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Contributors

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COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1956

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

H 241

HEALTH COMMITTEE, 1956-57

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Vice-Chairman: Councillor Mrs. N. Bowyer

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Mr. W. Crumblehulme

Mr. A. G. W. Smith

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Accounts

Maternity and Child Welfare, After-Care and Mental Health

Baths, Wash-houses, Lavatories and Ambulance

Insanitary Areas and Premises

Smoke Abatement

Problem Families (Joint Sub-Committee)

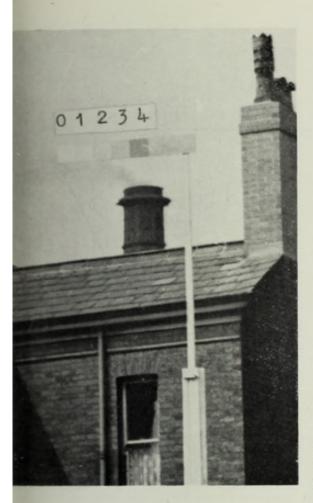
Appointment of Staff

Appointment of Medical Staff (Assistants)

Smokeless Zone—Financial Assistance

Slum Clearance Policy, etc.

Provision of Dustbins



SMOKE FROM FACTORY CHIMNEY COMPARED WITH RINGLEMANN STANDARDS

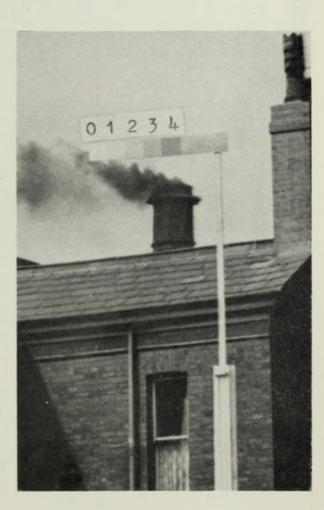
Nothing darker than this smoke is likely to be permitted under normal circumstances when Section 1 of the Clean Air Act, 1956, becomes operative

EQUIVALENT TO RINGLEMANN 2

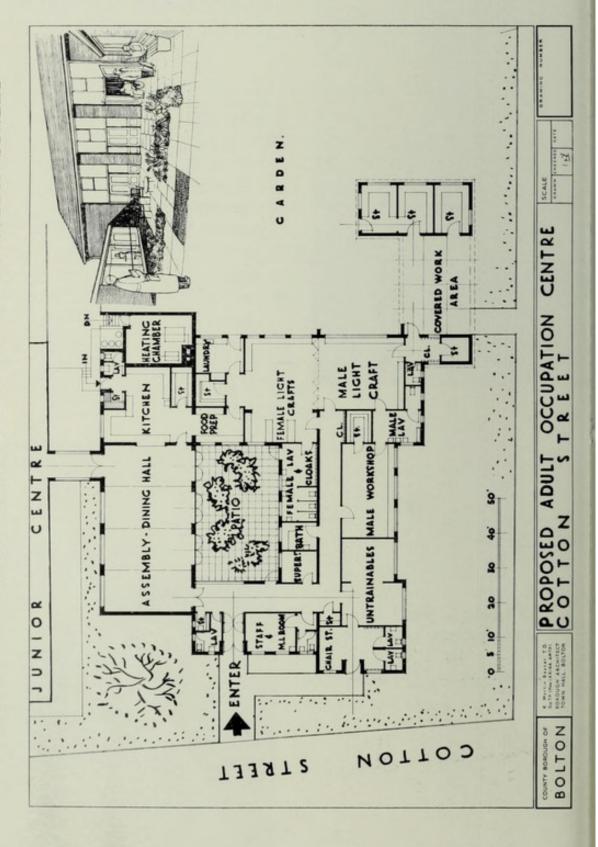
This smoke is permissible under present byelaws for 2 minutes in any half hour

* * *

DENSER THAN RINGLEMANN 4



THE PROPOSED ADULT OCCUPATION CENTRE AT COTTON STREET



INTRODUCTION

"Then succeeds old age ever divided into two parts; the first whereof extends from the thirty-fifth to the forty-ninth year; those of this age are called old men. The latter is as it were divided by Galen into three degrees; the first whereof are those, who having their strength sound and firm, undergo civil affairs and businesses; which things those which are in the second degree cannot do, because of the debility of their now decaying strength; but those which are in the last degree are afflicted with most extreme weakness and misery, and are as much deprived of their senses and understanding, as of the strength of their bodies; . .".

Ambroise Paré, Surgeon, on "Old Age" (1510-1590)

The problem of old age is constantly being referred to in official reports, but we tend to forget that although these writings would give the impression that the problem is a new one, it is anything but new as will be seen from the above quotation. The "aged" have always been with us, but the point of emphasis has been different. Although we may have been aware of man's increased longevity, the extent of it is more apparent when we look back some four hundred years to find that men of thirty-five were considered to be old. This contrasts forcibly with our modern age from which spring such phrases as "Life begins at forty." The three types of old person referred to by Paré apply equally well to the old men of to-day and I have not yet seen a better official description of the difference between those old people who are completely independent; those who need Part III accommodation, and those who need hospital care. This brings me to a local problem which we have been trying to solve for the past two years. Some help towards the solution of this problem is given in the Survey of Old People included in detail in Part V of this report. The enquiry was stimulated by the Bolton Geriatric Liaison Committee on which sit representatives of the local health authorities, the hospitals, and the family doctors. It had been felt for some time that we had not any firm basis on which to base our recommendations to the various branches of the Health Service as to the needs of old people. This report, compiled as a result of work by the health visitors and the consultant physician responsible for geriatrics, may now provide the missing foundation on which to build. Several interesting facts immediately arise from the report; over 4,600 women and over 1,000 men of sixty-five years of age and over were living alone; over 87% of old people were managing perfectly satisfactorily and were not needing even the slightest attention from the community. This should give us a sense of proportion with regard to the problem of old age. Of the remaining 13%, quite a large section needed only very slight attention, and only 4.3% required institutional care. Although 4.3% is a small proportion of the total, the need for institutional care when it does arise is usually urgent and sometimes desperate because these people have, by this time, reached a stage when they can no longer be cared for at home even with all the resources of the family doctor, health department, welfare department, or other agencies, to back them up. The report has still to be considered by the authorities concerned and it may well be that a case has been made out for more institutional accommodation. What seems to be clear, however, is that the Home Help Service at the time of the Survey, was meeting the needs of the population. I must stress, however, that although the need may be being met now and possibly in the immediate future, there is no guarantee that this state of affairs will remain indefinitely, and the Home Help situation may have to be re-assessed at some future date. It would seem, therefore, that 87% of our old people fall into Paré's first category and 4.3% of them into his second two

categories in about equal proportions. The survey, of course, is subject to many limitations by the very nature of the way in which it had to be carried out, but it is believed that it gives a reasonably accurate picture of the situation.

Another interesting report is given under "Tuberculosis" and refers to the Mass Radiography Survey in Bolton carried out in the last four months of 1955. It has not been possible to report these results until now. On the whole it is a very satisfactory report and I think the public of Bolton responded very well by turning up in strength—50,530 persons were X-rayed. Except in exceptional circumstances, only persons over the age of thirteen years were X-rayed and this large number represents a very satisfactory proportion of the population and is a more creditable result by reason of the fact that only three Mass Radiography Units were used. I would like to pay a tribute to the staffs of the Mass Radiography Units for their efforts during this concentrated survey. We are fortunate in having another large survey which was done in 1948 and involved over 27,000 people, to compare with our present results and this comparison which is given in full in Part III of the report brings out several interesting points. For instance, the incidence of active tuberculosis has fallen from 1.7 per 1,000 persons examined in 1948, to 1.3 in 1955. Also, the age of incidence in the male has changed. In 1948 there was a peak of incidence in the twenty to forty age group. This has now disappeared and has been replaced by a gradual rise of tuberculosis with increasing age. Fortunately, however, the overall incidence was less. Curiously enough, the same trend has not been noticed in the female. Here the peak of incidence in the twenty to forty years age group has been retained and unfortunately there has also been a general increase in incidence from 1.3 per 1,000 examined in 1948, to 1.7 per 1,000 in 1955. The important point here is that the increase in females was almost entirely amongst those employed outside their own homes. The value of Mass Radiography is evident from the fact that of the 66 cases of tuberculosis found in the survey, 64 of them were completely new and had not been previously suspected, and of these, 15 had been X-rayed within the previous three years, and 24 of them since the 1948 survey, which indicates the necessity for periodic checks on the population. Although the main object of the survey was to discover cases of tuberculosis, much other disease was also brought to light. Cancer of the lung was present in 1.5 per 1,000 of the persons examined. This is a four-fold increase over the rate in the 1948 survey and this disease is now showing a greater incidence than tuberculosis. There is, fortunately, a brighter side in that the discovery of certain heart conditions and bronchiectasis of the lungs has fallen considerably since the previous survey. On the whole, the position with regard to tuberculosis has improved, but as I have said on several occasions, we must not be complacent. There has been only a slight fall in the number of Mantoux positive children aged thirteen to fourteen years in Bolton in the last three years which indicates that we have still a long way to go and that we must concentrate on B.C.G. vaccination and on the tracing of contacts of known cases. The latter has this year given us fruitful results and has been the means of discovering new cases at a rate far higher—at least six times—than that of Mass Radiography. Here the health visitors have played a very great part.

The statistical portion of the report records some important information on death rates. The infant mortality rate of 23.9 per thousand live births is the lowest the town has ever known and is only slightly above the national rate of 23.8. For an industrial town in the north of England, this is very satisfactory indeed. It is unlikely, however, that the infant mortality rate will fall much lower because our efforts, as yet, have resulted in very little saving of early infant life. Most of the deaths which have been avoided have been

in the latter part of the first year and there is not much room for further improvement here. Unless, therefore, some change can be made which will affect the perinatal mortality rate, which, it will be seen from the report, has not changed for some considerable time, we are unlikely to see much further progress. There is hope, however, that something can be done to improve the perinatal death rate and consequently cause a further improvement in the infant mortality rate, since this has already been done in certain centres and in some other countries by careful attention to toxaemia of pregnancy. Action is being taken locally by meetings between the professional representatives of all three branches of the Health Service in an attempt to obtain improvements wherever possible. The local committee is still continuing its meetings. In addition, the National Health Service, with regard to maternity work, is being reviewed on a country wide basis by the Cranbrook Committee. Many feel that if satisfactory recommendations can be made with regard to the integration of the three services dealing with maternity, this will be a means of further saving of maternal and infant life.

