
25 Driver/Attendants
1 Male Attendant
2 Female Attendants
2 Motor Mechanics
1 General Labourer/Greaser

The five years from 1953 have seen the introduction of radio, a radical change in the composition of the fleet, and closer liaison with hospitals, culminating in the secondment of an ambulance officer to the Out-Patient Department at the Bolton Royal Infirmary. He is known as the liaison officer and he constitutes an Ambulance Control Centre at the hospital. Originally it was visualised that he would be responsible for the 'turn-round' of out-patients. Perhaps inevitably his activities widened and now he handles all ambulance transport requests from the hospital departments. The benefits of effective co-operation in this field are considerable, to hospital, ambulance authority and patient alike. During 1957 the liaison officer dealt with 18,000 transport requisitions from hospital departments in addition to his original work.

The value of this liaison has now been fully recognised by the Lancashire County Council who accept this officer as the responsible person for controlling the transport requisition of County ambulances whilst they are at the Bolton Royal Infirmary, and consequently they have made a contribution to this officer's salary.

Ambulance Control Room:

The Ambulance Control Room has continued to fulfil a very valuable role, providing point of contact at night time and during week-ends not only for other departmental services, but for medical practitioners through the Medical Bureau. During the year, 585 calls were made through the Medical Bureau, either by patients seeking general practitioners or by family doctors giving notice of their arrangements during temporary absence from home.

Civil Defence—Ambulance and Casualty Collection Station:

There were 241 volunteer members of the section.

Forty-two training sessions were held and instruction given in Civil Defence Organisation and Routine, Ambulance Loading Drill, Elementary Rescue, Map Reading, Damage Control, and Care and Maintenance of Vehicles. The average attendance was eleven.

Six specially trained volunteers were included in the Bolton team which competed at the North Western Civil Defence Regional Tourney at Belle Vue, Manchester, in September. The Bolton team was placed tenth of twenty-two teams competing, with 61.5% of possible marks.

During the year, three Shift Leaders gained Certificates at the Home Office courses for Ambulance and Casualty Collection Section Instructors.

LOAN OF NURSING EQUIPMENT—CONVALESCENCE

Loan of Nursing Equipment:

The rapid expansion in the number of articles issued to patients which has taken place in recent years seems now to have reached its peak and our activities in this respect show no increase over 1956. It would appear from the reports of the home nurses that we are now satisfying the demand. Although the total number of items issued has not increased it should be noted that items such as draw sheets for incontinent patients have been in greater demand than in previous years. The home nurses have found this provision of fresh linen through the laundry service to be of very great value.

Article	Number Available	No. issued during Quarter				Total for 1957	No. in stock at 31st Dec., 1957
		Mar.	June	Sept.	Dec.		
Bed Pans	178	59	47	71	39	216	5
Rubber Bed Pans	5	–	–	3	5	8	2
Air Rings	179	49	41	57	37	184	4
Tan Sad Invalid Chairs	45	4	14	11	3	32	3
Junior do.	7	–	–	–	–	–	–
Self-propelled Chair	1	–	1	–	–	1	1
Bed Rests	145	30	30	36	36	132	1
Bed Cradles	18	7	7	6	4	24	2
Single Beds—Iron	4	1	–	1	–	2	3
„ „ —Iron, with lifting pole	4	–	–	2	2	4	–
Mattresses—Sectional	1	–	–	–	–	–	–
„ —Hair	4	1	1	–	–	2	–
„ —Interior Spring	3	–	–	–	–	–	–
„ —Dunlopillo	10	–	–	3	2	5	1
Cushion: Float-on-Air	1	–	–	–	–	–	1
Biscuit Mattresses	2	–	–	–	–	–	–
Mattress Covers	9	–	–	–	–	–	9
„ „ —Plastic	6	–	1	–	2	3	3
Pillows	24	–	–	–	1	1	4
Bedspreads	3	–	–	–	–	–	3
Blankets	25	4	2	–	–	6	11
Sheets—Cotton	84	18	36	11	8	73	22
Draw Sheets	265	147	113	130	188	578	126
Pillow Cases	59	4	–	3	2	9	52
„ „ —Plastic	12	–	–	1	–	1	9
Pyjama Jackets	110	5	17	14	40	76	58
Pyjama Trousers	4	–	–	–	–	–	4
Nightshirts	36	8	2	2	–	12	20
Nightdresses	22	23	4	6	16	49	11
Rubber Sheets	394	75	73	91	80	319	25
Towels	60	3	2	2	2	9	23
Urinals	110	34	20	36	28	118	6
Fracture Boards	7	–	4	–	–	4	1
Chair Commodes	14	4	3	3	1	11	1
Sani-Chair—Self-propelled	1	1	1	–	–	2	–
Crutches	16	6	4	–	8	18	5
Tripod Walking Sticks	3	1	–	1	–	2	–
Pails (with lids)	48	22	18	21	34	95	5

Total number of articles issued in	**1957**	**1,996**
„ „ „ „ „ „	1956	1,994
„ „ „ „ „ „	1955	1,475
„ „ „ „ „ „	1954	899
„ „ „ „ „ „	1953	901
„ „ „ „ „ „	1952	522

Convalescent Home Accommodation:

There were 32 applications for convalescence in respect of 31 adults and 1 child. Subsequently 2 applications were withdrawn.

All the applicants were interviewed and examined as to their suitability for convalescence by medical officers of the department.

Twenty-nine adults and 1 child were accepted for periods varying from two to three weeks and of these, 27 adults were admitted to the Bolton and District Hospital Saturday Council's Homes at Blackpool, St. Annes-on-Sea and Southport. The remainder were sent to various other homes.

The Local Health Authority paid full fees for accommodation in 24 cases and the other patients met part or the whole of the cost. Through the courtesy of the Bolton Guild of Help no charge was made for the child who was accommodated in the Ormerod Children's Homes, St. Annes-on-Sea.

HOME HELP

Applications for the service of home helps have increased and the utmost care has been necessary in allocating the available help. In order to ensure that bedfast and handicapped patients should secure immediate and adequate assistance, many cases who had been granted a few hours weekly cleaning service had sometimes to forego their help. We have tried to co-operate with the relatives of aged and infirm persons so that the provision of daily help would enable the next of kin to take a holiday. In all cases the available relatives were asked to assist and help was granted only in accordance with the family needs. Requests for service were received from many sources, including general practitioners, hospital almoners, health visitors, district nurses, mental health officers, public health inspectors, welfare officers and officers of the National Assistance Board. Other applications came from patients themselves and from relatives and voluntary social agencies. Co-ordination with other sections of the Health Department was a prominent factor in the smooth running of the service.

Cases for whom help was provided during the last four years:

	1954	1955	1956	**1957**
Maternity	55	41	49	**43**
Tuberculosis	14	8	10	**7**
Chronic Sick	752	803	859	**973**
Other cases	176	136	122	**98**
TOTALS ..	997	988	1,040	**1,121**

Distribution of New Cases:

	TUBERCULOSIS	CHRONIC SICK	OTHER CASES	MATERNITY
January ...	–	42	4	5
February ...	–	32	7	5
March ...	–	41	2	4
April ...	–	28	6	2
May	1	49	7	2
June	–	18	5	6
July	–	24	5	3
August ...	–	48	1	3
September...	–	27	6	5
October ...	–	34	4	1
November...	–	41	4	–
December ...	1	34	4	4
TOTALS:	2	418	55	40

Staff:

The staffing position became easier and during the year many suitable women were engaged. During the winter months in particular it was noticed that morning help was required by most elderly and infirm patients who found that making fires was a burden. To meet this demand there has been an emphasis on the appointment of part-time helps and of younger women with children of school age who were attracted to work which also allowed them time to care for their own homes and families. Only applicants with the necessary domestic skill and sympathetic interest in the sick and aged have been appointed. The reputation of the service depends upon the home help's work in her households and I am pleased to say that the staff have worked loyally and well. The epidemic of influenza in September caused heavy sickness amongst home helps, but generally, absence through sickness was less than in previous years.

Training courses continued to be held and a course on domestic nursing was included. Staff meetings have been held frequently and lectures have been given by senior members of the Health Department.

HOME HELPS EMPLOYED AT 31st DECEMBER:

Total number employed	142
Equivalent number of full-time	92

SERVICE RENDERED DURING 1957:

Average number of hours per week	3,630
Average number of hours per case per week ...	5.79

Payment:

During the year, the Council's Scale of Assessment was reconsidered and amended so that allowances for needs other than rent were brought into line with the National Assistance Board Determination of Needs Regulations. The full cost was increased from 2/3d to 3/-d per hour, and the contribution from earning members of the household was raised. The Appeals Sub-Committee considered cases of financial hardship during the first part of the year, but since the implementation of the new scales this has not been necessary.

Summary of Payment for Service

	Free	Part Cost	Standard Charge
Maternity	5	16	22
Tuberculosis	5	1	1
Chronic Sick	764	108	101
Other Cases	54	15	29
TOTALS	828	140	153

Night Attendant Service:

The value of this work is not easily recognised from the number of cases served, but the many expressions of gratitude received from relatives of very ill patients proved the worth and need for the service. The four attendants have given excellent service and have cared for patients who would otherwise have been alone, often in extremis. Thirty-seven cases received 189 nights of service.

Future Development:

The Home Help Organiser was directly responsible for the work of a large staff employed in homes throughout the County Borough. The pressure of new cases and the need to ensure that help was not retained after recovery from illness have been the first charge on her time and that of her administrative staff. Consequently, some concern has been felt at the inability of the present staff to give sufficient time to periodical and supervisory visiting. Only consistent field work enabled the organiser to prevent abuse of the service by patients and helps and to ensure economy in administrative costs. The provision of additional case-working staff and transport may be necessary and may well prove to be economies in the saving of time and would certainly result in more intensive staff supervision.

The ever increasing number of elderly persons in the community, and the pressure on hospital beds and residential accommodation means that in many cases home helps must give personal attention in addition to carrying out the usual household tasks. The allocation of sufficient hours of service to cover domestic work, preparation of meals, shopping, collection of pensions, etc., inevitably suggests that a future expansion of the service may be necessary. Where housing conditions were less than satisfactory it was sometimes far more difficult for old people to adjust themselves than it would be for younger people. Houses that are too large, or houses with no inside toilet, bath or piped hot water supply, and houses approached by too many stairs, were at times an intolerable burden. To enable chronic sick and elderly persons to remain in their own homes is a happier and more economic solution than removal to hospital. Home help needs to be regular and reliable in these cases and assistance is usually required for the remainder of the patient's life.

Dirty and verminous households initially require a considerable amount of service and it was sometimes necessary to send two home helps to get the home clean and tidy. Regular weekly visits were then needed to maintain standards.

In the last twenty years the number of old people living alone, particularly females, has very considerably increased and may have doubled. There are also fewer children to share the duty of looking after elderly parents. The family is not the homogeneous unit it once was, and many house-bound patients have an acute sense of social isolation. Very often there was only the home help to provide the personal service and the domestic help and companionship which is so important in the lives of the sick and aged. As the years pass it is difficult to avoid the conclusion that at some time more home helps will be needed.

"There should be a general re-orientation away from institutional care in its present form and towards community care, resulting in an expansion of local authority services."

This specific recommendation of the Royal Commission on the Law relating to Mental Illness and Mental Deficiency, presented to Parliament in May 1957, supports the progressive policy adopted in Bolton of building up the mental health service during the past few years and much has already been done towards implementing the above recommendation.

Economic factors were, however, a brake on speedy development and the inability of the Minister to give sanction during the year for the building of the Adult Training Centre for the mentally handicapped was a disappointment. The nucleus of such a centre for males is already firmly established on the existing premises and the formation of a similar small unit for adult females is proposed.

Staff:

The number of social workers remained constant and on the 31st December, 1957 was:—

1 Senior Mental Health Officer (Duly Authorised)

2 Mental Welfare Officers (Duly Authorised)

1 Female Mental Welfare Officer (Duly Authorised for relief or emergency)

1 Vacancy for a Mental Welfare Officer to be filled during 1958

All officers carried out comprehensive mental health social work and it was unnecessary to delegate any of the functions of the Local Health Authority to voluntary associations. Increasing public awareness of mental ill-health, and the facilities available produced increasing demands for help and by the end of the year, the output of the existing staff had reached saturation point and the vacancy on establishment must be filled in the near future to preserve efficiency.

Training:

In the absence of a recognised qualification for mental welfare officers, advantage was taken of the refresher courses organised by the National Association for Mental Health. One officer completed the first course during the year and the female officer is in attendance at the second course.

The shortage of trained officers for the Occupation Centre was equally acute and one assistant from the Centre commenced the twelve months' Diploma course for Teachers of the Mentally Handicapped organised by the National Association for Mental Health, at the Authority's expense. Other members of the staff attended a series of practical classes and lectures organised on several evenings by the same Association in Manchester.

Practical instruction was given to student health visitors and the Senior Mental Health Officer addressed various local groups as part of the Health Education programme.

Liaison:

Active liaison with the Regional Hospital Board and Hospital Management Committee was necessary and beneficial, and co-operation between the Consultant Psychiatrist of Townleys Hospital and the officers of the department at their fortnightly case conference has proved invaluable both for deciding the needs of patients and for keeping abreast of current developments in care and treatment. The Senior Mental Health Officer attended quarterly meetings held by the Medical Superintendent of Prestwich Hospital with officers of all the authorities served by that hospital.

Close co-operation with statutory and voluntary services continued at a satisfactory level, especially through representation on the monthly case conference of the Care of Children Co-ordinating Committee dealing with problem families.

Mental Illness

Hospital Admissions:

TOTAL NUMBER OF PATIENTS ADMITTED TO MENTAL HOSPITALS
(including direct admissions from out-patient clinics)

Method of Admission	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
Voluntary	62	57	19	27	165
Lunacy Act—					
Section 20	26	31	9	4	70
Section 21	5	13	3	10	31
Section 16	3	9	1	1	14
Other Sections	1	1	–	–	2
TOTALS	97	111	32	42	282

Of patients admitted under short orders (Sections 20 and 21), it was necessary to proceed to certification in only 12 cases, giving a total of 26 patients certified during the year (only 9.2% of all admissions).

The lack of availability of hospital beds was again a major problem and although no serious difficulty was experienced with acute emergencies, the situation with other cases gradually deteriorated and on the 31st December, 1957, there were 8 patients awaiting admission, one having been waiting for eleven weeks. The hospital psychiatric clinics and domiciliary consultations by the psychiatrist were extensively used to assess the needs of patients and the majority of the voluntary admissions were seen by the Consultant Psychiatrist prior to admission. Nevertheless, the situation was only met on occasions by the use of measures involving some degree of risk, such as the premature discharge of hospital patients, or the sedation by general practitioners of patients living alone, and the accepting as day patients of some persons who really needed full-time hospital care.

Townleys Branch Mental Hospital is now the main reception hospital for Bolton patients and it received 84% of all admissions during the year. This was an impressive change from 1950 when only 25% were admitted to this hospital and of these the majority were for a temporary period prior to transfer

to the larger mental hospitals many miles from the patients' homes. The problem of the elderly senile patient increased and comparing again with 1950, whilst the admission of patients under the age of 65 years increased by 44%, the admission of patients over 65 years increased by 95%.

The Day Hospital at Townleys Branch Mental Hospital proved invaluable for helping relatives to cope with this type of patient, but suitable hostel accommodation could cater for the needs of many such patients in preference to mental hospital care.

Cases reported to Health Department for investigation:

	Under 65 years		Over 65 years		Total
	Male	Female	Male	Female	
REPORTED BY—					
Medical Practitioners	32	38	22	25	117
Relatives	13	15	7	3	38
Police	8	12	4	2	26
Consultants and Hospitals	8	15	6	10	39
Others	6	22	7	10	45
TOTALS	67	102	46	50	265
DISPOSAL—					
ADMITTED TO HOSPITAL—					
As voluntary patients	11	6	4	3	24
Under Section 16 Lunacy Act	3	9	1	–	13
Under Section 20 Lunacy Act	25	31	8	5	69
Under Section 21 Lunacy Act	4	10	5	6	25
Other forms of admission	1	1	–	–	2
Awaiting admission	–	4	–	4	8
TOTALS	44	61	18	18	141
Referred for Psychiatric advice	12	16	7	10	45
Placed under Community Care	4	16	5	7	32
Died	–	–	3	2	5
No further action required by Mental Health Service	7	9	13	13	42
TOTALS	67	102	46	50	265

Community Case Work:

The number of cases referred for investigation increased by 14.8%, but the number admitted to hospital again remained constant, an increasing number being helped through psychiatric consultation and social work.

The amount of visiting of patients for preventive and after-care purposes showed a further increase and with two officers having received further training on special courses the standard of case work was very high. Several patients were being supported in the community who would otherwise have required hospital care, and still more patients could be discharged from hospital if suitable accommodation was available. Much time was spent in seeking rooms for patients and although an improved public attitude to mental health problems has been reported, it was not often evident when practical assistance was sought.

On the 31st December, 1957, there were 74 patients (29 male, 45 female) receiving regular after-care and the total number of visits made was:—

	1955	1956	**1957**
To investigate cases reported	439	520	**587**
To complete social histories	20	26	**16**
Community care visits	141	200	**531**

Psychiatric Social Club:

The club continued successfully throughout the year, meeting every Wednesday evening except on holiday dates, and had an average attendance of forty members. With the exception of the room at the Occupation Centre which was provided free by the Health Committee, the club has now become self-supporting. The club was run by a committee of elected members under the chairmanship of the Senior Mental Health Officer and a balanced programme of films, speakers, discussions and social events was maintained. The Consultant Psychiatrist was active in guiding the club and in conducting discussions assisted by the mental health staff, and by providing such a regular friendly meeting of patient, social worker and psychiatrist, the club has now established itself as an essential feature of the preventive and after-care service.

Mental Deficiency

Supervision:

After an initial visit by a mental welfare officer to explain the implications of supervision and to establish a satisfactory relationship, all new cases were visited by the Deputy Medical Officer of Health and the Senior Mental Health Officer for ascertainment and classification. As an example of the value of supervision, there may be quoted the legal action concerning an industrial injury to a boy under statutory supervision which resulted in an award of £4,250 damages plus a life disability pension. Action was later taken under Section 64 of the Mental Deficiency Act for the setting up of a Receivership, without certification, and the money is now helping to maintain the boy in a private home where he is very happy. Another boy admitted to a mental deficiency hospital two years ago after two Court actions for stealing, was enabled to be discharged under supervision early in the year and was satisfactorily resettled at home. These two cases clearly illustrate the practical value of supervision and when relatives and patients were ready to seek help and guidance as the need arose, the many routine visits were amply justified. Unfortunately there has been some resistance by otherwise well intentioned people towards supervision on the grounds that such work, which is the duty of a local health authority, carries with it some ill-defined stigma. Much patience is needed to dispel this suspicion. Assistance in dealing with employment and domestic problems was also given to patients under friendly supervision.

Regular visits were made by a medical officer to all cases under supervision who were not in employment or attending the Occupation Centre, and further advice and treatment was arranged for ailments which parents had missed or not considered serious enough to call in the family doctor. General practitioners co-operated where necessary and two problem cases were referred to Dr. D. J. Rose, Medical Superintendent of Brockhall Hospital for a consultant opinion.

A firm relationship has been established with the officers and members of the Bolton Society for Mentally Handicapped Children. The Society is anxious to be of practical value and through liaison with the department now include in their scheme of activities, certain selected mentally handicapped children whose parents are not members of the Society.

Reports on the home circumstances of patients at the request of hospitals when leave or discharge was under consideration were supplied, and patients on licence were supervised. Patients on licence from Brockhall Hospital were occasionally visited by the hospital social worker after discussion of the case with the Local Authority officer. The combined knowledge of the hospital background and the family and local conditions was used by the Local Authority to give the patient a better chance of rehabilitation.

Visits carried out for the purposes of the Mental Deficiency Acts were:—

	1956	**1957**
To defectives under community care ...	568	**612**
To homes at the request of hospitals ...	191	**206**

Four medical officers are approved by the Authority for the purposes of Sections 3 and 5 of the Mental Deficiency Act, 1913:—

The Medical Officer of Health
The Deputy Medical Officer of Health
An Assistant Medical Officer of Health
The Consultant Psychiatrist, Bolton and
District Hospital Management Committee

Mental Deficiency Acts, 1913-1938

New Cases Reported by—	Male	Female	Total
Local Education Authority			
Section 57(3) Education Act, 1944	1	3	4
Section 57(5) Education Act, 1944	10	7	17
Relatives	–	1	1
Other sources	1	1	2
Totals	12	12	24
Disposal of above cases—			
Placed under Statutory Supervision	12	11	23
Placed under Voluntary Supervision	–	1	1
Totals	12	12	24
Cases previously ascertained who became the subject of an Order during the year—			
Admitted to Hospital—Section 8	1	–	1
Admitted to Hospital—Section 6	1	2	3
Total cases dealt with:	14	14	28

The following table shows the total number of ascertained defectives with details of the care they were receiving at the 31st December, 1957:—

	Male	Female	Total
In Hospitals	106	97	203
In 'Place of Safety'	–	1	1
Under Statutory Supervision	84	99	183
Under Voluntary Supervision	10	3	13
Totals	200	200	400

Institutional Accommodation:

Allocation of vacancies in mental deficiency hospitals was again disappointing and only 4 patients were admitted during the year. One case was admitted after his second appearance before the Court and the waiting list showed a net increase of one patient by the end of the year. One patient on the waiting list is still detained in 'A Place of Safety' under Section 15 of the Mental Deficiency Act and 2 patients are in a Children's Hospital under informal arrangements made by the Regional Hospital Board. All the permanent beds allocated were for feeble-minded children and there appears to be a complete breakdown in the provision of beds for the low grade patients who are a strenuous burden in an ordinary home and most urgently in need of admission.

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

	Under 16 years		Over 16 years		Total
	Male	Female	Male	Female	
In Urgent Need:					
Cot and chair cases	–	–	1	1	2
Ambulant low grade	1	1	–	2	4
Medium grade	–	–	–	1	1
Not in Urgent Need:					
Cot and chair cases	2	2	–	–	4
Ambulant low grade	–	–	1	–	1
Medium grade	2	1	–	–	3
High grade	–	2	–	1	3
Totals	5	6	2	5	18

Short-term Care:

Every effort was made to assist the parents of patients on the waiting list and to give relief in an emergency, but in 2 cases out of 15 applications it was impossible to find any accommodation. Three patients were provided with care in private accommodation at the expense of the Local Authority and 10 patients were accommodated in National Health Service hospitals. Private homes do not cater for low grade defectives over the age of fourteen years and if the Regional Hospital Board cannot meet the need, no relief can be given. This again caused some distress when no accommodation was available during the period of the local holiday week, the only time during the year when both parents could benefit from a holiday free of anxiety.

Training of Defectives—Occupation Centre:

It was again necessary during the year to replace an assistant supervisor who resigned, by an untrained assistant, and with one assistant absent on the diploma course the staffing position was difficult for a short period. Nevertheless, by temporarily re-arranging the groups, the standard of training was maintained. The Centre was open from Monday to Friday each week with the exception of primary school holidays.

The staffing position on the 31st December, was:—

1 Supervisor
3 Female Assistant Supervisors
1 Male Assistant Supervisor
1 Part-time Guide Assistant
Part-time Cook and Domestic Staff

At the end of the year there were 36 persons (18 males and 18 females) on the register and the average daily attendance was 29. The average age of children reported on exclusion from the special school for educationally subnormal children over the last three years was eleven years and they have quickly benefited from training at the Centre, but 7 patients on the register are now over the age of sixteen years which is normally the upper age limit for attendance at the Centre, and a further 7 are between fourteen and sixteen years. Earlier ascertainment of ineducability would therefore seem desirable to give the children the benefit of Occupation Centre training at an early age, especially as it is possible to refer back to the Education Authority any child who may develop the ability to benefit from formal education.

The children in the junior section of the Centre were organised into a nursery group, a junior group and an intermediate group, and the schemes of work enabled the majority to progress through the groups as their ability and social behaviour improved until they were ready to move into an adult group. Hygiene, social training, speech therapy and eurythmics continued as a major part of the training of the junior group and remained as part of the curriculum even on transfer to the adult group.

Three girls over the age of sixteen years were given domestic and handicraft training and small payments were made to reward them for the work they performed.

The adult male unit developed steadily and included one patient on licence from hospital who is happily settled, but who would have been returned to hospital by his parents if this day-time facility had not been available. The craft work of this group included basket making, brush making, simple carpentry and mat making, and was also a most valuable contribution to the maintenance of the premises. A small kitchen garden helped to provide vegetables for use in the kitchen, but the outstanding performance by this group was the complete repainting of the outside walls of the building.

A special coach was used to transport the majority of the trainees to and from the Centre under the supervision of a member of the staff, and the provision of a mid-day meal for all was maintained as an essential feature of social training. A charge was normally made for the meal, but free meals were available in cases of financial hardship. Similar assistance was made to cover the cost of bus fares from districts where it was uneconomical to route the special coach.

Regular medical and dental inspections were carried out on all trainees and treatment arranged where necessary. A member of the staff of the Municipal Medical Baths attended each Monday morning and carried out bathing and hair washing to maintain a satisfactory standard of cleanliness.

The children were again taken to Southport for their annual day out and their behaviour and enjoyment was a rewarding tribute to the staff. A Harvest Festival Service was conducted by the Vicar of Harwood and the response of the parents both in gifts and attendance made it a pleasant social occasion.

'Open day' when visitors were able to see the normal routine of the Centre was well attended and on a separate afternoon a sale was made of the goods produced in the Centre when a sum approaching £40 was taken.

Future Development

The build-up of the Mental Health Service must continue to enable the Local Authority to meet its commitments when the recommendations of the Royal Commission are implemented. An additional mental welfare officer is likely to be appointed during 1958 and this will enable community care work for both the mentally ill and the mentally handicapped to be increased. Plans are already in hand for a closer integration of the social work of the Local Authority with social work for Bolton patients attending hospital out-patient clinics and those in Townleys Branch Mental Hospital.

No further development can take place with the adult male section of the Occupation Centre until further accommodation is available, but it has been decided to adapt the staff room of the Centre to accommodate the nucleus of a group of adult females. This group will concentrate initially on needlecraft, domestic training and handwork. A nominal amount has been provided in capital estimates for the financial year 1958/59 to represent the Authority's desire to build the new block for adults, and it is hoped that local and central approval will not be too long delayed.

In addition to these facilities, one of the most outstanding developments envisaged by the Royal Commission is the provision of suitable hostel accommodation for defectives in order to maintain them in the community. Local authorities will need to consider the fairly substantial financial implication of this recommendation.

PART III

CONTROL OF INFECTIOUS DISEASE

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence:

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

Disease	Total Cases Notified	No. of Cases after Correction	Ascertained Cases
Diphtheria	1	–	–
Dysentery	168	167	10
Acute Encephalitis	2	2	–
Enteric Fever (including Paratyphoid)	–	–	–
Erysipelas	22	22	–
Malaria	–	–	–
Measles	2,793	2,793	–
Meningococcal Infection	5	7	–
Ophthalmia Neonatorum	4	4	–
Pneumonia—			
Acute Primary	152	153	–
Acute Influenzal	151	151	–
Acute Poliomyelitis—			
Paralytic	4	4	–
Non-Paralytic	9	12	–
Puerperal Pyrexia	6	6	–
Scarlet Fever	133	131	–
Smallpox	–	–	–
Whooping Cough	74	73	–
Food Poisoning	145	150	6

The following table gives the number of notifications of notifiable diseases, after correction of diagnosis, during each of the last ten years.

Disease	1948	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Diphtheria	9	32	20	12	–	–	1	1	–	–
Dysentery	4	1	28	294	202	263	615	154	851	**167**
Acute Encephalitis	–	–	–	–	1	1	3	3	2	**2**
Enteric Fever (including Paratyphoid)	–	6	–	2	1	2	2	5	–	–
Erysipelas	48	36	30	24	39	22	34	30	32	**22**
Malaria	–	–	–	*1	–	*1	*1	*1	1	–
Measles	2360	522	1881	1800	2369	1308	672	2205	721	**2793**
†Cerebro-Spinal Fever	3	2	–	–	–	–	–	–	–	–
†Meningococcal Infection	–	–	3	2	–	7	4	1	3	**7**
Ophthalmia Neonatorum	3	2	1	1	–	–	2	2	3	**4**
‡Pneumonia	125	85	56	214	273					
Acute Primary						94	123	123	145	**153**
Acute Influenzal						21	33	20	13	**151**
§Acute Poliomyelitis	1	9	5	1						
Paralytic					8	1	1	7	8	**4**
Non-Paralytic					1	2	–	2	6	**12**
Puerperal Pyrexia	8	7	3	4	5	7	2	5	5	**6**
Scarlet Fever	636	296	149	448	351	246	149	74	94	**131**
Smallpox	–	–	–	–	–	–	–	–	–	–
Whooping Cough	363	431	583	278	220	593	167	244	319	**73**
Food Poisoning	–	–	4	46	54	66	53	1129	215	**150**

*Induced for therapeutic purposes in a man aged 47.

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

‡The figures prior to 1953 include all forms of pneumonia.

§The figures prior to 1952 include both forms of poliomyelitis.

Deaths from Infectious Diseases, 1948-1957 inclusive:

Disease	1948	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Diphtheria	–	–	1	–	–	–	–	–	–	–
Dysentery	–	–	–	–	–	–	–	–	2	–
Diarrhoea and Enteritis under 2 years of age	6	2	5	5	3	–	1	–	1	–
Acute Encephalitis	1	3	–	1	2	–	2	4	–	–
Enteric Fever (including Paratyphoid)	–	–	–	–	–	–	–	–	–	–
Erysipelas	–	–	–	–	–	–	–	–	–	–
Malaria	–	–	–	–	–	–	–	–	–	–
Measles	1	–	1	2	–	3	–	1	1	–
Meningococcal Infection	1	1	–	–	–	–	–	1	1	–
Ophthalmia Neonatorum	–	–	–	–	–	–	–	–	–	–
All forms of Pneumonia including—	72	64	78	103	74	112	51	69	65	127
Acute Primary Pneumonia						36	16	20	16	27
Acute Influenzal „						2	3	3	1	17
Acute Poliomyelitis	–	–	2	–	3	1	–	2	–	–
Puerperal Pyrexia	–	–	–	–	–	–	–	–	–	–
Scarlet Fever	1	–	–	–	–	–	–	–	–	–
Smallpox	–	–	–	–	–	–	–	–	–	–
Whooping Cough	2	2	2	–	1	1	–	–	–	–
Food Poisoning	–	–	–	–	–	–	–	2	–	–

Diphtheria:

One notification of diphtheria was received. However, subsequent investigation did not confirm the diagnosis. This is the second year in succession that no case of diphtheria has occurred in the borough. In the last six years there have been only two cases of diphtheria.

Dysentery:

The number of cases notified was 167. This is a much lower figure than in 1956 when the number of cases was the highest ever recorded in Bolton. All the cases proved to be due to Shigella sonnei.

There was not a single large outbreak during the year. One industrial nursery was the source of a small isolated outbreak. The proportion of children in the nursery who either had a positive faecal specimen or who had symptoms of dysentery was so high that it was thought wise to close the nursery for a time and, after thorough cleansing of the premises, re-admit children who were proved to be bacteriologically free from infection, or who had never had a positive faecal specimen or symptoms. These measures proved to be successful in limiting the outbreak, though it did necessitate several children being unable to attend the nursery for several weeks until they were bacteriologically free from infection.

Another limited outbreak occurred in a private nursing home and measures to limit the outbreak were readily agreed to by the proprietor of the nursing home. The majority of the cases were in elderly patients at the home, and the infection was introduced by an elderly man who was admitted to the nursing home suffering from diarrhoea.

There was no obvious concentration of cases in the first quarter of the year, which has been the experience in recent years, both locally and nationally. A similar number of cases occurred in each of the first three quarters of the year, but in the last quarter there was a marked reduction in the number of cases. Though the number of cases occurring has been smaller than the average number in recent years, once again the incidence of infection was greatest in the very young and the very old. The practice of young children infecting their hands after a visit to the toilet and then holding hands with other children contributes to the high incidence amongst children. A child who has held the hand of an infected child may then transfer infection to himself by handling his food or sucking his fingers, or he may acquire infection by his hands coming into contact with an infected lavatory seat. Disinfection of lavatory seats is carried out in all establishments where dysentery occurs. and this measure alone helps to reduce the number of cases.

Encephalitis:

Two cases of acute encephalitis occurred. A boy aged 4 developed encephalitis following an attack of measles and made a satisfactory recovery. A girl aged 15 was admitted to hospital suffering from influenza. She died on the following day from influenzal encephalitis.

Enteric Fever:

For the second year in succession there was no case of enteric fever. In the last ten years only occasional sporadic cases of paratyphoid fever occurred, but it is pleasing to record that not a single case has occurred for two years.

Malaria:

No case of malaria occurred, nor was malaria induced for therapeutic purposes in any individual.

Measles and Whooping Cough:

The increase in the number of notifications of measles which occurred towards the end of 1956 continued in the early months of 1957. The total number of cases notified was 2,793, and this is the highest number for many years. The usual epidemiological pattern which measles has of an epidemic in alternate years has been well demonstrated during the last decade, but calendar year figures do not show this as the increase in cases towards the end of one year continues into the early months of the next year.