Home confinements are still less than 20% of total pregnancies and this low rate, combined with rapid staff changes which have taken place has led to our not being able to accept the necessary number of pupil midwives from the training school for their district training and as a temporary measure, until more midwives can be approved for teaching, we have had to make arrangements with the County authority to take responsibility for some of the instruction. The situation is a vicious circle of less domiciliary midwifery, fewer facilities for district teaching, and consequent difficulty in recruitment of midwives, of which all three branches of the service are desperately short. The Cranbrook Committee might well consider this matter as of some importance.

Statistical comment may also be made on the report concerning deaths from violence. It is well known that suicide is becoming more common throughout the country. Nearer at home we find that there were more deaths due to suicide in Bolton last year than from all other forms of violence which includes accidents at home and on the roads. The figure of 36 suicides was higher than in the two previous years and seems to reflect adversely on the stress of modern life.

An extract has been made of some figures produced by the Registrar General showing the death rates from various chest conditions in towns of a similar size to Bolton. It will be seen that Bolton heads the list for deaths from chronic bronchitis, with the exception of the neighbouring city of Salford. This should make us redouble our efforts to cleanse the atmosphere from the smoky irritants which contribute towards the incidence of chronic bronchitis. It is therefore with some pleasure that I am able to state that the Council have now agreed in principle to the formation of a new smoke control area, 58 acres in extent, to be added on to the present smokeless zone. This is movement in the right direction. Our past practical experience of smoke control measures has also been very useful in the preparations for a Sessional Meeting of the Royal Society of Health which was devoted entirely to this subject. The meeting actually took place in March 1957, and was the largest provincial meeting of the Society which has been held for many years thus reflecting the intense interest in this topical subject.

Fortunately, the death rates from other chest conditions do not put Bolton in quite such a bad light as is seen in the case of chronic bronchitis.

There has been a rapid decline in the number of diphtheria immunisations carried out in 1956, and this has been particularly marked in the young children who are so vulnerable to diphtheria. It will be remembered that 1956 was also the year in which poliomyelitis vaccination was introduced, and also the year in which we in Bolton introduced the use of the triple antigen which is meant to immunise against diphtheria, whooping cough and tetanus at one and the same time. Undoubtedly these changes have had their effect upon the level of diphtheria immunisation. Parents who had accepted diphtheria and whooping cough immunisation as a routine, very often without questioning, had, by the publicity given to poliomyelitis vaccination and the unfortunate experiences in other countries, begun to give serious thought to the possible dangers and had hesitated to allow their children to be immunised against any disease. The health visitors were finding it far more difficult to persuade parents as a result of the halting introduction and adverse publicity given to poliomyelitis vaccination. There can be no doubt that poliomyelitis vaccination is indeed perfectly safe, and therefore the introduction of this vaccine should not be allowed to interfere with immunisation against other diseases. It would seem necessary to have a set scheme of inoculations in view of their gradually increasing number in order to avoid confusion in the minds of parents. It is also necessary to balance any slight or imagined dangers against the proved value of many of these procedures and I have no doubt in my mind that we shall have to get down to a set scheme and adhere to it, and more particularly when poliomyelitis vaccine becomes plentiful. At the moment I favour vaccination against smallpox at three months, triple antigen against diphtheria, whooping cough and tetanus between four and seven months, and poliomyelitis vaccination in the second year. This scheme seems to me to be a balanced compromise, taking into account the age prevalence of the diseases concerned, the age of adequate antibody response, the danger of poliomyelitis following injections of any kind, the parents' convenience, and my own conscience. Risks with this scheme, if there are any at all, would be very slight, but paramount over all must be the necessity to keep up the diphtheria immunisation rate which, because of existing confusion, is showing serious signs of decline.

The new Food Hygiene Regulations have brought much more work to the public health inspectors, and the increased powers have enabled them to rectify many important defects. Much of this work, previously outside legal control, is now being rapidly proceeded with, mostly with good grace and co-operation from the food trade. Initial criticism was received that the Corporation markets were not being brought into line with what was being required of the food trade. This, however, is not so now, and the illustrations in this report show clearly that the Market Hall has been modified so as to comply adequately with the regulations, and the Ashburner Street Market is in the process of being similarly dealt with. It will be noted from Table II that the most frequent defect found in our survey of food premises was a lack of adequate washing facilities.

Interpretation of the regulations is sometimes difficult, and to avoid different standards being used in surrounding areas, representatives of adjacent local authorities were called to meet in the Town Hall in Bolton to decide on common standards. I wish to thank these representatives for their great help, and I am sure that the deliberations have been worth while. In spite of our activities, food poisoning still lingers on and at a slightly higher level than in the years previous to the large outbreak in 1955. There is, however, only one way to defeat this advancing tide and that is to give all the facilities possible to workers in the food trade to enable them to adopt a high standard of personal

hygiene. There is still considerable carelessness in the handling of food by some individuals, as is well illustrated by the long list of objectionable foreign bodies found in food during the year. Many people find difficulty in understanding why domestic animals should be kept away from food premises. The report on meat inspection at the abattoir, and the information given in the Chief Public Health Inspector's report concerning the association of disease in animals and humans, should dispel this attitude.

The Ambulance Service has probably reached the peak of its efficiency under present circumstances. If we judge it by the standard of the number of miles per patient carried we seem to have reached the lowest figure likely to be attained. The Committee's policy of using sitting case ambulances and radio control seems now to have brought its full reward. We have also had a full year's experience of one of the shift leaders being employed full-time at the Royal Infirmary to organise admissions and discharges and control ambulance personnel attending this hospital with its large Out-Patient Department. Our success has been very striking and the hospital authorities and patients alike have benefited considerably, and complaints from patients seem to have entirely disappeared. A further step to complete this arrangement is now being made in conjunction with the County authority whereby the shift leader at the Infirmary will also control to a large extent the County ambulances on the spot through the new radio control which has been introduced into the County service and which is very similar to our own. It would seem that we are likely to get even more complete integration and co-operation in this field.

The effect of the shortage of school dental staff is being felt also on the Priority Dental Service for mothers and young children. Unless more staff can be recruited quickly it seems that only an emergency service will be available in the near future. The dental services in general are being bedevilled by opposition from various, and what would often seem to be contrary, interests. On the one hand the McNair Report shows the difficulties of recruiting dental students, partly due to the expressed dissatisfaction of the dental profession itself, which in turn opposes any help in its difficult task by its opposition to the use of dental auxiliaries for routine work, which would appear to be its only chance of improving its own status. On the other hand, we find school dental staff leaving the School Dental Service to go into private practice where we are given to believe that the average earnings over a dentist's lifetime are less than that available in the School Dental Service. This general confusion becomes more confused by the opposition of the general public itself to one of the few measures, namely fluoridation of water supplies, which could be introduced in order to save teeth and dental manpower. The Housewives' League may be very sincere in its opposition, but its rashness may well lead it to a situation where we shall have no dentists at all.

The health visitors have continued their close co-operation with family doctors and this has been given an added impetus by introducing the experiment of having a health visitor attending at regular intervals at a family doctor's surgery to deal with family social problems. This experiment is being watched with great care and may possibly lead to an extension of what is already proving to be a useful service. It is interesting to note that health visitors are being approached more and more by mothers through the medium of the telephone. This is not meant to replace the all-important home visit, but does show the interest which mothers are beginning to take in contacting their own district health visitor in case of difficulty.

This year has shown an extension in the use of special appointment Toddler Sessions to yet another welfare centre.

We should very much welcome the further recruitment of voluntary workers to enable health visitors to give more time to their real function at welfare clinics, which is that of health education. I have appealed for further volunteers and I would like to repeat this because I feel that the professional time of the health visitors should not be wasted in carrying out routine tasks for which the voluntary worker is invaluable. Many of the peripheral welfare centres in this town are held in church premises which, however useful they may have proved in the past, are not ideal for the task. A system of replacement of these clinics by purpose-built premises should be seriously considered, and I very much regret the fact that the scheme for the building of a new school and welfare centre in the south of the town fell through for lack of financial resources although it had been fully agreed to in principle.

The health visitor seconded to the Prevention of Problem Families completed her first full year in this role. Her successful activities are reported elsewhere and we shall undoubtedly continue to do this very necessary, and at the same time difficult, work.

With very little increase in staff the Home Nurses have expanded their activities and more visits have taken place than in any previous year. The increase in work is particularly noticeable in the ever-increasing demand by doctors for injections for their patients. Each year there is a substantial rise in the volume and scope of this work. Nurses have also been helped by a very considerable expansion in the loan of nursing equipment. This side of our activities has increased four-fold since 1952. We have also completed the first full year of the scheme of carrying out certain treatment to ambulant patients in the Health Department. Although not great in extent, the latter has been invaluable to patients and nurses alike.

Because of the small proportion of domiciliary midwifery carried out in Bolton some of the domiciliary midwives are now combining midwifery with home nursing. Precautions have been taken to make sure that midwifery always receives absolute priority. This action, however, has had the double effect of keeping the staff fully employed and at the same time relieving the home nurses of some small part of their work.

There have been considerable difficulties in the staffing of the Occupation Centre with qualified people. This is a national difficulty in that there is no recognised medical auxiliary status for the worker in this field, and owing to the difficulties of full-time training on the National Association of Mental Health Course, many holders of these posts must train through experience. A similar situation arises with the mental health social workers due to the lack of a recognised training course and qualification. However, we have succeeded in recruiting suitable staff, and training by various means is being pursued. Consequently, the social work of this section of the department has expanded and is slowly beginning to exert its influence. This is important because until recently the town has had no great experience of social work in connection with mental health. There is much to be done and I hope to see a slow but sure development. We are moving in the right direction in having provided for an extension of the Occupation Centre to enable us to accept adults. If this scheme is approved by the Ministry we shall, on one site, be able to accommodate all the defectives of all ages in the town who are suitable for training. A very small start has been made in adapting premises in the present Occupation Centre.

It is very pleasing to see that year by year the Psychiatric Social Club expands its activities and has now become an established and well conducted therapeutic measure. It is meeting a very great need and is enthusiastically supported by patients and hospital and local health authority staffs alike.

Certain interesting staffing changes have taken place. The Committee have decided to appoint a Superintendent Nursing Officer to be in charge of the health visitors and to have a co-ordinating role with regard to health visitors, home nurses, midwives, home helps and day nurseries. The increasing activities of the department in connection with old persons first stimulated the necessity for co-ordination of effort in order to prevent duplication. The need for similar co-ordination in other fields of nursing has also been recognised by this appointment.

The increased volume of work in the Borough Analyst's Department has necessitated the employment of an extra chemist. Instruments are also being installed to assist in the more rapid turnover of work. It is expected that the Analyst's Department will now be able to deal with extra work created by the new Food Hygiene Regulations.

We have lost two senior members of the staff—Miss Florence E. Hunt, the Superintendent Health Visitor, who has taken up the post of Superintendent Nursing Officer at Newcastle-on-Tyne, and Dr. H. Bryant, who is to become Medical Officer of Health for West Bromwich. They have both given me very loyal and strenuous support in their varying fields and I shall miss them very much. However, I wish them every happiness and success in their new appointments and, at the same time, extend a very warm welcome to their successors.

I should like also to express my appreciation to all other members of the Health Department who have assisted me in so many ways, and to the Health Committee for their support.

Medical Officer of Health.

Health Department, Civic Centre, Bolton, Lancs.

April, 1957

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PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1956
MEDICAL STAFF Medical Officer of Health
NURSING STAFF Superintendent Health Visitor Miss F. E. Hunt, S.R.N., S.R.F.N., S.C.M. H.V.Cert., Nursing Admin. (Public Health
Deputy Superintendent
Superintendent
MIDWIFERY Non-Medical Supervisor Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
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
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 & Wash-house Hennon Street Slipper Baths 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

Annual Death Rates from certain Chest Diseases

SUMMARY OF STATISTICS, 1956

COUNTY BOROUGH OF BOLTON

Position Lat. 53°	35'	N. L	ong.	2° 27′ W.
Elevation above sea level		230	ft. t	o 1,450 ft.
Geological Formation Boulder Clay and S	and	over	Coal	Measures
Rainfall (Av. 1887-1956, 44.653")				48.850"
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, 1956)				163,800
New Houses Certified including Flats, 1956				321
Existing buildings altered to provide dwelling accomm	oda	tion,	1956	Nil
Estimated No. of Houses in the Borough at 31st Decen	nbei	, 195	6	56,809
Rateable Value at 1st April, 1956			1	(1,824,305
Rate at 1d. in the £ estimated to produce				£7,000
Births				2,515
*Birth Rate (Corrected)				15.5
Stillbirths				69
Stillbirth Rate (per 1,000 total Births)				26.7
Deaths				2,220
*Death Rate (Corrected)				14.77
*Average Death Rate (1947-1956)				13.88
*Heart and Circulation Death Rate				7.16
*Cancer Death Rate				2.29
*Death Rate from diseases of the Respiratory System				1.66
*Pulmonary Tuberculosis Death Rate				.09
Infant Mortality (Deaths under one year per 1,000 liv	e b	irths)		23.9
Diarrhoea Death Rate (Deaths under two years per 1,0	00 1	ive bi	rths)	Nil
Puerperal Death Rate (per 1,000 total Births)				Nil
Illegitimacy Rate (per 1,000 total Births)				51.9
ENGLAND AND WALES				
*Birth Rate				15.7
Stillbirth Rate (per 1,000 total Births)				23.0
*Death Rate				11.7
Infant Mortality (Deaths under one year per 1,000 live				23.8
mant Mortanty (Deaths under one year per 1,000 live	DII	113)		25.0

VITAL STATISTICS

Births:

There were 2,515 live births to Bolton residents, 1,299 males and 1,216 females. The birth rate per 1,000 of the population was 15.5.

Of all the live births 417 occurred at home, 1,175 in Bolton District General Hospital, 507 in Haslam Maternity Home, 387 in Havercroft Maternity Home and 470 in Heaton Grange Maternity Home. The remaining births took place in institutions and homes outside Bolton.

There were 144 premature live births.

Stillbirths:

The number of stillbirths was 69, giving a stillbirth rate of 26.7 per 1,000 total births.

There were 38 premature stillbirths.

Deaths:

There were 2,220 deaths (1,109 males, 1,111 females) giving a corrected death rate of 14.77 per 1,000 of the population.

A total of 651 persons whose usual place of residence was in the county borough, died outside the borough; of these, 582 died either in the Bolton District General Hospital or in Townleys Annexe.

Non-residents who died in the area numbered 126.

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

Summary of the Principal Causes of Death, 1956

Cause of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	45-	65-	75-
Tuberculosis, Respiratory	14	9	5	-	-	-	-	4	4	5	1
" Other	1	-	1	-	-	-	-	-	-	1	-
Syphilitic disease	5	4	1	-	-	-	-	2	2	1	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-	-
Meningococcal Infections	2	1	1	1	1	-	-	-	-	-	-
Acute Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-
Measles	1	1	-	-	-	1	-	-	-	-	-
Other infective and parasitic											
diseases	2	1	1	-	-	-	-	-	-	-	2
Malignant Neoplasm-										-	
Stomach	59	33	26	-	-	-	-	3	27	15	14
Lung & Bronchus	78	61	17	-	-	-	-	3	41	25	9
Breast	35	_	35	_	-	-	-	3	11	11	10
Uterus	19	-	19	-	-	-	-	2	12	5	-
Other malignant and lym-	la l										
phatic neoplasms	184	107	77	-	-	1	2	8	64	60	49
Leukaemia and Aleukaemia	6	5	1	-	-	-	-	2	2	1	1
Diabetes	17	8	9	-	1	-	_	-	-	6	10
Vascular lesions of nervous	1 500										186
system	385	164	221	-	-	-	-	6	59	127	193
Coronary disease, angina	347	201	146	-	-	-	-	6	107	132	102
Hypertension with heart											
disease	42	25	17	-	-	_	-	-	13	15	14

Cause of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	45-	65-	75-
Other heart disease	297	96	201	-	-	-	2	9	39	73	174
Other circulatory disease	102	46	56	-	-	-	-	1	9	28	64
Influenza	5	4	1	-	-	-	-	-	4	-	1
Pneumonia	67	36	31	10	3	-	-	1	16	11	26
Bronchitis	174	104	70	-	-	-	-	3	52	59	60
Other diseases of respiratory											1000
system	25	15	10	1	1	-	-	1	14	5	3
Ulcer of stomach and duo-			100							-	1000
denum	18	12	6	-	-	-	-	3	9	2	4
Gastritis, enteritis and diar-	100	0.50							20	18	3.30
rhoea	6	2	4	-	-	-	-	-	3	1	2
Nephritis and Nephrosis	19	14	5	-	-	=	-	3	4 2	6	6
Hyperplasia of Prostate	14	14	-	-	-	-	-	-	2	3	9
Pregnancy, childbirth and					100					100	
abortion	-	-	-	-	-	=	-	-	-	-	-
Congenital malformations	22	12	10	8	8	1	1	1	2	1	-
Other defined and ill-defined		0223			1000	100		12	-		
diseases	167	74	93	32	2	3	1	13	29	34	53
Motor vehicle accidents	16	8	8	-	-	2 2	-	2	2	4	6
All other accidents	54	26	28	3	2	2	5	6	5	13	18
Suicide	36	25	11	-	-	-	3	13	14	6	-
Homicide and Operations of		2.0									
War	1	1	-	-	-	-	-	-	1	-	-
TOTALS	2 220	1 100	1 111	55	18	10	14	95	547	650	831
TOTALS	2,220	1,109	1,111	55	18	10	14	95	547	650	831

Deaths from Puerperal Causes:

There were no deaths attributable to puerperal causes during the year.

Infant Mortality:

There were 60 deaths of infants under one year, giving an infant mortality rate of 23.9. The primary causes of infant deaths are shown in the following table.

		Total for				
Cause of Death	Under 4 weeks	4 weeks to 3 mths	3 to 6 months	6 to 9 months	9 to 12 months	each cause
Pneumonia	2	2	4	1	1	10
Other respiratory diseases	-	1	1	-	-	2
Prematurity	15	-	-	-	-	15
Congenital Malformations	9	1	1	-	1	12
Gastro-enteritis	-	1	- 3	-	-	1
Cerebral haemorrhage	7	-	-	-	-	7
Overlaying	-	1	1	-	-	2
Other causes	7	1	2	-	1	11
TOTALS	40	7	9	1	3	60

Deaths under Four Weeks:

There were 40 deaths of infants under four weeks, giving a neo-natal mortality rate of 15.9 per 1,000 live births. The rate for England and Wales was 16.9.

Cause of Death	0-7 days	8-14 days	15-21 days	22-28 days	Total under 29 days
Pneumonia	2	-	-	-	2
Prematurity	15	-	-	-	15
Congenital Malformations	9	-	-	1 - 1	9
Cerebral haemorrhage	7	-	-	-	7
Other Causes	7	-	-	-	7
TOTALS	40	-	-	-	40

Of the 15 children shown as dying from prematurity, 12 also suffered from atelectasis.

Perinatal Mortality

The perinatal death 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. It is therefore a method of expressing mortality during the last period of pregnancy, that is from the 28th week to the end of the first week of life, and is therefore useful for taking into account deaths just before and just after birth.

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

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Infant Mortality Rate	38-3	37 · 8	38 · 2	30.5	35.5	40 · 8	28 · 4	27.9	28 · 5	25 · 7	23 · 9
Neo-natal Mortality Rate	24 · 8	20.9	22.0	18.0	20 · 0	23 · 0	16.5	18.9	19.8	14.2	15 · 9
Stillbirth Rate	32.6	22.3	26.8	27 · 5	19.3	24 · 1	27 · 6	23.0	25.0	24 · 7	26 · 7
Perinatal Death Rate.	51.0	41 - 7	49 - 2	45.6	37 · 8	39 · 6	45.4	39.5	42.0	38 · 2	42 · 2
Rate per thousand total deaths of infants over 1 week and under 1 year of age	21.0	18.9	18.5	13 · 2	17.3	21.5	12.8	11.5	12.2	12.9	7.8

As will be seen from these figures, the infant mortality rate has continued to drop, and this year for the first time, the rate per thousand of infants over one week and under one year has shown a fall below 10. The perinatal mortality rate, however, has remained at a fairly constant level over the last five years.

This picture is similar to the national figure and it is obvious that a concentration of effort must now take place towards the prevention of stillbirths and deaths in the first week of life.

Deaths from Home Accidents:

There was a total of 21 deaths from accidents occurring in the home. Four of these were in children under two years of age, the remainder being adults. Eight deaths were due to asphyxia, the causes being as follows:—

Inhalation of chicken skin, in a girl aged 20 months.

Inhalation of food, in a boy aged 2 months.

Overlaying, in a boy aged 5 months and a girl aged 2 months.

Obstruction of the glottis by food, in a man aged 33.