Though there is no evidence of any over-all decrease in the incidence of measles, both the mortality rate and the morbidity show a progressive diminution. One boy developed encephalitis following measles but made a satisfactory recovery.

After correction of diagnosis, only 73 cases of whooping cough were notified. This is the smallest number of cases notified since 1942. Though it may be unwise to draw conclusions at this stage, it is to be hoped that the programme of immunisation against whooping cough which started in 1952 is now at least partly responsible for the small number of notifications.

Meningococcal Infection:

Seven cases of meningococcal infection were notified. All were cases of meningococcal meningitis. One male adult and six children made up the total number of cases. Four of the cases occurred during the month of October; all were children under the age of four. An enquiry revealed no connecting link between the cases which occurred at this time. All the patients recovered.

Poliomyelitis:

Sixteen cases were notified and confirmed. Four were paralytic and twelve non-paralytic. The first case of the year involved an adult female who was still in hospital at the end of the year and was severely paralysed. A boy aged three had a mild paralysis of the face. A girl aged seven had a mild degree of paralysis initially, but was greatly improved when she left hospital. An adult male suffered moderate paralysis but was sufficiently recovered to be discharged from hospital three weeks after the onset of the illness.

This is the highest number of confirmed cases since the epidemic of 1947, but it is noteworthy that the proportion of paralytic cases was smaller than in recent years. Details of these cases are given below.

Date of Notification	Sex	Age	Paralytic or Non-paralytic
7. 2.57	Male	12	Non-paralytic
9. 2.57	Female	13	Non-paralytic
26. 3.57	Female	36	Paralytic
16. 4.57	Male	7	Non-paralytic
2. 4.57	Female	6	Non-paralytic
9. 5.57	Female	9	Non-paralytic
20. 5.57	Female	8	Non-paralytic
23. 5.57	Female	6	Non-paralytic
23. 5.57	Female	3	Paralytic
29. 5.57	Female	6	Non-paralytic
8. 7.57	Female	7	Paralytic
9. 7.57	Male	4	Non-paralytic
15. 7.57	Female	5	Non-paralytic
23. 7.57	Male	6	Non-paralytic
3. 8.57	Male	15	Non-paralytic
14. 9.57	Male	21	Paralytic

Ophthalmia Neonatorum:

Four cases were notified. Each case responded to treatment and left no sequelae.

Puerperal Pyrexia:

Six notifications were received. All were mild in character.

Food Poisoning:

One hundred and fifty cases of food poisoning occurred. There was no large outbreak. On the whole, cases occurred sporadically throughout the year and there appeared to be no significant increase in notifications during the summer months. Though the number of cases was slightly less than in the previous year, and very much less than in 1955 when there was a large outbreak, nevertheless many of the cases which did occur could have been prevented if food handlers had been scrupulously careful about hand washing, including the use of a nail brush.

SMALL OUTBREAK IN CONNECTION WITH A FOOD SHOP:

On the 21st June three cases of food poisoning were notified affecting members of one family. Enquiries revealed that on the 18th June all were affected with severe abdominal pain, diarrhoea and vomiting. Also on the 21st June two members of another family were acutely ill with similar symptoms, and on the 22nd June a further family was affected.

Enquiries revealed that all the affected persons had purchased and consumed,from between 20 and 48 hours before the onset of symptoms, cooked meat from the same food shop.

It also came to our notice that four people who lived outside the borough had purchased similar cooked meat on the 20th June from the same food shop. Thirty hours after consuming the food all the members of this family were taken ill with vomiting and diarrhoea.

Each of these families had therefore eaten cooked meat which was purchased from the same food shop on either the 18th, 20th or 21st June, and all the members of each family became affected within 48 hours of having eaten the meat.

All the affected persons were asked to submit stool samples and five of the seven specimens were positive for Salmonella typhimurium. This organism was also grown from specimens submitted by the people who lived in the county area.

The food shop in question was visited and it was established that the meat purchased was roast beef cut from a joint which had started to be used on the 18th June. There was no history of any diarrhoea or other illness in any member of the shop staff, but stool samples were submitted. One sample proved to be positive for Salmonella typhimurium. A formal notice was issued excluding this person from work. No further cases occurred which appeared to have any connection with this particular food shop.

Influenza:

In the third week of August certain general practitioners in the town, who together form the "Influenza Spotter Team", were approached and asked to be on the alert for signs of influenza amongst their patients. Very quickly a family was reported where every member had an illness which clinically appeared to be influenza. A throat swab taken at the height of the illness, and also blood specimens, which were examined at the Public Health Laboratory, confirmed the presence of Influenza A (Asian variety). This was the first case in Bolton where the Asian virus was confirmed.

During the week commencing Monday, 2nd September, several more cases of a similar febrile illness occurred and these were taken to be cases of influenza.

Children returned to school on the 9th September after the summer holiday and in the first week of the term there was an exceptionally high attendance rate which was almost a record for the town. On the 16th September however, several head teachers telephoned the department to say that a considerable number of children were absent from school. The number increased rapidly on succeeding days, and the proportion of children absent on each day of this week was as follows:

16th September	...	16%	19th September	...	33%
17th "	...	18%	20th "	...	44%
18th "	...	25%			

The majority of children absent had influenza.

Enquiry was made at certain industrial undertakings and they reported an increase in the number of absentees but could not give exact figures.

The number of claims for sickness benefit received by the local branch of the Ministry of Pensions and National Insurance for the week ending Tuesday, the 10th September, was 554. This is the average number for this time of the year. In the week ending the 17th September 1,144 claims were received—more than twice the number for the previous week. It was therefore obvious by the middle of September that Bolton was experiencing an influenza epidemic which first became apparent amongst school children but rapidly affected all ages and all sections of the community, and resulted in a tremendous increase in the work of general practitioners, hospitals and local authority nursing staff. The virus was a new strain and was attacking a community which had never experienced it before, and therefore there was no immunity.

The schools continued to have large numbers of children absent and in the week commencing the 23rd September on each day more than half the children failed to attend school due to influenza. The school staffs were similarly affected, but the depleted staff managed to continue the education of the greatly reduced number of children.

A guide to the progress of the epidemic is provided by the sickness benefit claims for the weeks ending on the following dates:—

Sept. 10	Sept. 17	Sept. 24	Oct. 1	Oct. 8	Oct. 15	Oct. 22	Oct. 29	Nov. 5
554	1,144	3,754	4,833	3,133	1,672	1,000	817	670

It will be seen that the last week in September showed sickness claims almost ten times the normal rate. The epidemic could be said to have started in the second week in September, and did not finally abate until the first week of November.

Notifications of Influenzal pneumonia closely followed the above pattern and were as follows:—

Week ending—

Sept. 7	Sept. 14	Sept. 21	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Nov. 9
2	1	23	28	31	20	18	11	5	3

A total of 142 cases

Compared with the pandemic which occurred at the end of the first World War, this epidemic was, on the whole, mild, but a considerable number of deaths occurred which were associated with influenza. According to the death certificates, during the months of September, October and November, influenza was given as a primary cause of death or as a contributory cause of death in 60 cases. In 26 cases influenza was the primary cause of death. The distribution of deaths according to the date of death was as follows:—

In the week ending—

Sept. 7	Sept. 14	Sept. 21	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Nov. 9
0	0	4	9	17	13	10	2	4	1

Elderly persons were most severely affected and the majority of deaths occurred in persons over the age of 55. Out of the total number of deaths 44 were persons aged 55 and over. Many of the deaths occurred in persons who had chronic bronchitis and emphysema, or who had an underlying chronic cardiac condition. In many cases the onset of influenza was therefore the final insult to the chronic chest or incipiently failing heart of an elderly person. Chronic bronchitis, emphysema and cor pulmonale are conditions commonly

found in Bolton where the climate is unfavourable, and where our efforts to attain the goal of "clean air for all" is still in its infancy. The death certificates of the 60 persons who succumbed have been examined and of these 14 had chronic bronchitis or a similar condition, and 17 had a cardiac disorder. The distribution of the deaths and the age groups in which the majority occurred closely resemble the deaths produced by a period of smog, where again persons with chronic chest or chronic cardiac conditions are the principal sufferers. Not all the deaths, however, were amongst the elderly. One maternal death was due to influenza, and in four children under school age influenza was the primary cause of death.

School children and young adults appeared to be most tolerant of the infection, and though a large number were affected there was no mortality apart from the maternal death mentioned above and a girl aged 15 who died from acute influenzal encephalitis.

At the beginning of October the Ministry of Health made available a supply of influenza vaccine which was offered to general practitioners and members of local authority staffs who cared for the sick in their own homes. No vaccine was available for the general public. The numbers receiving a complete course of two injections were as follows:—

General practitioners	27
Home Helps	22
Health Visitors	16
Ambulance Staff	13
Home Nurses	5
	83

General Administration of the Control of Infectious Diseases:

Public health inspectors carried out 582 visits, and health visitors 69 visits to make enquiries concerning infectious diseases.

A total of 1,284 pathological specimens was collected and sent to the Department of Pathology at the Bolton Royal Infirmary for examination. The types of specimens examined and the results obtained are shown in the following table:—

Specimens	Pathogenic Organism Found	Positive	
Faeces	Sh. Sonnei	103	
	Salmonella typhimurium	55	
	Other Salmonellae	6	
	Staphylococcus aureus	6	
Rectal Swab	Sh. Sonnei	1	
	Number of negative specimens		1,074
Nasal Swabs	Staphylococcus aureus	5	
Eye Swab	Staphylococcus aureus overgrown by B. proteus	1	
Throat Swabs	B. haemolytic streptococci	2	
	Influenza A virus	1	
	Number of negative swabs		30
	TOTALS	180	1,104

Notices under the Public Health (Infectious Diseases) Regulations, 1953, were served upon five persons who were proved to be Salmonella carriers and who were food handlers. They were required to do no further work in food premises until they were proved to be free from infection. Three persons submitted claims for compensation, and £57 8s. 2d. was paid.

The following table shows the number of persons to whom special attention was directed in view of the fact that their occupations involved a higher risk of infection to others.

Category	Examinations for	
	Sonne Dysentery	Other Intestinal Infections
FOOD HANDLERS		
Positive	1	3
Negative	10	13
NURSERY STAFF		
Positive	–	1
Negative	1	–
HOSPITAL STAFF		
*Positive	3	1
Negative	3	3
SCHOOL STAFF		
Positive	–	–
Negative	1	–
HOME HELPS		
Positive	–	–
Negative	–	3
TOTALS ..	19	24

*Includes one district nurse.

Certificates were issued in accordance with the authority given to the Medical Officer of Health under Ministry of Health Circular 115/48 for the purpose of claiming National Insurance sickness payments in respect of three contacts or carriers of infectious disease who, because of the nature of their employment, were in a position to spread infection.

I would like to thank the staff of the laboratory at the Bolton Royal Infirmary for their willing help in examining so many specimens, and assistance in the interpretation of the findings.

TUBERCULOSIS

Dr. J. B. Mitchell, Consultant Chest Physician, has kindly supplied the following information.

Notifications:

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	–	3	5	7	13	11	8	5	55
Females.. ..	–	–	1	–	10	5	8	5	5	–	1	35
TOTALS ..	–	–	4	–	13	10	15	18	16	8	6	90

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	–	–	–	–	–	–	1	–	3
Females.. ..	–	–	3	–	1	1	–	1	1	–	1	8
TOTALS ..	–	1	4	–	1	1	–	1	1	1	1	11

At the end of December the number of cases on the tuberculosis register was 713. This is considerably less than the total of 1,227 on the register at the same date twelve months ago. This drastic change does not reflect any rapid improvement in the tuberculosis situation. It is entirely due to the fact that the tuberculosis register has been thoroughly overhauled. This operation took about six months to complete on the clerical side and at least two months' work on the part of the health visitors. However, it has been well worth it since we now have a register which is accurate and realistic.

The object of the survey was to remove from the register all those persons who had died or who had removed from the area, or for other reasons had been lost sight of. Such a review, unfortunately, had not taken place for many years. It will now be comparatively easy to keep the register accurate and up to date.

Deaths:

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	3	4	8
Females.. ..	–	–	–	–	–	–	1	–	3	1	1	6
TOTALS ..	–	–	–	–	–	–	1	–	4	4	5	14

There were 8 cases where tuberculosis was revealed from death certificates and where tuberculosis was the primary or contributory factor at death.

Non-Respiratory Tuberculosis

There were no deaths from this cause.

Summary of the Work of the Chest Clinic:

	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
No. of new cases notified	119	105	153	127	96	87	87	90	**101**
No. of deaths	65	43	48	47	24	26	18	16	**14**
No. of attendances of new cases	900	901	1,255	1,454	1,144	1,127	1,217	1,624	**1,722**
No. of cases referred from Miniature Radiography Units ..	31	4	4	148	10	49	463	20	**18**
Artificial Pneumothorax and Pneumoperitoneal Refills	1,414	1,455	1,498	2,351	2,200	2,115	1,692	956	**323**
B.C.G. Vaccinations ..	–	8	47	52	89	94	84	125	**96**
No. of Contacts examined	92	151	671	580	438	401	463	749	**689**
Total Attendances at Clinic	5,152	5,365	6,772	6,298	6,745	7,354	6,901	6,510	**5,674**

The above table although containing largely clinical information is useful in following the progress of the disease through the amount of work done at the clinic. Also, our health visitors and some of our medical officers are intimately concerned with the work of the chest clinic and with contact tracing and B.C.G. vaccination. Three health visitors are employed full-time on this work and 2 medical officers make it their special duty to assist.

Ascertainment of Cases:

Most of the cases were, of course, referred to the chest clinic by the family doctors for treatment or diagnosis and it is from this source that the bulk of cases were discovered. However, the activities of the chest clinic and the Health Department jointly can play a great part in discovering hitherto unsuspected cases, and consequently in cutting down the risk of further spread of the disease.

The examination of contacts of ascertained cases is an extremely important activity in this respect and during the year some 689 contacts were examined and 7 of them were found to have active tuberculosis. This work, although very time consuming, is obviously rewarding. Similarly, the routine X-ray of expectant mothers has produced good results. Of the 313 mothers who submitted themselves to X-ray, 2 were found to have active tuberculosis. In addition, the routine chest X-ray of tuberculin positive children found through the scheme for vaccination of school children, brings to light a number of cases requiring supervision. Another important method of ascertaining cases is by the use of mass radiography, but unfortunately, Bolton has no direct facilities for this kind of examination and we have to rely on periodic surveys.

General Comment:

Although the deaths from tuberculosis continue to diminish year by year as shown in the above table, there is no ground yet for complacency. Deaths

have no doubt been avoided by improved methods of treatment, but new cases notified still have not shown any striking decrease in number in Bolton since 1953. Bolton is not yet, therefore, following the pattern of the country as a whole in showing a decrease in the number of notified cases in the last few years.

An explanation of the maintenance of tuberculosis notifications is given by the Chest Physician in the following comment:—

> "Nearly all our patients are asymptomatic and many of them have never had symptoms at any time. Some there are who formerly would simply have been 'watched' radiologically, but today receive long-term chemotherapy sometimes combined with rest initially amounting to about three months off work. The bulk take P.A.S. and I.N.A. (or some derivative); the P.A.S. can be detected in the urine and such checking as we have done indicates that very few fail to take their medicine. Chemotherapy is given if there is any doubt about the activity of the lesions (in the knowledge that this removes the risk of relapse over five years and probably much longer). I take the view that these cases being treated with long-term chemotherapy should be notified and this may well account for the rise in the number of notifications over the past year. I am hopeful that we will reap the reward of this treatment within a few years."

Care and After-Care of Patients suffering from Tuberculosis:

AFTER-CARE PANEL:

The monthly Case Conference called with the object of arranging for the after-care of persons suffering from tuberculosis has continued to meet throughout the year. Members of the conference consist of medical officers of the chest clinic and the Health Department, and the nursing staff from the chest clinic with a representative from the Housing Department.

Twelve meetings were held during the year and 109 new cases were discussed. In addition, attention was paid to 106 cases discharged from the sanatorium and matters arising from any other case being dealt with by members of the conference were discussed if necessary. It was therefore possible to have the joint facilities of the chest clinic, Health Department and Housing Department available for each case of tuberculosis undergoing supervision or treatment.

The Authority do not run any scheme for the supply of cheap milk to tuberculous patients and most of the physical after-care requirements of necessitous cases are dealt with by the National Assistance Board. There are, however, a few cases not eligible for National Assistance and yet having a genuine need. During the year the Authority made provision for the following cases:—

1 patient was supplied with additional bedding.

1 patient received a grant towards the cost of a suit to enable him to take advantage of training facilities.

1 patient who was in a sanatorium was supplied with two pairs of pyjamas.

A widower was supplied with bedding and clothes for his two children.

REHOUSING:

During the meetings of the After-Care Panel, rehousing is considered where necessary on grounds of tuberculosis. During the year 26 cases were recom-

mended by the Medical Officer of Health to the Housing Department for rehousing on tuberculosis grounds and 14 cases were actually rehoused.

OTHER AFTER-CARE GIVEN:

The Home Nursing Service undertook the care at home of 179 patients most of whom required streptomycin injections. Some of these patients did, when convenient, attend at the Health Department for their injections.

The Home Help Service assisted 7 patients. Sick room requisites were loaned from the Health Department store without charge.

Three children were admitted to residential nurseries by arrangement with the Children's Officer.

The tuberculosis health visitors paid 2,445 home visits during the year.

Members of the After-Care Panel are very appreciative of the help given to them by the officers of the Ministry of Labour and National Assistance Board in respect of a number of cases during the year.

B.C.G. Vaccination of School Children:

All schools in the town with children of the appropriate age groups were visited by one of two medical officers trained in this work. The children concerned were all offered tests and vaccination if necessary. A total of 1,771 children were given a Mantoux Test using Old Tuberculin (10 TU) and of these 49 were absent for the reading of the test. Of the remainder 486 gave a positive reaction—27.4% which is a lower figure than that recorded in previous years. Consent for X-ray was given in respect of 451 children of this group. Thirteen films showed the following abnormalities:—

6 Calcified Primary Complexes (R)
1 Calcified Primary Complex (L)
1 Calcified Left Para Tracheal Gland
1 Azygos Lobe
1 Large Bilateral Cervical Rib
1 Bifid Second Rib (R)
1 Small Dorsal Rib (L)
1 Slight crowding of the vascular markings in the region of the left lingula. This child has a history of cough and loss of weight and is now under the care of the chest physician

The number of children who gave negative reactions was 1,236. Of these only 3 children were not vaccinated for the following reasons; one parent refused, one child has psoriasis, and another child was too nervous to vaccinate.

ANALYSIS OF POSITIVE REACTORS BY AGE GROUP

AGE GROUP	TOTAL NO. OF CHILDREN	NO. FOUND POSITIVE	% POSITIVE
12 years	54	17	31.4
13 ,,	1,380	369	26.6
14 ,,	337	100	29.6
ALL AGES:	1,771	486	27.4

Mass Radiography:

Apart from the periodic surveys carried out by Mass Miniature Radiography Units in Bolton at intervals of three or four years, no service is available to the general public. Cases requiring mass radiography must travel great distances to various places where the radiography units may, for the time being, be stationed. This is most inconvenient and does not lend itself to an adequate ascertainment of the cases in the town. I am strongly of the opinion that these units should be static and this view has been strengthened by Ministry of Health circular H.M. (57) 94.

Following on the receipt of this circular an approach was made to the Regional Hospital Board by the Corporation with the object of ensuring that at least one mass radiography unit would be stationed in Bolton to serve Bolton and the surrounding area. The Corporation went so far as to make available premises in the centre of the town which would have been ideal for this purpose, at least for a trial period and possibly permanently. Unfortunately the action we took in this matter appears to have been far too rapid to have been taken advantage of by the Regional Hospital Board and they were unable to give any firm assurance about the future of mass radiography in this area. Consequently the plan had to be dropped and if anything does happen in the future it is likely that the unit, if it becomes static, will be set up in hospital premises, always assuming that such accommodation is available.

This is a most unsatisfactory state of affairs. The Corporation and the whole of the medical profession in the town have expressed a desire to have a static mass radiography unit at least for a trial period. The fact that these wishes cannot be met is just one more example of the difficulties which arise when there is divided control over the efforts needed to deal with any particular aspect of the medical services.

VENEREAL DISEASE

Dr. Philip S. Silver has supplied the following information which relates to Bolton residents only in attendance at his clinic.

The total number of new cases of venereal disease from the County Borough of Bolton showed a decrease of 34 compared with last year.

There were no cases of primary syphilis at all. In fact, all cases of syphilis were cases in which the disease had been present for several years. The total number was 22 cases, which is much the same as the previous year. There were no cases of congenital syphilis under the age of 15 years and this again proves that the policy of routine ante-natal blood testing is becoming increasingly effective. Out of 21 cases referred from the ante-natal clinics for investigation at the diagnostic clinic, only 5 were found to be actually suffering from syphilis. It is to be expected that the number of cases of syphilis discovered in the borough will decrease slowly over the next ten years.

There were 55 cases of gonorrhoea attending the clinic and it is not expected that these numbers will significantly decrease during the ensuing years. A large proportion of cases are being treated by general practitioners without reference to the clinic and therefore the tracing of contacts is made more difficult.

The following table summarises the situation for the past twelve years:—

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Syphilis	151	162	113	97	93	44	58	48	36	43	23	**22**
Gonorrhoea	237	125	102	104	77	80	64	50	60	75	58	**55**
Non-Venereal Disease ..	473	390	463	449	481	405	334	316	333	237	286	**256**
TOTALS ..	861	677	678	650	651	529	456	414	429	355	367	**333**

Members of the clinic staff carried out 147 domiciliary visits during the year for ascertaining the cause of non-attendance.

It will be noted that although there is a decrease in the total number of cases, this has taken place practically entirely in the non-venereal patients and it is to be expected that any major increase or decrease in patients attending the clinic in the future will take place in this category.

PART IV

ENVIRONMENTAL HYGIENE

Work of the Public Health Inspector

Housing and Slum Clearance

Air Pollution

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Report by the Borough Analyst

Statistical Tables

WORK OF THE PUBLIC HEALTH INSPECTOR

Staff:

The improvement in the staffing position achieved during 1956 continued through 1957 although at the end of the year the establishment was not completely filled. At the end of the year the staff comprised:—

Chief Public Health Inspector

Deputy Chief Public Health Inspector

3 Specialist Food Inspectors

1 Specialist Smoke Inspector

5 Specialist Housing Inspectors (1 vacancy)

1 Specialist Food and Drugs Sampling Officer

12 District Public Health Inspectors (4 vacancies)

6 Pupil Public Health Inspectors

SCHOOL HILL DISINFECTING STATION

Foreman

5 Rodent Operatives

The scheme for the training of full-time pupil inspectors has continued to prove its usefulness. During the year two pupils passed their qualifying examination and were duly appointed to positions as district public health inspectors in the department.

Complaints:

The following complaints were received and investigated.

Housing defects	1,107
Choked and defective drains	465
Accumulations of offensive matter	120
Relative to unsound food	228
Verminous premises:—	
(*a*) Bed Bugs	14
(*b*) Rat and mouse infestations	676
(*c*) Cockroaches and other insect pests	43
Keeping of animals and poultry	8
Miscellaneous	310
TOTAL COMPLAINTS	2,971

Standing Commitments:

Premises Subject to Routine Inspection

Type of Establishment	No. of Premises
Common lodging houses	2
Houses-let-in-lodgings	188
Movable dwellings	38
Bakehouses	375
Basement bakehouses	5
Fish friers	208
Registered premises, Sec. 16 Food and Drugs Act, 1955	957
Industrial canteens	105
Other catering establishments	95
Miscellaneous food preparing premises	82
Ice cream premises—manufacture	35
„ „ „ —sale only	664
Meat shops	218
Slaughterhouses	6
Dairies	11
Milk shops	738
Food shops	1,400
Licensed premises (On-)	316
„ „ (Off-)	126
Food Stalls	150
Vehicles—Meat	15
„ —Milk	165
Factories (Mechanical)	994
„ (Non-Mechanical)	121
Shops	996
Outworkers' Premises	32
Factory chimneys	210
Hairdressers' premises	274
Places of entertainment	44
Clubs	39
Offensive trades	12
Registered premises, Rag Flock & Other Filling Materials Regulations, 1951 & 1954	17
Pet shops (Pet Animals Act, 1951)	13

Detection of Sanitary Defects:

Summary of Visits and Inspections

Nature of Visit	No. of Visits
Dwelling-houses for housing defects under Public Health Act:—	
After complaint	2,149
Subsequent visits	4,569
Dwelling-houses under Housing Acts:—	
Detailed inspections	507
Re-inspections, re-visits	3,606
Certificates of Disrepair	243

Nature of Visit	No. of Visits
Infected dwelling-houses:—	
After notified infectious disease (other than tuberculosis)	536
Contacts	46
Schools and church halls	43
Swimming baths	19
Water sampling:—	
Swimming baths	19
Dwelling-houses	11
Business premises	921
Cinemas, dance halls, billiard halls	21
Offensive trade premises	48
Stables, piggeries, keeping of animals	243
Houses-let-in-lodgings	390
Factories Acts, 1937 and 1948:—	
Factories with mechanical power	1,029
Factories without mechanical power	183
Outworkers' premises	51
Common lodging houses	5
Underground rooms	10
Hairdressing premises	214
Tents, vans and sheds	38
Smoke abatement:—	
Boiler house surveys	37
re Prior Approval applications	23
re Smokeless Zones	461
Smoke observations	377
Smoke investigations	43
Revisits	24
Combustion readings	56
Deposit gauge visits	276
Fairgrounds	17
Drainage:—	
Conversion from waste water to water carriage system	958
Miscellaneous tests and inspections	533
Public sewers	17
Watercourses and ditches	23
Land and tips	65
Septic tanks and cesspools	80
Sanitary conveniences—including public houses	40
Miscellaneous visits	2,528
Visits not inspections	2,129
Verminous premises:—	
Rats and mice:—After complaint or from survey	1,929
Subsequent and survey visits	8,260
Bug infestations:—No. of premises visited	58
No. of premises where definite infestation existed	48
Cockroaches	373
Other Vermin	41

Nature of Visit	No. of Visits
Inspections for supervision of food:—	
Unfit foodstuffs other than meat	603
Slaughterhouses and cold stores	1,964
Butchers shops (Public Health (Meat) Regulations, 1924-1952 and Food Hygiene Regulations, 1955)	273
Food Hygiene Regulations, 1955:—	
Bakehouses	648
Fish shops, grocers and greengrocers	4,157
Factory canteens	250
Restaurant kitchens, fish friers, etc.	599
Hotel and beerhouse bars and cellars:—	
Day inspections	802
Night inspections	15
Food and Drugs Act, 1955—Section 16:—	
Ice cream premises (Heat Treatment Regs. 1947-1952)	92
Sausage manufacturers	51
Preserved meat preparation premises	24
Preserved fish preparation premises	3
Milk and Dairies Regulations, 1949: Food and Drugs Act, 1955—Section 91:—	
Milk sampling for bacteriological examination	75
Contraventions of Milk and Dairies Regulations	—
Dairies	289
Shops Act, 1950—Section 38	251
National Assistance Act, 1948—Section 47	—
Diseases of Animals Acts and Orders	227

Notices Served:

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

Nature of Notice	Public Health Act 1936	Food Hygiene Regulations 1955	Factories Acts 1937 and 1948	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	822	745	141	47
No. of informal notices complied with without recourse to statutory action	284	1,009	143	32
No. of statutory notices served	586	–	–	–
No. of premises concerned	455	–	–	–
No. of statutory notices complied with	462	–	–	–
No. of premises concerned	389	–	–	–
No. of cautionary letters sent by Town Clerk	148	–	–	–

Outstanding notices from previous year are included.

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 result of such proceedings, is given below:—

Case No.	Statute	Details of Contravention	Result
1	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters.	Nuisance Order made against agent and fine of £5 imposed.
2	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective rear eavesgutter.	Nuisance Order made against owner and fine and costs of £1/11/6 imposed
3	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against owner.
4	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of plaster, damp proof courses and drainage.	Nuisance Order made against owner and fine and costs of £2 imposed.
5	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made and costs awarded to the Corporation.
6	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of perished wall and ceiling plaster.	Nuisance Order made against owner and costs of £2/2/6 imposed.
7	Public Health Act, 1936 – Sections 39 and 95	Failure to comply with Nuisance Order.	£1 fine imposed plus 1/- per day for 58 days for failure to comply with statutory notice.
8	Public Health Act, 1936 – Section 39	Failure to comply with statutory notice in respect of drainage repairs.	Fine and cost of £2/10/- imposed.
9	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of defective plaster and window sills.	Nuisance Order made and costs awarded to the Corporation.
10	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of defective plaster and chimney stacks.	Nuisance Order made and costs awarded to the Corporation.
11	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters.	Nuisance Order made and costs awarded to the Corporation.
12	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters.	Nuisance Order made and costs awarded to the Corporation.
13	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective rainwater pipe.	Nuisance Order made and costs awarded to the Corporation.
14	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters.	Nuisance Order made and costs awarded to the Corporation.

Case No.	Statute	Details of Contravention	Result
15	Public Health Act, 1936 – Section 95	Failure to comply with a Nuisance Order.	£1 fine imposed.
16	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects.	Nuisance Order made and costs of 16/6 imposed.
17	Public Health Act, 1936 – Section 95	Continued failure to comply with a Nuisance Order.	£1 fine imposed.
18	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective plaster and stairtreads and defective eavesgutter.	Nuisance Order made and costs awarded to the Corporation.
19	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutter and rainwater pipe.	Nuisance Order made and costs awarded to the Corporation.
20	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective plaster and eavesgutters.	Nuisance Order made and costs awarded to the Corporation.
21	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters.	Nuisance Order made and costs awarded to the Corporation.
22	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective plaster and brickwork and defective eavesgutter.	Nuisance Order made and costs awarded to the Corporation.
23	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective brickwork and eavesgutter.	Nuisance Order made and costs awarded to the Corporation.
24	Public Health Act, 1936 – Sections 45 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective sanitary accommodation.	Nuisance Order made and costs awarded to the Corporation.
25	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective brickwork and eavesgutters.	Nuisance Order made and costs awarded to the Corporation.

In addition, thirty-four summonses were issued but withdrawn due to the works having been completed 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	568
Internal walls repaired	815
Ceilings repaired	599
Doors and windows repaired	493
Stairs repaired	10
Roofs repaired	170
Chimneys and flues repaired	58
Eavesgutters repaired	202
Rainwater pipes repaired	106
Soil and waste pipes repaired	29
External walls repaired	56
Yards, paths, etc., repaired	6
Sanitary conveniences repaired	503
"Tippler" closet conversions	5
Refuse accommodation	78
Drains repaired	170
Fireranges repaired	24
Sinks, water supplies, wash boilers, etc., repaired	3,119
Lighting, ventilation and decoration	709
Miscellaneous	948

HOUSING AND SLUM CLEARANCE

Clearance Areas:

The Bolton (School Hill Nos. 1, 2 and 3) Compulsory Purchase Orders, 1956, and the Bolton (Prince Street Area) Clearance Order, 1957, were submitted to the Minister of Housing and Local Government on the 21st June, 1956. After a Public Inquiry on the 4th December, 1956, the Orders were confirmed with minor modifications. An official representation concerning the Bolton (Bradford Ward No. 1) Compulsory Purchase Order, 1958, was confirmed by the Council on 4th December, 1957. This area, with adjacent properties which it is necessary to purchase to secure the proper redevelopment of the cleared area, includes 328 dwelling houses and 38 combined shops and dwellings and other business premises. Approximately 843 persons will require rehousing.

Deferred Demolition:

The following orders were confirmed by the Minister during the year.

Bolton (Moss Street No. 1) Compulsory Purchase Order, 1956
" (Moss Street No. 2) " " " "
" (Moss Street No. 3) " " " "
" (Old Road) " " " "
" (Raglan Street) " " " "
" (Greenhalgh Street) " " " "
" (Phoenix Street) " " " "
" (Rossini Street) " " " "
" (Progress Street) " " " "

The first five of the above Orders were unopposed and were confirmed without a Public Inquiry. The remainder were the subjects of a Public Inquiry by the Ministry of Housing and Local Government on 14th May, 1957. The Progress Street Compulsory Purchase Order was confirmed with modification (one house being excluded). The other Orders were confirmed as submitted.

During the year inspections were commenced to deal with the second year "Deferred Demolition" area in accordance with proposals submitted by the Council to the Minister of Housing and Local Government under Section 1 of the Housing Repairs and Rents Act, 1954.

House-to-House Inspections:

It is the duty of every local authority to cause an inspection of their district to be made from time to time according to Section 3 of the Housing Act, 1957. For this purpose detailed housing inspections were carried out which are supplementary to the considerable slum clearance programme prepared by this local authority in 1955. The supplementary inspections will eventually provide detailed information on all the substandard properties in the borough, enabling the appropriate action to be taken under the Housing Acts, either (*a*) to render the houses fit for human habitation by the execution of works, (*b*) to close or demolish them as individual unfit houses, or (*c*) to deal with them by means of Clearance Areas or Compulsory Purchase Orders.

Enquiries from purchasers of Houses:

This department continues to give information to intending purchasers of houses within the borough as to properties included in the slum clearance programme. The Council's slum clearance programme is in respect of unfit houses to be dealt with by way of clearance areas in the five years 1956 to 1961, or which are intended to be the subject of demolition or closing orders.