Inhalation of food during an epileptic fit, in a woman aged 58.

Accidental coal gas poisoning, in a woman aged 75.

Drowning in a dolly tub-a man aged 74.

There was only one death from burns and scalds—a girl aged 15 whose clothes caught fire.

A man aged 62 died of electrocution whilst carrying out home electrical repairs.

Eleven persons died as the result of falls at home; 7 were elderly women, 3 were elderly men, and one was a man aged 61. Four of these falls occurred on level ground, but of the remainder, one was from bed, one from a chair, one down the stairs, and one was due to being accidentally knocked over by collision with another member of the household.

The death rate from home accidents compares favourable with that for the country as a whole.

Suicide:

Thirty-six deaths were due to suicide, gas poisoning accounting for the majority of the cases. The age and sex of the persons concerned, together with the method employed, is shown in the following table:—

					Age (Group		
			15-	-44	45-	-64	65 an	d over
			M.	F.	M.	F.	M.	F.
Coal gas		 	9	2	6	2	3	1
Hanging		 	1	-	2	1	-	-
Jumping from a height.		 	1	-	-	1	-	-
Overdose of soporifics		 	-	2	-	-	1	1
Fire-arms		 	1	-	-	-	-	-
Swallowing chlorine bleach		 	-	-	-	1	-	-
Asphyxia due to drowning	• •	 	-	-	1	-	- 3	-
Totals		 	12	4	9	5	4	2

Of all the forms of death from violence, suicide was the most frequent. Home accidents accounted for 21 deaths, and road accidents for 13 deaths, compared with 36 attributable to suicide. This latter figure was high for the County Borough of Bolton. In 1955 it was 17, and in 1954, 25.

Deaths from Cancer

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

												ı		ı	ı	ı		ı		ı	١
			1956		1955	1	1954	1	1953	1	1952	1	1951	-	1950	-	1949		1948		1947
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
	Stomach	. 59	2.66	55	2.57	19	2.99	70	3.316	77	3.394	78	2.938	74	3.135	53	2.343	69	3.123	09	2.618
24	Lung & Bronchus	78	3.51	09	2.81	65	2.90	99	3.126	69	3.041	48	1.808	39	1.652	41	1.812	35	1.584	35	1.527
	Breast	. 35	1.58	38	1.78	32	1.43	35	1.658	40	1.763	29	1.092	19	0.805	31	1.370	37	1.674	37	1.614
	Uterus	. 19	98.0	12	0.56	16	0.71	17	0.805	20	0.881	20	0.755	17	0.720	26	1.149	22	0.995	15	0.654
	Other Sites	. 184	8 · 29	171	7.99	187	8.35	175	8.290	176	7.757	185	896-9	203	8 · 601	175	7.736	195	8.827	188	8.202
	ATHS FE	M													1						1
	CANCER	375	16.90		336 15-71 367	367	16.38	363	17-195	382	16-836	360	16.836 360 13.559	352	14.915	326	14.915 326 14.412	358	16.206 335 14.616	335	14.616
	TOTAL DEATHS: (All Causes) .		2,220	7	2,138	2	2,240	2,	2,111	2,	2,269	2	2,655	2,	2,360	2	2,262	2	2,209	2	2,292
					۱	ı	١	ı		١		ı	١	١		ı		l		ı	

Annual Death Rates from certain Chest Diseases in County Boroughs of comparable size to Bolton

(Rates per 100,000 of 1951 census population)

	Population		165,500	141,700	157,200	147,900	173,900	196,850	152,800	181,550	160,700	169,100	161,300
atory	65-74	H.	18	24	19	12	11	=	23	15	15	22	31
ner Respira	65	M.	75	118	48	56	93	32	87	48	100	85	63
All other Respiratory Diseases	45-64	H.	6	13	7	9	00	7	00	12	00	13	6
IIV	45-	M.	37	59	24	40	48	33	23	28	33	34	27
ng s	65-74	F.	36	14	25	36	38	38	58	45	30	72	27
Cancer of Lung and Bronchus	65	M.	218	331	377	296	437	308	350	325	331	471	220
and Br	45-64	F.	12	19	22	20	25	13	15	15	14	22	6
0 "	45-	W.	143	169	167	168	206	159	166	156	184	197	119
**	65–74	F.	00	20	17	40	19	36	=	27	21	19	3
Respiratory Fuberculosis	65	M.	41	123	75	87	157	138	90	131	108	136	126
Respiratory Tuberculosis	-64	F.	19	28	19	31	32	22	10	21	30	25	26
	45-64	M.	61	1115	77	119	149	124	89	113	86	105	125
	65–74	H.	130	132	101	1117	161	126	147	132	82	179	153
monia	65.	M.	165	202	177	301	293	162	257	238	136	322	274
Pneumonia	-64	Е.	25	36	22	27	45	13	26	34	22	27	27
	45-64	M.	55	80	33	88	89	44	42	69	35	29	78
	65-74	F.	257	169	118	170	423	118	86	225	207	226	181
Bronchitis	65	M.	721	523	347	535	1,187	437	350	544	638	746	655
Bron	-64	F.	61	32	25	39	72	12	17	44	22	40	30
	45-64	W.	187	159	102	186	292	85	84	183	144	181	139
			Bolton	Birkenhead	Brighton	Middlesbrough	Salford	Southampton	Southend-on-Sea	Sunderland	Swansea	West Ham	Wolverhampton



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:

Central ante-natal clinics were held on Monday and Wednesday mornings of each week at the Health Department in the Civic Centre. These clinics were solely for mothers who had booked a midwife for a domiciliary confinement whether the midwife was to act as such or only as a maternity nurse. Other ante-natal clinics for cases booked for institutional confinement were held either at the hospital for hospital cases, or in the Health Department for maternity home cases, and were conducted by the staff of the institution concerned and at different times from the domiciliary ante-natal clinics. Only domiciliary ante-natal clinics are reported here and there were 96 such sessions held with an average attendance of 26 patients at each clinic.

STAFF:

The following staff were in attendance at each clinic:-

1 medical officer

2 health visitors (one employed in mothercraft teaching and the other in clinic duties)

1 midwife, and when available, a pupil midwife

ATTENDANCES:

Total A			2,462
Post-natal visits	 	 	73
Return visits	 	 	1,871
New bookings	 	 	518

New bookings showed a slight increase, but return visits have declined resulting in fewer attendances than the previous year.

Post-natal visits have been few. Many mothers do not attach enough importance to this final visit to the clinic although it is always brought to their notice that no true medical care is complete without the final post-natal examination. Appointments were sent out to all mothers who had been attending for ante-natal care, but unfortunately very few availed themselves of the opportunity.

CASES REFERRED FOR CONSULTANT OPINION:

Only 48 patients were referred for the following conditions:-

DIRECTLY CONNECTED WITH PREGNANCY	7:		No. of Cases
Rhesus negative with anti-bodies		 	1
Multiple pregnancy		 	3
Placenta praevia		 	1
Pre-eclamptic toxaemia		 	5
Hypertension		 	5
Breech presentation		 	3
Cephalo-pelvic disproportion		 	4
Difficult obstetric history		 	9
Foetal distress		 	1
Associated Conditions:			
Cardiac abnormality		 	1
Anaemia		 	8
Unsuitable home conditions		 	7
Total		 	48

The tendency noted in the previous year for there to be fewer cases of toxaemia of pregnancy has been maintained. In view of the importance of this condition as a cause of maternal and infantile disease and death, and the fact that the condition is largely preventable, we may feel reasonably pleased with the situation.

ROUTINE BLOOD EXAMINATIONS:

All patients on their first visit to the clinic had blood samples taken for investigation for haemoglobin estimation, Rhesus factor and syphilis anti-bodies. Altogether 711 specimens were taken as follows:—

For	haemoglobin estimation	 	 	 711
,,	Rhesus factor	 	 	 564
	syphilis anti-bodies	 	 	 532

Of the above, 131 specimens were Rhesus negative. One specimen showed a positive Wasserman and Kahn reaction and 3 other specimens gave a doubtful Kahn reaction. All were referred to the Venereologist. Those patients who were Rhesus negative were subsequently examined at the 32nd week of pregnancy for the presence, if any, of anti-bodies in the mother's blood.

MOTHERCRAFT TEACHING:

A health visitor attended specifically at each ante-natal clinic to give mothercraft training to the mothers attending. These talks included the physiology and anatomy of labour, the use of analgesic apparatus, preparations for the baby, and general hints on hygiene.

ROUTINE IRON THERAPY:

All women attending the clinics were given ferrous sulphate, 3 grains t.d.s. from their first attendance at the clinic and continued throughout pregnancy. The mothers were also encouraged to partake in the Welfare Foods Scheme and obtain all the necessary vitamins.

ROUTINE CHEST X-RAY:

All patients attending the clinics were referred to the Chest Clinic in the same building for a chest X-ray on the Odelca Camera. Altogether, 309 patients were X-rayed and in no case was it necessary to refer to the chest physician for further treatment.

PHYSIOTHERAPY:

Facilities for physiotherapy and relaxation exercises were available at the hands of a qualified physiotherapist on the staff and all patients were invited to take part. It was found that primigravidae were the most frequent attenders and the general impression was that they seemed to benefit as a result of this work.

DISTRIBUTION OF MATERNITY PACKS:

Maternity packs containing all the necessary requisites for the confinement are distributed from the ante-natal clinic or from the Home Nursing Section of the department. All women having their babies at home are entitled to one of these packs free and during the year 455 were issued.

DENTAL ARRANGEMENTS:

All expectant mothers were given the opportunity to attend the Authority's priority dental clinic which was held once a week, unfortunately in a different clinic building in another part of the town. Acceptances for examination and treatment were not very encouraging and in spite of all that has been done to stimulate this work it has not expanded.

RECORDS:

Whenever a midwife was booked for a case and the patient had also booked a doctor for domiciliary confinement, the doctor was kept informed of the findings at the ante-natal clinic. He was first of all given an initial report with blood examination results and a follow-up report after each visit by the patient. If a doctor had not been booked, the family doctor was, in any case, given a record of the initial ante-natal findings and also the blood examination results, but not the records of the follow-up visits.

Hospital records of previous confinements were as usual made readily available to the staff of the clinics when needed with the least possible delay. This arrangement has been most helpful.

Child Welfare Centres:

There has been no change either in the number of clinic sessions held or in the premises in which they are held. Fourteen of the 15 sessions were conducted weekly and one at fortnightly intervals. The number of attendances increased by over 2,000 compared with the previous two years.