Compensation:

There are two ways in which compensation is being paid in respect of unfit houses dealt with in the borough. One is compensation for property kept in good repair by the tenant or the owner and is known as a "well maintained" grant.

Compensation is also paid in respect of certain unfit houses, in accordance with the provisions of the Slum Clearance Compensation Act, 1956 (now replaced by Section 30 of the Housing Act, 1957), which are the subject of compulsory purchase, clearance, demolition or closing orders.

Certificates of Disrepair—Housing Repairs and Rents Act, 1954 and Rent Act, 1957:

Between the period 1st January, 1957 and 6th July, 1957, 12 applications for certificates of disrepair under Sections 23 and 26 of the Housing Repairs and Rents Act, 1954, were received; all the applications were granted and certificates were issued. Three applications for revocation of certificates in accordance with the 1954 Act were received; in two cases the certificates were revoked, but in the remaining case revocation was refused.

As from the 6th July, 1957, and up to the end of the year the procedure for issuing (and revoking) certificates of disrepair was that laid down in the Rent Act, 1957. The procedure, briefly, is as follows—(*a*) tenant serves notices of defects on landlord (Form G), (*b*) landlord has opportunity within next six weeks of submitting undertaking (Form H) to remedy defects. Such undertaking must relate to all defects notified on Form G unless landlord has secured tenant's written approval to a modification of Form G, (*c*) if no undertaking is given by landlord within six weeks tenant may apply to Council (Form I) requesting the issuing of a certificate of disrepair; a fee of 2/6d is payable with the application, (*d*) if the Council are satisfied that the application is in order, and that the defects enumerated by the tenant ought reasonably to be remedied, having regard to the age, character and locality of the house, a notice is served upon the landlord (Form J) informing him that the Council propose to issue a certificate of disrepair unless an undertaking (Form K) is given by the landlord within twenty-one days to remedy the defects listed in Form J, (*e*) if such an undertaking (Form K) is given by the landlord within twenty-one days allowed and relating to all the defects listed in Form J no certificate of disrepair can be issued. The landlord has then, in effect, six months in which to carry out the necessary repairs. If he has not done so within the six months allowed, the tenant may make a further application (Form O) for a certificate to the effect that the landlord has failed to comply with his undertaking; such a certificate, if granted, protects the tenant in respect of rent increases in the same way as a certificate of disrepair (the landlord can, of course, if he so wishes, also apply for a certificate to support his claim that the necessary repairs have, in fact, been carried out), (*f*) if a satisfactory undertaking on Form K is not given by the landlord, a certificate of disrepair (Form L) is issued to the tenant and a copy is also served upon the landlord. This certificate protects the tenant in regard to rent increases until such time as the certificate has been cancelled, (*g*) the landlord may at any time apply (Form M) for cancellation of the certificate of disrepair. His application is submitted to the Council and a notice (Form N) is then served upon the tenant, giving an opportunity for the tenant to object within the ensuing twenty-one days to the cancellation of the certificate. If no objection is entered by the tenant and the Council being satisfied that the repairs have been satisfactorily completed then the Council are obliged to cancel the certificate of disrepair. If an objection is entered by the tenant the case is again considered by the Council, the decision depending, of course, upon the facts of the case.

It is quite obvious from the above brief summary that the issuing and revoking of certificates of disrepair is a much more involved matter than was formerly the case. The present procedure, for example, requires the tenant to enumerate the defects which require attention, whereas previously it was the local authority's duty to decide what repairs were required; there is a considerable increase in the number of forms required by tenants, landlords and local authority alike, each one of which creates possibilities of errors due to legal or technical formalities not being complied with; while from an administrative point of view a case requires more close observation and diligent follow-up by the inspectorial and clerical staff than was previously the case.

The table opposite gives details of the number of applications received for certificates of disrepair under the 1957 Act and the results of such applications. All the decisions not to issue certificates were based on various technical irregularities in the service of the necessary forms by tenants, e.g., forms not signed; address of house not stated in form; applications submitted too early;

and so on. In some cases certificates could not be issued because the defects were not specified sufficiently clearly. It will also be noted that the great majority of certificates issued were in respect of some, but not all, of the defects listed in tenants' Forms G, this again being mainly due to inaccurate descriptions of defects.

In view of the fact that large numbers of applications for certificates were anticipated it was felt that special committee arrangements were necessary to ensure that applications could be dealt with as expeditiously as possible. For this reason a new Sub-Committee was set up to deal with all matters pertaining to the issuing and revocation of certificates of disrepair. The Sub-Committee has met twice monthly, i.e. at the rise of the Health Committee, and at the Insanitary Areas and Premises Sub-Committee respectively. Although the number of applications so far received has not been as great as was at first expected, this may perhaps be due to the fact that many landlords and agents are known to have given large numbers of Form H undertakings (i.e. undertakings to remedy defects within six months). Where such an undertaking has been given no application for a certificate of disrepair can be made and it is not until the six months have fully expired that the tenant is able to take any further action in the matter. It will be obvious, of course, that this situation cannot arise until the early months of 1958. It is, however, clear that the considerable number of applications likely to arise either for certificates of disrepair or for certificates as to the carrying out of landlords' undertakings will involve the inspectorial and clerical staff in a considerable amount of work.

Applications for Certificates of Disrepair

Number of applications for certificates		205
Number of decisions not to issue certificates		39
Number of decisions to issue certificates:		
(*a*) in respect of some but not all defects	140	
(*b*) in respect of all defects	26	
	——	166
Number of undertakings given by landlords under paragraph 5 of the First Schedule		37
Number of undertakings refused by local authority under proviso to paragraph 5 of the First Schedule		2
Number of certificates issued		129

Applications for Cancellation of Certificates

Applications by landlords to local authority for cancellation of certificates	13
Objections by tenants to cancellation of certificates	1
Decisions by local authority to cancel in spite of tenants' objection...	—
Certificates cancelled by local authority	3

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:—

NEW ACTION:

Houses represented under Section 11 of the Housing Act, 1936 and Section 16 of the Housing Act, 1957	109
Demolition Orders made	103
Closing Orders made	59
Undertakings not to re-let for human habitation	—

COMPLETED ACTION:

Houses demolished	118
Persons rehoused	314
Houses closed	51
Persons rehoused	139
Cases pending at close of the year	44

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. Dwelling-houses inspected for housing defects (under Public Health Act or Housing Acts)	2,899
Inspections made for the purpose	11,074
2. 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	507
Inspections made for the purpose	507

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	284

ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936

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

By owners	385
By local authority in default of owners	4

HOUSING ACT, 1936

No action under Sections 9, 10 or 16.

AIR POLLUTION

Several of the provisions of the Clean Air Act, 1956, have been in operation since the 31st December, 1956, and it is expected that the remainder of the Act will become operative early in 1958. The more important matters now able to be dealt with by all local authorities are—

(*a*) The declaration of smoke control areas; the provisions for payment of grants in respect of expenditure incurred in domestic premises on the conversion or replacement of fireplaces. The definition of fireplaces includes any furnace, grate or stove, but the Ministry grant is restricted to domestic premises. However, the local authority may, if they think fit, give financial assistance to certain places of public religious worship, church halls and premises concerned with the advancement of religious education or social welfare.

(*b*) The local authority must be notified where it is proposed to instal any new industrial furnace or other new furnace designed to provide more than 55,000 B.Th.U's. per hour.

(*c*) Proposals under (*b*) may, if the applicant so desires, be submitted with plans and specifications to the Council for the purpose of obtaining the local authority prior approval of works contemplated. It will be remembered that in Bolton this procedure has been operative under private legislation since 1949, and although the majority of applications for prior approval are able to be dealt with by the Public Health Inspectors, in those cases where complicated problems are involved a prior approval panel is consulted. This panel has continued to be of service and the membership is unchanged, comprising:—

The Medical Officer of Health
The Chief Public Health Inspector
The Borough Architect
The Borough Engineer
Mr. G. Gill, Area Engineer, North West Area,
National Industrial Fuel Efficiency Service
Mr. L. Shufflebotham, Combustion Engineer,
Fine Spinners and Doublers, Ltd.
Mr. S. N. Duguid, Consulting Engineer.

Notification of New Installations:
Prior Approval of Installations:

There were fourteen notifications of intention to instal new furnaces and in eight cases additional requests were made for the Council's prior approval of the plant. Seven of the plans and specifications were approved, but in the remaining case the advisory panel recommended that approval be withheld.

Smoke Control Areas:

A new Smoke Control Order in respect of an area comprising 58 acres of mixed industrial and residential development was approved by the Minister of Housing and Local Government and will become operative on the 1st June, 1958.

Another area of 2.1 acres which is being developed by the Council for residential purposes received approval in principle by the Minister.

Both these areas are contiguous with the existing town centre smokeless zone (86 acres) making a total of 146 acres.

Smoke Observations—Industrial Premises:

In addition to routine observations, 377 official half-hour smoke observations were taken. The results are summarised as follows:—

Black Smoke Emission		No. of Observations
Nil	Minutes*	300
Nil to ½	,,	24
½ to 1	,,	14
1 to 1½	,,	14
1½ to 2	,,	7
2 to 3	,,	11
3 to 4	,,	3
4 to 5	,,	Nil
5 to 10	,,	4
Over 10	,,	Nil
	Total:	377

*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."

Where the observation showed a contravention of the byelaws the plant was visited and advice and assistance were given. Except where the emission was found to have been the unavoidable result of a plant breakdown a notice under section 102 of the Public Health Act, 1936, was forwarded to the firm concerned and the circumstances of the case reported to the next meeting of the Health Committee. In two cases statutory notices were served under section 103 of the Public Health Act, 1936.

In sixty-seven cases following official half-hour observations, visits were made to the boiler plants concerned and appropriate advice was given with a view to securing reduced smoke emission.

Measurement of Density of Smoke:

The recording of atmospheric pollution has been continued and it can be said that there has been an appreciable reduction in the amount of deposit collected in the deposit gauges expressed as an average for the town as a whole, compared with previous years. The following instruments for the purpose of measuring air pollution were in use prior to September, 1957—six deposit gauges, three lead peroxide instruments and one instrument for measuring volumetrically sulphur dioxide and smoke. These are still utilised, the results obtained being sent each month to the Department of Scientific and Industrial Research, as Bolton is a member of the Standing Conference of Co-operating Bodies.

Since September, 1957, nine additional volumetric air sampling instruments have been installed in accordance with a specially prepared plan at selected points in the borough. As research of this kind requires mathematical planning, assistance has been obtained from a statistician, Mr. H. Johnson, employed by the Esso Petroleum Co., Ltd.

The situation of the stations is as follows—

1. Boot Lane
2. Astley Street
3. Tonge Moor
4. Lostock Open Air School
5. Civic Centre
6. Withins Clinic
7. Lock Lane
8. Grecian Mill
9. Darcy Lever

and can be seen opposite page 3. The sites are so arranged as to form a grid in the shape of three parallel lines across the town, there being three stations on each line, making a total of nine instruments which are in continuous use day and night. The Health Department is obliged to the following for permission to install the apparatus—

Education Committee
Bolton Co-operative Society, Ltd.
Fine Spinners and Doublers, Ltd.

The purpose of the research on air pollution in Bolton is to obtain information as to existing air pollution for comparison with changes envisaged as a result of the new legislative requirements of the Clean Air Act, 1956. The invisible pollutants, such as sulphur dioxide and certain other chemicals which are believed to be of importance in the incidence of cancer of the lung and other respiratory diseases, are of special interest. The records now being obtained show the level of air pollution having regard to prevailing winds at points entering the borough from adjacent districts, in the most congested parts of the town and also at points where the pollution leaves Bolton.

At each of the nine selected sites, the apparatus installed is that normally used for the volumetric determination of sulphur dioxide and total impurities in the atmosphere.

By means of an electric pump, air is drawn from outside through glass tubing, the volume of air being regulated by the pump and measured on a gas meter, to yield approximately 50 cubic feet of air in every 24 hours.

The air passes through a filter paper (Whatman No. 1) on which the total impurities leave a stain, the intensity of which is dependent upon the amount of impurities suspended in the air. After passing through the filter, the air is drawn through a solution of hydrogen peroxide by way of a sintered glass bubbler, and the concentration of sulphur gases determined by direct titration. The above determinations are carried out by the Public Analyst each day (apart from weekends).

The filter papers bearing the impurities are retained until sufficient concentrations are available for the estimation of certain hydrocarbons. By extraction of the stains with solvents, followed by chromatographic separation of the fractions and spectrophotometric determinations in a Unicam S.P. 500 instrument, the estimations of the various hydrocarbons and other chest irritants will be of some assistance in assessing the extent of atmospheric pollution of this type. The density of the stains is measured by a photoelectric reflectometer which gives a more accurate reading than the older visual comparator.

The chemicals of interest in this connection are—pyrene; 3 : 4 benzpyrene and 1 : 12 benzperylene.

Some of the factors taken into consideration when deciding the position of each site were the direction of the prevailing wind; the provisional redevelopment plan; the Council's programme in relation to slum clearance for the next five years, and the probable extension of smoke control areas in the same period.

Information is received daily giving the meteorological conditions in the borough and the co-operation of Mr. A. Hazelwood, Curator of Museums and Meteorologist, is appreciated. Each month statistical information obtained is being correlated and, in addition, concurrently with the investigation of air pollution in the technical sense, information is also prepared as to mortality rates from respiratory diseases, such as bronchitis, which are of special significance. For this purpose liaison has been effected with the Medical Research Council—Group for Epidemiological Research on Respiratory Diseases (Air Pollution), The University, Sheffield. Tables 3 to 7 on pages 144 and 146 show the progress made in determining the level of air pollutants. Although it is too early to draw conclusions from the results it would appear that generally speaking smoke pollution in the shape of total impurities suspended in the air bears a close relationship to the concentrations of the various hydrocarbons which are potentially carcinogenic. The distribution of pollution by sulphur dioxide does not follow the same trend and so far the peak concentration seems to be at stations 2, 5 and 8 in a median line across the borough. If this trend is maintained it is intended to carry out further investigation to determine the circumstances responsible for the peak concentrations.

Education and Publicity:

In addition to the excellent work carried out by the National Industrial Fuel Efficiency Service in conducting classes for stokers during the daytime it was found to be desirable to organise an evening course, at the Bolton Technical College, serving the dual purpose of preparing students for the intermediate and final examinations of the London City and Guilds Certificate in Boiler House Practice and the examination of the Royal Society of Health for Smoke Inspectors. Twenty-two students enrolled for the course. An advanced course in Fuel Technology leading to membership of the Institute of Fuel has also been well attended.

Requests from the representatives of industrial concerns to the Public Health Inspectors for consultation on combustion problems and the merits of alternative schemes of plant modernisation were a feature of the period under review. This suggests that the visits made to all the large industrial undertakings during the previous year in order to discuss the implications of the Clean Air Act, 1956, were in most cases appreciated and served a very useful purpose.

The Council took part in the North West Area Clean Air Campaign sponsored by the Solid Smokeless Fuels Federation. A static exhibition was held in the Town Hall and a mobile exhibition visited other sites. Film exhibitions were run for a total of forty hours and were very well attended.

An essay competition with the title "Why should we have Clean Air" attracted 126 entries from various schools in the borough. Nine prizes were generously donated by the following—

Harry Mason and Sons, Ltd.
Wilfrid L. Crumblehulme (Bolton) Ltd.
Chadwick (J. N.) Ltd.
Frederick Hewitt, Ltd.
North Western Electricity Board
North Western Gas Board.

In March, 1957, a Sessional Meeting of the Royal Society of Health was held in the Town Hall, Bolton, and was attended by about 600 persons, papers being read by the following members of the Council's Prior Approval Panel—

Mr. G. Gill
Mr. L. Shufflebotham
Mr. S. N. Duguid
The Chief Public Health Inspector.

The subject discussed was "The Practical Experience of Smoke Control with particular reference to the Clean Air Act, 1956." In the publication of the National Smoke Abatement Society (Smokeless Air) Summer, 1957, p. 238, the Technical Committee of the Society recommended other local authorities to follow the example of the Bolton Council in the formation of prior approval panels.

The Chief Public Health Inspector was invited to read papers to various organisations in the borough and also to give a talk at the Annual Meeting of the Association of Clerks of Urban District Councils in the North West Area and North Wales Area on the implications of the Clean Air Act.

The North Western Electricity Board organised a competition in the area comprising Bolton, Wigan, Westhoughton, Hindley, Earlestown, Leigh, Newton-le-Willows, Bury and Radcliffe in the various showrooms on the theme "Air Pollution and Smoke Abatement." Two members of the judging panel were the principal of the School of Art, Mr. J. Nicholson, and the Chief Public Health Inspector.

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES REGULATIONS, 1949 TO 1954:

No. of Dairies	11
No. of Milk Shops	738
No. of Dairy Vehicles	160
No. of Milk Distributors	909

MILK (SPECIAL DESIGNATION) (PASTEURISED AND STERILISED MILK) REGULATIONS, 1949 TO 1953:

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

The above mentioned Regulations permit the use, under licence, of "special designations" e.g., "Tuberculin Tested", "Pasteurised", etc., in relation to milk produced and distributed under the conditions laid down in the Regulations. The following licences were granted:—

"Pasteurised Milk"—Pasteurisers' Licences	2
,, ,, —Dealers' Licences	36
,, ,, —Supplementary Licences	38
"Sterilised Milk"—Sterilisers' Licences	1
,, ,, —Dealers' Licences	659
,, ,, —Supplementary Licences	36
"Tuberculin Tested (Pasteurised) Milk"—Dealers' Licences	29
,, ,, ,, ,, —Supplementary Licences	33
"Tuberculin Tested (Sterilised) Milk"—Dealers' Licences	–
"Tuberculin Tested Milk"—Dealers' Licences	27
,, ,, ,, —Supplementary Licences	28

By virtue of the Milk (Special Designations) (Specified Areas) (No. 2) Order, 1954, Bolton is included in an area in which no milk may be sold by retail unless specially designated in accordance with the above Regulations, i.e., milk must be derived from a tuberculin tested herd and/or must be heat treated by pasteurisation or sterilisation to destroy infection. No contraventions of the Order were detected during the year.

The Order does not apply to cream which may still be lawfully sold by retail even though it has not been derived from a tuberculin tested herd or been heat treated.

DAIRIES AND DAIRY VEHICLES:

	DAIRIES	DAIRY VEHICLES
No. of Inspections	61	228
No. of Notices served	26	37

The majority of dairy vehicles are now of a good standard, and a number of retailers and producer/retailers have acquired new vehicles during the year. About one-third of the total number belong to the two largest dairies.

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION:

Samples of milk were taken regularly from dairies, pasteurising establishments, milk shops, schools and during the course of distribution to retail consumers; the results of the examinations are given on page 136.

Ten samples of ungraded milk failed to comply with the methylene blue test. The results were reported to the Area Milk Production Officer of the Ministry of Agriculture, Fisheries and Food.

BIOLOGICAL SAMPLING OF MILK:

Seventy-three samples of milk from various sources were submitted to the Pathological Laboratory of the Bolton Royal Infirmary for examination for tubercle bacilli. All were reported to be negative.

CLEANLINESS OF MILK VESSELS:

A number of routine rinses of milk bottles were taken from the bottle washing plants at dairies. These were all satisfactory.

Complaints of dirty milk bottles delivered to consumers were investigated at once, and legal proceedings for failing to ensure that the bottles were in a proper state of cleanliness were instituted in two cases. In one case the dairy was fined £10 and in the other a farmer was fined £5.

Sampling of Milk for Chemical Analysis:

Details of samples taken are given on page 135. Twenty samples were reported unsatisfactory, and in one case legal proceedings were taken as follows:—

Details	Result
Tuberculin Tested (Farm Bottled) Milk— contained 8.7% added water	£10 fine imposed with £1 1s costs

In some cases where samples were taken from churns, individual samples were found to be below the prescribed legal standard, but the average for the whole consignment was satisfactory.

A series of unsatisfactory results were notified to the County Milk Production Officer of the Ministry of Agriculture, Fisheries and Food with a request that advice be given to producers on feeding and methods of milking.

"Appeal to cow" samples were taken in one case when the milk proved to be genuine, though the fat content of some of these was surprisingly low.

Bacteriological and Chemical Examination of Ice Cream:

Seventy samples of ice cream were taken for bacteriological examination from producers and retailers. As in previous years particular attention was again given to "loose" ice cream produced by manufacturers within the borough. Sixteen samples were reported as unsatisfactory according to the provisional grading of the Sub-Committee of the Public Health Laboratory Service. Details of these samples are given on page 137.

During the early summer a series of unsatisfactory samples from one manufacturer caused some concern and a special investigation was undertaken in an effort to trace the cause. Samples were taken from the plant concerned at various stages of production. Subsequent samples were found to show an improvement.

Another series of samples obtained from another manufacturer during December were found to be unsatisfactory. At the end of the year the manufacturer and his own analyst were co-operating in an effort to trace the source of the trouble.

Six samples of ice cream were examined chemically and found to be satisfactory.

Bacteriological and Chemical Analysis of Ice Lollies:

Ten ice lollies were taken for bacteriological examination and were found to be satisfactory.

One sample was found to contain six parts per million of lead against the suggested limit of 1 part per million. These came from a manufacturer outside Bolton and the Public Health Inspector of the authority concerned co-operated in an investigation. A subsequent formal sample was satisfactory.

Inspection of Meat and Other Foods:

The inspection of human food at slaughterhouses, markets and food shops was carried out with marked efficiency and 4,644 visits were made by the inspectors.

MEAT INSPECTION:

The rate of slaughtering was as follows:—

	CATTLE	CALVES	SHEEP	PIGS	TOTAL
Average Weekly "Kill"	220	35	650	337	1,242
Maximum Weekly "Kill"	280	116	1,074	564	2,034

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	Horses
Number killed	5,976	5,487	1,835	33,762	17,511	–
Number inspected	5,976	5,487	1,835	33,762	17,511	–
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS: Whole carcases condemned	1	1	19	13	18	–
Carcases of which some part or organ was condemned	801	980	–	361	173	–
Percentage of the number inspected affected with disease other than tuberculosis and cysticerci	13·4	17·4	1·03	1·1	1·1	–
TUBERCULOSIS ONLY: Whole carcases condemned	3	45	4	–	8	–
Carcases of which some part or organ was condemned	226	890	–	–	240	–
Percentage of the number inspected affected with tuberculosis	3·14	17·1	·46	–	1·5	–
CYSTICERCOSIS: Carcases of which some part or organ was condemned	53	6	–	–	–	–
Carcases submitted to treatment by refrigeration	53	6	–	–	–	–
Generalised and totally condemned	–	–	–	–	–	–

CYSTICERCUS BOVIS:

The number of animals found to be affected with Cysticercus bovis wa 59 compared with 34 in 1956, and 6 in 1955. All were localised and no general ised Cysticercosis was discovered. In 42 instances the cysts were active an viable and hence capable of causing human tapeworm infection had the remained undiscovered and the meat been consumed without suitable sterilisa tion treatment; in the remaining 17 cases the cysts were degenerated. Th

great majority occurred in imported Irish cattle, only 7 of the infected animals being of local origin. In every case the heads and offals were condemned and the carcases subjected to refrigeration in accordance with Memo. 3/Meat before being released for human consumption.

Foodstuffs Condemned

	Tons	Cwts.	Qrs.
Meat (Fresh)	45	18	–
Meat (Tinned)	3	3	–
Boiled Ham (Tinned)	1	16	–
Tongue and Corned Beef (Tinned) ...	–	16	–
Fish (Fresh)	–	16	–
Fish (Tinned)	–	6	–
Milk (Tinned)	–	7	2
Poultry and Rabbits	–	4	2
Fresh Fruit and Vegetables	1	2	2
Tinned Fruit and Vegetables	4	14	–
Chinese Frozen Egg	–	1	1
Provisions (Miscellaneous)	1	18	2
Total	61	3	1

In the case of Chinese frozen eggs the procedure prior to condemnation of the quantity referred to necessitates bacteriological examination of a series of samples, and those tins found to be contaminated with potentially pathogenic bacteria were destroyed.

Disposal of Condemned Meat:

There has been no change in the arrangements for disposal of condemned meat and offals which were collected for processing purposes from the public abattoir and private slaughterhouses in the town by 2 private companies approved by the Corporation. Payment for condemned meat and offals was made by the processing companies direct to the butchers owning the meat.

Slaughterhouses:

There were 4 private slaughterhouses licensed for the year 1957, providing facilities additional to the public abattoir. Structural improvements were carried out at all these premises.

Slaughter of Animals Acts, 1933-1954:

Thirty-five licences were issued to slaughtermen. No contraventions of the Acts were observed.

Diseases of Animals Acts:

Foot and Mouth Disease Order, 1928:

From the 30th November, 1957, until the 19th January, 1958, the County Borough of Bolton was included in a foot and mouth disease infected area. Ten farms within the borough were affected with the disease and 41 farms had detention notices served upon them. The livestock compulsorily slaughtered in Bolton as a result of the outbreak totalled 251 cattle and 61 pigs. Close co-operation with the Ministry's Veterinary Inspectors was maintained, particularly in relation to the controlling of the movement of livestock; in this

connection the Public Health Inspectors issued a total of 493 movement licences authorising the movement of 2,128 cattle, 6,005 sheep, 3,334 pigs and 1 goat. Restrictions were removed on the 19th January, 1958.

FOWL PEST ORDER, 1936:

In January, 1957, an outbreak of fowl pest occurred in Ainsworth; three farms (two of them belonging to Bolton Corporation) were affected. The Veterinary Inspectors of the Ministry of Agriculture, Fisheries and Food requested assistance from Bolton Corporation in connection with the transportation and destruction of infected poultry and eggs. Approximately 1,600 birds and 4,000 hatching eggs were destroyed, the approximate weight of the material being 2 tons 12 cwts. Restrictions under the Order were imposed on 15 local poultry farmers.

TUBERCULOSIS ORDER, 1938:

Nine cows were slaughtered in accordance with the provisions of the above Order. Six of the animals were affected with generalised tuberculosis and the carcases and organs were condemned in their entirety; the remaining three cases were affected with localised tuberculosis only and were dealt with appropriately.

ANTHRAX ORDER, 1938:

Ten cases of suspected anthrax were investigated, but in every case bacteriological examination failed to confirm the existence of anthrax.

SWINE FEVER ORDER, 1938:

There were no outbreaks of swine fever or suspected swine fever.

WARBLE FLY (DRESSING OF CATTLE) ORDER, 1948:

Publicity was given to the requirements of this Order during the period March to June, notices being exhibited at the markets, libraries and police stations, etc. No animals affected with warbles were detected.

LIVE POULTRY PREMISES AND VEHICLES (DISINFECTION) ORDER, 1956:

One premises and four vehicles were disinfected in accordance with this Order during the year.

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...	75	14	89
Informal	200	23	223
Drug Samples:			
Formal...	49	3	52
Informal	–	–	–
Milk Samples:			
Formal...	275	13	288
Informal	547	7	554
TOTALS ...	1,146	60	1,206

The majority of informal milk samples were those bought for the purpose of the Special Designation Regulations.

Full details of the above samples are given in Tables 1 and 2 on pages 142 and 143.

Legal proceedings were instituted in the following cases:—

Details	Result
Selling hot milk with 12.6% water	£10 fine plus £1/1/- costs imposed
Selling "buttered" scones which were actually spread with margarine	£10 fine plus £1/1/- costs imposed

Action in respect of unsatisfactory milk samples is reported on pages 118 and 119.

In other cases action lay in the surrender and destruction of unsatisfactory samples or warnings to the vendors or manufacturers of the articles in question.

Labelling of Food Order:

This Order contains provisions relating to certain particulars which must be specified on the labels of a wide variety of foods.

All samples when purchased were examined to see that the requirements of the Order were complied with. Certain brands of the following products were found not to be marked as required:—

Pink salmon
Marmalade
Apricot jam
Lemon cheese

In each case stocks were withdrawn on the contravention being pointed out and subsequent enquiries showed that the substituted labelling was satisfactory.

Food Hygiene:

So far as is known every establishment in the borough connected with the handling, storage or delivery of food has been inspected during the past year and it can be said that the premises either already comply with the Food and Drugs Act, 1955 and Regulations made thereunder or that any shortcomings have been brought to the notice of the occupier or owner of the business. Matters of a structural character including the provision of sinks with hot and/or cold water as appropriate, together with wash basins, for the purpose of ablution only, within a reasonable distance of the room used for storage or preparation of food have received attention in the majority of establishments and work is pending in the remaining few. It was, therefore, felt desirable to stress the educative side of the work under this heading and apart from talks given by Public Health Inspectors to sectional food trade and women's organisations, the district inspectors and specialist inspectors concerned with food have been instructed to direct attention of employees to the "no touch" technique. It is not to be thought that the habits of years in handling food with fingers will be remedied overnight, but it is vital that wherever foodstuffs lend themselves to being handled by tongs, forks, knives or other suitable instruments at the time of serving or packing, the facilities shall be made available and be used by the employees since it is at this point that infection often arises.

MARKET HALL:

During the year the Markets Committee carried out excellent work in the equipping of the Market Hall with improved facilities, particularly on stalls such as snack bars and butchers' shops which may sell foods which are often associated with the spread of food infections. Each of these vulnerable food-handling premises is now equipped with a sink and a small hand basin, whilst at each of the other stalls handling foodstuffs, where the risk of infection is comparatively slight, a wash hand basin has been provided.

ASHBURNER STREET MARKET:

The wholesale fish market stalls have been provided, where appropriate, with a sink and a small wash hand basin and, in addition, each stall handling cooked meats, shellfish, dairy products, etc., has similarly been equipped. Suitably sited sinks and wash hand basins have also been provided for the use of other food stalls.

In both markets the fittings have been provided with hot and cold water and proper drainage facilities.

"Foreign Bodies" in Food:

There were 12 complaints of foreign objects in foodstuffs:—
"Bread alleged to contain rodent excreta." The two loaves submitted contained dark patches which the complainant thought to be rodent excreta. On examination this proved to be mineral oil. Warning letters were sent to the manufacturers concerned.

"Bread containing dark matter." The piece of bread submitted contained small particles of burnt bread but no evidence of other contamination.

"Object alleged to have been found in a meat pasty." The object was identified as a fly larva and was said to have been found in a meat pasty. As the pasty was not, however, produced by the complainant, nothing could be done beyond acquainting the vendor with the complaint.

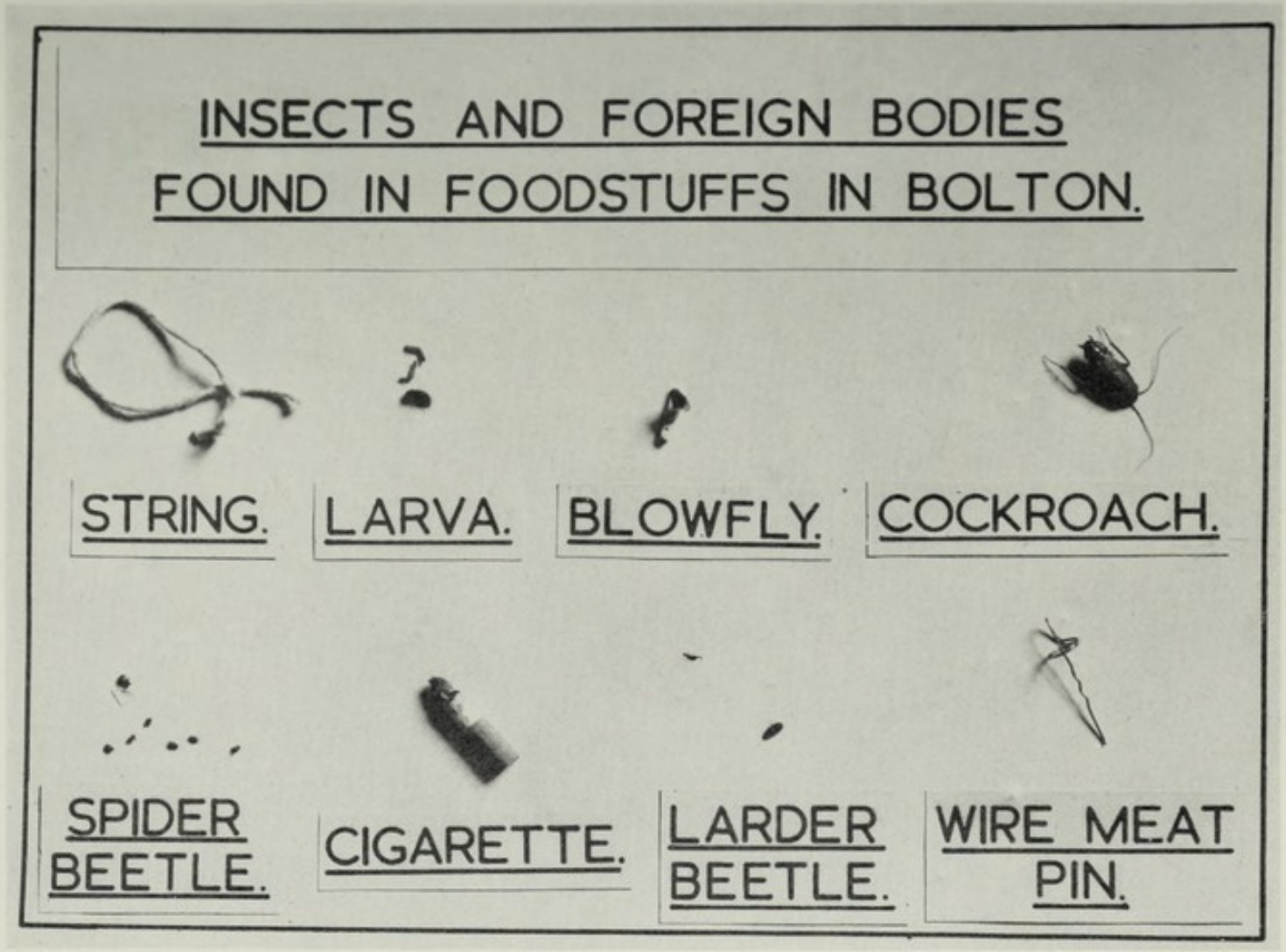
"Tin of carrots containing fly." A tin of carrots containing a fly was submitted as a complaint. There was some doubt as to how the fly entered the tin, but the canners were informed of the matter.

"Bread with brown streak." The complainant submitted some slices of bread which had a dark brown streak running through it. On examination this proved to be wheat flour used for the baking of brown bread. The manufacturer was notified.

"Meat and potato pie containing cockroach." The pastry of the pie contained a cockroach. There is no excuse for the presence of these insects in food premises and proceedings were taken, the manufacturer being fined £10 plus £1 costs.

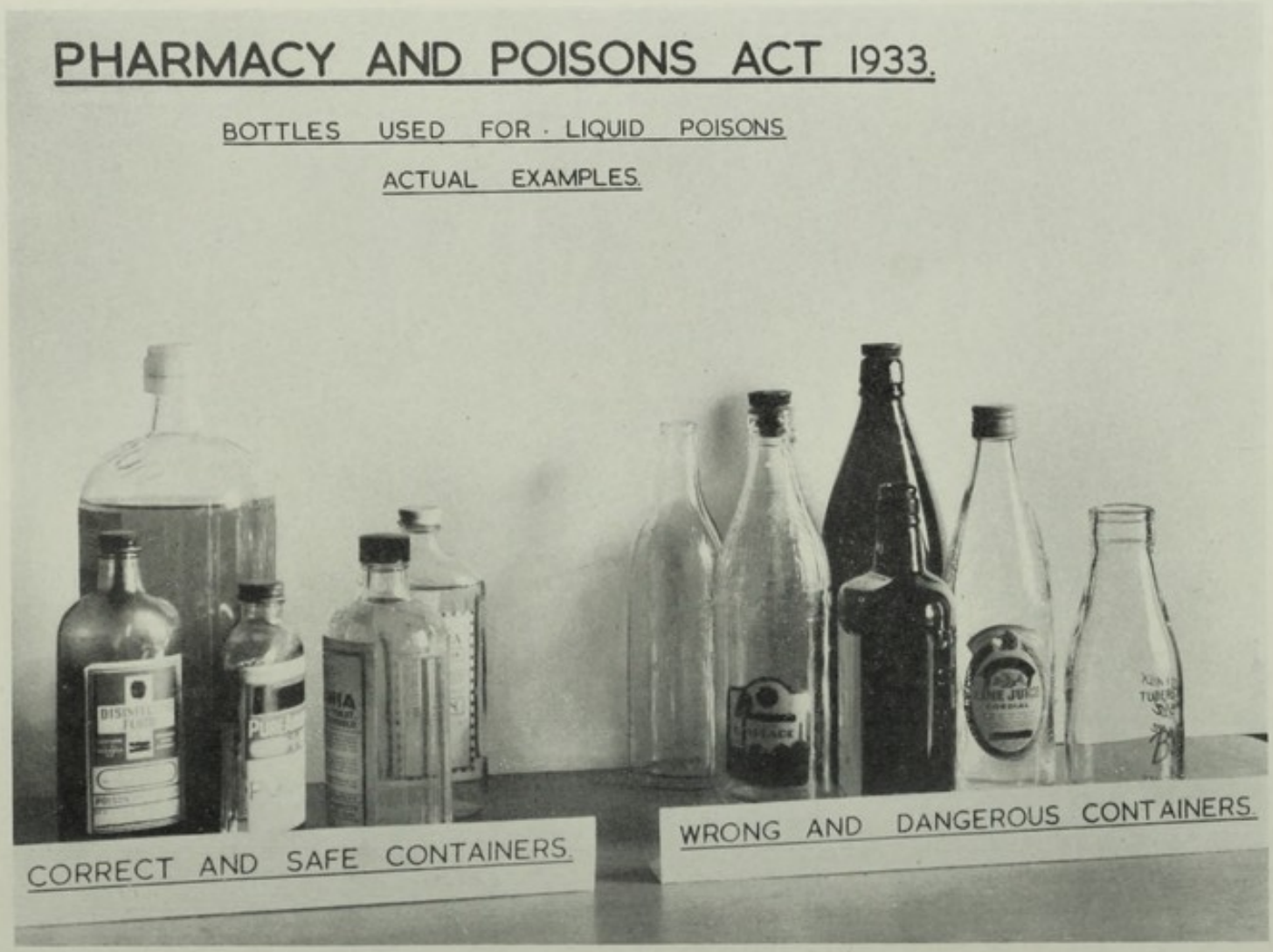
"Cow hair in steak pudding." This minced steak contained a small piece of bovine skin and hair. Although undesirable, it was felt that the matter was part of the animal and not something actually extraneous, and the company was cautioned.

WE CAN REASONABLY EXPECT TO BUY CLEAN AND SAFE FOODSTUFFS:—



BUT CONSTANT VIGILANCE IS ESSENTIAL

A POTENTIAL SOURCE OF SERIOUS HOME ACCIDENTS



CASUAL SELLERS OF POISONS OFTEN HAVE DIFFICULTY IN UNDERSTANDING THE COMPLICATED REGULATIONS

"Piece of string in bread." The complainant submitted a slice of bread and part of a loaf, both of which contained a piece of string. The matter was investigated closely at the bakehouse and it was found that although all the flour was screened the internal canvas lining of the sieving chamber had been worn through by the action of the sieve thus allowing pieces of string from the sacks to push through. The lining was renewed immediately and inspected at more frequent intervals. In view of the firm's prompt action no formal action was taken.

"Wire in meat pie." The pie submitted contained wire similar to a meat skewer. Proceedings were taken against the vendors who brought a cross-summons against the butcher who supplied the meat. The cross-summons was dismissed and the defendants were fined £5.

"Meat pie containing insect larva." The meat pie submitted as a complaint contained an insect larva. An inspection of the bakehouse revealed an infestation of various insects, a number of which were removed for identification. Some of them proved to be the same as the one found in the pie. The firm notified the Infestation Control Division of the Ministry of Agriculture, Fisheries and Food in accordance with their obligations under the Prevention of Damage by Pests Act, and a Ministry entomologist visited with the Corporation's Sampling Officer. Despite the fact that the firm had made some rapid efforts to clean out the storeroom, a further infestation was found. Proceedings were taken for selling the pie and also under the Food Hygiene Regulations for failing to protect the food containers in the store. The firm pleaded guilty and was fined £15 for selling the pie and £7 for failing to protect food.

"Meat pie containing house fly." The complainant submitted a meat pie which was found to contain a housefly. The bakehouse, when visited, was found to contain an excessive number of flies on the walls and ceiling beams and in the air. Proceedings were taken and both partners of the firm were fined £5 each.

"Glass in meat pie." A whole pie was submitted and was found to contain a glass fragment. A visit to the bakehouse revealed that a window had been broken by an unknown person throwing a brick through it thus scattering fragments in the bakehouse. Part of the glass was removed for examination and was found to be the same as that in the pie. The baker had made genuine efforts to clean up the pieces and it was felt that no formal action should be taken.

South African Frozen Egg:

On 1st June, 1957, an intimation of a small outbreak of food poisoning believed to be due to Salmonella irumu, was received from the Public Health Department at Atherton. The outbreak was believed to be due to frozen egg used in a bakehouse, the remaining stock of which was held in a Bolton cold store.

Arrangements were made with the Public Health Laboratory Service at Monsall Hospital for the sampling of all remaining stocks of this consignment, which was of South African origin.

In all 94 tins were sampled, and of these 10 were found to be infected as follows:—

Salmonella anatum	1
Salmonella typhi-murium ...	1
Salmonella irumu	4
Salmonella infantis	4

The other 84 tins gave negative results. The 10 infected tins were destroyed by incineration under the supervision of a Specialist Public Health Inspector.

Imported Foodstuffs:

The Health Committee have expressed concern at the number of imported foodstuffs found to be contaminated with insects and rodent hairs.

Whilst it is sometimes difficult to trace the source of such infestation, much of the evidence which has become available from enquiries about the infested samples pointed to infestation on importation. For instance, a sample of rice taken on arrival at a warehouse proved to have been delivered direct from the quayside. Another difficulty arises by reason of the Warranty defence available under the Food and Drugs Act and because the Act cannot be applied extra-territorially.

The Council therefore asked the Minister to impose more stringent methods of control at the ports to ensure that foodstuffs contaminated should not be allowed entry into the country.

The Ministry of Health, after a considerable delay, eventually replied to say that there might be considerable difficulties in setting up the control, but that they would be writing again.

Nevertheless, the occurrence of this infestation in human food indicates a loophole and in view of the insistence on a good standard of hygiene in premises in this country, it is regrettable that such imported foodstuffs should enter the retail market.

At the time of this report going to press—about a year from the first letter being sent to the Ministry—nothing has changed.

Some of the samples of nuts could well be sold as "poultry spice", reported to assist egg production.

GENERAL SANITATION

Factories Act, 1937:

There were 1,115 factories which were the subject of 797 inspections, and in 81 instances, written notices were sent to the occupiers. Details of the contraventions found, and improvements secured, as well as other facts in connection with this type of work, are contained in Tables 8 to 11 on pages 147 and 148.

Houses-let-in-Lodgings and Common Lodging-Houses:

There were 188 known lodging-houses within the borough and 390 visits and inspections were made.

At the beginning of the year it was learned that the Church Army authorities wished to close down their hostel in Crompton Street. As this would have meant the displacing of 56 men (many of them elderly or near-elderly) a problem of some concern was presented to the Corporation at short notice. After the matter had been discussed by various Committees of the Council it was eventually decided that the Corporation should acquire the premises and lease them to the Salvation Army who would undertake the day to day running of the hostel; the agreement provided for the payment of an annual rent by the Salvation Army and for the Corporation to be responsible for all repairs to the premises during the currency of the lease. The property was duly acquired by the Corporation and in January, 1958, the premises were formally leased to the Salvation Army who are now responsible for the conduct of the hostel. Repairs costing approximately £1,500 were carried out by the Housing Department before the property was leased to the Salvation Army.

Offensive Trades:

Twelve offensive trades were in existence as follows:—

1 Fellmonger
1 Gut-scraper
1 Fellmonger and gut-scraper
1 Fat melter
1 Tripe boiler
7 Rag and bone dealers

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

Provision of Dustbins:

Problems concerning the provision or renewal of dustbins were dealt with by a special sub-committee of the Health Committee. Details were obtained verbally from the tenant and an opportunity was given to the owner to submit his comments in writing. From this information the sub-committee recommended as to whether a notice should be served on the owner or the occupier in each case.

When there was failure to comply with the statutory notice the bins were provided in default by the Corporation.

Conversion of Waste Water Closets:

An attempt has been made to estimate the number of waste water closets remaining in the borough. In a number of areas scheduled for clearance, and for which detailed inspection reports are available, it was found that 481 out of 1,194 houses have waste water closets, a proportion of approximately 40%. A random survey of four scattered areas containing better types of houses showed that 356 out of 1,288 dwellings had waste water closets, a percentage of 27%. Estimates from the district inspectors (without carrying out any form of survey) suggest that the number of waste water closets remaining to be converted will be between 5,000 and 6,000.

The average cost of conversion at the present time as shown by the accounts examined, and excluding cases where fittings of a highly superior nature have been installed, would appear to be about £30.

An allocation of 375 grants of £8 each was made for the financial year commencing 1st April, 1957. By the end of December, 1957, 330 of these grants had been paid. The amount of grant for waste water closet conversions is at present under review and is likely to be increased in the next financial year.

Sewage Disposal:

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

> During 1957, the sewage treatment plant at Hacken dealt with a total flow of 4,171 million gallons. This represents an average of 11.43 million gallons per day. Six million gallons of this daily flow was given full treatment by the activated sludge process followed by high-rate biological filtration. Tests made on the effluents from these processes showed that out of 214 tests made, 211 were satisfactory. Of the 5.43 million gallons per day which could not be given full treatment, only 75 samples were satisfactory out of 220 examined. The Bolton and District Joint Sewerage Board approved conditions for regulating the nature and quantity of trade effluents discharged from eight premises into the Bolton sewers.
>
> The collapse of the Fylde Street sewer, on the boundary between Bolton and Farnworth, necessitated the diversion of a considerable quantity of sewage into the Doe Hey Brook which flows through the Borough of Bolton. The staff at Hacken Sewage works have co-operated with officials of the Public Health Department in advising on the chlorination and screening of the sewage and in making systematic chemical analyses of the water in the brook.

Pet Animals Act, 1951:

Thirteen premises were licensed and 26 inspections were made. Advice was given where necessary to the occupiers as to requirements of the Act. A satisfactory standard has been maintained in the registered establishments.

Rag Flock and Other Filling Materials Act, 1951:
Rag Flock and Other Filling Materials Regulations, 1954:

The object of this legislation is to ensure that filling materials used in certain upholstered articles and stuffed toys are of a satisfactory standard of cleanliness, and it is the responsibility of the local authority to enforce such legislation and to take samples to ensure that cleanliness standards are being observed. There are 17 premises in the borough registered under the Act.

WASHED RAGS:

Twenty-one samples of cleansed rags were taken at a local factory to enable the issue of certificates as to their bacteriological cleanliness for the purpose of export to certain foreign countries.

Hairdressing Establishments:

There were 274 hairdressers' premises registered in accordance with the Bolton Corporation Act, 1949, Section 48. Two-hundred and fourteen inspections were made, but no serious contravention was found.

Pharmacy and Poisons Act, 1933—The Poisons Rules, 1952:

The Local Authority's list contained the names of 183 persons entitled to sell poisons included in Part II of the Poisons List, for the period 1st May, 1957 to 30th April, 1958. During the year a special survey of premises from which poisons were being sold was carried out by one of the Specialist Public Health Inspectors. The Inspector's report on this survey is printed separately in this report on pages 152 to 155.

Public Water Supplies:

All employees of the Waterworks Department who undertake duties directly concerned with the water supply submit one specimen of faeces annually for bacteriological examination. New employees submit a specimen on three successive days and also a specimen of blood for a Widal test. A total of 30 faecal specimens, and 2 blood specimens were examined during the year. 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 is filtered at five filter stations. Normally samples of both raw and filtered water are subjected to full bacteriological examinations each week and to full chemical analysis every three months by the Borough Analyst. Special examinations and analyses are made as circumstances require.

During 1957, 250 samples of raw and 255 samples of filtered water received bacteriological examination, and 20 samples of both raw and filtered water received chemical analysis. In addition 49 samples of water from the supply of the Manchester Haweswater Undertaking were examined and the results showed that the filtered and treated water was of excellent quality, B. Coli being absent in 99.34% of the potable water samples tested. Where 100% bacteriological purity was not obtained, a second sample taken immediately proved to be satisfactory.

From tests made weekly, the final water was shown to have no significant plumbo-solvent 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 163,800 and 56,698 dwelling-houses—no supply was afforded to dwelling-houses by standpipes.

The information supplied is in respect of the County Borough of Bolton, although the Undertaking's area of direct supply includes adjoining local authorities.

During the emergency, caused by land subsidence in the Fylde Street area of Bolton and Farnworth, a close check was kept on the water supplies in the vicinity, and 299 samples taken from premises in the danger area were tested during the period from September 16th to December 27th, 1957.

Fylde Street Disaster:

In September, 1957, a collapse of the roadway occurred in Fylde Street, which forms the boundary between the County Borough of Bolton and the Borough of Farnworth. This incident resulted in the collapse or partial collapse of 18 houses, all of which were on the Farnworth side of the borough boundary. The investigations into the cause of this disaster and the engineering works which it subsequently entailed are properly within the province of the Borough Engineer and Surveyor and it is proposed in this report to comment only on the public health aspects of the problem.

As a precautionary measure 55 houses in Bolton were evacuated and watch over these properties was maintained by the Public Health Inspectors and inspections were made before they were subsequently permitted to be re-inhabited, special care having to be directed to the possibility of danger arising from lack of stability of the houses themselves or from the serious pollution of basements with crude sewage which occurred in a number of cases.

At a very early stage in the control measures an emergency feeding centre was set up in the Starcliffe Street Methodist Sunday School buildings. The centre was operated by the School Meals Service and the Women's Voluntary Services in co-operation. The centre was brought into use rapidly and without there being any opportunity to adapt the building or to equip it before feeding operations commenced. The smallness of the building, the restricted amount of space available for such operations as food service, washing up, etc., and the fact that the centre was in use continuously with rush periods at irregular intervals, all resulted in a severe strain being put upon the staff in charge.

When it is realised that many of the workmen engaged were coming into direct contact with crude sewage in the immediate vicinity of the collapse and that (particularly in view of the extremely bad weather prevailing at the time) crude sewage was being trampled all round the area, it is apparent that serious risks of food infection at the emergency feeding centre could be expected unless appropriate measures were taken. It is pleasing to record that the staff of the centre were fully appreciative of the serious health risks involved and they co-operated fully under most difficult conditions to ensure that the risk was minimised. The Health Department assisted by supplying special disinfectants, paper towels and sterilising agents for use in the washing of crockery and cutlery, etc., and by giving suitable advice on food handling matters. It is extremely gratifying to be able to say that out of this highly dangerous situation not one case of food infection is known to have occurred. The centre was eventually closed down on 3rd October, 1957, as by that time things had more or less returned to normal.

In collaboration with the Waterworks Engineer arrangements were made during the peak period of danger for the water supply to a restricted area to be super-chlorinated, i.e., to be given a further chlorination treatment in the locality over and above that already given to the supply at source. A careful watch was kept on the safety of the domestic water supply. Residents were advised to boil water used for human consumption and posters to this effect were exhibited. Control samples were regularly taken from a number of key

points within the disaster area. Altogether, a total of 299 samples was taken by the Public Health Inspectors, in association with the Borough Analyst's staff, for this purpose.

To enable the cause of the street collapse to be determined it was decided to divert the sewage from Farnworth (which was passing down the Fylde Street sewer) into the Doe Hey Brook by means of a specially constructed channel. Construction of the channel was carried out under great difficulties and it was eventually brought into use on 4th October, 1957. It must be realised that this operation means in effect that there is now an open sewer commencing at the point where the Farnworth main sewer enters the Moses Gate Station Yard to a point near the railway culvert where the channel eventually discharges into the Doe Hey Brook. At first the sewage was discharged through this channel without any special precautions being observed, but after a short interval chlorination of the sewage was commenced, using portable apparatus and at a still later date simple screens were installed at the commencement of the channel. It must be emphasised that there is now within the County Borough of Bolton what is virtually an open public sewer for a distance of approximately three-quarters of a mile. For much of this distance the brook is readily accessible to children and it is known that it has, on occasion, flooded the adjoining land. It will be realised that this operation was in the nature of a desperate expedient imposed by the urgent necessity of diverting sewage from the disaster area so that investigations and repairs could proceed, but it has in turn created new public health problems and it is imperative that the normal sewerage arrangements be resumed as a matter of urgency.

Eighty samples of the sewage and samples from Doe Hey Brook itself were taken at regular intervals by the Public Health Inspectors as a means of controlling the chlorination of the incoming sewage.

DISINFECTION AND DISINFESTATION

Disinfection:

Except in special circumstances or following upon major infections, terminal fumigation of premises after infectious disease has been discontinued. Where disinfection on public health grounds has been carried out, the work was usually done free of charge; in other circumstances a charge was made. Details of the work done are given in Table 12 on page 149. A special stock of formaldehyde and a mixture of carbolic soap, water and white cyllin is held at the School Hill Disinfecting Centre for use in the event of an outbreak of smallpox. For the same reason a blowlamp suitable for flaming of metal surfaces on vehicles and elsewhere is held in reserve.

Disinfestation:

The progress reported in former years in connection with the Corporation pest control service has continued and many of the occupiers of food premises, because of the nature of their trade, enter into annual agreements with the Council for regular service of their premises to preclude insects being reported in articles of food. It is usually convenient, under the same agreement, to deal with rodents in the premises. The income for destruction of insects and rodent pests has now risen to £2,524 10s. per annum.

The destruction of rats in sewers continues to receive attention, the work being done by the Borough Engineer's Department in co-operation with the Health Department. The poison used is mainly Warfarin, but sometimes zinc phosphide or arsenic are utilised. The bait used for rodent destruction is frequently mixed with para nitro phenol to inhibit mould growth. The work done is summarised in Tables 13 and 14 on pages 149 and 150.

Mr. A. Hazelwood, Curator of Museums, has supplied the following information:—

> Due, in great part, to the increased killing properties of modern insecticides, the number of domestic pests has continued to show a marked reduction. Rehousing has also, no doubt, helped to eliminate a number of old friends and the upsurge of mites and plaster beetles which accompanied new building has died away as the houses have dried out. Oddly enough, this freedom from more familiar pests has made people more, rather than less, insect conscious and there has been a large number of requests for the identification of quite harmless insects which have blundered into houses, no doubt attracted by light.
>
> Stored foods, on the other hand, because they are more difficult to disinfest and perhaps because they move more slowly through trade channels, due to the increased use of tinned and frozen substitutes, seem to provoke an increasing number of requests for identification though these may also be stimulated by the much greater attention directed to such matters by the very high standards of quality imposed by official requirements and public sanction.
>
> One new pest which has appeared in the area is the Woolly Bear or Carpet Beetle. This introduction is now commonplace in the south of England where it wreaks havoc in carpets. Its furry larvae are readily recognisable and any sign of infestation should be dealt with at once.

Bananas continue to be responsible for the introduction of various types of animal, more spectacular than dangerous as a rule but occasionally giving rise to understandable consternation, like the 8" centipede which was captured in the Wholesale Market. When the stalks of fruit are first gathered, they are stacked on the ground to await transport to the ship and it is at this time that spiders, grasshoppers and sometimes larger animals crawl in between the hands of fruit for daytime cover. One spider, called Heterapoda venatoria will not be long without an English name since it is so frequently imported and so hardy that it can make its home here. It very often happens that those imported are females guarding a large circular egg-coccoon from which the young are ready to emerge by the time they reach England, hundreds at a time. Fortunately they are harmless.

New Methods of Pest Destruction:

It was necessary in connection with an infestation of an industrial establishment with a type of grain weevil to use Malathion which is an insecticide with selective properties for this type of pest. The use of insecticidal lacquers for infestations of cockroaches has continued but it is still necessary in some cases to use Dieldrin in powder form, fortified with pyrethrum.

Mortuary:

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

Eighty-one bodies were received during the year. Post-mortem examinations were carried out on 61, all of them coroner's cases.

Municipal Medical Baths:

The cleansing of verminous persons was carried out at the medical baths 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	47	216	9	2	–	10
Scabies	9	16	2	3	4	10
Body Lice	–	–	–	–	40	7
TOTALS ..	56	232	11	5	44	27

REPORT BY THE BOROUGH ANALYST

The number of samples examined in the Borough Laboratories was 4,977, the highest figure so far recorded.

The increase was due to more sampling of drinking water and sewage effluents following the subsidence at Fylde Street which caused fractures of water mains and the main sewer; and also to an extension of work on atmospheric pollution. The addition of an assistant to the laboratory staff, and the purchase of special equipment made this extra work possible, but also led to difficulties of accommodation in a small laboratory.

The number of food and drug samples examined was slightly less than last year, and the proportion found to be adulterated was lower—5.0 per cent. The number of cereals infested with mites, insects or rodent excreta was disturbing. The Council has drawn the attention of the Ministry of Agriculture, Fisheries and Food, and the Ministry of Health, to the desirability for more stringent tests being applied to imported products of this type.

The chemical and bacteriological examination of the waters supplied to the town and district were carried out for the Waterworks Committee, and much time was spent on the bacteriological examination of milks, ice creams, dairy utensils, swimming bath waters and other miscellaneous samples.

The investigation of atmospheric pollution has recently been extended and from this additional data it is hoped to obtain information which will assist in explaining the incidence of certain respiratory diseases. There has been an appreciable reduction in the amount of deposit collected in the gauges compared with previous years.

There has been an increase in the number of complaints investigated since the Food Hygiene Regulations received more publicity. There has also been a tendency for smaller local authorities in the vicinity to take advantage of the facilities offered by this laboratory. A number of parties have been conducted through the laboratories—all of whom expressed intense interest, and often surprise, at the extent of the work they have seen demonstrated.

The following samples were examined:—

Food and Drugs	1,206
Designated Milk	550
Ice Creams for bacteriological examination	80
Rinses from dairy utensils	62
Waters from domestic premises	316
Sewage effluents	80
Swimming bath waters	114
Fertilisers and feeding stuffs	14
Atmospheric pollution samples	1,154
Miscellaneous	90
	3,666
Samples for the Waterworks Committee	1,193
Samples for other Departments or Authorities	118
TOTAL	4,977

The samples generally demanded more individual attention and also increased in number compared with previous years:—

	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Total No. of all Samples	2,251	2,577	3,831	4,010	4,444	4,334	4,256	4,348	**4.977**
No. of Food and Drug Samples	830	835	1,071	1,078	1,145	1,120	1,183	1,233	**1,206**

Food and Drug Samples:

New Public Analysts Regulations came into operation this year and re-enacted previous Regulations regarding the qualifications of Public Analysts, and also prescribed a revised form of certificate for the analysis of foods and drugs.

The Colouring Matter in Food Regulations also came into operation, but the full effects relating to retail sales are not operative until a later date. These Regulations revoke the provisions of the Public Health (Preservatives, etc., in Food) Regulations relating to colouring matter in food and prescribe a list of permitted food colours, whereas the former Regulations prescribed a list of prohibited colours.

The number of samples submitted for examination under the Food and Drugs Act was equivalent to 7.4 samples per 1,000 of population. It is generally accepted that this figure should be not less than 3 per 1,000.

Sixty samples were reported as adulterated or otherwise unsatisfactory; the percentage (5.0%) being rather lower than in the previous year. The proportion of unsatisfactory samples during the past nine years has been:—

1949	1950	1951	1952	1953	1954	1955	1956	**1957**
10.4%	5.7%	5.4%	4.7%	5.1%	3.8%	4.1%	5.4%	**5.0%**

Particulars of the samples of food and drugs examined are given in Table 1 on page 142, and details of the unsatisfactory samples in Table 2 on page 143.

Milk Samples:

Milk should not contain less than 3.0 per cent of fat, nor less than 8.5 per cent of non-fatty solids, and milk which is not of this quality is presumed, until the contrary is proved, to be adulterated.

A total of 842 samples of milk were examined, including 7 "Appeal to Cow" samples, and 20 of the samples were reported as adulterated.

Three of the "Appeal to Cow" samples were below the standard for fat, and 9 samples were below the standard for non-fatty solids, but from their freezing points were adjudged to be free from extraneous water and of naturally poor quality.

The following table shows the average chemical composition of the samples examined during each quarter of the year, and the average for the year:—

	No. of Samples	Fat %	Solids-not-fat %	Water %
1st Quarter, 1957	227	3.71	8.78	87.51
2nd Quarter, 1957	222	3.66	8.86	87.48
3rd Quarter, 1957	197	3.93	8.92	87.15
4th Quarter, 1957	196	3.86	8.91	87.23
Full Year	842	3.79	8.86	87.35

DESIGNATED MILKS:

Pasteurised Milks and Tuberculin Tested Pasteurised Milks were subjected to a phosphatase test (for the adequacy of the heat treatment process); and a methylene blue test (which indicates the keeping qualities of the milk). Tuberculin Tested Raw Milk was subjected to an extended methylene blue test.

If the atmospheric shade temperature exceeded 65° F., the test was declared void.

Sterilised Milks were subjected to a turbidity test, which was also indicative of the adequacy of the heat treatment process.

EXAMINATION OF DESIGNATED MILKS:

Designation	No. Examined	Satisfactory	Failed meth. blue test	Failed phos. test	Failed meth. blue and phos. tests	Failed turbidity test	Test void
Pasteurised	213	209	0	0	0	–	4
T.T. Pasteurised..	120	114	0	0	0	–	6
Sterilised	179	178	–	–	–	0	–
T.T. Raw	38	26	11	–	–	–	–
TOTALS ..	550	527	11	–	–	–	10

The above Pasteurised Milks included 85 samples taken from the supplies to local schools.

1 sample of Sterilised Milk contained 1% of added water.

1 sample of T.T. Raw Milk was 6% deficient in fat.

CLEANLINESS OF MILK BOTTLES AND DAIRY UTENSILS:

Bacteriological examinations have been carried out on rinses from milk bottles, and from utensils used in the manufacture and serving of ice cream.

Of 47 milk bottles examined all were in a satisfactory condition of cleanliness, but a container, a wooden serving spoon and a hand-cloth used at an ice cream manufacturer's premises showed evidence of contamination.

In determining the total number of organisms present, the method has been modified by using the roll-tube technique with a consequent saving of time, and economy in petri dishes.

Cleanliness of Beer Glasses:

In order to assess the efficiency of a friction type glass cleanser, several bacteriological tests were carried out on the treated glasses. All proved to be satisfactory.

Ice Cream Samples:

Ice cream is one of the few foods for which standards are prescribed for chemical composition and for bacteriological purity. At present, the lega

standards for chemical composition require a minimum of 5 per cent fat, 10 per cent total sugars (of which 7.5 per cent must be sucrose), and 7.5 per cent of milk solids other than fat, with some modification for kosher ices.

During the year, however, the Food Standards Committee of the Ministry of Agriculture, Fisheries and Food, issued a report on Standards and recommended an amendment in order to provide for the description of—

(*a*) "Dairy Ice Cream" to apply only to a product in which the whole of the fat content is milk fat.

(*b*) To provide a standard for "Milk Ice" containing not less than 2.5 per cent of milk fat, and 7 per cent of milk solids other than fat, and to contain no fat other than milk fat.

(*c*) To revoke the present provisions relating to sugar content, but recommending the prohibition of the use of saccharin or other artificial sweetening agent.

The legal standards for chemical composition relate to the amount of the ingredients by weight, but since ice cream is not sold by weight, the amount of air which is incorporated during the freezing process has a substantial influence on the amount of food solids in a given volume. The increase in volume due to incorporation of air is known as over-run, and the amount of over-run varies considerably between 20 per cent and over 100 per cent. In considering this aspect of the trade practice, the Committee was unable to recommend any control over the amount of over-run at the present time, although admitting that an ice cream standard is not complete if it does not take the over-run into account. To my mind, this report still leaves the situation in a very unsatisfactory state.

CHEMICAL EXAMINATION:

Six samples were submitted for chemical composition and all complied with the present prescribed standards. The fats ranged from 6.5 to 12.9 (average 9.4%); sugar, as sucrose, from 10.5 to 16.4 (average 15.1%); milk solids-not-fat 9.6 to 14.7 (average 12.9%).

BACTERIOLOGICAL EXAMINATION:

The bacteriological purity was assessed by means of the methylene blue test, and samples were graded 1 to 4 according to the time taken to decolourise the blue solution under prescribed conditions. Only those samples of grades 1 or 2 standards were classified as satisfactory.

	Bolton Manufacturers		Outside Manufacturers	
	Wrapped Ice Cream	Loose Ice Cream	Wrapped Ice Cream	Loose Ice Cream
No. of samples of Grade 1 standard ..	4	23	15	–
No. of samples of Grade 2 standard ..	0	8	4	–
No. of samples of Grade 3 standard ..	0	9	1	–
No. of samples of Grade 4 standard ..	0	6	0	–
TOTALS	4	46	20	–

Ten ice lollies were also examined bacteriologically; 8 were of a satisfactory standard of purity; 2 were classified as suspicious because they contained coliform organisms.

Obviously, loose ice cream manufactured locally needs to be kept under close supervision.

Domestic Water Supplies

Seventeen complaints were investigated in connection with private supplies to farms and also from domestic consumers.

Water and Sewage examinations in the Fylde Street Subsidence Area:

A ground subsidence on the boundary of Bolton and Farnworth caused a fracture of the main sewer and of several small water mains. Although repairs to the water mains were carried out immediately, there was a possibility of the water supply being contaminated, and a mobile chlorinating plant was connected to the water mains. Samples of the water from seven or eight premises in the affected area were taken each day for bacteriological examination. Only on the first day of sampling (16th September), was there definite evidence of contamination of the water when samples from two of the premises showed 5 B. Coli (of faecal origin) per 100 mls. Arrangements were made with the Water Engineer for an increase in the chlorine dosage, and thereafter only occasional samples were classified as suspicious. Since the 4th October, no B.Coli of faecal origin has been present in any sample.

Sampling of the water was continued each day (except Sundays) until the 8th October when samples were examined on alternate days and later the sampling points were reduced to five domestic premises. Altogether, up to the end of the year, 299 water samples were examined and sampling is still being continued.

In order to divert the main flow of sewage, a temporary open trench was prepared along which the sewage was allowed to flow into the Doe Hey Brook (a distance of 700 yards). Before the trench was completed, samples of the water in the Doe Hey Brook were examined in order to obtain data of the nature of the water in the stream before introduction of the sewage effluent. Arrangements were made for chlorination of the sewage at the head of the trench and later a screen was inserted at the same point to take out solid matter.