Details of the centres and of the volume of work carried out are as follows:-

		No. of	TOTAL
CENTRE	Day	Sessions	ATTENDANCES
Civic Centre	Monday afternoon	47	2,661
Chalfont Street	do.	46	1,899
Deane	do.	46	1,838
Tonge Fold	do.	46	2,003
Chorley Old Road	Tuesday afternoon	49	3,877
Halliwell	do.	49	3,587
Civic Centre	Wednesday afternoon	49	3,400
Rosehill	do.	49	3,036
Astley Bridge	Thursday afternoon	51	2,728
Civic Centre	do.	52	2,339
Daubhill	do.	51	3,836
Delph Hill	Friday afternoon	48	2,793
Tonge Moor	do.	50	3,075
The Withins	do.	50	3,146
Lever Edge Lane	Saturday morning (fortnightly)	24	530
	TOTAL	s: 707	40,748

One of the chief criticisms of the child welfare centres is the obvious reluctance of a large number of parents to take their children for advice after the first year of life. Many people would say that the centres cater for that section of the population who would indeed look after their children in any case, and the really difficult families are those who never attend the centres. There is an element of truth in this, but that should not deter us from giving the full benefits of a child welfare centre to those who are interested enough to attend.

Immunisation, vaccination, mothercraft teaching, and the supply of welfare foods are amongst the recognised activities of any centre, but beyond this there is the indefinable advantage for any mother to have the regular surveillance of trained people to help her with the problems which always accrue when there are young children in the family. The solution to small problems and the confidence gained by the mother who has constant recourse to a welfare centre are amongst the most important functions of this service.

The striking fall in attendances at the child welfare centres of children over the age of 1 year is shown in the following table:—

Attendances at Child Welfare Centres

	First	Subsequent	Seen by Doct	or at Child W	elfare Centi
Age of Child	Attendance	Attendances	Mother's Request	H.V's Request	Routine
0 – 1 years	2,003	30,220	4,283	632	5,316
1-2 ,,	78	5,303	482	151	311
2-5 ,,	55	3,089	324	66	310
TOTALS:	2,136	38,612	5,089	849	5,937
Totals:	40,	748		11,875	1

Of the children attending the child welfare centres, a number had to be referred to consultants by the assistant medical officers, always of course, with the family doctor's consent. Very rarely, if ever, does the family doctor disagree with the decision to seek consultant advice. The details of the 55 cases referred during 1956 are as follows:—

Referred	to	Ophthalmic Surgeon	. 20
,,	,,	Dermatologist	. 6
,,	,,	Paediatrician	. 13
,,	,,	Orthopaedic Surgeon	. 11
,,	,,	General Surgeon	. 1
,,	,,	Ear, Nose and Throat Surgeon	. 4
		TOTAL	. 55

SPECIAL TODDLER CLINICS:

Last year a start was made on a scheme to improve the attendances of toddlers at the child welfare centres and for this purpose special monthly sessions were held at two of the centres, namely Delph Hill and Chorley Old Road. Invitations were sent to parents of toddlers on their birthdays asking them to come for full medical examination. The object of this work is two-fold. First of all to bridge the gap of some four years between the ages of 1 and 5 when to all intents and purposes the child is without medical supervision, and thus reduce the number of defects found at initial school medical inspection. The second object is to set an example to the rest of the mothers attending the centres in order that they will, of their own initiative, bring their children for periodic assessment. Although the numbers attending were small, the precedent set was great and we hope will have a much wider influence than on the toddlers actually invited to attend. The third centre for toddlers was set up at the Astley Bridge child welfare centre in November so that there are now three centres with monthly special toddler clinics.

The following is a summary of the work carried out:-

CHILD WELFARE CENTRE	No. of Sessions	No. of toddlers attending
Delph Hill	8	77
Chorley Old Road	9	98
Astley Bridge (started November)	2	14

VOLUNTARY WORKERS:

I wish to thank the volunteers who came along each week to the clinics to help in the routine work and in the sale of welfare foods. The Committee express their appreciation of this work each year by holding a reception in the Town Hall for voluntary workers. Unfortunately, there is a tendency for the number of this band of workers to diminish each year and there is an urgent

need for further recruitment. At present we have 54 voluntary workers, but we could do with considerably more than these to relieve the health visitors from routine tasks at the clinics and so enable them to carry on with health education and other valuable professional work.

Care of Unmarried Mothers:

It was necessary to make provision for the care of 24 unmarried mothers and their babies. This was a fairly substantial increase over the 15 cared for in the previous year. Fortunately, we have had the very valuable assistance of the Bolton Moral Welfare Association and in particular the devoted work of the Moral Welfare Officer who has given us very great assistance with many problems. The Corporation pay an annual grant to the Association for this work and, of course, pay the maintenance charges for the cases for which they become responsible. Mother and Baby Homes where these girls were accommodated for an average period of nine to ten weeks were as follows:—

The Grange Maternity Home, Wilpshire,	Bla	ickbu	ırn	 7	cases
Methodist Maternity Home, Manchester				 6	,,
St. Anne's Maternity Home, Heywood				 10	,,
Roman Catholic Mother & Baby Hostel,	Live	erpoo	1	 1	case

Of these cases 21 paid part of the cost of maintenance and the Local Authority the remaining part. In one case the Local Authority paid the full amount and in one case the mother herself paid the full amount. The remaining case was still in the maternity home at the end of the year.

Homes for Mothers and Children:

Two mothers and their children were sent to Brentwood Recuperative Centre. One mother and two of her family aged five years and one year spent a month at the centre. Owing to frequent and continuous sickness of one or other member of the family, aggravated by financial strain, the mother herself required rehabilitation. This family appears to have benefited and at present a fairly good standard is being maintained in the home and their general health has improved. The other mother and her two children aged four and two years were recommended by the family doctor. The mother was suffering from nervous and general debility following the delivery of a stillborn child. She was unable to manage her home affairs, and debts were mounting. Following rehabilitation at Brentwood this mother was able to go to work to relieve the financial difficulties at home.

Family Planning:

The family planning clinic held in the Civic Centre continued its activities under the care of the Bolton Branch of the Family Planning Association. The clinic was held on Monday evenings and some 42 sessions were held during the year. The total number of patients dealt with was 2,026 of whom 572 were new cases, and all were referred for medical reasons.

The Committee of the Association felt that the clinic at the Civic Centre was becoming overcrowded and it was decided to open another clinic at the Friends' Meeting House, Tipping Street. This clinic functioned on Friday mornings from May onwards. This morning session was useful to women who were unable to attend in the evenings at the Civic Centre clinic.

The two centres now run in conjunction with one another.

Distribution of Welfare Foods:

Welfare foods were distributed from the public counter in the Health Department waiting room at the Civic Centre which was open daily, and from the fifteen child welfare centres when in session. The latter included two belonging to the Catholic Women's League.

The following amounts were issued during the period 1st January to 31st December, 1956:—

National Dried Milk	70,931	tins	-W	eekly	average	1,364	tins
Cod Liver Oil	21,854	bottles	-	,,	>>	420	bottles
Vitamin A & D Tablets	9,140	packets	-	,,	,,	176	packets
Orange Juice	115,035	bottles	_	,,	>>	2,212	bottles

Approximately 70% of the above issues were made from the Health Department distributing centre.

Welfare foods were issued from the central store at the Health Department to the following institutions during 1956. The figures are included in the above totals.

NATIONAL HEALTH SERVICE INSTITUTIONS	National Dried Milk Orange Juice	
DAY NURSERIES	National Dried Milk Cod Liver Oil Orange Juice	 792 bottles

Less National Dried Milk and Cod Liver Oil, and more Vitamin A and D tablets and Orange Juice were consumed compared with 1955. The same tendency had been noticed in the previous year.

Day Nurseries:

Further changes have occurred in the day nursery provision of the Corporation causing a reduction in the number of places available from 301 to 257. This change was caused by the closing of Arkwright Street Day Nursery in January. The accommodation and attendances, with attendances for 1955 for comparison, were as follows:—

Nursery		Accommodation	Average daily attendance			
		1955		1956		
Arkwright Street		44	32.25	Closed Jan. 1956		
Newport Street		60	51.61	52 · 53		
Park House		50	33 · 12	32.82		
Shaw Street		50	35.65	35 · 74		
Merehall		47	38.09	34 · 30		
Roxalina Street		50	31.88	29 · 32		
Totals (excluding Arkwright Stree	t)	257	190 · 35	184 · 71		

The total number of children who attended during the year was 589.

The waiting list at the beginning of the year was 11 and at the end of the year was 21.

CHARGE FOR DAY NURSERY ACCOMMODATION:

The scale of charges remained the same as in previous years, the minimum charge being 2/6d a day and the maximum charge 11/3d a day varying according to an assessment made in each case on an approved scale. A summary of daily charges for those children on the register at the end of the year together with similar figures for 1955 and 1954 are shown below:—

CHARGE PAYABLE	N	NO. OF CASES	
AT END OF YEAR	1954	1955	1956
2/6d— 3/10d per day	 134	108	116
4/1d— 6/3d ,, ,,	 119	93	66
7/9d ,, ,,	 12	12	10
9/6d ,, ,,	 9	16	11
11/3d ", "	 15	18	35
TOTALS	 289	247	238

The above figures do not include cases of hardship who, on application, were referred to a special sub-committee for consideration and alteration of charge if necessary. At the end of the year there were 9 such cases affecting 12 children whose charge had been altered on appeal. Approximately one-third of these were cases where there were two children attending the Nursery from one family and on the whole the new charge for the two children was at the rate of one and a half of the single charge.

In all there were 21 appeals against assessments affecting 28 children. Of these, 15 appeals were successful, affecting 22 children; the remaining 6 affecting 6 children were refused.

FUTURE OF DAY NURSERIES IN BOLTON:

Once again there has been a decline in the average daily attendances at the nurseries as shown in the above table, and once again the charges payable by mothers as indicated above, have shown a tendency on the whole for fewer cases to pay the lower charge and more the higher charge. All this confirms what is well known that it is the scale of charges which is, in fact, causing poor attendances. I do not mean to convey by this that a lot of hardship is being inflicted. Indeed, those cases which need to attend because of urgent social problems are, on the whole, amongst the people paying the lower scale. It does, however, bring once more to our notice the point which must be faced, that the future of the day nurseries depends upon Council policy as to whether they are indeed going to supply day nursery places in order to allow women to go out to work merely because they want to, or whether they should only provide places for those mothers who, for urgent social reasons, must go out to work. Whatever the decision of the Council on this matter, it would seem that some three day nurseries may need to be retained for urgent social cases. A peculiar difficulty arises should the Council take the latter decision, as to which nurseries should be retained. The purpose-built nurseries are obviously the ones which give a better service. Unfortunately, they are not the ones which are the most popular or convenient. Also, the accommodation in some of the adapted premises is far from good and is badly designed from the point of view of hygiene and in at least one case, may have an element of danger attached to it.