Since the end of September, 80 samples of the sewage effluent and the stream have been examined bacteriologically and chemical analyses from these sources have been carried out at the Sewerage Board Laboratory.

Sampling of the sewage effluents is also still being continued. Although there were considerable fluctuations in the bacterial content of the sewage, the indications were that the chlorination was effective in keeping the bacterial count to reasonable proportions on most occasions. No evidence of disease attributable to this unfortunate occurrence has been found.

Swimming Bath Waters:

Samples were obtained on 114 occasions from the plunges at the swimming baths under the control of the Health Committee, and 4 of the samples showed evidence of some contamination. Subsequent samples from these sources, after adjustment of the chlorine dosage, were of the same high standard of purity as the remainder of the samples, and indeed, similar to that of the drinking supply.

Fertilisers and Feeding Stuffs Act:

The Fertilisers and Feeding Stuffs (Amendment) Regulations, 1956, came into operation on the 1st January, 1957, providing an alternative method for the determination of phosphoric acid.

The Regulations prescribe limits of variation which are allowed in the composition compared with the analysis supplied with each article, and also the labelling requirements.

Fourteen samples were examined, 10 of which were found to comply with the Regulations.

Two fertilisers were incorrectly labelled in not stating the amount of phosphoric acid soluble in water.

Two fertilisers each contained an excess of potash (not to the prejudice of the purchaser).

Atmospheric Pollution:

The Health Committee have decided that research shall be carried out on atmospheric pollution with particular reference to air pollutants likely to be of significance in the incidence of certain respiratory diseases. It was also considered desirable that these investigations should be made in order to compare existing pollution with any changes which may occur in future as a result of implementing the Clean Air Act, 1956.

Consequently, nine sites were specially selected for the installation of apparatus for the volumetric determination of sulphur dioxide and smoke. These stations are arranged on three lines parallel to the direction of the prevailing wind and crossing the town in the form of a grid, with three stations on each line.

Since the 1st October, results have been recorded for the daily concentrations of sulphur dioxide and smoke, and the total impurities on the filters have been examined each month for the amounts of certain polycyclic hydrocarbons, by chromatographic and spectrophotometric methods.

The results so far obtained suggest that useful information will be forthcoming, but it is too early to draw definite conclusions from what is, of necessity, a long-term investigation. See Table 7 on page 146.

The routine deposit and volumetric gauge examinations have also been continued, and the results are shown in Tables 3 to 6 on pages 144 and 145. From 1949 to 1954, the average monthly deposit collected was consistently in the region of 21 to 24 tons per square mile. Since 1954 (when a smokeless zone was established in the centre of the town) there has been a reduction in the average amount of deposit from all districts, and the average for 1957 was 15.1 tons per square mile, the lowest figure for at least 10 years.

Deposit Gauges

AVERAGE TOTAL MONTHLY DEPOSIT IN TONS PER SQUARE MILE:

	1949	1950	1951	1952	1953	1954	1955	1956	**1957**
Average of six	21.2	23.7	23.5	21.4	21.5	23.8	18.7	18.4	**15.1**

Miscellaneous Examinations:

FOR THE HEALTH COMMITTEE:

9 disinfectants and cleansers, 9 washed rags (for export), 3 soaps, 2 detergents, 7 Poison Regulation samples, 4 hops (2 contained insect larvae-thrips), 3 sugars (1 contained common salt), 6 floor sweepings (4 contained meal mites), 3 breads (contaminated with oil or grease), 2 barleys (infested with live insects—book lice), 1 meat pasty (contained house fly larva), 1 meat and potato pie (contained portion of a beetle), 1 nuts and raisins (rodent excreta), 1 sliced carrots (blue-bottle fly), 1 rat bait (saw-toothed grain beetles), 1 floor sweepings and rat bait (rodent excreta), 2 sodium bicarbonate (spider beetles and insect larvae), 1 cream powder (dead moth), 1 steak pudding (cow hairs), 2 pastries (1 contained glass similar to broken glass found on bench), 1 liver (tyrosine crystals), 1 grape fruit (naringen crystals), 1 cooked cabbage (root hairs of beetroot), 1 walnut wrapping paper (meal mites), 1 urine (clinical), 1 powder used in galvanising (ammonium chloride), 1 liquid egg (composition showed no extraneous water), 1 beetle from local mill (Indian grain beetle).

The following were submitted as complaints, and examined with negative results:

2 milks, 1 ham, 1 glucose, 1 canned chicken, 1 orange juice, 1 wallpaper, 1 dried milk, 1 fish, 2 oatmeals, 1 malt vinegar, 1 sweepings from bakehouse, 1 mince pie, 2 mincemeats, 1 portion of turkey, 1 baked beans.

FOR THE EDUCATION COMMITTEE AND BOLTON SCHOOL:	37 swimming bath waters
FOR THE HOUSING COMMITTEE:	4 cinders
FOR THE WATCH COMMITTEE:	4 petrols
FOR THE MARKETS COMMITTEE:	1 bread loaf
ATHERTON U.D.C.:	48 atmospheric pollution samples
WORSLEY U.D.C.:	2 fruit flavoured cordials
PRIVATE SOURCES:	12 washed rags (for export) 2 wrapped bacons 6 medicines 2 potato crisps and wrappers

Sampling for the Waterworks Committee:

The main source of Bolton's water supply is from upland surfaces augmented, as occasion demands, from bore-holes. After storage in reservoirs the water passes to various slow sand or pressure filters for treatment, filtration and finally chlorination.

The chemical analyses and bacteriological examinations of waters, and other miscellaneous samples, were carried out in these laboratories. Samples of the raw and filtered waters were taken each week from all the filter stations, and a total of 1,193 samples have been examined and reports thereon issued to the Waterworks Engineer and Manager.

The chemical analyses have shown that the treatment of the water at the various sources has been effective in producing water of the highest quality.

Ideally, all waters intended for drinking should show no coliform bacteria in 100 mls, and 97 per cent of the filtered waters examined during the year attained that standard of purity.

EXAMINATION OF FILTERED WATERS FOR BACT. COLI:

Source	No. of Samples	Bact. Coli Absent in 100 mls.	Probable No. of Bact. Coli per 100 mls. of water		
			1 to 3	3 to 10	over 10
Sweetloves Sand Filters	51	49	2	0	0
Sweetloves Pressure Filters	50	50	0	0	0
Heaton Sand Filters	51	50	1	0	0
Ferns Park Pressure Filters	50	50	0	0	0
Springs Pressure Filters	52	50	2	0	0
Cadshaw	51	48	1	1	1
Daddy Meadows	49	47	1	1	0
Crowthorne	50	49	1	0	0
Thirlmere Supply (at Lostock)	50	47	3	0	0

CHEMICAL EXAMINATION OF FILTERED WATERS—LATEST AVAILABLE RESULTS:

	Sweetloves Sand Filters	Sweetloves Pressure Filters	Heaton Sand Filters	Ferns Park Pressure Filters	Springs Pressure Filters
Odour	nil	nil	nil	nil	nil
Suspended matter	nil	nil	nil	nil	nil
pH value	7·3	7·5	7·1	7·3	7·1
Hazen number	<5	<5	<5	<5	<5
Total solids p.p.m.	75	75	115	90	70
Free ammonia p.p.m.	0·00	0·03	0·01	0·02	0·17
Albuminoid Ammonia p.p.m.	0·05	0·02	0·03	0·05	0·11
Nitrate Nitrogen p.p.m.	0·35	0·45	0·75	0·50	0·20
Nitrite Nitrogen p.p.m.	nil	nil	nil	nil	nil
Chlorine, as Chloride p.p.m.	12	12	13	12	12
O_2 absorbed in 4 hrs. p.p.m.	1·10	0·80	0·90	1·00	1·60
Total hardness p.p.m.	35	35	75	45	30
Plumbo-solvency (24 hrs) p.p.m.	0·5	0·5	0·9	0·9	0·9
Iron (as Fe) p.p.m.	nil	nil	nil	nil	nil
Aluminium (as Al) p.p.m.	0·40	0·10	nil	0·05	0·15
Manganese (as Mn) p.p.m.	0·20	0·25	0·10	0·15	0·20
Total residual chlorine p.p.m.	0·03	0·25	0·08	0·04	0·05
Free residual chlorine p.p.m.	nil	0·02	0·06	nil	nil

ENVIRONMENTAL HYGIENE—STATISTICAL TABLES

TABLE 1

Samples of Food and Drugs Submitted

	Total	Genuine	Adulterated or otherwise unsatisfactory
Milk	842	822	20=2.4%
Almonds, Ground	6	6	–
Apples	1	–	1
Baking Powder	5	5	–
Bread	3	2	1
Butter	10	10	–
Buttered Scones	3	2	1
Cake and Cake Mixtures	6	6	–
Cereals, etc.	62	45	17
Cheese, Processed	15	15	–
Chewing Gum	6	6	–
Christmas Pudding	6	6	–
Condensed Milk	3	3	–
Cream	5	5	–
Drugs	52	49	3
Eccles Cakes	3	2	1
Edible Gelatine	3	3	–
Evaporated Milk	4	4	–
Fruit Flavour Essence	6	6	–
Flour	2	2	–
Ice Cream	6	6	–
Ice Lollies	8	7	1
Ingredients for Ale or Stout	4	–	4
Lemon Juice	2	2	–
Malt Vinegar	8	8	–
Margarine	8	8	–
Marzipan and Substitute	8	8	–
Meat Pie	2	–	2
Milk Chocolate Walnut Whips	1	–	1
Mincemeat	4	4	–
Nuts	10	7	3
Nuts and Fruit	2	1	1
Pepper	3	3	–
Potted Meat	2	2	–
Preserves	7	4	3
Salmon, Canned, and Fish Paste	6	5	1
Sardines	4	4	–
Self-raising Flour	6	6	–
Shredded Suet	2	2	–
Soft Drinks	12	12	–
Spirits	15	15	–
Stewed Steak	16	16	–
Sugar	2	2	–
Tea	10	10	–
Tomato Ketchup	4	4	–
Miscellaneous Foods	11	11	–
Totals	1,206	1,146	60=5%

TABLE 2

Unsatisfactory Samples of Food and Drugs

MILK:

20 samples were reported as adulterated.
13 of these were deficient in fat in amounts varying from 5.0 to 33.7 per cent.
6 contained added water, in amounts between 0.6 and 5.1 per cent.
1 sample, sold as Hot Milk, contained 12.6 per cent of added water.

APPLES:

1 sample contained a slight excess (2.2 instead of not more than 2 parts per million) of lead.

BREAD:

1 sample contained foreign matter in the form of a piece of string.

BUTTERED SCONE:

1 sample contained 6.4% fat which consisted entirely of Margarine.

CASHEW NUTS:

1 sample contaminated with insects.

CEREALS:

6 samples of Rice, 3 of Maple Peas, 2 of Pearl Barley, 2 of Split Peas, 1 of Lentils and 1 of Ground Oats were all infested with meal mites. 2 samples of Barley Kernels were infested with insects resembling book lice.

COUGH MIXTURE:

1 sample was deficient in sucrose. The syrup in the sample was 50.7% deficient in sucrose, compared with B.P. Syrup.

ECCLES CAKE:

Contained particles of a broken tooth, probably due to contact with the hard crystals of sugar.

ICE LOLLIES:

1 sample contained an excess (6 instead of not more than 1 part per million) of lead.

INGREDIENTS FOR MAKING ALE OR STOUT:

4 samples all infested with mites and insect larvae.

JAM AND MARMALADE:

2 samples pre-packed but not labelled.

LEMON CHEESE:

1 sample pre-packed but not labelled, and also 3.5% deficient in soluble solids.

MEAT PIE:

Contained an insect larva resembling spider beetle larva.

MEAT PIE:

Contained a house-fly.

MILK CHOCOLATE WALNUT WHIPS:

1 sample contaminated with rodent hairs.

MIXED NUTS AND FRUIT:

1 sample contaminated with meal mites and rodent hairs.

SALMON (Canned):

The label did not include the name and address of the packer, nor a registered trade mark.

WALNUTS (Shelled):

2 samples contaminated with meal mites and rodent hairs.

BORAX AND HONEY:

2 samples contained excesses of Borax (0.4 and 2.1 per cent respectively).

TABLE 3

Atmospheric Pollution—Deposit Gauges

Total Monthly Deposit in Tons per Square Mile

1957	Red Lane	Haver-croft	Royal Infirmary	Hulton Hospital	Police Sports Ground	Astley Bridge Cemetery	Heaton Cemetery
January	15·27	15·35	16·91	16·44	23·30	20·43	16·08
February	10·54	13·31	12·93	15·18	19·15	15·07	7·69
March	13·58	13·14	14·39	14·51	16·66	17·35	10·40
April	6·54	6·50	7·89	7·34	5·41	7·78	5·94
May	7·64	8·81	10·79	9·57	10·62	10·23	7·69
June	13·87	14·61	13·87	15·38	16·07	14·31	9·36
July	12·27	18·00	—	22·55	21·77	22·82	—
August	14·44	17·93	17·81	19·55	25·86	30·83	21·14
September	13·91	12·91	19·60	14·45	16·47	30·30	19·90
October	14·04	12·30	18·13	15·98	22·77	17·13	13·59
November	7·57	7·54	10·83	9·84	11·15	10·04	9·43
December	15·77	14·81	17·19	19·09	23·80	23·38	20·10
Monthly Average for 1957	12·1	12·9	14·6	15·0	17·8	18·3	12·8

TABLE 4

Atmospheric Pollution—Deposit Gauges

Site	Average Total Monthly Deposit (Tons per square mile)						
	1951	1952	1953	1954	1955	1956	**1957**
Withins Farm/Red Lane	25·1	22·7	21·5	26·0	22·1	20·2	**12·1**
Havercroft	17·2	16·5	15·5	16·9	12·4	13·3	**12·9**
Royal Infirmary	24·4	19·5	23·8	23·1	20·5	20·3	**14·6**
Hulton Hospital	21·3	19·1	18·8	18·1	15·8	17·1	**15·0**
Police Sports Ground	29·3	30·0	27·4	33·4	26·4	23·0	**17·8**
Astley Bridge Cemetery	23·8	20·8	21·9	25·4	14·8	16·6	**18·3**
Average of 6 districts	23·5	21·4	21·5	23·8	18·7	18·4	**15·1**

TABLE 5

Atmospheric Pollution

Estimation of active Sulphur gases by Lead Peroxide Method

1957	Mgms. of SO_3 per 100 sq. cms. per day		
	Havercroft	Withins Farm or Red Lane	Civic Centre
January	1·74	3·96	4·28
February	2·21	4·80	4·51
March	2·46	4·77	3·56
April	1·15	2·39	2·57
May	1·10	2·36	2·18
June	0·66	1·80	1·52
July	2·11	0·59	1·58
August	0·68	2·30	1·67
September	0·94	2·84	2·37
October	1·51	4·36	3·47
November	1·92	4·40	2·47
December	2·73	5·54	4·73
Monthly Average:—			
1957	1·61	3·34	2·91
1956	1·79	3·32	3·15
1955	1·66	2·83	3·14
1954	1·63	2·40	2·90

TABLE 6

Atmospheric Pollution

Daily averages of Smoke and Sulphur Dioxide by Volumetric Estimation (Civic Centre)

1957	Smoke (mgms. per cub. metre)	Sulphur Dioxide (parts per million)
January	0·402	0·137
February	0·451	0·156
March	0·277	0·120
April	0·282	0·084
May	0·303	0·071
June	0·173	0·057
July	0·289	0·049
August	0·235	0·052
September	0·290	0·073
October	0·401	0·145
November	0·393	0·135
December	0·530	0·195
Daily Average:—		
1957	0·335	0·106
1956	0·261	0·105
1955	0·200	0·095
1954	0·251	0·090
1953	0·306	0·103
1952	0·296	0·087

TABLE 7

Concentration of some Atmospheric Pollutants in selected areas of the town

(See opposite page 3 for situation of stations)

	Station No.	1957			1958		
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Smoke Milligrams per 100 cubic metres	1	28·8	26·5	39·7	31·4	20·7	26·5
	2	**51·9**	**61·0**	**77·1**	**66·9**	**45·8**	**49·6**
	3	44·3	37·7	56·7	45·5	32·8	28·3
	4	23·1	22·4	38·8	32·1	17·7	21·2
	5	36·1	32·6	48·4	44·5	26·6	26·2
	6	40·8	37·5	49·6	45·9	31·9	27·3
	7	31·2	34·4	48·3	37·6	23·6	28·3
	8	47·6	50·6	66·2	59·7	39·6	39·9
	9	41·3	39·0	57·8	50·0	38·5	35·1
Average:		38·3	38·0	53·6	46·0	30·8	31·4
Sulphur Dioxide Parts per 100 million	1	4·7	6·6	11·1	8·1	4·2	5·1
	2	11·9	14·2	15·8	15·7	8·5	10·5
	3	7·3	9·7	14·1	13·1	8·4	6·0
	4	4·9	6·9	11·1	10·7	5·2	3·4
	5	12·4	14·1	18·2	19·2	12·8	11·9
	6	7·9	9·4	11·2	12·2	7·0	6·6
	7	5·3	7·1	11·2	10·7	5·5	8·2
	8	12·3	15·7	20·4	21·3	12·9	14·3
	9	7·5	10·8	11·8	14·2	10·3	9·8
Average:		8·3	10·5	13·9	13·9	8·3	8·4
3 : 4 Benzpyrene Microgrammes per 100 Cubic metres	1	3·0	5·2	9·2	8·0	4·8	7·0
	2	**12·6**	**19·2**	**23·5**	**27·3**	**16·2**	**19·8**
	3	6·8	9·1	16·6	14·2	10·0	8·3
	4	1·8	4·8	9·2	7·6	3·4	5·3
	5	6·1	7·4	15·2	9·0	6·0	6·0
	6	5·9	4·7	15·2	7·8	8·2	7·9
	7	4·5	8·8	12·6	13·2	3·7	5·5
	8	7·9	13·6	18·4	22·1	11·7	13·9
	9	6·8	10·6	15·6	16·1	11·1	10·4
Average:		6·2	9·3	19·1	13·9	10·7	9·3
Pyrene Microgrammes per 100 cubic metres	1	1·9	0·8	4·8	7·0	3·3	2·7
	2	**10·2**	**13·1**	**27·1**	**20·2**	4·0	**6·5**
	3	1·6	4·0	17·6	8·7	4·7	2·2
	4	1·2	2·7	1·7	3·7	1·2	1·1
	5	2·8	1·3	8·4	4·9	1·0	4·2
	6	2·0	6·2	15·6	14·2	9·9	4·1
	7	0·6	2·3	9·8	5·2	1·0	2·1
	8	3·6	8·1	12·9	11·3	2·4	2·9
	9	2·5	5·2	11·8	16·7	6·3	4·4
Average:		2·9	4·9	12·2	10·2	4·7	3·3
1 : 12 Benzperylene Microgrammes per 100 cubic metres	1	**4·6**	6·8	3·4	8·0	3·9	2·8
	2	**15·3**	**15·7**	**22·7**	**17·1**	**9·9**	**11·7**
	3	6·9	8·3	11·0	11·3	5·7	4·5
	4	3·3	3·2	8·2	2·8	2·7	2·7
	5	7·4	5·7	21·2	8·3	5·1	3·3
	6	8·2	4·9	13·5	5·6	6·3	4·5
	7	5·1	7·2	12·7	8·7	4·2	6·0
	8	11·8	11·1	11·6	16·1	7·5	6·8
	9	5·5	6·9	15·2	10·1	7·5	5·7
Average:		7·6	7·8	13·3	9·8	7·6	5·3

TABLE 8

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	Referred by H.M. Inspector	
Want of Cleanliness (S.1)	1	1	–	–	–
Overcrowding (S.2)	–	–	–	–	–
Unreasonable temperature (S.3) ..	–	–	–	–	–
Inadequate ventilation (S.4)	–	–	–	–	–
Ineffective drainage of floors (S.6) ..	–	–	–	–	–
Sanitary Conveniences (S.7):—					
(*a*) Insufficient	1	1	–	–	–
(*b*) Unsuitable or defective	100	87	–	–	–
(*c*) Not separate for sexes	3	1	–	–	–
Other offences against the Act (not including offences relating to Outwork)	–	–	–	–	–
TOTALS	105	90	–	–	–

TABLE 9

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 ..	7	–	–	–	–	–
Furniture and Upholstery ..	22	–	–	–	–	–
Brush making ..	3	–	–	–	–	–
Stuffed Toys ..	–	–	–	–	–	–
TOTALS ..	32	–	–	–	–	–

TABLE 10

Factories Act, 1937
Places of Employment—Improvements Secured

Cleanliness improved	20
Temperature improved	—
Sanitary Accommodation:—	
Additional accommodation provided	7
Accommodation improved	322
Accommodation reconstructed	3
Ventilation improvements	21
Drainage improvements	4
Miscellaneous improvements	28

TABLE 11

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

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspections	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	121	351	10	–
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	959	443	71	–
(iii) Other premises in which Section 7 is enforced by the Local Authority * (excluding outworkers' premises) ..	35	3	–	–
TOTALS	1,115	797	81	–

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

TABLE 12

Disinfection

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	98	–	98
Beds	81	–	81
Rooms	48	–	48
Articles	586	199	785
Articles Destroyed	150	–	150

The 98 premises disinfected free of charge were for the following reasons:—

Tuberculosis	36	Gangrene	1
Scabies	1	Verminous conditions	42
Cancer	16	Precautionary	2

TABLE 13

Disinfestation

Infestation by	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs	47	1	–	–	48
Cockroaches	195	163	9	6	373
Fleas	13	1	–	1	15
Golden Spider Beetles	1	–	–	–	1
Wasps	6	1	–	–	7
Wood Lice	–	1	–	–	1
Body Lice	–	1	–	–	1
Silver Fish	5	–	–	1	6
House Fly	3	37	–	–	40
General Disinfestation	66	–	–	–	66
Others	10	11	–	–	21

TABLE 14

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	129	56,383	102	6,577	63,191
II. Number of properties inspected by the Local Authority as a result of (*a*) notification or (*b*) otherwise	(*a*) 41	675	2	211	929
	(*b*) 99	475	404	7,282	8,260
III. Number of properties (under II) found to be infested with rats	Major 13	2	6	31	52
	Minor 24	440	4	147	615
IV. Number of properties (under II) found to be seriously infested with mice	36	251	–	273	560
V. Number of infested properties (under III and IV) treated by Local Authority	73	703	10	451	1,237
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	254				

PART V

ADDITIONAL INFORMATION

A Special Investigation into the Sale of Poisons

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

Rehousing on General Medical Grounds

Baths and Wash-houses

Meteorological Summary

A SPECIAL INVESTIGATION INTO THE SALE OF POISONS

Pharmacy and Poisons Act, 1933
Poisons Rules
Sale of Part II Poisons

The Act and Rules are complex in their provisions and administration and although work under this legislation may be only a small part of the work of the Health Department it needs a good deal of concentration to be certain that the law is being obeyed. If this is true of officials, it is not surprising that shopkeepers who sell these commodities as a very small part of their business should also find difficulty in understanding what is expected of them. The very wide variety of retail traders dealing in Part II poisons is another source of anxiety. This is not just a question of enforcing rules for the sake of it, but because potentially there is dreadful danger in the sale, in an unorthodox way, of some of these commodities, and tragedies could very easily result.

It became apparent during the year that all was not well and a few complaints began to trickle in. Consequently a full investigation of the situation in Bolton was ordered and I am grateful to Mr. Richard Sharp, Specialist Public Health Inspector, for the following report. As a result of his activities I believe that this part of our administration should be much more under control than it has been hitherto.

* * *

The department is responsible for the administration of the Pharmacy and Poisons Act and the Poisons Rules relating to the sale of Part II poisons. The requirements of the Act and Rules cover matters such as:—

(*a*) Listing of premises and persons by the local authority
(*b*) Storage
(*c*) Form of containers
(*d*) Labelling
(*e*) Recording of the particulars of sales
(*f*) Special restrictions on certain substances

Visits have now been made to all listed shopkeepers with two objects—

(*a*) To ascertain the nature of the poisons sold
(*b*) To advise on the particular requirements covering the poisons held

Some 236 visits were made and the types of premises concerned can be classified as below.

Retail grocers and confectioners	111
Hardware and ironmongers	56
Corn merchants	2
Paint manufacturers	4
Painters and decorators and plumbers	6
Drug stores	4
Agricultural engineers	2
Gardening requisites	2
Post offices	2
Newsagents	2
Photographic requisites	1
Wholesale grocers	2
Garages	1
Departmental stores	3
Others	4

The premises have been grouped by the predominant trade or business. There is of course some overlapping and for instance ironmongers often will sell horticultural products.

It will be seen that Part II Poisons are retailed from a wide variety of premises. The products include a surprising variety of substances including disinfectants, insecticides, weedkillers and hairdyes.

The requirements of the Act and Rules are rather complicated and are not easily understood by some shopkeepers. All of the substances to which the Act and Rules apply are listed as chemicals. This is probably inevitable as it would be difficult to list all proprietary products. The documentary requirements applicable to certain poisons are also somewhat difficult to understand. Advice was tendered verbally at the time of visit but some 50 letters have had to be sent to give further explanation.

Particular attention was given to the possibility of loose sale, that is "break of bulk", being permitted in the case of certain liquids such as ammonia and hydrochloric acid. These liquids must be sold in special bottles and this requirement was stressed.

It is, however, my impression that the sale of "loose" poisons is much less prevalent than it was a few years ago. All other products must be sold in the closed containers as received by the shopkeeper.

Ammonia of strength less than 5 per cent w/w is exempted totally from the Act and Rules and this does give rise to confusion among some shopkeepers. I do not quite see the reason for the choice of this figure of 5 per cent which is probably arbitrary.

Special attention was also paid to the restrictions and requirements relating to the sale of poisons containing such substances as nicotine and arsenic. In these cases records of the sales must be kept by the shopkeeper who must be satisfied that the person buying is a suitable person. A specimen copy of the prescribed form of record was supplied to those shopkeepers selling the restricted products. In this connection I am at a loss to understand the exemption given to products containing less than 4 per cent nicotine. The figure again seems quite arbitrary.

Many shopkeepers are listed because of the sale of a single proprietary product in the case of which the only additional requirement demanded is to label the bottle with his name and address.

Several samples were taken for analysis. One proved to be copper aceto-arsenite which had been sold loose and the vendors immediately agreed to cease retail sale in this form. The substances were being sold as insecticides. Another sample (a liquid) although labelled as poison, proved to be outside the listed poisons. On investigation it proved to be very old stock and the shopkeeper agreed to withdraw the stock from the shop. Five samples were checked for the statement of proportion of poison included, particular attention being given to those where the label included a definite statement, "No licence required for the sale of this substance." Incidentally, the Act and Rules do not refer at all to a "licence." Some of the ammonias of strength below 5 per cent w/w were found to be in bottles embossed with the word "Poison." This would not be obligatory, the substance being exempted, but probably it is all to the good. Further sampling is proposed.

Attention was given to the correct labelling of containers. There are no specific sizes for the wording required, and in some cases the letters do seem rather small. It is felt that there ought to be a definite size at least for the word "Poison."

One manufacturer was found to be labelling certain ammonia and phenol products incorrectly. A detailed list of the requirements was supplied to him so that the labels could be amended accordingly.

A number of shopkeepers on being interviewed were found to be under the impression that listing was required for products outside the scope of the Act and Rules. Some, perhaps quite reasonably, thought that all disinfectants were included. One thought that all patent medicines were included. Some enquiries were put to me about methylated spirits and turpentine. The former is a matter for the Customs and Excise authorities, but I personally do not know of any particular requirements about the latter. Some 27 shopkeepers were removed from the list at their request.

Enquiries were extended to several premises other than those listed and a number of shopkeepers were found to be selling but not on the list. These were undoubtedly unaware of the requirements and a number gave up sale after being given an opportunity to apply for listing. Nevertheless 9 were added to the list. In some of these cases the shopkeepers complained that the wholesale suppliers did not inform them of the necessity for listing. Unfortunately there is no obligation on the wholesaler to do so.

Whilst not within the scope of the Act and Rules the opportunity was taken in a number of instances to point out the dangers of the practice of putting paraffin in bottles such as mineral water bottles, and the legal position connected with this. The misuse of such bottles may constitute an offence under the Merchandise Marks Act.

A bottle of soft soap was found to have a cap bearing the name of a local brewery. The brewery was informed and the manufacturer interviewed and warned. It was felt that this particular person did make reasonable efforts to avoid this happening and he showed me a quite astonishing collection of bottles that he had had to reject to avoid contravening the Merchandise Marks Act. Another manufacturer of soft soap was interviewed after an inspection of his delivery van and a number of bottles bearing trade designations were withdrawn.

No provision is made in the Act for publicity or press notices on the sale of Part II poisons. It would appear, therefore, that this problem should be dealt with as a Health Education matter in view of its great importance in respect of prevention of accidents.

Future Action:

(*a*) Further visits to listed sellers particularly those likely to sell loose poisons and those to which special documentation is applicable.

(*b*) A summary of the requirements to be sent to each listed shopkeeper with the next renewal reminders and to be supplied to each new applicant.

(*c*) District Public Health Inspectors to be asked to enquire about possible sale of poisons when making routine inspections of shops on their districts.

(*d*) Further samples to be taken for analysis.

(*e*) Publicity as a part of Health Education.

Conclusions:

(*a*) The majority of shopkeepers are listed because of the sale of certain proprietary disinfectants, though some do sell a range of products.

(*b*) Sale of "loose" poisons by listed shopkeepers is not extensive.

(*c*) The Act and Rules are somewhat complicated and not easily understood by shopkeepers. All the poisons are listed as chemicals.

(*d*) Some of the requirements seem somewhat arbitrary.

(*e*) Advice has been given in all cases where it was necessary or was requested.

(*f*) No specific provision is made for publicity or press notices.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

During the past twelve months, 1,309 examinations were carried out by medical officers on 1,291 persons. A summary is shown in the following table:—

Examination for—	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme	412	176	8	1
Entry into Sickness Payment Scheme	121	296	8	7
Other medicals :—				
Fitness to resume employment	2	1	1	1
Fitness to drive motor vehicles	1	–	1	–
Retirement on medical grounds	14	–	–	–
Fitness to be employed as a teacher	79	31	–	–
Fitness for admission to a Training College	22	47	–	–
Fitness to teach after leaving the Bolton Technical Training College	82	20	–	–
Medical examinations carried out at the request of other Local Authorities	1	4	–	–
TOTALS	734	575	18	9

There are 19 incomplete examinations included in the above figures, i.e. where it was found that a decision had to be deferred and the persons concerned will be requested during 1958 to attend for a further medical examination.

It was necessary to refer 251 examinees for Mass Radiography, 45 because their employment involved working with children, 51 because they were training college students or were awaiting admission to a training college, and the remainder at the request of the examining medical officer. Two persons were sent for X-ray to the chest clinic at the request of Hereford County Council and the City of Glasgow. Routine X-ray of chest is not yet required for Bolton applicants.

Ten persons were referred to consultant physicians and surgeons for a further opinion.

Drivers of Corporation vehicles, including public service vehicles, were all tested for defects of colour vision. For this purpose the Ishihara testing charts and Giles-Archer lantern were used.

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

Abnormality	Superannuation Scheme		Sickness Payment Scheme		Special Medicals	
	Males	Females	Males	Females	Males	Females
Cardiovascular disease (including hypertension)	3	·	·	6	1	1
Disease of Respiratory System..	1	–	3	1	1	–
Defective colour vision in drivers	1	–	–	–	–	–
Disease of the Skin	1	–	1	–	–	–
Disease of the Nervous System (including mental illness) ..	1	1	1	–	–	–
Severe Varicose Veins	–	–	1	–	–	–
Disease of Abdomen..	–	–	1	–	–	–
Disease of Metabolism	1	–	1	–	–	–
TOTALS	8	1	8	7	2	1

NATIONAL ASSISTANCE ACT, 1948—SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

No person was removed to an institution under the provisions of Section 47 of the National Assistance Act, 1948 (as amended). This section gives powers to remove to hospital or Part III accommodation persons who, suffering from grave chronic disease, or being aged and infirm and living in insanitary conditions, are not able to devote to themselves, or are not receiving, proper care and attention.

Three patients were visited who were living in conditions where it was felt that compulsory removal might be necessary. However, two of these patients were found on examination to be dying and to be so near death that removal to hospital would merely have accelerated death and therefore was not indicated. In the third case a patient who at first refused to be admitted ultimately decided to enter hospital. These three cases are now described in more detail.

The first case was that of a frail old lady who was living alone and the attention of the Health Department was drawn to the conditions in which she was living by the consultant physician. A visit revealed her to be in very poor general condition. She was lying in bed with an extremely weak pulse. It was difficult to communicate with her as she was very deaf, but she was adamant in her refusal to be admitted to hospital.

It was decided that she was dying from cardiovascular degeneration, but it was considered she might live for some days.

She was receiving attention from a neighbour who went out to work, and was therefore alone all night and for a large part of the day. The patient's general condition was so poor that immediate removal was felt to be undesirable. Arrangements were made for someone to sit with her for the night and consideration was being given to action under Section 47 of the National Assistance Act, but the patient died during the night.

The second case was a man aged 76 who lived alone in a bungalow, his wife having died several years before. He collapsed in the street outside his home and was removed to hospital. He refused to be admitted, and despite urgent advice to be admitted he categorically refused. He was taken back home by ambulance and put to bed. Arrangements were made for a home nurse to visit and for a night sitter to stay with him. The night sitter stayed for a few hours but conditions in the house were so bad that she found it impossible to stay throughout the night. There was no coal and nowhere for her to sit down, and the condition of the house was so bad that her action in leaving was not considered to be unreasonable. It was therefore arranged for ambulance staff to visit at hourly intervals throughout the night. A medical officer visited next morning and found the patient to be a frail, emaciated old man who was obviously suffering from bronchopneumonia and was at the point of death. There was no food in the house, there was very little furniture, and conditions generally were extremely bad. An attempt was made to persuade the patient to enter hospital but he was quite emphatic in his refusal. It was felt that little could be done to help in view of the man's persistent refusal to enter hospital. Arrangements were made for frequent visits by the home nurse and the family doctor was informed. The patient's niece who lived nearby was visited and she agreed to help to look after him. When she went to the house very soon after, she found him to be dead.

The third case, a man aged 76, was seen at the instance of a health visitor and the Superintendent Nursing Officer as it was considered that further visits by the health visitor could not result in any improvement in the conditions of the house.

This man's wife was admitted to hospital in February and died in July. Since her admission to hospital his general condition had gradually deteriorated. He had had little help in the house apart from occasional visits from his daughter, and on three occasions home help service had been provided. He had refused regular home help giving the reason that his daughter was able and willing to look after him. The daughter's efforts, however, were ineffective and intermittent, and no continuous help had been forthcoming from this source.

The house was in an appalling condition. The only food was a partly used loaf of bread. The electricity supply was disconnected due to a fault which, apparently, had not been reported. There was, therefore, no means of cooking in the house apart from an open fire. There was an accumulation of rubbish in both ground floor rooms. A bucket served as a toilet in the living room. The W.C. was at the bottom of the yard, and although it was in working order it had not been flushed for a considerable time and there was an accumulation of faecal matter, etc.

The bedding was in a filthy condition and there were no sheets. The patient had latterly been sleeping in a chair, and as he had no electricity he had been sitting in the dark in this chair from 4 p.m. until 8 a.m. the next day when it became light. His general condition was poor—he was obviously undernourished and had a frequent cough with wheeziness. He was suffering from senility, bronchitis and cardiovascular degeneration, and was very deaf.

It was decided that no help could be provided whilst he was still in the house and the only alternative was to admit him to hospital. This was a case for action under Section 47, but it was possible, after much persuasion, to get him to agree to be admitted to hospital. The consultant and the family doctor were both agreeable to this course and the man was admitted to hospital on the 18th December.

It was thought that if his general condition could improve whilst in hospital, and if the house was thoroughly cleaned, it would be possible to maintain him in a reasonable state of health at home in the future. However, he died in hospital four days after admission.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 235 men and 284 women at the end of the year.

In addition, 10 men and 42 women were registered as partially sighted.

A total of 72 forms B.D.8 was completed by the ophthalmic surgeons during the year.

The following table shows the age and sex distribution of the persons examined by the ophthalmic surgeons who completed the forms B.D.8.

Age at Onset of Blindness

	Con-genital	0-15	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-100	Unspe-cified	Total
Males ..	1	2	1	2	4	2	3	4	3	3	–	–	2	27
Females ..	1	3	–	1	8	7	7	7	3	4	–	–	4	45

Age in 1957

	0-15	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	Total
Males ..	1	–	2	4	–	2	3	8	6	1	–	–	27
Females	3	–	–	2	5	7	6	9	10	2	1	–	45

A further analysis of these cases shows the following conditions to be present in the 72 cases examined—

Conditions	Males' Eyes	Females' Eyes
Macular degeneration	4	4
Cerebro-Macular degeneration	2	–
Diffuse Retinitis	–	2
Incipient Cataract and Myopic Fundus	–	2
Incipient Cataract	5	9
Incipient Cataract and Macular Degeneration	–	4
Aphakia	5	9
Full Cataract	1	6
Cataract	7	9
Cataract Aphakia	–	1
Cataract, Aphakia and Hazy Cornea	1	–
Post Polar Cataract and Myopia	–	1
Diabetic Retinitis	–	2
Corneal Scarring	2	–
Glaucoma	7	10
Glaucoma Secondary Cataract	1	1
Glaucoma—Aphakia	–	1
Old Injury	1	–
Congested Fundus	–	2
Glaucoma—Incipient Cataract	–	2
Retinal Haemorrhage	–	1
Vitreous Haemorrhage	–	1
Retrolental Fibroplasia	–	2
Optic Atrophy	4	2
Choroidal Retinitis	–	1
Retinitis Macular area	–	1
Myopic Astigmatism and Corneal Scarring	–	1
Leucoma	–	1
Myopia—Incipient Cataract	2	–
Retinitis Pigmentosa	4	–
Extensive Retinitis	–	2
Fundus Congenital—Aphakia	1	–
Eye Removed	1	–
Early Lens changes	–	2
Retinitis	–	4
Old Plastic Iritis and Secondary Cataract	–	2
Eviscerated	1	1
Irido Cyclitis and Incipient Cataract	–	1
High Myopia	2	1
Phthisis Bulbi	1	–
Normal	1	–
Optic Atrophy—Cupped Disc	1	–
Subluxation of Lens	1	–
Vitreous Hazy—Detached Retina	1	–
Secondary Glaucoma	–	2

Visitors from the Welfare Department carried out follow-up work in respect of newly ascertained cases. In addition, a health visitor called on each new patient and each new case under review in order to ensure that help could be given to the patient to ensure that any treatment which was recommended was carried out.

A five-year old girl was examined who was born prematurely. Her birth weight was 4 lbs. 12 ozs. Since shortly after birth retrolental fibroplasia has been suspected but because she has a bilateral cataract it is not possible to say with certainty that retrolental fibroplasia is present because of the difficulty of seeing the retina and posterior chamber of the eye due to the presence of the cataract. Although her birth weight was not particularly low, the fact that she was kept in an incubator in oxygen for three weeks after birth makes the presence of retrolental fibroplasia extremely likely. She was admitted to a school for partially sighted children at the end of the year.

Analysis of Form B.D.8 Recommendations

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
Number of cases registered during the year in respect of which there was recommended—				
No Treatment	4	4	–	11
Treatment (medical, surgical or optical) ..	1 medical	1 medical		5 medical
	6 surgical			1 surgical
	2 optical			2 optical
Hospital Supervision ..	15	7	1	12
TOTAL	72 cases			

At the end of the year 6 blind and 8 partially sighted children were receiving special educational treatment in boarding schools.

Epilepsy:

The Chief Welfare Officer states that the Register of Handicapped Persons contained the names of 19 men and 10 women suffering from epilepsy. Of these—

10 men and 5 women were in colonies for the epileptic
1 woman was in a home provided by another local authority
7 men and 3 women were at home
2 men and 1 woman were in residential accommodation provided by Bolton Corporation.

The Local Education Authority knew of 47 boys and 32 girls attending ordinary schools who were epileptic, and maintained 3 girls in special schools. In addition, two children received the services of home teachers.

Cerebral Palsy:

Only one person suffering from cerebral palsy was on the Register of Handicapped Persons maintained by the Chief Welfare Officer. It is plain to see that persons suffering from cerebral palsy are not being registered as handicapped persons.

The Local Education Authority were aware of 28 children with this handicap. Disposal of these children is as follows:—

	Boys	Girls
Admitted to Birtenshaw Hall Special School	6	7
Awaiting consideration for admission to Birtenshaw Hall Special School	2	–
Attending Special School for the Deaf	1	2
Attending Special School for the Educationally subnormal	–	1
Attending Open Air School	–	1
Attending Special School for Maladjusted Children ...	–	1
Attending ordinary schools...	5	2
Totals	14	14

Of the mental defectives known to the authority, 12 were suffering from cerebral palsy in addition to the mental handicap.

The special school for spastic children at Birtenshaw Hall opened its doors at the end of 1956 and all places were filled during 1957. The school operated successfully during its first year and has been a great help to the authority in accommodating spastic children who have had difficulty in securing adequate educational facilities in the past. The majority of day children attending the school are children who live in the county borough of Bolton.

Facilities available for Handicapped Persons:

The welfare of handicapped persons over school age is the responsibility of the Welfare Department, and from the age of two years up to school leaving age it is the responsibility of the Education Authority.

The Health Department, although having no direct responsibilities, co-operates closely with these two departments.

The Welfare Department provides a comprehensive range of services for the blind, and facilities exist for the sale of goods produced by registered physically handicapped persons.

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

The Health Department has continued to be responsible for the routine medical supervision of children in the care of the Local Authority. All children admitted to, and discharged from children's homes, and children for boarding out, were examined by the medical officer on duty. In addition, special sessions were devoted to routine medical examinations of children already "in care." These entailed monthly visits to the Elizabeth Ashmore Nursery, and visits to foster homes. A health visitor accompanied the medical officer at most of the sessions. The Medical Officer of Health issued a special report to the Children's Committee each quarter.

Medical Examinations:

No. of children examined on admission to Homes	144
No. of children examined on discharge from Homes	80
No. of examinations made for the purpose of boarding out ...	14
No. of routine examinations: 0 – 1 year	82
1 – 5 years	104
over 5 years	224
TOTAL	648

Nutritional Status:

Routine medical examinations were made on 224 children over the age of 5 years. Only 2 of these were considered to be poorly nourished.

Classification of Defects found on Medical Examination:

No. of defects of Teeth	30
,, ,, ,, ,, Skin	36
,, ,, ,, ,, Eyes	53
,, ,, ,, ,, Ears	23
,, ,, ,, ,, Nose and Throat	14
,, ,, ,, ,, Speech	4
,, ,, ,, ,, Heart	1
,, ,, ,, ,, Lungs	5
,, ,, ,, ,, Abdomen	3
Hernia	3
Cervical glands	–
Orthopaedic defects	12
Defects of Nervous System	5
Psychological defects	11
Other defects	8
TOTAL NO. OF DEFECTS ASCERTAINED	208

Of the 410 children who had routine medical examinations, 189 (46.1%) were found to have one or more defect. Twelve children were referred for a consultant opinion, and 11 children were referred to family doctors for treatment.

CARE OF CHILDREN CO-ORDINATING COMMITTEE

PROBLEM FAMILIES

I am very grateful to Mr. P. E. Varey, Children's Officer, for his generous assistance to me and for the following report:—

This Committee was formed in 1951, following the publication of a Joint Circular from the Home Office, Ministry of Health and Ministry of Education entitled "Children neglected or ill-treated in their own homes." The object of the Committee is to secure the interest and co-operation of all local services concerned with the welfare of children in their own homes, and to consider all cases of child neglect or ill-treatment brought to notice so that, taking the needs of the family as a whole, agreement might be reached on how the local services can best be applied to meet these needs.

Quarterly meetings of this Committee have been held under the chairmanship of the Medical Officer of Health, attended by senior officers of each of the Departments of the Corporation concerned with the health and welfare of children in their own homes, by the Area Officers of the National Assistance Board, Bolton (North) and Bolton (South), and by representatives of all the voluntary organisations in the town who are concerned with this problem. These quarterly meetings are held to consider policy on the co-ordination of the services and to review the work of the monthly case conferences.

Each month "case conferences" have been held under the chairmanship of the Children's Officer, attended by those representatives of the Corporation Departments, statutory bodies and voluntary organisations most intimately connected with the neglect of children in the town. Where concern has been expressed about the welfare of any children, a discussion takes place as to how best the children's interests can be safeguarded. The pooling of all known information about the families concerned is in itself of considerable value, and after discussion, individual members of the Committee are asked to take such action as is considered best fitted to the needs of the family. Here particularly, the services of the Specialist Health Visitor and of the Woman Visitor of the N.S.P.C.C. are invaluable. Both are available to concentrate their efforts to assist these families whose problems are acute and where there are signs that without support the family might disintegrate. Although progress in such cases is invariably slow and much unrewarding work is put in, it is encouraging that many families have been helped to keep together, enabling children to remain in their own homes instead of being received into the care of the Local Authority.

Most of the problems referred to the Committee stem generally from poor standards and the lack of ability of the parents to cope with family problems rather than wilful cruelty or negligence. Whilst these problems are inevitable, the Committee does concentrate the help available by co-ordination of the various services.

It is not easy to represent the work involved statistically, but during 1957 a total of 55 families (208 children) in all were the subject of consideration, of which 13 families (34 children) were newly reported cases. Of this total—

21 families (75 children) were considered to have improved, or to have had their needs met, and were deleted from the register

1 family (1 child) had left the town

4 families (13 children) were removed from the register, the children being in the care of the Local Authority with no apparent likelihood of rehabilitation

29 families (119 children) remained on the list, although in several cases encouraging progress was reported

NURSING HOMES

Two nursing homes which are registered under Section 187 of the Public Health Act continued to function and together provided 47 beds for private patients. Medical cases, especially chronic medical cases, are admitted, and the majority of patients are elderly. At one nursing home the bed complement is 24, and at the second nursing home it is 23.

The nursing homes are visited periodically by members of the Health Department staff. The Superintendent Nursing Officer has visited, and a medical officer also visited during the year.

The staffing arrangements and accommodation are perfectly satisfactory for the treatment of the patients, and the two homes continue to render good service.

CREMATION

The "Overdale" Crematorium opened at the end of 1954 and has now completed three full years of operation. The following are the details:—

Year	Number of Bolton Residents Cremated	Cremation of persons from other areas	Total Cremations	Approx. % of deaths of Bolton Residents who were cremated
1955	659	774	1,433	28%
1956	745	1,041	1,786	34%
1957	**807**	**1,028**	**1,835**	**36%**

A crematorium was opened in Blackburn at the end of 1956 and it was anticipated that this would reduce the number of cremations at "Overdale" by approximately 300, but as a result of an increase in deaths due to the outbreak of Asian flu in September/October, and an overall increase in the use of cremation, the figures for 1957 show an increase.

The Medical Officer of Health, the Deputy Medical Officer of Health, and an Assistant Medical Officer, have acted as Medical Referee and Deputy Medical Referees respectively, and no major difficulties have been encountered.

BOLTON MEDICAL BUREAU

This is the fourth year of the arrangements for the Bolton Medical Bureau which is administered through the Ambulance Control Room and which enables family doctors to leave specified messages for any enquiring patient when he leaves his telephone unattended.

During the course of the year at a meeting of general practitioners, the success of the scheme was confirmed and it was unanimously recommended that it should continue. Although the number of enquiries is not large it apparently serves a very useful purpose.

During the year 585 calls were made through the Bureau either by patients seeking general practitioners or by family doctors giving notice of their temporary absence from home.

HEALTH EDUCATION AND LIAISON

Health Visitors:

Health visitors remain the spearhead of our health education programme in their work both at the clinics and in the homes. In addition, they carry out mothercraft training at the hospital ante-natal clinics and attend the paediatric clinics and ward rounds at the general hospital.

A useful experiment in general practitioner relationship is still continuing in that a health visitor attends at a partnership practice surgery to carry out social work. Another health visitor is in close liaison and co-operation with the geriatric physician in his domiciliary visits. The problem family health visitor continues her valuable work and our three tuberculosis health visitors carry out much health education in their specific field to good effect.

Special training in the detection of early deafness in young children has been obtained by several health visitors at the Department of Education of the Deaf and in addition, one health visitor has received special training in order to follow up Professor Ewing's cases in the home.

The health visitors have spent an increasing amount of time in instructing the mothers of young children on the various dangers in the home. Use was made of the waiting room in the Health Department to display the numerous dangers present in a badly run home. An unsatisfactory room was displayed alongside a satisfactory room, and the display was altered each week to stress the different hazards which might be present in the home.

Central Council for Health Education:

The Corporation continued to contribute to the Central Council for Health Education and to use material produced by them.

Smoking and Lung Cancer:

Posters bearing the simple message—"There are now the strongest reasons to believe that smokers—particularly of cigarettes—run a greater risk of lung cancer than non-smokers. The more cigarettes smoked the greater the risk"—were displayed in many public places. General practitioners agreed to display the posters in their surgeries.

Diphtheria Immunisation:

Posters continued to be displayed in infant welfare centres, and an advertisement appeared periodically in the local press advising diphtheria immunisation in infancy. The Clerk of the Executive Council continued to send reminders of the benefit of vaccination and immunisation to all parents of children registering their child with a doctor for the first time.

Poliomyelitis Vaccination:

During 1957 the supply of poliomyelitis vaccine was still restricted. Therefore it was not necessary to conduct an intensive campaign to encourage mothers to have their children vaccinated. However, in December, the Minister of Health introduced his increased programme of poliomyelitis vaccination and parents of all children aged from 6 months to 15 years were approached and were strongly advised to register their children for vaccination. General practitioners and expectant mothers were also approached and similarly advised. A letter was sent by the Medical Officer of Health to the head teachers of all schools in the borough, and as a result of this intensive campaign at the end of the year 7,673 persons had registered and were awaiting vaccination.

Once again general practitioners agreed to display in the waiting rooms of their surgeries posters which advocated poliomyelitis vaccination.

Clean Air Campaign:

A Clean Air Campaign was held in the Town Hall in September and the Health Department made a considerable effort to produce an interesting and informative display. The main theme of the display was respiratory damage caused by atmospheric pollution, and instruments for measuring atmospheric pollution were displayed. Prizes were offered to school children for the best essays on clean air,—the subject was "Why should we strive for Clean Air?"

Family Doctor Bulletin:

The weekly bulletin to doctors has continued to be issued every Monday to all doctors practising in the town and still appears to be received with interest.

Staff Training:

Clinical meetings conducted by Dr. W. Dickson, the Paediatrician at the hospital, have continued for the medical staff and we are delighted that this liaison should continue.

The In-Service training lectures for the nursing staff which are listed elsewhere in this report continue to be useful and I am grateful to members of my staff and to outside lecturers for their help.

Refresher courses for professional and technical members of the staff have continued to be an important part of the Health Committee's policy in order to keep the staff up to date with current affairs.

Outside Lectures:

We have continued to arrange for lectures to be given to outside bodies who have approached us on this matter and a wide field has been covered by many members of the staff.

REHOUSING ON GENERAL MEDICAL GROUNDS

A total of 107 applications was received for special consideration for rehousing on medical grounds. Ninety-nine of these applications were supported by a recommendation from the family doctor.

In each case where there was a recommendation from a medical practitioner a health visitor reported on the housing conditions and the social needs of the family. On a few occasions a public health inspector visited where it was felt that the housing conditions were due to structural defects or disrepair, and his report, together with that of the health visitor and the family doctor, was taken into consideration in deciding whether rehousing on medical grounds should be recommended.

Because the number of applications received was more than twice the number we were able to recommend, a careful selection had to be made.

Most of the recommendations on general medical grounds concerned people who were elderly or who had difficulty with stairs and the type of house required was a bungalow or ground floor flat. Because the number of dwellings of this type is not numerous there is a longer delay before a patient is rehoused than in the case of rehousing on the grounds of tuberculosis where the requirements are slightly different and where there is a greater number of houses available which are suitable for tuberculous patients.

Amongst the forty-one families recommended for rehousing on medical grounds, the disabilities present were as follows:—

Respiratory diseases...	12
Diseases of Heart and Circulation...	6
Osteoarthritis and Rheumatoid Arthritis ...	5
Hemiplegia	3
Parkinson's Disease	3
Illness of Children	8
Menieres disease; blindness of husband and wife; amputation of both legs; degeneration of spinal cord.	

The above conditions constituted the principal reason for a medical recommendation, but in addition, in the case of seven families more than one person in the family had a condition for which rehousing was desirable. In these seven cases the disability in the second member of the family included the following conditions:—

blindness; arthritis; bronchitis and emphysema; mental deficiency; amputation of leg; varicose ulcer.

Of the children concerned, five were suffering from bronchitis, asthma or recurrent upper respiratory infections; one had a congenital heart disease; one was a blind child, and one had a severe debilitating condition following operations.

As in previous years the pattern repeats itself in that the principal conditions present for which rehousing was recommended were respiratory disease, heart disease and arthritis, and the principal difficulty in the house was difficulty with stairs.

The Housing Committee made a total allocation of 50 houses for cases requiring rehousing on medical grounds, including tuberculosis, and 36 applicants were rehoused during the year. Of these, five had been recommended in 1956, and of the remaining 31, sixteen were rehoused on general medical grounds and fifteen on grounds of tuberculosis.

Rehousing of persons on grounds of tuberculosis is dealt with separately under 'Tuberculosis'.

BATHS AND WASH-HOUSES

There was no change in the pattern of administration of the Baths Service. The various establishments offered the following facilities:—

BATHS:

High Street	1 Plunge 9 Slipper Baths
Bridgeman Street... ...	2 Plunges 25 Slipper Baths
Moss Street	2 Plunges 18 Slipper Baths
Hennon Street	23 Slipper Baths 1 Shower Bath
Rothwell Street	15 Slipper Baths
Great Moor Street	Turkish Baths

WASH-HOUSES:

Moss Street and Rothwell Street	Hand-washing Stalls Electric Rotary Washing Machines Hydro Extractors Drying Chambers Coin Slot Ironing Machines

The attendances at the various establishments during the last three years are compared below:—

	Swimming Plunges			Slipper Baths			Wash-houses		
	1957	1956	1955	**1957**	1956	1955	**1957**	1956	1955
High St. Baths	**59,735**	58,498	71,366	**17,112**	17,132	17,899			
Bridgeman St. Baths.. ..	**123,241**	110,823	120,492	**38,241**	36,111	36,169			
Moss St. Baths and Wash-houses ..	**81,956**	100,433	100,349	**35,228**	36,170	38,222	**24,669**	22,570	21,081
Hennon St. Baths.. ..				**21,912**	19,562	25,452			
Rothwell St. Wash-houses				**15,944**	16,638	18,078	**34,094**	42,963	38,462
TOTALS ..	**264,932**	269,254	292,207	**128,437**	125,613	135,820	**58,763**	65,533	59,543

TURKISH BATHS:

There was a considerable increase in attendances compared with the previous two years:—

YEAR	ATTENDANCES
1955	6,696
1956	6,991
1957	**7,693**

The large plunge at Moss Street Baths was closed for repairs for five weeks during the early Summer. The attendances by organised parties of school children between April and October decreased from 57,831 in 1956 to 37,109 in 1957. The closing of the plunge at Moss Street Baths and the severe influenza epidemic of September were the chief reasons for the decrease.

Each year 150 passes which entitle the holders to a year's free swimming are awarded to school children who pass the tests set by the Bolton Scholarship Scheme for the Encouragement of Swimming. Citizens of Bolton who pass the examination for the bronze medallion of the Royal Life Saving Society are also awarded passes which entitle the holders to a year's free swimming. This year 105 passes were awarded compared with 229 in 1956. The figures given in the tables include attendances by free pass holders and school children.

Facilities were granted to Swimming Clubs for after hours swimming, for the holding of galas, and for the promotion of water polo matches.

Rothwell Street Wash-house was closed for repairs for eight weeks, but attendances reverted to normal immediately on its re-opening. The later evening sessions at both wash-houses which started in 1955 continued and were well attended. The coin slot ironing machines at Moss Street and Rothwell Street Wash-houses were used 48,270 times and 45,781 times respectively.

METEOROLOGICAL SUMMARY, 1957

Compiled at Queen's Park Observatory by A. Hazelwood, Esq.

1957	Barometer Inches	Mean Relative Humidity %	Mean of Maximum and Minimum Temperature °F.	Absolute extremes of Temperature				Sunshine			Total Rainfall Inches
				Highest °F.	Date	Lowest °F.	Date	Total Amount Hours	Maximum in one day Hours	Date	
January	30·117	87	41·06	55·4	4	27·1	25	31·6	6·2	10	3·422
February ..	29·645	89	39·37	55·0	9	21·8	20	64·2	8·4	22	2·402
March	29·861	86	47·60	66·6	12	33·0	3, 25	81·7	8·9	21	3·710
April	30·225	79	46·23	61·8	28	29·9	13	137·7	11·8	28	0·602
May	30·006	75	49·40	66·6	31	31·1	6	195·2	13·4	22	1·488
June	30·073	70	57·17	84·0	28	37·9	23	285·2	14·5	21	2·579
July	29·893	87	57·86	80·3	6	46·5	11	112·0	13·4	30	5·862
August	29·936	84	57·41	75·9	2	43·2	29	117·3	11·8	2	6·728
September ..	29·907	85	52·33	65·2	7	38·0	30	105·4	8·9	7	8·047
October.. ..	30·050	89	49·04	64·0	8	31·6	20	Estimate 82·0	—	—	5·874
November ..	30·090	85	43·63	53·8	1	25·3	8	55·7	7·0	22	2·138
December ..	29·931	87	39·71	54·0	20	23·9	16	32·8	5·1	24	5·197
TOTALS ..	359 794	1003	580·81					1300·8			48·049
Monthly Average ..	29·950	84	48·40					108·4			4·004

Rainfall: Average 1887 to 1957 = 44·642″

COUNTY BOROUGH OF BOLTON

EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

Principal School Medical Officer

FOR THE YEAR 1957

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
Principal School Medical Officer

SPECIAL SERVICES SUB-COMMITTEE

Municipal Year 1957-1958

His Worship the Mayor
(Alderman F. Young, J.P.)

Councillor Mrs. N. Vickers (*Chairman*)

Councillor Mrs. D. Berry (*Vice-Chairman*)

Alderman F. Bentley, J.P.

Councillor J. E. Baron

Councillor S. Hawksworth

Councillor E. G. Higson

Councillor Mrs. A. G. Hopewell

Councillor K. H. Jagger

Councillor C. H. Lucas

Councillor Mrs. E. M. Ryley

Councillor Mrs. H. Wright, J.P.

Mr. A. Howcroft (*Co-opted Member*)

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 (Resigned 30.4.57)
	Dr. Reginald D. Haigh (Commenced 1.7.57)
School Medical Officers	Dr. Frank R. Calvert (Resigned 23.10.57)
	Dr. Godfrey C. Galea
	Dr. Rosa M. Galloway
	Dr. Geoffrey A. Levell
	Dr. Margaret T. McCaffrey
	Dr. Eve M. Mawdsley (Commenced 4.11.57)
	Dr. Audrey Seddon (Part-time)

School Medical Officers worked part-time in both the Maternity and Child Welfare and School Health Services, 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 J. Bray
	Mrs. Joyce O. Burton (Full-time to 9.4.57) (Part-time from 10.4.57)
	Mr. Peter Barton-Bates (Part-time) (Resigned 25.7.57)
	Mr. Ian H. Thom (Part-time) (Commenced 1.10.57)
Dental Anaesthetists	Mr. J. Besant-Davies (Part-time)
	Dr. Elizabeth Mitchell (Part-time) (Commenced 17.1.57)
Psychiatrist	Dr. Elizabeth Berndt (Part-time)
Educational Psychologist	Miss M. P. Joyce
Social Worker	Miss M. Gumuchion (Resigned 31.7.57)
	Mrs. L. O. Green (Commenced 1.11.57)
Speech Therapists	Mrs. F. Barber
	Miss H. Jenkins
Chiropodist	Miss A. C. Drury (part-time) (Commenced 24.7.57)
Superintendent Nursing Officer	Miss M. Davies (Commenced 8.4.57)
Deputy Superintendent Health Visitor and School Nurse	Miss J. MacEachern

NURSING STAFF

On the 31st December, 3 full-time School Nurses, and 26 Health Visitors and one Clinic Nurse working part-time on School Health and part-time on Maternity and Child Welfare work—the equivalent of 12 full-time School Nurses.

The Superintendent Nursing Officer supervised the work of the staff and was assisted by the Deputy Superintendent Health Visitor and School Nurse.

DENTAL ATTENDANTS

There were 4 dental attendants employed on the 31st December.

TABLE OF CONTENTS

Health Department,
Civic Centre,
Bolton.

April, 1958

To the Chairman and Members of the Special Services Sub-Committee of the Bolton Education Committee.

There has been a tendency in recent years to criticise the work of the School Health Service. The criticism is based on the alleged disappearance of conditions which necessitated the introduction of the School Medical Service in the early part of this century. It is said that those conditions having now disappeared and with the development of a comprehensive medical service, that much of the work is superfluous. No one would be more pleased than the doctors and nurses engaged in this service if they could see any sign of diminution in the amount of necessary work confronting them each day, or any sign of this work being undertaken by others equally competent to do so. The fact of the matter is that we see no evident tendency towards this desirable end. The number of defects found year by year as a result of routine medical inspections is still maintained at a fairly high level at somewhat over 8 per cent of all cases inspected (8.3 per cent in 1957, and 8.1 per cent in 1956). Attendances at Minor Ailment Clinics are still approximately the same as in previous years and there is still a great mass of work to be done particularly on those three defects which cause us so much routine and continuous effort, namely, dental caries, visual defects, and diseases of the ear, nose and throat. It is true that the character of the School Health Service has changed over the last half century. No longer have we to deal with the serious defects which cause so much crippling such as orthopaedic conditions, heart conditions, rheumatic fever, and malnutrition. The emphasis has changed to problems which at first sight are less spectacular but just as numerous and in many ways more difficult to deal with. It is perhaps this change of emphasis which has made the superficial observer misinterpret the immense amount of painstaking work which is necessary to reach the goal of optimum health. Unfortunately, with the increase in the complexity of the problems which are dealt with, it is necessary to employ more people with differing skills and immediately one comes up against the dual problems of shortage of these skilled persons and financial shortage. I have no doubt in my own mind that the thoughts of those who would question the activities of the School Health Service—and there have been many in recent years—are very much misdirected. A glance at the statistics included in this report should fully justify the work which is being done and cannot help but lead to the conclusion that it will be many years before conditions are such that we have fully met the needs of the situation. I see no evidence of other professional people wishing to take on this task which is not surprising in view of its often tedious nature and lack of dramatic results. Looked at in the form of a report such as this, however, quiet satisfaction can be felt with the progress which is being made.

The transfer of clerical staff from the Education Department headquarters to the Civic Centre has now been completed and with satisfactory results. Now that the clerical staff is on the spot with the nurses and doctors actually at work in the service, and having such easy access to them, much streamlining of administration has been possible and the all-important matter of keeping records up to date has been more easily accomplished.

The need for more adequate school clinic premises to replace Charles Street Clinic still remains. I have attempted to obtain a decision on this for two years running, but without success. Undoubtedly there is a need in the rapidly developing Lever Edge Lane area for a clinic in connection with the Hayward Schools, and both the Education and Health Committees should be interested in this matter because it affects them both. In addition to the plan already put to the Special Services Sub-Committee, an equally attractive proposition has now been developed through the Health Committee in connection with land on Lever Edge Lane which was set aside for a Health Centre. It does look as though a clinic may possibly be developed on this site in connection with the building of old people's bungalows and a nurse's flat. The Council have now two ideas, therefore, to consider should they wish to do so. Either would serve the need of the area.

Dr. D. Davies in his dental report has fully emphasised the desperate situation with regard to the School Dental Service. There has been a considerable reduction in the amount of work done compared with the previous year. It has even been necessary to close some of our dental clinics because we have suddenly come up against the problem of shortage of dental officers to a marked degree. Hitherto we have been relatively fortunate compared with other parts of the country. There is no immediate sign of this situation rectifying itself and indeed, it would seem likely to get worse. Worse still is the fact that, as Dr. Davies remarks, dental caries is increasing in the child population largely as the result of changed dietary habits since the end of the war. The Board of Trade figures for the consumption of sugar used for confectionery and chocolate illustrate our problem admirably. In 1938, 481,000 tons of sugar was used for this purpose. By 1942 this figure had fallen to 200,000 tons which corresponds with the period when dental caries improved in this country, but by 1956 the figure had reached 628,000 tons which explains the rapid increase of dental caries. We can expect nothing but an incomplete service for some time to come and I would like to thank those dental officers on the staff who are coping with this situation to the best of their ability in spite of its formidable size.

On several occasions during the year we thought we had solved the problem of the appointment of an orthoptist jointly between the Education Authority and the Hospital Management Committee. Unfortunately the solution escaped us at the last minute in each case, and we are still without this badly needed orthoptist.

The chiropody service which is used largely for plantar warts has proved a very great success. The chiropodist has been kept fully employed on her one session a week. It will be necessary to increase the number of sessions to two a week during the coming year in order to deal with the long waiting list.

For many years we have not been troubled with ringworm of the scalp, a disease which can be highly infectious, and although not dangerous, is extremely troublesome. It will be noted that two cases had been discovered by the end of the year, but this is not the end of the story for since then at least six or seven others have been found in more than one school and amongst day nursery children. It would seem, therefore, that we have something in the nature of a mild outbreak. After consultation with the consultant at the Manchester Skin Hospital it would seem that Bolton is the only area at the moment which is producing ringworm cases hence vigorous efforts are needed. These we have undertaken and I think the outbreak is probably now contained although the situation will need careful watching. A special method of rapid diagnosis of the disease by use of a Woods Ultra-Violet Lamp has been brought into operation by the purchase of the necessary equipment and a rapid survey is carried out of all the children in each school where cases are reported.

Another perennial problem is the question of head infestation. This has shown a gradual improvement over the last few years and for the first time the report brings out this improvement in tabular form. It is therefore pleasing to see that there has been a continuous and steady decline in infestation from 9.4 per cent in 1953, to 5.3 per cent in 1957. This is another of those steady plodding jobs for which a School Health Service is ideally developed and which, under present circumstances, I doubt could be carried out quite so well otherwise.