Analysis of reasons for attendance

Day Nurseries:	Newport Street	Park House	Shaw Street	Mere- hall	Roxalina Street	Total
No. of children on Register at 31/12/56	67	44	48	52	39	250
Children whose mothers were— Employed in/as:— Mills	26 7 7 1 4 1 2 2 7 6 1 2 -	22 3 6 1 2 1 4 - 3 1 -	28 3 - 1 1 2 4 - 1 6 - - - 2	25 4 1 2 1 3 4 - 1 5 2 4 -	25 1 -3 -1 2 2 1 2 - - 1	126 18 14 8 8 8 16 4 10 22 4 6 2
TOTALS	67	44	48	52	39	250
In the abo	ve were in	cluded th	e followin	g:—		
Mothers separated or divorced Widows Unmarried Mothers	10 3 10	5 - 8	9 1 5	10 1 4	7 - 2	41 5 29
Number of children attending during year	128	131	109	113	108	589

Last year it was estimated that some 30% of the children in attendance were there purely for reasons of bad social circumstance. With the decline in attendances the proportion of these cases has risen to over a third which rather indicates that the core of social cases has remained fairly constant and that the decline in attendances is due to people with no social problem. It is extremely important that these cases of social difficulty should be encouraged to continue attendance.

STAFF:

There has been a further decline in the staff employed in the nurseries largely due to the closure of the Arkwright Street Nursery. The staff at the 31st December was as follows:—

Day Nursery Super	rviso	r	 	1
Matrons			 	5
Deputy Matrons				5
Wardens			 	5
Nursery Nurses				17
Nursery Assistants				7
Nursery Students			 	7
Тота	L ST	AFF	 	47

The total staff has therefore declined from 69 in 1954 to 60 in 1955 and 47 in 1956. The staff of Arkwright Street Nursery were transferred to other nurseries and recruitment of new staff was kept to a minimum.

INFECTION:

No serious outbreak of infection occurred but the mild outbreaks and sporadic cases were distributed as follows:—

Number of Cases

Nursery	Measles	German Measles	Chicken- pox	Mumps	Whooping Cough		Food Poisoning
Newport Street	4	7	22	1	_	*11	_
Park House	1	1	1	-	-	5	_
Shaw Street	20	10	-	-	-	8	1
Merehall	5	-	12	6	-	8	1
Roxalina Street	2	-	4	-	1	6	-

^{*}Includes 2 staff

The one case of whooping cough was in a non-immunised child.

Every child was offered immunisation against whooping cough and diphtheria; there were only four refusals.

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

TRAINING OF NURSERY NURSES:

Fifty-four 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	 	 	8
Local Education Authority			
Church of England Children's			
Wigan Local Health Authority			1
United Thread Mills' Nursery	***	 	1
Total	 	 	54

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. Three commenced hospital training and 2 were employed as nursery nurses in the premature baby unit at the Bolton District General Hospital.

Nurseries and Child Minders Regulation Act, 1948:

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

The infection in these nurseries included a few cases of measles, german measles, chicken-pox, and mumps, and 11 cases of sonne dysentery at one nursery.

For the first time, an application was made for registration of a child minder under the above Act, but had to be refused on the grounds that the premises were unfit for the purpose. The present position, therefore, remains as before and there are still no registered child minders in the Authority's area.

Dental Treatment:

Inspection and treatment of expectant and nursing mothers and pre-school children were carried out each Tuesday afternoon at Charles Street Clinic, the services of two dental officers being available. Patients were referred from ante-natal and post-natal clinics and from infant welfare centres and also by health visitors, district nurses and general medical practitioners. The volume of work done was approximately the same as last year although the last few months showed a slight falling-off in the number of patients attending the clinic. The work done was largely the removal of aching and septic teeth and, in the case of mothers, the provision of dentures. It is found in Bolton that the majority of expectant mothers make their own arrangements for dental treatment with general practitioners and that most of the patients who attend the clinic have mouths which have been neglected for some time. This means that the treatment necessary is often of a very radical nature.

The Occupation Centre has places for thirty-five children who were inspected twice during the year. It was found advisable to do this in order that the patients might be treated before their dental condition had deteriorated too much. In addition to these children, several adults who were physically or mentally handicapped and had experienced difficulty in obtaining dental treatment were dealt with.

It was not found possible to carry out routine inspections on the children attending the Day Nurseries, but those in need were referred to the clinics by the nursery staff.

The plan to re-organise the arrangements of the School Dental Service envisaged last year was unfortunately not advanced which means that there is as yet no acceptable alternative to the clinics for the Maternity and Child Welfare Dental Service being continued at the unsatisfactory Charles Street Clinic.

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 1	Dental	Officer								
-----	----------	--------	---------	--	--	--	--	--	--	--	--

(2) D	Dental Officers									2/11ths
-------	-----------------	--	--	--	--	--	--	--	--	---------

Number of	officer	s en	ploy	ed at	er	nd of	year	on a	sess	ional	basis :	in
terms of	whole	-tin	ne of	ficers	to	the	mater	nity	and	child	welfa	re
service												

Number of dental clinics in operation at end of year 2

Total number of sessions (i.e. equivalent complete half days) devoted to maternity and child welfare patients during the year 85

Number of dental technicians employed in the Local Health Authority's own laboratories at the end of the year... ...

Analysis of Priority Dental Care

	Examined	Needing Treatment	Treated	Made Dentally Fit
Expectant and Nursing Mothers	123	107	94	90
Children under five	212	199	193	193

		Anaest	hetics		Scalings or Scaling	Silver			Dentures provided	
	Extrac- tions	Local	Gen- eral	Fillings	and gum treat- ment	Nitrate treat- ment	Dress- ings	Radio- graphs	Par- tial	Com- plete
Expectant & Nursing Mothers	267	28	62	59	6	-	23	23	9	25
Children under five	367	4	175	50	-	11	11	8	-	-

No operations for crowns or inlays were performed.

I am indebted to Dr. D. Davies, the Principal School Dental Officer, for the above information. He has made every effort to make the service a success in spite of difficulties. The difficulties stem from three sources. First of all the premises in which the work is carried out at Charles Street Clinic have been generally agreed to be unsuitable. The Special Services Sub-Committee of the Education Committee agreed that the premises were unsatisfactory and plans were formulated for the building of a new school clinic which, together with re-organisation in some of the other clinics, would have led to the closing down of Charles Street. The service, however, has been completely frustrated by the fact that the Council have thought fit to remove this item of expenditure from the capital estimates. The second difficulty is the fact that in spite of considerable efforts on the part of health visitors and others concerned with propaganda, it has not been possible to expand the work in this field. That some work is being done is obvious, but it has remained at a relatively low level and does not seem to show any sign of increase. Finally, there is the question of staff. Although throughout the year we have been reasonably well staffed in the School Dental Service, the position at the end of the year was, by reason of resignations, extremely difficult and this is bound to have its repercussions on the Maternity and Child Welfare Dental Service which so rightly is carried out by the school dental officers.

Physiotherapy:

Following on the re-organisation of the work of this section of the department, more emphasis was again placed on the treatment by breathing exercises of certain chest conditions, in particular, bronchitis and bronchiectasis as well as catarrhal conditions of the ear, nose and throat, and the post-operative treatment of tonsils and adenoids cases. The development of correct breathing habits is of very great importance in these cases. Patients were referred to the classes, which were conducted by the physiotherapist, from the paediatrician, the chest physician, and the ear, nose and throat surgeon, as well as from the child welfare and school clinics.

This type of work has expanded considerably and further activities were undertaken at Lostock Open Air School on the same type of cases from about the middle of January. The physiotherapist paid several visits to the school to instruct the nurses there in the proper techniques to be used on the large number of asthma cases which are now being accommodated at the school. Following on the start of this scheme, the nurses conducted daily classes for asthmatic and bronchiectatic children and the whole work was supervised periodically by the physiotherapist. There are at present some 36 children needing breathing exercises at Lostock.

Ultra-violet light sessions were held each day—three times weekly for the under fives and twice weekly for school children. The number of cases recommended for ultra-violet light therapy has again decreased, but the general impression, and this is not a universally held opinion, is that children benefit in a general sort of way to exposure from ultra-violet light.

Relaxation classes for expectant mothers were conducted each morning from 9.45 a.m. to 11.0 a.m. and patients attended the classes after being referred from the domiciliary and nursing home ante-natal clinics. Some were also sent in by their own doctors and a few attended who were normally patients at the Bolton District General Hospital.

The number of cases given massage and remedial exercises decreased again during the year. Practically all these cases were referred from child welfare centres.

SUMMARY OF WORK:

Own Doctors

Bolton District General Hospital

	Massage and Exercises	Breathing and Postural Exercises
No. of Patients	. 202	196
" ,, Treatments	. 715	591

The above figures include 65 new patients for massage, and 66 new patients for breathing exercises; 111 sessions were held.

		ULTRA-V	VIOLET LIGHT
		Infants	SCHOOL CHILDREN
No. of Patients	 	 330	294
" " Treatments	 	 2,202	1,550
" " Sessions	 	 135	94
" " New Patients	 	 147	122

EXPECTANT MOTHERS—RELAXATION CLASSES NO. OF No. of No. of NEW PATIENTS ATTENDANCES PATIENTS Domiciliary Midwifery Service ... 220 96 523 Nursing Homes 254 121 618 14 12 50

9

45

MIDWIFERY

9

The three branches of the Health Service dealing with midwifery have not changed substantially in their provision of accommodation or service. Bolton District General Hospital maternity department accepted Bolton mothers for hospital confinement. The three maternity homes administered by the Bolton and District Hospital Management Committee continued, without change, to accept family doctors' cases, and there have been no changes in the structure of the domiciliary midwifery service.

At the suggestion of the Minister of Health, the Chairman of the local Hospital Management Committee, inaugurated a series of meetings of professional representatives of all three services in an attempt to overcome, by local re-arrangement, the difficulties inherent in a tripartite scheme, and in particular to study the question of ante-natal care and its relationship to toxaemia of pregnancy. Several meetings have been held and although no final conclusions have yet been reached, much useful discussion has taken place and a good deal of local research initiated. It may be some time yet before concrete results of these meetings are available.