One of the main objectives of the School Health Service is to go out and find defects and to deal with them in contra-distinction to other branches of the Health Service where defects are not sought for, but are awaited, the initiative depending upon the patient or the family doctor. This is clearly brought out in our work of ascertaining deafness at an early age. The work of routine testing of children in school has gone on apace and we find that at least 10 per cent of children tested fail the sweep test. Those failing the test, of course, are given more detailed testing at a later date and we find that approximately half of these initial failures still need some further attention either medically or educationally. Many of these defects would not otherwise have been discovered quite so early, if at all. We have tried to further our efforts in this direction by trying to ascertain deafness at a much earlier age, long before the child is ready to go to school, and for this purpose a number of our health visitors have received special training in the Department of Education of the Deaf at Manchester University in early methods of detection of deafness in very young children. Also, a health visitor has received special training in the methods used in the Department of Education of the Deaf in order that she can follow up cases of young children in their own homes who are receiving treatment.

I would like to draw attention to the excellent work done by our specialist clinics, particularly those for visual defects and ear, nose and throat defects. Largely this is constant and painstaking work and the number of defects shows no sign of diminution. However, the bulk of the work has to be dealt with as an essential feature of our work and I feel sure that much would be missing from the health of the school child had we not such a service conducted by willing workers. One kind of specialist clinic which is not found necessary very often these days is the orthopaedic clinic, largely due to improved nutrition and general well-being. Those defects which we do find can be dealt with through the hospital clinic.

The general physical and nutritional condition of the children continue to improve as the figures in this report show, and another welcome improvement is the increase in the proportion of parents present with their children at routine inspection. This we always consider is an essential part of the routine.

Although some thirty-eight cases of food poisoning were found amongst school children it is very pleasing to note that no infection could be traced in any of them to the School Meals Service. This is very satisfactory since the increase in food poisoning of recent years is undoubtedly partly due to the increasing habit of the taking of communal meals by more people.

An interesting observation towards the end of the year was the way in which the influenza epidemic started and developed in Bolton. It did originally affect children and only later spread to adults. The tremendous increase in the number of children affected when the schools opened after the summer holidays was particularly embarrassing to the teaching staff with such a high proportion of children away from school. At one point, as many as 60 per cent of the children appeared to be absent because of influenza.

Another notable occurrence is the very substantial fall in the number of whooping cough cases probably partly due to our immunisation scheme now getting well under way and showing its effects, although one cannot be definite about this.

Measles, on the other hand, for which we have no prophylactic measures, showed its usually high epidemic incidence.

Only one case of paralytic poliomyelitis occurred in a school child although there were eleven fortunately non-paralytic cases in addition. I would like to thank the long-suffering teachers for the way they have responded to the inconvenience caused by our large-scale efforts to get as many children as possible vaccinated against poliomyelitis before the 1958 season. They already have much inconvenience in connection with other immunisations. I can only hope that the results which we have obtained and hope to still further improve upon, is a measure of comfort to them.

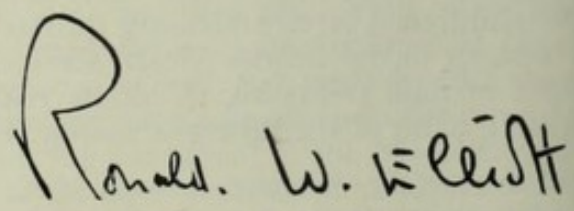
The increase in scabies infection which was noted last year for the first time since the war has fortunately not been maintained. As with ringworm, early diagnosis and strenuous efforts in the early stages are essential to prevent wide-scale infection.

On the psychological aspect of a child's welfare much is being done at the Child Guidance Clinic for behaviour problems in maladjusted children. Unlike so much of the other school health work, quick results are not obtained or expected and each case takes up a considerable amount of time, and if it is necessary to undertake treatment as well, this may go on for a long period. Consequently, the three sessions which are being devoted to this work by the child psychiatrist are not proving to be enough and a fourth session is highly desirable.

I am pleased to see the way in which the physiotherapist is being increasingly involved in dealing with school children particularly with regard to breathing exercises which is so important for many chest and ear, nose and throat conditions. Cases are referred to her in the Health Department from consultants and school medical officers.

We have, unfortunately, lost the services of Dr. Hugh Bryant and Dr. F. R. Calvert, Miss J. MacEachern and Miss M. Gumuchian, and we wish them all well in their new posts. At the same time we welcome Dr. R. D. Haigh and Dr. E. M. Mawdsley, Miss A. M. Fraser and Mrs. L. O. Green, in their respective places.

I should like to thank all other members of the staff for their assistance during the year, as well as the teaching and administrative staff of the Education Department.



Principal School Medical Officer.

GENERAL INFORMATION

No. of school children attending maintained schools		25,325
Children attending:		
Nursery Schools	179	
Primary Schools	17,073	
Secondary Modern Schools	5,248	
Secondary Technical Schools	1,324	
Secondary Grammar Schools	1,194	
Special Schools	307	

The number of children attending primary schools included 1,016 children at 34 nursery classes held in 25 of the primary schools.

No. of schools maintained by the Authority...		93
Nursery Schools	2	
Primary Schools	68	
Secondary Schools	20	
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	No. of Sessions Weekly
Robert Galloway Clinic, Ward Street.	Tuesday and Thursday, 9.30 a.m.	2
Charles Street Clinic, off Folds Road.	Wednesday, 2.0 p.m. Saturday, 9.30 a.m.	2
The Withins School Clinic, Withins Lane, Breightmet.	Wednesday, 9.30 a.m.	1
Astley Bridge School Clinic, Moss Bank Way.	Thursday, 9.30 a.m.	1

Minor Ailment Treatment Sessions—Nurse only in Attendance

School Clinic	Day and Time of Commencement	No. of Sessions Weekly
Robert Galloway Clinic, Ward Street.	Monday to Saturday, 9.30 a.m.	6
Charles Street Clinic, off Folds Road.	Monday to Friday, 2.0 p.m. Saturday, 9.30 a.m.	6
The Withins School Clinic, Withins Lane, Breightmet.	Monday, Wednesday and Friday, 9.30 a.m.	3
Astley Bridge School Clinic, Moss Bank Way.	Tuesday and Thursday, 9.30 a.m.	2

Treatment Centres with only a school nurse in attendance were conducted at the following schools:—

Brownlow Fold...	...	Thursday morning
Gaskell Street ...	...	Wednesday afternoon
Whitecroft Road	...	Wednesday morning

Dental Surgeries:

Four dental surgeries were in operation throughout the year as follows:—

ROBERT GALLOWAY CLINIC ... ... 2 Surgeries

Monday to Friday, 9.30 a.m. and 2.0 p.m.
and Saturday at 9.30 a.m.

CHARLES STREET SCHOOL CLINIC ... ... 2 Surgeries

Monday to Friday, 9.30 a.m.
and Tuesday at 2.0 p.m.

The dental surgery at Astley Bridge School Clinic was in operation until March 31st, but was closed throughout the remainder of the year. The dental surgery at The Withins School Clinic was closed throughout the year. Only one surgery was in use at Charles Street Clinic until the 31st March.

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:—

		No. of Sessions Weekly
Monday afternoon Wednesday morning Friday morning	at Charles Street School Clinic	3
Monday morning Wednesday afternoon Friday afternoon Saturday morning	at the Robert Galloway Clinic	4

Morning sessions commenced at 9.30 a.m. and afternoon sessions at 2.30 p.m.

Child Guidance:

The Child Guidance Clinic was held at the Robert Galloway Clinic. Dr Elizabeth Berndt, the Child Psychiatrist, attended on Monday afternoon Wednesday morning and Thursday afternoon to see patients by appointment.

Speech Therapy:

Speech therapy was given at the Robert Galloway Clinic. Two speech therapists were employed full-time throughout the year and in addition to the work carried out at the clinic the speech therapists undertook sessions at Woodside School and Lostock Open Air School.

Audiometry:

Audiometric testing was carried out on children referred by medical officers and, as a routine, on children with speech defects and apparent backwardness, and also on the seven year age group in primary schools and twelve year age group in secondary schools. Children who failed the test were referred for a pure tone audiogram.

Ultra-Violet Light Treatment:

Facilities for ultra-violet light therapy were available in the Health Department for children who were recommended for this treatment by the school medical officers.

Breathing Exercises:

The physiotherapist in the Health Department gave instruction in breathing exercises to children recommended for this treatment by school medical officers, chest physicians and the consultant paediatrician. She also gave advice on the breathing exercises practised by children attending Lostock Open Air School.

MEDICAL INSPECTION OF SCHOOL CHILDREN

The programme of the routine medical inspection of school children continued as in previous years. Three inspections are carried out during the school life of each child—one on entry to school, one in the last year at primary school, and one in the last year of attendance at a secondary school.

Special examinations were carried out whenever defects found at routine examinations were felt to require review at an earlier date than the next routine inspection.

Periodic Medical Examinations

Number of children examined in the above groups:

Entrants	1,981
Primary School Leavers	2,921
Senior Leavers	1,853
TOTAL	6,755
Additional periodic examinations	471
GRAND TOTAL	7,226

Other Examinations

Special examinations	10,005
Re-inspections	7,351
TOTAL NUMBER OF OTHER EXAMINATIONS	17,356

RESULT OF INSPECTIONS

Periodic Inspections

The number of defects requiring treatment found at periodic examinations was 1,447, compared with 1,390 in 1956. The slight increase in the total number of defects found is explained by the increase in the number of routine inspections in 1957. In 1956, 6,581 routine inspections were carried out, and in 1957 the number was 7,226.

Defect or Disease	Periodic Inspections				TOTAL (including all other age groups inspected)	
	Entrants		Leavers			
	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation
Skin	24	64	34	40	121	192
Eyes:						
a. Vision	108	257	179	105	613	885
b. Squint	25	56	3	24	55	151
c. Other	12	8	—	12	18	37
Ears:						
a. Hearing	30	82	15	22	89	245
b. Otitis Media	11	66	13	34	43	168
c. Other	14	17	2	8	47	39
Nose and Throat	65	373	6	74	139	722
Speech	11	82	—	7	19	216
Lymphatic Glands	7	275	1	24	12	457
Heart	—	31	2	23	5	97
Lungs	39	118	13	35	65	242
Developmental:						
a. Hernia	11	16	1	1	13	30
b. Other	1	39	2	7	10	121
Orthopaedic:						
a. Posture	5	16	—	15	5	99
b. Feet	25	67	2	30	41	163
c. Other	12	50	12	81	44	312
Nervous System:						
a. Epilepsy	2	8	1	9	5	37
b. Other	5	7	1	7	10	40
Psychological:						
a. Development	—	14	—	—	8	65
b. Stability	3	40	—	4	8	125
Abdomen	6	18	—	6	11	40
Other	34	61	9	16	66	122
TOTALS	450	1,765	296	584	1,447	4,605

Special Inspections

The following table shows the number of defects found at special inspections.

Defect or Disease	Special Inspections	
	Requiring Treatment	Requiring to be kept under observation
Skin	245	50
Eyes:		
a. Vision	68	67
b. Squint	6	7
c. Other	28	7
Ears:		
a. Hearing	124	158
b. Otitis Media	55	35
c. Other	61	14
Nose and Throat	158	113
Speech	74	14
Lymphatic Glands	13	21
Heart	7	32
Lungs	41	40
Developmental:		
a. Hernia	1	8
b. Other	6	25
Orthopaedic:		
a. Posture	5	4
b. Feet	10	17
c. Other	27	31
Nervous System:		
a. Epilepsy	3	15
b. Other	18	13
Psychological:		
a. Development	6	7
b. Stability	13	41
Abdomen	6	5
Other	101	69
TOTALS	1,076	793

Summary of 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 yrs)	108	321	401
Primary School Leavers (10 and 11 yrs)	283	277	520
Senior Leavers (14 and 15 yrs)	179	107	270
TOTALS	570	705	1,191
Additional periodic inspections	43	54	95
GRAND TOTALS	613	759	1,286

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	No. of pupils inspected	No. with parent present
Entrants	1,981	1,540
Primary School Leavers	2,921	1,912
Senior Leavers	1,853	174
Additional periodic inspections	471	160
TOTALS	7,226	3,786

A little over one half of the children at routine medical inspection were accompanied by a parent. A considerable amount of the value of routine medical inspection is lost if a parent is not present. Though a school teacher may be able to supply some information, only a parent can give a medical history about any complaint a child might have. Also, the medical officer can form an impression of the type of parent a child has, and this may be helpful in assessing behaviour difficulties and any abnormal physical features. Most parents attend when children have the first school medical inspection on entering primary school, but at subsequent inspections the proportion of parents who attend is greatly reduced.

Visits to the homes of children by school nurses:

The number of home visits paid by school nurses increased from 808 in 1956 to 896 during 1957. These figures, however, give a false idea of the amount of liaison with the home. The majority of school nurses are also employed as health visitors and therefore, on their regular visits to young children in the family, they are able to enquire about the school children. Such enquiries are, of course, excluded from the above figures.

MINOR AILMENTS

The number of individual children attending school clinics and treatment centres was substantially the same as last year, namely, 3,214 in 1957 and 3,216 in 1956. The decline in numbers attending, which was the subject of comment in last year's report, appears to have halted at least temporarily. The gradual decline in numbers in recent years is due to many factors amongst which the following are worthy of note:—

1. Fewer minor ailments being present amongst school children. In particular does this apply to infective skin conditions and discharging ears.
2. Increasing facilities for treatment by virtue of the provisions of the National Health Service.

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..	1,204	709	182	856	2,450	4,197
Charles Street ..	952	596	68	966	1,951	3,581
The Withins ..	416	320	113	307	1,079	1,819
Astley Bridge ..	272	171	78	102	425	776
Treatment Centres	370	—	—	548	1,068	1,616
TOTALS ..	3,214	1,796	441	2,779	6,973	11,989

The number of visits by children to the treatment centres in schools was as follows:—

Whitecroft Road	580
Gaskell Street	300
Brownlow Fold	736
TOTAL	1,616

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

There was little change in the number of children treated in the clinic for skin diseases. The increase in the number of cases of scabies which occurred last year did not continue, and during 1957 only seven new cases were treated. Though scabies is a tiresome and irritating condition, at least it has the merits of being easily treated and being rarely transmitted to another school contact. The practice has continued of endeavouring to treat every member of the family of a school child who has scabies.

Towards the end of the year two cases of ringworm of scalp were discovered and treatment was arranged. This is a matter which cannot be regarded lightly as this is potentially a serious infection. The only effective treatment is by X-ray epilation of the scalp. After this treatment the child is likely to be absent from school for many weeks as the time taken before the hair starts to grow again may vary from a few weeks to a few months, and naturally children are reluctant to attend school without hair. When a case of ringworm of scalp occurs it is necessary to examine the scalps of all children in the school and to carry out this effectively a Wood's lamp is necessary. The child's scalp and hair may, in ordinary light, appear to be quite normal even if ringworm infection is present. In such a case, however, an examination using Wood's light demonstrates the ringworm as a linear, greenish fluorescence and is diagnostic of the condition.

A Wood's lamp is to be obtained and all children in schools where a case of ringworm occurs will be examined. If any child is found to be infected he will be excluded from school immediately and allowed to return only after X-ray epilation has been carried out.

	No. of cases treated or under treatment by the Authority
Ringworm:	
(i) Scalp	2
(ii) Body	–
Scabies	7
Impetigo	32
Other skin diseases	204
TOTAL	245

Impetigo treated in School Clinics:

The number of cases of impetigo treated in school clinics has again fallen. The following table gives the figures for the past ten years.

Year	No. of Cases	Year	No. of Cases
1948	46	1953	74
1949	71	1954	120
1950	45	1955	76
1951	39	1956	43
1952	51	**1957**	**32**

Defects of the Ear, Nose and Throat:

At periodic routine medical inspections diseases of the ear, nose and throat were found in a large number of children. Only dental caries and defective vision occurred more commonly.

Altogether, 707 children underwent an operation for the removal of tonsils and adenoids; 2 had operations for diseases of the ear, and 5 for other nose and throat conditions. One hundred and eighty of these children were seen by the aural surgeon at the school clinic and referred to the hospital for treatment, and 534 children were referred direct to the hospital by the family doctor.

During the year a survey was commenced on behalf of the Ministry of Education to ascertain the number of children seen at routine medical inspections who had had tonsils and/or adenoids removed at some time previously. It is hoped that in time significant information will accumulate which will be useful in deciding on the merits of this operation.

Treatment

	Number of Cases Treated	
	By the Authority	Otherwise
Received operative treatment:—		
for diseases of the ear	—	2
for adenoids and chronic tonsillitis	—	707
for other nose and throat conditions	—	5
Received other forms of treatment	92	24
TOTALS	92	738

Mr. G. Gordon Mowat, the Consultant Aural Surgeon, reports:—

"The regular weekly Aural Clinics have continued throughout the year. We have received some new equipment which has made the work easier.

Routine audiometric tests are now carried out but I feel that a sound-proof room and also an audiometer giving bone conduction as well as air conduction audiograms would give us a more accurate assessment of the hearing.

I would like to thank the staff of the Clinics, both at Charles Street and Robert Galloway Clinic, for their help and co-operation."

Ear, Nose and Throat Clinics

No. of visits by patients	777
No. of patients attending	470
No. of new patients	354
No. of children referred from periodic inspections	127
No. of children referred from school clinics	313
No. of children referred from other sources	25

Children attending the clinics for the first time were seen for the following conditions, which may have been multiple in any particular child:—

Disease or Defect	Referred from—			Total
	Periodic Inspection	School Clinics	Other	
Deafness	13	83	8	104
Otitis Media	7	36	2	45
Tonsillar abnormalities	13	14	5	32
Tonsil and adenoid abnormalities	57	110	5	172
Adenoid abnormalities	6	13	–	19
Polypus—Ear	–	1	–	1
,, —Nose	1	–	–	1
Catarrhal conditions	6	23	–	29
Sinusitis	3	6	–	9
Speech difficulties	–	3	1	4
Needing antrum puncture R or L	–	1	–	1
Mouth breathing	12	15	2	29
Epistaxis	1	2	–	3
Deflected nasal septum	–	1	–	1
Nasal obstruction	8	7	–	15
Nasal discharge	3	3	1	7
Requiring radical mastoidectomy	–	2	–	2
Sub-mucous Resection	–	2	–	2
Foreign body R. ear	–	1	–	1
Swelling bridge of nose	–	1	–	1
TOTALS	130	324	24	478

Two children were recommended for a special school for the deaf or partially deaf, and were admitted to the Thomasson Memorial Special School.

Fourteen children were recommended for the lip-reading class. The Aural Surgeon completed prescriptions for hearing aids in respect of four children.

Two children were referred to Professor Ewing at the Department of Education of the Deaf at Manchester University.

Pure Tone Audiometric Testing for Suspected Deafness:

Pure tone audiometry was used as a method of testing for defects of hearing in school children. Routine examination was carried out in 7 and 12 year olds. All children who were referred for speech therapy or who were suspected of being educationally subnormal were also tested.

The following tables show the numbers of children in various groups tested in schools and tested at the clinic.

SWEEP TESTING IN SCHOOLS

Sources of Children tested	Tested			Failed Test		
	Boys	Girls	Total	Boys	Girls	Total
Ordinary Schools	1,166	1,133	2,299	154	124	278
Secondary Modern, Technical, Art and Grammar Schools	693	745	1,438	79	67	146
TOTALS	1,859	1,878	3,737	233	191	424

Full Testing at the Clinics

Source of Reference	No. of children referred for test	App't not kept for test	Awaiting app't for test	Result of Audiogram		Unsatisfactory Audiograms and Recommendations				
				Satisfactory	Unsatisfactory	Change of position in class	For observation	Repeat audiogram	Treatment at the clinic	To Aural Surgeon
Failed sweep test in school	424	55	93	97	179	27	65	33	10	44
School Medical Officers ..	199	18	27	53	101	6	36	7	–	52
School Medical Officer on account of speech defects	75	2	5	60	8	1	4	–	–	3
On account of backwardness	9	–	–	9	–	–	–	–	–	–
Others:										
Aural Surg'n	11	1	1	1	8	3	4	–	–	1
Educational Psychologist	3	–	–	2	1	–	–	1	–	–
Headmaster	8	–	1	2	5	–	2	–	–	3
Parent.. ..	5	–	–	–	5	–	2	1	–	2
Repeat Audiograms	52	12	8	9	23	3	11	–	–	9
Totals..	786	88	135	233	330	40	124	42	10	114

The procedure adopted was to give a sweep test (20 db. loss at a frequency range of 500 to 6,000 c.p.s.) and recall for a full audiogram those children who failed. Four hundred and twenty-four children failed the sweep test and were recalled for full examination. One hundred and seventy-nine of these children had an unsatisfactory full audiogram.

In the case of those children where it was felt that a change of position in class was desirable, a report was sent to the headmaster recommending the most suitable position. The child should sit near the front of the class, but not on the front row. He should sit on the side of the room from which the light comes and with his best ear towards the centre of the classroom, provided these two requirements are not conflicting. In this position he is not only favourably placed for the reception of sound, but also sees the teacher's face in adequate light and in semi-profile, and this is the most favourable position for lip-reading.

Diseases of the Eye:

There were 1,487 children examined for the first time by the ophthalmic surgeons at the clinic. Total attendances numbered 5,599, of which 5,410 were for refraction, repair to glasses and re-examinations, and 189 for diseases of the eye, four children being referred to the Bolton Royal Infirmary.

In 382 cases spectacles were repaired or replaced.

Sixteen children were referred to the Orthoptic Clinic at the Bolton Royal Infirmary for treatment for squint.

Dr. J. Ratcliffe, the Consultant Ophthalmic Surgeon attending at Charles Street Clinic, reports:—

> "I have no special comment to make concerning the year's work. We carried on in our usual manner, and I am certain the parents appreciate the interview which takes place and the discussion on the condition which is found in the children's eyes. This is very apparent by the fact that very few of the children turn up for the final test without parent or senior representative of the family."

Dr. J. Morrison, the Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:—

> "I am glad to report that the work of the Eye Clinics in the past year has gone on smoothly and very satisfactorily, though the influenza epidemic at the end of 1957 caused a short and unavoidable temporary drop in attendances. No special ophthalmic sequelae due to this epidemic was seen. For the harmonious and steady running of the Clinic grateful thanks are here offered to the School Health Service for their work in selecting suitable cases for attendance, and the invariable efficiency and tact of the clinic staff, nursing and clerical, deserve special mention.
>
> At the present day, when often both parents are out at work during school hours, it is sometimes difficult for one or the other to accompany a child to the Clinic, but a great majority of them contrive to do so in a most commendable manner.
>
> There were few cases of diseases of the external eye and adnexa, blepharitis and styes being the chief complaints; some of the styes were severe. Though there were a few cases of conjunctivitis, there was nothing of the nature of an epidemic.
>
> The great problem, as previously, is the case of the child who has perfect sight in one eye and poor sight in the other. The difficulty lies in the fact that such a child, with both eyes open, sees with ease and to his own entire satisfaction everything that the ordinary child does see, and is often quite unaware of the visual defect in the one eye. It is hard to convince such a child that anything can or should be done to try to improve the sight of the weaker eye, and it is still harder to persuade him to make the attempt which, at its best, is a most exasperating exercise, and useless if the child does not co-operate. Yet many a home has the necessary apparatus with which to practise, namely the television set. If the child covered the good eye and used the weak eye for viewing for a

certain time **every day**, a slow but steady improvement of sight would take place in about 60% of cases, and it is only in the years of growth that such improvement is possible. The "do it yourself" psychology has little appeal in most cases of this kind, but the children who have the courage and self-discipline to persevere reap a worthwhile reward."

Cases of eye disease, defective vision or squint, for which treatment was initiated by the school medical officers, may be analysed as follows:—

	Number of cases dealt with	
	By the Authority	Otherwise
External and other conditions excluding errors of refraction and squint	57	2
Errors of refraction (including squint)	1,430	86
TOTALS	1,487	88
Number of pupils for whom spectacles were prescribed	1,114	86

The experience of previous years has been similar in nearly all respects to that recorded above.

The following were found at periodic medical inspection to require attention for defects of the eye:—

Defect	Age Groups Inspected				Totals
	Entrants	Primary School Leavers	Senior School Leavers	Additional Periodic Inspections	
Defective Vision..	108	283	179	43	613
Squint	25	19	3	8	55
Blepharitis	3	4	–	–	7
Conjunctivitis ..	1	–	–	–	1
Other	8	1	–	1	10

Orthoptics:

The desirability of employing an orthoptist needs no emphasis, and was mentioned in my last report. It was decided, after discussions with the consultant ophthalmologists and the hospital, to appoint an orthoptist who would work part-time in the School Health Service and part-time in the Bolton hospitals. However, due to the shortage of fully trained and qualified orthoptists, our attempts to find such a person who would undertake the work were not successful.

The parents of children with squint only too often believe that the child has merely a 'lazy' eye which will right itself in time. Every effort should be made to ensure that an ophthalmologist sees the child as soon as the condition is recognised. Early occlusion will usually save the vision in the squinting eye, which would be lost or severely reduced if occlusion is not practised or is practised too late in the child's life.

Defective Colour Vision:

Routine colour vision testing was continued for secondary school leavers using the Ishihara colour testing material. Of 33 colour-blind children discovered, 31 were boys and 2 were girls.

The colour-blind child, who is usually a boy, is almost invariably unaware of the condition. Furthermore, it may not be that difficulties arise on first commencing employment. In practical chemistry classes acid-alkali titrations commonly involve the use of an indicator which changes from red to colourless, and vice versa; the boy who is red-green colour blind may, without knowing it, have difficulty in determining the exact end point in a titration.

Orthopaedic Defects:

One hundred and thirty-two children were found to have orthopaedic defects, 90 on periodic medical inspection and 42 at school clinics.

Thirty-two children were referred to the Consultant Orthopaedic Surgeon at the Bolton Royal Infirmary for advice and treatment.

Chiropody:

It has been pointed out in previous years that the arrangements for the treatment of plantar warts and other minor foot disabilities have been far from satisfactory. It was therefore decided, after discussions with members of the Local Medical Committee and a consultant dermatologist, that the institution of a chiropody service for school children would result in more effective treatment. A chiropodist was appointed for one session a week and she commenced work in July.

Most of the chiropodist's time has been spent in the treatment of plantar warts, many of which have been multiple. Advice has also been given on foot hygiene and the correct type of footwear, together with advice on shoe fitting.

Our experience has been similar to that elsewhere in that the number of girls with plantar warts has been almost twice the number of boys. There appears to be no obvious reason for this, but there is a possibility that girls undertake more barefoot activities than boys. The plantar wart is a contagious virus infection, but the virus will not enter the intact skin and produce a wart. A portal of entry is necessary. This may be a minute scratch or abrasion.

Since the service started the waiting period before a child could be seen by the chiropodist has been four to five weeks. Apart from the fact that this means that the child must endure a painful wart for a longer period than is desired, it has the other disadvantage that the child may have had only one wart when first referred, but in the waiting period before treatment commenced several other warts may develop, and each wart requires individual treatment. Consequently, a child with five warts would need as much treatment as five children each with one wart.

In addition, there have been a few cases of 'corns', 'ingrowing toe nails' and 'athlete's foot'.

A summary of the defects treated is given below.

	Girls	Boys
No. of children who attended for treatment:—	47	21
Plantar Warts (Verrucae pedis)	59	
Multiple Cases	15	
General chiropody treatment, advice, etc. ...	4	
Ingrowing toe nail (Onychocriptosis)	2	
Athlete's Foot (Tinea pedis)	2	
Onychogryphosis	1	
Total No. of treatments given	**320**	

Cleanliness of School Children:

The standard of children's clothing and footwear, with a few exceptions, is satisfactory.

It is necessary to remind some children from time to time about the need for attending school in a clean condition. Few children are found with fleas, and the most serious problem continues to be that of head louse infestation.

The school nurses spend a great deal of time carrying out routine head inspections. Much of this could be avoided if parents would realise that the condition is abnormal and should not be present; that it is a danger to health; that relatively simple measures suffice to prevent infestation; and that successful treatment can be easily carried out in the individual; that though the school nurse can assist, the parents should be responsible for ensuring that the child remains free from vermin.

Routine head inspections were carried out on all children attending maintained schools; 42,020 inspections were made and 1,352 pupils were found to be infested with vermin or nits. Of this number, 1,020 were girls and 332 were boys.

The following table shows the trend in recent years and illustrates that the painstaking and unremitting labours of school nurses, teachers and medical staff are resulting in a gradual but definite improvement in the position.

	1953	1954	1955	1956	**1957**
School population	24,060	24,568	24,869	25,341	**25,325**
No. of head inspections	40,247	50,775	48,885	45,935	**42,020**
No. of children with nits or vermin	2,262	2,048	1,569	1,471	**1,352**
Expressed as a percentage of school population	9.4	8.3	6.3	5.8	**5.3**

There is no difficulty in detecting the presence of nits or vermin and all facilities for treatment are available free of charge through the School Health Service. The parent needs to pay a few shillings only if a fine tooth comb is necessary in the opinion of the school nurse. The nurse explains how the treatment should be given, but the responsibility for carrying it out devolves upon the parents. Here lies the difficulty. Many parents are apathetic and, due to lack of adequate effort, fail to ensure that cleansing is thorough. Moreover, we have only authority to deal with the school child, and so often after cleansing the child continues to live in a house where adults are verminous. The child in such conditions becomes verminous again within a few weeks from contact with an adult who is lousy.

If, due to illness of the mother or other similar circumstances, there is no person in the home to treat the child, she may be treated at the School Hill Cleansing Station where both male and female staff are available. During the year 245 children—38 boys and 207 girls—attended for vermin disinfestation or bodily cleansing.

Notices to Cleanse were issued under Section 54(2) of the Education Act in 33 cases, compared with 11 in 1956. One Cleansing Order was issued. School nurses paid numerous home visits to explain to parents the technique of cleansing.

THE GENERAL CONDITION OF SCHOOL CHILDREN

Result of Routine Medical Inspection:

At routine medical inspections the School Medical Officer concludes his medical report with a statement of the child's general condition, whether satisfactory or unsatisfactory. This classification was adopted nationally from 1st January, 1956. It has the merits of simplicity and practicability.

At periodic inspections in school 7,226 children were examined. Of these 7,179 (99.35%) were satisfactory, and 47 (0.65%) were unsatisfactory.

Fewer children now are said to be unsatisfactory because of poor weight than formerly. It is realised that a weight below the average for child's age does not necessarily imply that he is malnourished or that some organic disease is present. It may mean nothing more than that he comes from a genetically small family or from stock of spare build. The slim child may be much more active than one of greater girth and so may be in a better physical condition. Conversely, a weight much above the average, instead of indicating a general condition above average may, in fact, indicate obesity which, if sufficiently marked, could result in the child being classified as unsatisfactory.

This illustrates one reason why it is desirable to have parents present at routine medical inspection as far as possible. The appearance of the mother, or her description of the father, will help the doctor to decide if the child's small stature or low weight is hereditary, or whether further enquiry is necessary to determine the reason for the defect.

Age Groups (1)	Number of Pupils Inspected (2)	Satisfactory		Unsatisfactory	
		No.	% of Col. (2)	No.	% of Col. (2)
Entrants	1,981	1,965	99·19	16	0·81
Primary School Leavers ..	2,921	2,901	99·32	20	0·68
Senior Leavers	1,853	1,847	99·68	6	0·32
Other Periodic Inspections ..	471	466	98·94	5	1·06
TOTALS	7,226	7,179	99·35	47	0·65

The School Meals and Milk in Schools Schemes:

The percentage of school children during 1957 taking school milk under the above schemes	78.45
No. of dinners produced in the school kitchens during 1957	2,309,716
Average number of children taking meals daily	9,891
Percentage of school children taking dinners in school during 1957:—	
As percentage of number on roll	39.24
Expressed as percentage of average attendances ...	43.93
No. of central kitchens	5
No. of kitchen/dining rooms	15
No. of children on free meals list at 31st Dec.	826

IMMUNISATION

Immunisation against diphtheria and whooping cough was offered to children during their first year at school. Children who had had primary immunisation during infancy were given a reinforcing injection with diphtheria prophylactic or with combined diphtheria and whooping cough antigens, according to which agent was used in infancy. Children who had not been immunised in infancy were given a course of primary immunisation against diphtheria only, or were immunised against diphtheria and whooping cough using a combined antigen.

One hundred and seventy children received a course of primary immunisation against diphtheria and 229 children against diphtheria and whooping cough. A total of 985 children received a booster dose.

Fewer children received primary immunisation on entry to school than in 1956, the figures being 427 in 1956 and 399 in 1957. This is praiseworthy only if it implies that fewer children required the primary course because many were immunised in infancy. This may be the case as the number of reinforcing injections was increased—985 in 1957, compared with 801 in 1956.

DENTAL HYGIENE

Report of the Principal School Dental Officer

Staff:

At the close of 1957 the professional dental staff consisted of the Principal School Dental Officer, one full-time dental officer and two part-time dental officers. The overall strength throughout the year was equivalent numerically to two and three-quarters full-time dental officers—little more than half what it was two years ago, and about three-tenths of what is regarded as our minimum requirement, the authorised establishment being a Principal School Dental Officer and seven full-time dental officers.