Distribution of Confinements:

The table produced for the first time last year showing the distribution of confinements as between the three services is repeated and made up to date this year as follows:—

Year	1939	1947	1948	1950	1952	1953	1954	1955	1956
Total Births Domiciliary Births		3,382 1,203			2,423 476		2,440 464		2,558 425
Bolton District General Hospital Maternity Homes		1,104 †1,059	901 974	1,041 984	1,010 851	986 864	1,050 830	1,101 785	1,223 910

^{*}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.

The figures for 1956 merely confirm the conclusion which was reached last year that any fluctuations in birth rate within reasonable limits, reflect more clearly in the hospital and maternity home figures than in the domiciliary service. For instance, the total births have increased by over 250, yet the domiciliary births have increased by only 21. The rest were taken by the hospital and the maternity homes. This popular demand for institutional confinement has had some undesirable repercussions on the domiciliary service. It was found, for instance, that owing to pressure on hospital beds, 167 cases were discharged to their own homes at an earlier date than is normally considered desirable. These were discharged mostly on the seventh or eighth day after delivery. In such cases the domiciliary midwives were requested to attend until the fourteenth day. The low rate of domiciliary confinements and the fact that unusual demands such as those just mentioned have to be met from time to time, confirms the policy already agreed that no matter how few the domiciliary confinements, there is a minimum number of midwives below which we cannot safely go. That figure is considered at the present time to be eight.

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	 	 28
In Domiciliary Practice	 	 16

Thirteen of the midwives in domiciliary practice were employed by the Local Health Authority; 2 acted as private maternity nurses only; and 1 midwife from an adjoining area attended two patients.

Domiciliary Staff:

There have been more than the usual staff changes amongst municipal midwives. Six midwives resigned for the following reasons:—

1 to take up an administrative appointment

1 retired

1 resigned for marriage

1 to emigrate to Canada

2 for family reasons

Six appointments have been made and of these, 3 midwives have applied for loans to purchase cars. Three of the midwives appointed have completed Queen's Nurse Training and are now combining midwifery with some general nursing. This arrangement is, so far, working well and will be more helpful when cars have been obtained and the midwives have become proficient drivers.

The combining of midwifery with general nursing has become necessary in Bolton because of the low level of domiciliary confinements. As already stated above, a minimum number of midwives must be kept on the staff to meet all eventualities, but at the same time, it is realised that this cannot mean, in some cases, full employment. Hence, those midwives with general training have willingly agreed, and the Committee have sanctioned, that they should do general nursing as and when possible. It is understood, of course, that midwifery will receive the utmost priority.

Domiciliary Confinements:

Municipal midwives attended 422 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 are summarised below:—

							4,052
iring	the	puer	periu	ım			8,486
							274
Тот	AL						12,812
	iring	uring the	uring the puer	uring the puerperiu	uring the puerperium	uring the puerperium	Total

All midwives employed by the Local Health Authority have now been supplied with "Tecota" Inhalers for the administration of Trichloroethylene. Owing to staff changes, the four purchased in 1956 have not been fully used, but it is expected that this type of analgesia will replace the "Nitrous Oxide and Air" method, as new midwives receive the necessary instruction in its use.

In 1956-

Nitrous Oxide was administered in 200 cases Trichloroethylene was administered in 191 cases Pethidine was used for 154 patients

There has been a considerable increase in the use of Trichloroethylene.

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	 	 9	14
Notification of Artificial Feeding		28	147
Notification of Death of Child	 	 -	2

In addition, the Bolton District General Hospital notified the commencement of artificial feeding concerning 117 mothers normally resident in Bolton.

Notification of Puerperal Pyrexia:

Three notifications of puerperal pyrexia were received—2 domiciliary cases and 1 from a maternity home. The causes were throat infection, pyelitis and pelvic infection. All cases were mild and soon settled down.

Medical Aid:

Medical aid was sought by domiciliary midwives on 141 occasions from family doctors for the following conditions:—

RELATING TO THE MOTHER	:						No. of
Ante-natal Condition	is:						CASES
Ante-partum haemor	rrhag	ge		 	 	 	8
Threatened abortion				 	 	 	2
Abnormal presentation	ons			 	 	 	3
Toxaemia				 	 	 	2
Others				 	 	 	3
DURING LABOUR:							
Prolonged labour			2.00		 	 	9
Mal-presentation				 	 	 	8
					 	 	6
Perineal tear				 	 	 	42
Post-partum haemor				 	 	 	6
Retained placenta				 	 	 	3
PUERPERIUM:							
Puerperal rise of tem	pera	ture		 	 	 	10
Severe cough and otl					 	 	8
Other puerperal cond					 	 	3
RELATING TO THE CHILD:							
Prematurity				 	 	 	5
Abnormalities				 	 	 	4
Discharging eyes				 	 	 	12
Artificial feeding				 	 	 	2
Asphyxia				 	 	 	1
Other conditions				 	 	 	4
						-	
	To	TAL		 	 	 	141
						-	

Calls for medical aid to the three maternity homes numbered 63 in respect of Bolton mothers. Medical aid requests have increased considerably over the previous year.

Flying Squad:

The Obstetric Emergency Team from the Bolton District General Hospital was called on by domiciliary midwives on three occasions and once by a general practitioner.

Maternal Mortality:

There were no maternal deaths in 1956.

District Midwifery Training:

Nine pupil midwives took their Part II district training during 1956 under the care of domiciliary teaching midwives. Owing to the very substantial staff changes during the year it will be extremely difficult to accept as many pupils in the near future as we have done hitherto. Because of shortage of cases due to the low rate of domiciliary midwifery and the fact that we have now only one approved teacher on the staff, we have had to reduce the number of pupils we could accept to two. As a temporary measure, arrangements have been made with the County Authority for a County midwife to take a third pupil until such time as the Bolton domiciliary midwifery staff settle down once again and more experienced midwives can be approved for teaching purposes. This situation may have to last for as long as a year.

This vicious circle of increased institutional confinements, shortage of staff, and lack of facilities for district training may well lead to a breakdown in recruitment unless drastic changes are made in the rules for the training of midwives.

The accommodation for pupil midwives at the "Newlands" Nursing Home continued to be used and I am very grateful to the Hospital Management Committee for these facilities.

Refresher Courses:

No refresher courses were taken by midwives because of the rapid staff changes.

HEALTH VISITING

Staff:

At the end of December the staff consisted of:-

Superintendent Health Visitor/School Nurse Deputy Superintendent Health Visitor/School Nurse

- 1 Health Visitor engaged solely on problem families
- 26 Health Visitor/School Nurses
 - 2 Tuberculosis Visitors with H.V. and B.T.A. Certificates
 - 1 Tuberculosis Visitor with H.V. Certificate
 - 3 School Nurses
- 6 Student Health Visitors in training

TOTAL: 35 plus 6 student health visitors

AUTHORISED ESTABLISHMENT: 41 plus administrative staff

During the year 4 health visitors resigned. One tuberculosis visitor and one school nurse retired on grounds of ill health.

Seven student health visitors completed their training at the Queen's Institute Training Centre in Bolton. Six of these gained their Health Visitor's Certificate and commenced duty in the department in July. One student failed to satisfy the examiners and has since left the department.

Two qualified health visitors joined the staff in August.

Except in the case of Problem Families and Tuberculosis, the visitors are all-purpose.

The Superintendent Health Visitor resigned towards the end of the year having secured a post as Superintendent Nursing Officer at Newcastle-on-Tyne. The Health Committee took this opportunity of obtaining a change in the nursing establishment. Consequently the Council decided that the post of Superintendent Health Visitor would not be filled and instead, a Superintendent Nursing Officer would be appointed on the appropriate grade to remain in charge of health visitors and at the same time to act as a co-ordinator between the Health Visiting, Home Nursing, Midwifery and Day Nursery Services, and at the same time to fulfil the declared proposal of the Corporation by assuming general supervisory duties over the Home Help Service. A further alteration in the establishment was made by the inclusion of a Centre Superintendent to assist the Deputy Superintendent Health Visitor in the administration of the Health Visitor Service. This goes some way to satisfy the suggestion made in the Health Visitors' Working Party report for an intermediate grade between district health visitor and administrator.

Staff Training:

One health visitor and two school nurses attended a two week refresher course in Manchester organised by the Royal Coilege of Nursing.

Two health visitors attended a special course of lectures and demonstrations on audiometry for two days in September. The course was held in the Department for the Education of the Deaf at Manchester University.

A two day course organised by Manchester Health Department in March, was attended by the Superintendent Health Visitor and three health visitors. The subject of the course was "The substance of Mental Health."

The Superintendent Health Visitor attended on two days, the Congress of the Royal Society for the Promotion of Health at Blackpool, in April, and the Annual Conference of the National Association for Maternal and Child Welfare, held at Cardiff from the 20th to the 22nd June. She also attended a seven day course in Birmingham in September on "Aspects of Mental Health."

The winter in-service lectures to Health Department staff commenced again in September and were given at monthly intervals. The following subjects were covered:

Midwifery and Gynaecology by Mr. T. N. Hart, Consultant

Modern outlook and trends

in Education by Mr. W. T. Selley, Chief Education Officer

Eye defects in children under

five years of age ... by Mr. T. E. Shannon, Consultant

Mental Deficiency ... by Dr. D. J. Rose, Medical Superintendent

In addition, Mrs. Duncan, Publications Officer of the Central Council for Health Education, gave a talk on home accidents to a large audience of Health Department and Town Hall staff. One hundred and fifty persons attended this lecture given in the Assembly Room.

Training of Visitors:

To implement the requirements of the General Nursing Council Syllabus, students from the training schools of Bolton Royal Infirmary and Bolton District General Hospital were shown the various aspects of public health nursing at the Health Department. Over 100 nurses attended averaging about four per week during the training period.

Six student health visitors attending the course of training at Bolton Technical College received their practical training in Bolton.

Six student health visitors from Manchester Technical College also attended for four days.

At the commencement of the present course at Bolton Technical College all the 27 student health visitors were shown round and given instruction on the many aspects and working of the Bolton Health Department as a introduction to the course.

A Malayan student taking the Public Health Administrators' Course of the Royal College of Nursing spent two and a half weeks in the department.

Other students in the academic field—for Social Science Diploma, Teacher training, etc.—spent varying periods at the clinics.

Four doctors studying for the Diploma in Child Health have been present at child welfare sessions and clinics as part of the requirements for the diploma.