On the 9th April one officer resigned her full-time appointment and took up part-time duties on a sessional basis, which she continued for the remainder of the year. A part-time officer resigned on the 25th July, but this loss was made good on the 1st October when another appointment was made. A second dental anaesthetist was appointed on the 17th January to attend for one session weekly.

One dental attendant resigned early in the year and was not replaced. Four dental attendants are now employed, all full-time.

The shortage of dental officers was so acute in the middle of the year that the Authority decided to offer the provision of suitable housing to newly-appointed officers in an attempt to attract recruits. Unfortunately, in spite of this inducement, it was found impossible to appoint additional staff, there being only one enquiry to our advertisement and no definite applications.

Clinics:

The two surgeries at the Robert Galloway Clinic, being staffed by the two full-time officers, remained open throughout the year. The surgery at Astley Bridge Clinic was closed at the beginning of April on the change to part-time status of Mrs. J. O. Burton, and the second surgery at Charles Street which was closed last December was re-opened. The surgery at The Withins Clinic was closed throughout the year. No progress was made during the year towards the building of new premises and the replacement of the Charles Street Clinic.

Dental Inspections:

The number of special inspections—2,810—was approximately the same as in recent years, and once more it was necessary to curtail drastically the number of children inspected in school. For two and a half months during the summer school inspections ceased altogether. Out of 6,054 children inspected in school, 1,458 attended for treatment. This number, together with the 2,807 specially inspected children, makes up the total of 4,265 children who received treatment during the year. Although all schools could not be inspected, care was taken to include all the special schools—Thomasson Memorial, Lostock Open Air and Woodside—the pupils of which might experience difficulty in finding alternative sources of treatment and for whom it might reasonably be thought we have a special responsibility.

Treatment:

The general pattern of treatment was as in previous years, our purpose being to maintain adequate mastication, free from pain and sepsis, throughout school life and to ensure a balanced dentition for school leavers even where

teeth had necessarily to be lost. This scheme included an appreciable amount of orthodontics, both preventive and curative. Only the latter, necessitating the wearing of appliances, appears in the statistical table under the heading 'Orthodontics'. The former, consisting partly of extractions and partly of adjustment of the articulating surfaces of the teeth and correction of abnormal oral habits, is absorbed statistically in other columns, especially item 13 headed 'Other Operations'.

The 29 artificial dentures supplied to school children were all partial dentures to replace front teeth lost usually as a result of an accident.

Treatment sessions were considerably disorganised during the month of September due to the severe outbreak of influenza in the town.

General Remarks:

One of the most difficult dental problems of the moment is the treatment of very young children with gross dental decay. Recent researches have shown that the amount of decay in the teeth of school entrants has increased even in the last five years, and now averages more than six bad teeth per child, which means that in Bolton there are each year scores of children about the age of five who require multiple extractions to make them dentally fit. A subsidiary problem arises from the fact that more and more of those children who suffer from physical disabilities and handicaps such as spasticity, epilepsy and cleft palate, having received medical treatment in hospital, are looking to the school clinic for the establishment and maintenance of their dental well-being.

In my opinion the facilities available in an ordinary dental surgery for the operative treatment of these children are inadequate. It is interesting to compare the treatment of children selected for the somewhat similar operation of tonsillectomy. In certain areas this operation used also to be performed at a clinic but now the children are admitted to hospital the day before their operation, are adequately premedicated, operated on lying down and returned to bed, being discharged not sooner than the following day and cared for throughout by a trained nursing sister and her staff. It adds to the difficulty and anxiety of his work for the dental surgeon to have to operate on young children inadequately prepared both physically and mentally, sitting in an ordinary dental chair, and whose parents expect them to be going home in a matter of minutes, but they are denied modern anaesthetic agents and methods because of these conditions.

It is understandable that in present circumstances the dental departments of general hospitals cannot admit such children for this 'routine' treatment, but better arrangements should be made for them and I suggest that it would provide an extremely valuable service if there existed a 'Day Hospital' where children could be received an hour or two before their operation and put to bed after it, being discharged in the late afternoon when they had completely recovered.

In this Jubilee Year of the Education Act which provided the statutory basis of the school health service, it is a matter of concern that whereas physical diseases and disabilities have decreased amongst school children (as medical officers have for years been able to report), dental decay should provide so striking an exception. The school dental service does good work in circumventing the worst effects of dental disease by operative procedures, but it is obvious that truly preventive dentistry still lies in the future in methods yet unknown. Perhaps the experiments with fluorine and other enzyme inhibitors may give us reason for hoping that in the centenary year another tale may be told.

Dental Inspection and Treatment:

(1) Number of pupils inspected by the Authority's Dental Officers:—	
At Periodic Inspections	6,054
At Special Inspections...	2,810
TOTAL	8,864
(2) Number found to require treatment	6,125
(3) Number offered treatment	5,128
(4) Number actually treated	4,265
(5) Number of attendances made by pupils for treatment, including those recorded at heading 11 (*h*)	9,190
(6) Number of half days devoted to: Periodic (School) Inspection	31
Treatment	1,065
TOTAL	1,096
(7) Fillings: Permanent Teeth	1,743
Temporary Teeth	319
TOTAL	2,062
(8) Number of teeth filled: Permanent Teeth	1,641
Temporary Teeth	304
TOTAL	1,945
(9) Number of Extractions: Permanent Teeth	2,728
Temporary Teeth	5,155
TOTAL	7,883
(10) Administration of general anaesthetics for extraction	3,001
(11) Orthodontics:	
a. Cases commenced during the year	66
b. Cases carried forward from previous year	57
c. Cases completed during the year	68
d. Cases discontinued during the year	7
e. Pupils treated with appliances	66
f. Removable appliances fitted...	86
g. Fixed appliances fitted	—
h. Total attendances	716
(12) Number of pupils supplied with artificial dentures	29
(13) Other operations: Permanent Teeth	3,954
Temporary Teeth	1,326
TOTAL	5,280

INFECTIOUS DISEASES IN CHILDREN

Measles is an infectious disease which becomes epidemic every second year. The early months of 1957 showed the expected large number of cases of measles as the later months of 1956 and the early months of 1957 was the time of the two-yearly epidemic. The total number of notifications during the year was 2,793. This is the highest number for many years. Of this number, 1,828 were children of pre-school age, and 939 were children aged 5 to 15 years. The two-yearly cycle of measles epidemics has been well demonstrated in Bolton in the last decade.

One boy, aged 4, developed encephalitis following an attack of measles and made a satisfactory recovery.

After correction of diagnosis only 73 cases of whooping cough were notified. This is the smallest number of cases notified for many years. Only 19 cases were notified in children of school age, whereas in 1956 123 cases occurred in this age group.

It is approximately five years since we started whooping cough immunisation, and a considerable number of the school entrants in 1957 would have immunity from having had the disease or from being immunised. It is thought that the small number of cases is partly due to the immunisation programme. The majority of cases occurred during the summer months.

Only one child of school age developed paralytic poliomyelitis, though eleven cases of non-paralytic poliomyelitis were notified in school children.

The total number of notifications of dysentery was 167, which compares favourably with the number for 1956, which was 851. Only 23 of the cases were school children, and no school or class had an epidemic. The improvement in the position compared with last year does not constitute grounds for complacency. It is necessary to stress again the importance of hand washing after a visit to the W.C. and every school child should be frequently reminded about this. Children cannot comply with this request if adequate facilities are not available. It is essential to have an abundant supply of hot water. This is necessary for adequate washing, and as dysentery is most prevalent during the cold winter months it is unreasonable to expect a child to wash his hands unless there is hot water.

Thirty-eight cases of food poisoning were notified in children of school age. None was found to be caused by spread through the school meals service.

No case of diphtheria occurred during the year.

The Influenza Epidemic in Autumn:

In the first week of September the virus of Influenza A (Asian variety) was isolated from a youth with a febrile illness. This alerted the Health Department to expect an epidemic. Children returned to school after the summer holiday on the 9th September and in the ensuing week the attendance rate was exceptionally high. On Monday, the 16th September, several head teachers telephoned the department to say that a considerable number of children were absent from school. The number increased rapidly on succeeding days, and the percentage of children absent on each day of that week was as follows:—

16th September	...	16%	19th September	...	33%
17th ,,	...	18%	20th ,,	...	44%
18th ,,	...	25%			

Some schools had more than half the children absent with influenza. Teaching staff were also affected, and though most cases were mild the disruption of normal school activities was severe.

In the second week of the epidemic, on one day 60% of school children were absent, but after this week the position gradually improved and the figure was 30% towards the end of the third week.

Head teachers gave valuable help and their co-operation was greatly appreciated. They supplied information concerning the number of children absent, and this gave us a general guide to the progress of the epidemic which started in the school population and later affected the adults in the town. The epidemic amongst school children lasted about one month, and it was not until the third week in October that the schools were back to normal.

Incidence of Infection:

The number of cases of infectious disease each month was as follows:—

Disease	Number of Cases												Total
	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	
Scarlet Fever	13	17	18	15	19	8	1	10	5	4	7	15	132
Measles	684	840	759	327	103	19	8	14	4	8	8	3	2,777
Whooping Cough	5	6	2	2	1	10	11	3	16	6	6	5	73
Pneumonia	13	15	1	3	6	2	2	3	11	17	6	6	85
Poliomyelitis (Paralytic)	–	–	–	–	1	–	1	–	–	–	–	–	2
Poliomyelitis (Non-Paralytic)	–	2	–	2	4	–	3	1	–	–	–	–	12
Enteric Fever (Paratyphoid B)	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	9	9	11	2	7	6	7	12	7	1	3	–	74
Food Poisoning	9	3	3	11	4	3	15	1	1	2	6	2	60
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–
Diphtheria	–	–	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infection	1	–	–	–	–	–	–	–	–	4	–	–	5
Acute Encephalitis	–	1	–	–	–	–	–	–	–	–	–	–	1

Age at Infection:

The age of the children at infection is shown below:—

Disease	Age																Total
	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Scarlet Fever	–	–	6	14	24	24	20	9	12	5	5	6	1	3	3	–	132
Measles	99	283	471	492	483	458	273	96	53	31	17	9	5	3	3	1	2,777
Whooping Cough	9	15	7	17	6	10	6	1	2	–	–	–	–	–	–	–	73
Pneumonia	29	14	10	9	7	6	5	–	–	2	–	1	1	–	–	1	85
Poliomyelitis (Paralytic)	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	2
Poliomyelitis (Non-Paralytic)	–	–	–	–	1	1	4	1	1	1	–	–	1	–	1	1	12
Enteric Fever (Paratyphoid B)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	5	8	15	10	13	5	2	3	4	2	3	1	–	1	2	–	74
Food Poisoning	2	9	7	4	–	8	5	3	4	3	4	3	3	3	1	1	60
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diphtheria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infection	–	1	1	1	1	–	–	–	–	–	–	1	–	–	–	–	5
Acute Encephalitis	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1

REPORT ON PHYSICAL EDUCATION

The standard and interest in physical education continue to develop in all its branches. The change in emphasis of instruction of swimming from the Secondary School to the last year of the Primary School has proved most satisfactory. The great enthusiasm of the younger children has been shown by the regular attendance and progress.

A Teachers' Course in the teaching of swimming and life saving was held during the Spring and Summer terms, with a good attendance. Several teachers took the Bronze Medallion of the Royal Life Saving Society.

Two netball demonstrations were held to show the new rules and were attended by a large number of teachers and girls. A very successful Rally was held in conjunction with the Lancashire Schools Netball Association, the first to be held in Bolton.

Other courses and demonstrations for teachers have been held throughout the year with very good attendances.

THE WORK OF THE CHILD GUIDANCE CENTRE

Dr. Elizabeth Berndt, the Child Psychiatrist, examined and treated 75 children during the year. Dr. Berndt attends at the Robert Galloway Clinic on Monday afternoon, Wednesday morning and Thursday afternoon of each week.

Children are referred by School Medical Officers, the Educational Psychologist, General Practitioners and, occasionally, by Consultants. Several children reach the Psychiatrist who are in the care of the local authority and are referred by the Principal School Medical Officer, who is originally approached by the Children's Officer. Some cases reach the Child Guidance Centre through the Juvenile Court.

Often the children attending for child guidance are from homes where the parents are in some measure responsible for the child's difficulty. Children come from broken homes; from easy-going parents; from normal homes with emotionally disturbed parents; from homes where the adults cohabit but are not married; from parents with in-born neurotic tendencies whose children are predisposed to develop neurosis; from homes where both mother and father are working, and consequently where there is inadequate supervision.

An only child seems more likely to need child guidance than a child who has brothers and sisters. Adopted children also seem more liable to develop difficulties.

The treatment of the various disorders may be prolonged as the abnormality may have developed over a period of several years—over the whole of the child's life, in fact. What has taken years to develop may take months of treatment before any worthwhile result can be achieved.

Analysis of Cases:

The children seen have been classified under the following headings, according to the principal disorder present.

	Boys	Girls
Delinquency	8	4
Behaviour disorders	15	4
Personality disorders	3	5
Anxiety state	3	3
Enuresis	3	1
Encopresis	3	–
Maladjusted	1	1
Hysteric behaviour	1	1
Temper Tantrums	2	1
Emotional disturbances	4	–
Backwardness	2	–
Miscellaneous	6	4
Totals	51	24

HANDICAPPED PUPILS

An important duty of the School Medical Officer is to examine children with handicaps and to recommend to the Local Education Authority the type of education which is best suited to the child's needs. This may require nothing more than special attention in the ordinary school, or it may necessitate the child being educated in a special school, either day or residential.

Two medical officers were approved by the Minister of Education for the ascertainment of educationally subnormal children after attending a prescribed course in London in 1957. In total, 5 medical officers are now approved.

Ascertainment in 1957:

The following children were ascertained as in need of special educational treatment as handicapped pupils during the year:—

Partially Sighted	3
Deaf	1
Partially Deaf	14
Educationally Subnormal	15
Maladjusted	2
Pupils suffering from Speech Defects	100
Delicate	39
TOTAL	174

Children in Special Schools:

At the end of the year there were 253 handicapped pupils receiving special educational treatment in special schools. The following table gives details.

HANDICAP	SPECIAL SCHOOLS	NO. OF PUPILS BOARDERS	DAY
BLIND	Henshaw's Institute for the Blind, Manchester	2	–
	Condover Hall, Shrewsbury	1	–
	Overley Hall, Wellington	1	–
	Chorleywood College, Herts.	2	–
PARTIALLY SIGHTED	Chorleywood College, Herts.	1	–
	Barclay School, Sunninghill, Berks.	3	–
	Preston School	3	–
	St. Vincent's, Liverpool	1	–
	Corporation Park School, Blackburn	–	1
DEAF	Thomasson Memorial School, Bolton	2	14
	Royal Residential School, Manchester	1	–
PARTIALLY DEAF	Thomasson Memorial School, Bolton	–	14
DELICATE	Lostock Open Air School, Bolton	81	–
PHYSICALLY HANDICAPPED	Birtenshaw Hall School, Bromley Cross	–	13
	Burton Hill House School, Malmesbury	1	–
	Hatchford Park, Cobham, Surrey	1	–
	Salmons Cross, Surrey	1	–

Handicap	Special Schools	No. of Pupils Boarders	Day
Educationally Subnormal	Woodside School, Bolton	–	98
	Jesmond Dene House School, Newcastle-on-Tyne	1	–
	St. John's, Brighton...	1	–
	Stone Cross, Ulverston	1	–
Maladjusted	Wennington School, Wetherby, Yorks. ...	1	–
	Blue Coat School, Liverpool	1	–
	Chaigeley School, Thelwall	1	–
	St. Andrew's School, Bridgwater	1	–
	St. Ann's School, London	1	–
	Salmons Cross, Surrey	1	–
Epileptic	Colthurst House School, Alderley Edge ...	1	–
	Soss Moss School, Chelford	1	–
	St. Elizabeth's School, Much Hadham... ...	1	–
	Totals	113	140
	Total	253	

Children awaiting placement in Special Schools:

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	2
Partially Sighted	2
Physically Handicapped	3
Educationally Subnormal	11
Maladjusted	3
Delicate	4
Total	25

Total number receiving or needing special school accommodation ... 278

There is still a need for more day places for educationally subnormal children, and for facilities for children aged 5–7 years who cause anxiety and difficulty in ordinary school because of backwardness.

Special Schools in Bolton:

Woodside Day Special School for Educationally Subnormal Children:

The numbers of children on the roll and those admitted and discharged were as follows:—

	Boys	Girls
No. of children on the roll, Dec., 1957... ...	57	41
No. of children admitted during 1957	10	8
No. of children who left during 1957	11	8

A school medical officer who is particularly concerned with the ascertain ment of educationally subnormal children and with the domiciliary care mental defectives, visited the school at regular intervals and each pupil receive a routine medical inspection during the year. This is advantageous in that t medical officer who frequently sees the child at Woodside School knows and known by the child in after-school life.

THOMASSON MEMORIAL DAY AND RESIDENTIAL SPECIAL SCHOOL FOR DE AND PARTIALLY DEAF CHILDREN:

Pupils were admitted from our own and other authorities' areas. With few exceptions, the children who lived in Bolton or nearby attended as da scholars; the remainder were resident.

The Consultant Aural Surgeon periodically visited the school and carrie out 65 examinations. A school medical officer paid regular monthly visits.

The numbers of children were:—

FROM THE BOLTON AREA:	BOYS	GIRLS
No. of children on the roll, Dec., 1957... ...	18	12
No. of children admitted during 1957	2	–
No. of children who left during 1957	–	–
FROM OUTSIDE AREAS:		
No. of children on the roll, Dec., 1957... ...	38	17
No. of children admitted during 1957	8	4
No. of children who left during 1957	7	10

LOSTOCK RESIDENTIAL OPEN AIR SCHOOL FOR DELICATE CHILDREN:

It is difficult to give a simple definition of 'delicate'. Certainly a number c children in this category are children with malnutrition but there is evidenc that the incidence of malnutrition is much less than in former times. Neverthe less, it is still fairly common to find children, often from an unsatisfactory hom who are in need of the accommodation and classroom regime provided Lostock Open Air School.

The improvement some children show, even in the first term, is ofte dramatic. The type of child in whom the improvement is most marked commonly the asthmatic whose attacks are brought on by emotional factor present in the child's home but absent at Lostock.

Some delicate children and some children with chest conditions are abse from ordinary school more often than they are present, but when admitted t the Open Air School they often put in an uninterrupted series of attendance for several terms.

Applications for admission from the Lancashire County Council continu to be received. Each application is carefully perused and a recommendatio made by the Principal School Medical Officer as to whether the child is suitabl for admission.

Occasionally requests are received from other authorities and these ar similarly carefully examined before the recommendation that the child b accepted or rejected is made.

A medical officer visited the school each week, and a local general practi-oner cares for any children who are ill.

The following table gives details of the number of children in attendance, dmitted and discharged during the year:—

	Boys	Girls
From the Bolton Area:		
No. of children on the roll, Dec., 1957... ...	35	46
No. of children admitted during 1957	17	24
No. of children discharged during 1957 ...	13	9
From Outside Areas:		
No. of children on the roll, Dec., 1957... ...	37	7
No. of children admitted during 1957	22	6
No. of children who left during 1957	18	4

An analysis of the medical conditions of the children who were in residence uring the year is given below:—

Medical Condition	No. of Children Bolton	Outside Areas
Anaemia	1	–
Asthma	11	31
Bronchitis	7	9
Bronchiectasis	4	4
Bronchial Catarrh	1	1
Poor nutritional status	4	3
General debility	53	12
Neutropenia	–	1
Coeliac disease	1	–
Underweight	10	–
Nervous conditions	6	1
Pallor	1	–
Behaviour problems	1	1
Recurrent sepsis	1	–
Ostoemyelitis L tibia	–	1
Post rheumatic fever	–	1
Post concussional syndrome	–	1
Petit mal	1	–
Primary tuberculosis infection now resolved	1	–
Totals	103	66

hildren in other Special Schools:

Bolton children who are handicapped and who attend residential schools other parts of the country are regularly examined during the school holidays hen they are at home in Bolton. This gives an opportunity to assess progress id also to decide whether attendance at a special school is still necessary.

Children suffering from Cerebral Palsy:

The majority of Bolton children suffering from cerebral palsy who are educable attend the Birtenshaw Hall Special School for Spastic Children. Admissions and discharges continue to be the responsibility of the Medical Advisory Panel, which meets at the school from time to time.

Altogether, there were 28 children known to the School Health Service to be suffering from cerebral palsy. The situation at the end of the year was as follows:—

	Boys	Girls
Admitted to Birtenshaw Hall Special School...	6	7
Awaiting consideration for admission to Birtenshaw Hall Special School	2	–
Attending special school for the deaf	1	2
Attending special school for educationally subnormal	–	1
Attending open air school	–	1
Attending special school for maladjusted ...	–	1
Attending ordinary schools	5	2
Totals	14	14

Children unable to attend school because of Physical Disabilities:

The service of home teachers was needed for 21 children and a total of 1,556 hours' instruction was given.

The conditions necessitating this service were as follows:—

	Boys	Girls
Asthma and bronchitis	1	–
Spastic paraplegia	–	2
Eye operation	1	–
Rheumatic fever	4	1
Congenital abnormality of the spine	–	1
Ectopia vesicae	1	–
Haemophilia	1	–
Totally inverted left foot...	–	1
Left hemiplegia following road accident ...	–	1
Still's Disease	1	–
Nephritis	1	–
Epilepsy	1	1
Congenital heart	–	1
Slipped femoral cap epiphysis	–	1
Spastic paraplegia and hydrocephalus	–	1
Totals	11	10

Five boys and four girls were taken off the peripatetic teachers' list for the reasons stated below:—

	Boys	Girls
RESUMED ATTENDANCE AT ORDINARY SCHOOLS:		
Rheumatic fever	2	1
Nephritis	1	–
Slipped femoral cap epiphysis	–	1
ADMITTED TO SPECIAL SCHOOL:		
Spastic paraplegia and hydrocephalus	–	1
COMMENCED WORK ON ATTAINING SCHOOL LEAVING AGE:		
Asthma and bronchitis	1	–
OVER SCHOOL AGE:		
Spastic paraplegia	–	1
DECEASED:		
Ectopia vesicae	1	–
TOTALS	5	4

Co-operation with the Youth Employment Service:

When a child suffering from a handicap reaches school leaving age, it may be that his handicap will produce difficulties in obtaining or keeping employment, or the Youth Employment Officers may have difficulty in recommending a suitable type of job. Accordingly, School Medical Officers give advice to the Youth Employment Officers by sending to them either Form Y.9 or Y.10, whichever is appropriate.

FORM Y.9

This form was completed in respect of 72 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
Defective colour vision	31	2
Asthma	2	3
Defective hearing	3	–
Defective vision	6	3
Pes cavus	1	–
Occasional epileptic attacks	4	–
History of rheumatism	–	2
Long standing chest trouble	–	1
Heart sounds accentuated ? bruit	–	1
Mitral stenosis (exclude from occupations requiring much walking and quick movement from place to place)	1	–
Eczema elbows	3	–

Eczema and Hay Fever	–	1
Hay Fever...	–	1
Old Poliomyelitis right leg	1	–
Fracture left forearm, restricted rotation left forearm, also left-handed	1	–
Bilateral Talipes eq. varus (had operation each forefoot)...	1	–
Walks stiffly	1	–
T.B. knee—wears support	–	1
Shortening right leg present	–	1
Had operation right eye	1	–
TOTALS	56	16

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 Officer. 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.

Form Y.10 was completed in respect of three children—one with rheumatism, one suffering from epilepsy, and one partially sighted.

Leavers from—	Form Y.9 completed for—			Form Y.10 completed for—		
	Boys	Girls	Total	Boys	Girls	Total
Through Schools	4	2	6	–	–	–
Secondary Modern Schools ..	29	6	35	1	1	2
Technical College	18	–	18	–	–	–
Grammar Schools	3	7	10	–	–	–
Art School	2	–	2	–	–	–
Residential Schools	–	1	1	–	1	1
TOTALS	56	16	72	1	2	3

Speech Therapy:

The following is a report of the work of the two speech therapists. The number of children on the waiting list at the end of the year was 37.

No. of children treated on once weekly basis	114
No. of children treated on twice weekly basis	27
No. of children receiving daily treatment	1
No. of children treated at Woodside Special School	18
No. of children admitted during the year	63
No. of children discharged as remedied	25
No. of children discharged due to poor attendance	5
No. of children who left to commence work	2
No. of children unable to benefit further	7
No. of children under observation	4
No. of children who left the town	1
No. of children excluded from the Clinic at the request of the speech therapists	2
No. of children interviewed in the Clinic	69
No. of children who did not keep appointments	6
No. of children referred to Consultant Psychiatrist	5
No. of children referred to Educational Psychologist	15

Type of Defect Treated:	Boys	Girls	Total
Stammering (*a*) on once weekly basis	20	14	34
(*b*) on twice weekly basis	14	4	18
Stammer and dyslalia	4	–	4
Dyslalia	46	18	64
Retarded speech development—various causes	5	2	7
Dysarthria	3	–	3
Alexia + Agraphia + Apraxia	1	–	1
Dyslexia + Dysgraphia (daily treatment)	1	–	1
Suspected Apraxia	1	1	2
Hyperrhinophonia due to congenital condition, i.e. cleft palate, paralysed palate, bifid uvula, ineffective pharyngeal closure	2	4	6
Spastic and partially sighted	1	–	1
Spastic Dysarthria	1	–	1
Totals	99	43	142

Defects Remedied:			
Stammering	9	1	10
Dyslalia	13	2	15
Dyslalia and stammer	1	–	1
Totals	23	3	26

During school terms the average number of children attending each week was 130. The average weekly attendance during the summer holiday was 11. Three hundred and forty children were examined on routine school visits, and 93 children were recommended for speech therapy as a result of these visits.

A school medical officer visited the clinic on six occasions during the year and examined 37 children. As a result of the medical officer's examinations, 8 children were referred to specialists.

Other visitors to the clinic included student health visitors, speech therapists and student speech therapists.

OTHER ACTIVITIES:

Mrs. Barber gave lectures at the Bolton Technical College to students taking the Health Visitors' Course. The subjects were:—

i. The Mechanism of Speech.
ii. Behaviour Difficulties and Maladjusted Children in relation to Speech Defects.
iii. Relationship between Maladjustment and Physical and Mental Handicaps in relation to Speech Difficulties.

She also gave a lecture for the Nursery School Association, the subject being, "Children, Teachers and Speech Therapists", and was a member of the 'Any Questions Panel' at Gaskell Street Parent Teacher Association.

Miss Jenkins attended the Annual General Meeting of the College of Speech Therapists, and Mrs. Barber attended a Refresher Course in London.

Both therapists attended lectures in Manchester, Liverpool and York, the subjects of these lectures being as follows:—

Manchester—"Neurological Conditions", given by the Consultant Neurologist at Manchester Royal Infirmary.
Liverpool —"Remedial Reading", given by Mrs. Banyard, B.A.
York —"The Voice and its Disorders", given by Mrs. M. Greene.

An evening meeting of the parents of stammerers was held on the 20th June in the Robert Galloway Clinic. The parents of 45 children were invited. Of these, eleven people attended, and four of these were parents whose children were on the waiting list at that time.

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 21 partially deaf children attended. These children were ascertained as partially deaf and needing special educational treatment.

CHILDREN INCAPABLE OF RECEIVING EDUCATION AT SCHOOL

Approved medical officers of the Authority examined 40 children who were not making progress in school and who, it was thought, might need special educational treatment. Of these, two girls were found to be incapable of

receiving education at school. The parents of one of the girls were at variance with this decision and exercised their right of appealing to the Minister of Education. The Minister rejected the appeal and therefore this girl, together with the girl whose parents did not appeal, were notified to the Local Health Authority under Section 57 (3) of the Education Act, 1944.

Sixteen children attending Woodside School were examined during their final term at school and were found to require supervision under the provisions of Section 57 (5) of the Education Act, 1944.

Two children were examined and found not to require supervision.

Children who are incapable of receiving education at school are eligible to attend the Local Health Authority's Occupation Centre, where training and supervision are available.

ADDITIONAL REPORTS

Physiotherapy:

ULTRA-VIOLET LIGHT TREATMENT:

This treatment is available throughout the year at the Health Department. Natural sunlight is the best source of ultra-violet radiation but when Bolton has a poor summer, as was the case in 1957, the demand for ultra-violet light therapy continues throughout the year.

The unfavourable summer weather explains in part why the number of children attending (179) was much greater than in 1956 when 75 children attended.

The conditions for which medical officers recommended treatment are shown in the following table:—

Nasal catarrh Frequent colds	52
Bronchial catarrh Recurrent bronchitis	38
Underweight	7
General debility	74
Enlarged cervical glands	2
Skin conditions	2
Asthma	1
Anorexia	1
Anaemia	1
Bowing of tibia with genu valgum	1
TOTAL	179

The treatment was given by a qualified physiotherapist.

Breathing Exercises:

The physiotherapist in the Health Department undertook the treatment of a number of children recommended for breathing exercises as follows:—

RECOMMENDED BY—	BOYS	GIRLS
Aural Surgeon	40	19
School medical officers	16	13
Paediatrician	1	1
TOTALS	57	33

Just as the adult population of Bolton suffers extensively from bronchitis, the child population has its fair share of bronchitis and catarrh. The combination of ultra-violet light therapy and breathing exercises often results in considerable subjective and objective improvement.

Hygiene in Schools:

During the influenza epidemic at the beginning of the Autumn term, simple instructions were issued to headmasters in an attempt to reduce the spread of infection. These were as follows:—

i. Encouraging children to use a handkerchief when sneezing or coughing.

ii. Adequate ventilation of classrooms.

iii. Avoiding crowded places, especially indoors.

The need for thorough hand-washing after visiting the W.C. has been pointed out elsewhere in this report, but no apology is made for repeating this advice as its importance cannot be over-emphasised.

Mortality in School Children:

Eleven children of school age died during the year. Six of the deaths were due to accidents as follows: a girl aged 6 years received fatal head injuries caused by being struck by a motor lorry whilst crossing the road; a boy aged 5 years died from head injuries after being struck by a bus whilst crossing the road; a boy aged 5 years drowned in a pond; a girl aged 8 years was knocked down by a motor van and died as a result of her injuries the same day; a boy aged 1[illegible] years was trapped between lift gates and died from chest injuries and a ruptured spleen.

During the influenza epidemic a girl about to leave school at the age of 1[illegible] years developed influenzal encephalitis and died the day after admission to hospital.

A boy aged 8 years, who was born with an ectopia vesicae, died from uraemia and hydronephroses which developed as a result of the bladder abnormality. A boy aged 10 underwent an operation for the relief of congenital heart disease, but unfortunately died of post-operative shock. A girl aged [illegible] years died from acute myeloid leukaemia, and a spastic boy aged 5 years died from a thrombosis of the superior longitudinal sinus. A girl of school-leaving age died from the rare condition of primary pulmonary hypertension.

It will be seen that six of the eleven deaths were due to accidents which one assumes could have been prevented. Boys are more prone to accidents due to their waywardness, and we still have a duty to discharge which becomes more urgent with each succeeding year, namely, to teach road safety to children and indeed, to persons of all ages.

THE CARE OF CHILDREN ATTENDING NURSERY SCHOOLS, NURSERY CLASSES AND SPECIAL SCHOOLS

Nursery Schools:

School medical officers and school nurses have attended each of the two schools at intervals for the purpose of a general health review.

The following are the relevant statistics:—

KAY STREET NURSERY SCHOOL:

No. of children on the roll, December, 1957	83
No. of children admitted during 1957	63
No. of children transferred to primary schools	25
No. of children removed by parents	23

PIKES LANE NURSERY SCHOOL:

No. of children on the roll, December, 1957	96
No. of children admitted during 1957	45
No. of children transferred to primary schools	26
No. of children removed by parents	5

Nursery Classes:

Medical examinations were carried out at the 34 nursery classes at which 1,016 children were in attendance. The relevant statistics are included with those for primary schools.

Special Schools:

Monthly visits were paid by medical officers to Woodside and Thomasson Memorial Schools, and weekly to Lostock Open Air School.

Results of Periodic Medical Inspection (excluding Nursery Classes):

DEFECTS REQUIRING TREATMENT:	NURSERY SCHOOLS	SPECIAL SCHOOLS
SKIN...	–	–
EYES:		
Defective vision	–	26
Squint	5	2
Other	1	–
EARS:		
Defective hearing	–	2
Otitis Media	2	3
Other	1	2
NOSE AND THROAT:		
Nasal Catarrh	10	–
Tonsil and Adenoid abnormalities ...	4	6
Speech abnormalities...	–	–
LYMPHATIC GLANDS	1	–
LUNGS	4	–
DEVELOPMENTAL:		
Hernia	1	–
ORTHOPAEDIC:		
Posture	–	–
Flat Feet	2	–
Other	4	1
NERVOUS SYSTEM:		
Epilepsy	1	–
OTHER DEFECTS OR DISEASES...	2	4
TOTALS	38	46

EMPLOYMENT OF CHILDREN

A total of 629 children were examined for employment outside school hours. Fifty-eight children applied for Juvenile Performers' Licences under the Employment of Children in Entertainment Rules. The type of employment was as follows:—

	No. of Children
Grocers' Assistants	4
Butchers' Assistants...	2
Newspaper Delivery	556
Entertainment	58
Shop or Store Assistants...	6
Milk Delivery	3
Total	629

All the children with the exception of one boy with heart trouble were passed as being medically fit for employment.