Home Visits:

Home visiting is the major factor of a health visitor's work. Further changes in the overall pattern of visits is shown in the following table:—

Analysis of Home Visits

First visits to expectant mothers	326
Subsequent visits to expectant mothers	294
Ante-natal visits regarding suitability of home for confinement	26
First visits to newly-born babies	2,420
Subsequent visits under 1 year	14,858
Visits to children 1-2 years	8,353
Visits to children 2-5 years	15,713
Infant death enquiries	15
Infectious disease visits	186
After-care visits	206
Chronic sick visits	2,356
Home Help visits (Assessment and re-assessment of need for service)—Since June, 1956	1,258
Home visits to school children	785
Visits in connection with Priority Re-housing on medico- social grounds	82
Visits in connection with the B.C.G. Survey—Medical Research Council	585
Survey of old persons, leukaemia survey, burns and scalds enquiries	328
Miscellaneous visits (family doctors, Assistance Board, Moral Welfare, W.V.S., Blind, Probation Office, etc.)	799
Ineffective visits to households	7,232
TOTAL	55,822

In practically every category of visit there has been an increase in the volume of work carried out and this is reflected in the figures given above.

The large number of ineffective visits is rather frustrating to the visitors, but unfortunately is a risk which has to be taken in this type of work. Visits of this kind do not necessarily mean that the health visitor has been unsuccessful in gaining admission to the house. In many cases the ineffectiveness of the visit was due to the fact that the person the visitor wished to see was not at home.

The increase in work has only been possible because of the gradually increasing number of staff, and based on the year's work it would seem that the number of visits per health visitor recommended in the Working Party Report at 2,000, is being carried out in the Bolton service.

The above figures do not include tuberculosis visiting, details of which are given under "Tuberculosis" in Part III of the Report.

As this service develops, it becomes more and more apparent that health visitors are being given increased duties year by year and are being used more and more as general social workers.

Altogether 36,533 households were visited during the year. The case load of health visitors at the end of 1956 was 10,869 children under five years of age.

Tuberculosis Visiting:

Three full-time health visitors combined this work with attendance at the various sessions in the Chest Clinic and concentrated on the social aspect and follow-up of tuberculous patients and their contacts.

Unfortunately, one of the tuberculosis visitors was off duty for three months before she retired. Consequently the other visitors had to spend more time at clinic sessions and this accounts for a reduction of over 400 in the number of domiciliary visits.

In July, a newly qualified halth visitor who also holds a B.T.A. certificate commenced duty in the department.

The visitors paid 2,387 effective visits to 2,297 households. The number of ineffective visits was 475 and the visitors' case load at the year end was 888 cases.

Expectant Mothers:

The health visitors have continued to work in close co-operation with, and have had daily contact with, the maternity and ante-natal departments of the Bolton District General Hospital and with the maternity homes.

Health education and parentcraft talks have been given at all Health Department and hospital ante-natal clinics. It is hoped in due course to extend this work into the maternity home ante-natal clinics.

Child Welfare:

This is a fundamental part of health visitor training and despite many and varied calls on her time a health visitor still regards this work as of the first importance. At times, selective visiting only has been possible, but there has been more contact between mothers and health visitors by telephone as each mother has become aware of the fact that her particular health visitor was available in the department each morning.

The actual number of visits to young children has, however, increased and the infant mortality rate has again declined to the lowest figure recorded in Bolton.

Paediatrics:

The health visitors continued to attend at the Paediatric Out-Patients' at the Bolton District General Hospital and at paediatric ward rounds. I am grateful to Dr. W. Dickson for his help in this matter and I believe he too appreciates the help on the social side which the health visitors are able to give to him.

Geriatrics:

There has been a close association between the hospital, the welfare department and the health department on the many varied and difficult problems of old age which increase in number each year and take up correspondingly more of the health visitors' time.

The geriatric team of Consultant or his Registrar and a health visitor paid 401 visits to homes of the chronic sick patients to determine whether hospital or other treatment was necessary.

Further work on behalf of old people was started in June when health visitors undertook for the first time the assessment and re-assessment of need for Home Help service on medico-social grounds.

Requests by family doctors for assistance in the care of old people have increased considerably.

The investigation into the needs of a random sample of old people in Bolton was completed. The results of this survey, which was begun at the end of 1955, are given in Part V of this report.

Routine social enquiries on behalf of the Geriatric Physician were carried out in 316 instances.

Special Investigations:

The follow-up work for the Tuberculosis Prevention Unit of the Medical Research Council has continued and it was necessary to carry out 585 visits.

A number of visits and enquiries were made into the deaths of children who had suffered from leukaemia, as part of a National Enquiry for the Department of Social Medicine, Oxford.

Questionnaires were completed for the National Survey of the Health and Development of Children sponsored by a Joint Committee at the London School of Economics. Visits were made to the homes of 10 children who were born in March 1946.

Liaison:

We are fortunate in and gratefully acknowledge, the close co-operation which we get from hospital consultants and their staffs, almoners, family doctors, welfare department, National Assistance Board, Moral Welfare Association, National Society for the Prevention of Cruelty to Children, the Women's Voluntary Service, and other voluntary services.

An experimental scheme of close liaison between two family doctors and the health visiting service was introduced early in December. One health visitor attended the surgery on one morning each week to help and advise on any points within her field or scope. It is hoped that gradually further sessions of this kind will be introduced.

In November, a reception which has become an annual event, was given by the Health Visiting, Domiciliary Nursing and Midwifery Services to family doctors of Bolton and district. The nurses were pleased to welcome some of the doctors who, on previous occasions had been unable to attend, as well as those doctors whom we had met before at similar functions.

The Prevention of Problem Families:

Established problem families are still dealt with by the Care of Children Co-ordinating Committee and the working sub-committee—see Part V of the report.

The health visitor who was appointed solely to deal with the incipient problem family has had 49 families under concentrated supervision during the year.

Families were returned to the district health visitor for ordinary supervision when they were considered able to maintain a standard of home care which was adequate to the immediate surrounding community.

REASONS FOR THE CASE COMING UNDER CARE:

Domestic difficulties								5	
Unsuitable lodgings								9	
Neglect and intemperar	ice							4	
Illegitimacy and infideli	ty							6	
Instability and low men								6	
Bad management due to	ign	oran	ce					6	
Too frequent pregnanci	es ar	nd in	doler	ice o	f hus	band	١	6	
Incompatibility and des								4	
Sickness and poverty								2	
Elderly couple in difficu									
							_		
Tomir								10 C	

TOTAL ... 49 families

RESULTS OF HEALTH VISITOR'S ACTION:

Returned to health visitor as no longer in need of special	
supervision	18 families
Retained under special supervision	29 ,,
Referred for supervision to the National Society for the	
Prevention of Cruelty to Children	2 ,,

Of the 29 retained-

17 have improved

6 show little or no change

2 are fluctuating from day to day

4 only recently acquired and not yet fully investigated

Help was requested from other agencies in 8 cases:—

- 2 were referred for supervision to the National Society for the Prevention of Cruelty to Children
- 3 were referred to the Probation Officer
- 3 were referred to the Bolton Family Planning Association

Family needs were varied and each family was considered as an individual unit and its requirements assessed. Some families responded quickly when help was offered, but where there was matrimonial disharmony the difficulties incurred took much longer to solve. It has been found that some of the major causes of family breakdown were bad housing conditions and lack of preparation for matrimony.

Some successful work has been done in rehabilitation after rehousing as shown in the following example:—

Mr. and Mrs. X and six daughters aged 2 to 12 years only recently rehoused from furnished rooms. The home was bare, there was no floor covering and the little furniture they had was in a poor state. Mr. X works regularly as a labourer. After long discussion with Mrs. X and the necessity shown to provide a decent home for her growing family and the effect on their future, Mrs. X was only too willing to accept help or advice offered.

An account was opened at a local furnishing shop and whatever could be afforded was paid in and floor coverings were selected whenever there was sufficient money to pay for these. The same was done with a furniture dealer. After only twelve months, the house has been reasonably furnished including a wireless set, clothes, wardrobes and kitchen necessities, and only one small bedroom now requires floor covering.

Mrs. X states that good luck entered the house in the form of the health visitor and that any spare money would have gone on trivial things instead of household goods. The impact on the older girls has been remarkable. They are becoming proud of their new surroundings and frequently offer suggestions as to what the next article for purchase should be. The eldest girl has also asked to be shown how to crochet and how to make small articles from larger clothes.

The following two cases illustrate some of the problems faced by the health visitor in problem family work:—

Mrs. Y and three children aged 1 to 5 years came to England after the death of her husband in Malaya. Fares home were paid by the Forces Benevolent Fund. They went to live at Mrs. Y's parents' home—a 2/2 cottage which was already overcrowded. The baby slept in a pram and Mrs. Y and the other two children on a mattress on the floor. Visits to numerous estate agents resulted in the acquisition of a house on payment of a small deposit and weekly rent. Some furniture and domestic utensils were procured through various agencies and the family are now settled in their own home. Mrs. Y. is a very good mother and hopes to go to work and become self-supporting as soon as she reasonably can. She is most grateful for the help she has received and has visited this department to express her thanks. This family was brought to the notice of the health visitor by the National Assistance Board.

Miss Z—20 years—found living in very bad lodgings. Had been constantly on the move from town to town and had just given birth to a second illegitimate child. She had herself come from a broken home and felt that the world was against her. She was hard, abusive and cynical, but was eventually made to realise that she could regain her moral standards and could be a decent citizen. She moved to live with a couple who unfortunately exploited her. She day-minded the woman's family while the couple both worked, but paid all of her assistance grant into the household purse. Miss Z was advised to find employment and handle her own finances, but at this stage the couple with whom she lived became resentful and turned her out. Fortunately Miss Z had already found a friend who, despite her past record, was willing to help. He found her accommodation and they have recently been married and appear to have settled down happily.

The spending of financial grants from the National Assistance Board has, in some cases, been closely supervised by the health visitor to ensure that the money was spent to the best advantage.

Two families spent one month at Brentwood Recuperative Centre and so far appear to have benefited from training there.

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

In addition to the work carried out by the health visitor on problem families, a woman visitor has worked in Bolton since June 1954 on the staff of the Local Branch of the National Society for the Prevention of Cruelty to Children. This visitor works very successfully in conjunction with the Children's Department and the Co-ordinating Committee for the Care of Children and has done much work in parallel with the health visitor. The Co-ordinating Committee have made sure that there is no clash of work.

For the year ending 31st December, the visitor had 34 cases under her supervision. Of these, 3 were closed as 'satisfactory', and 3 after investigation, were handed back to the Inspector of the N.S.P.C.C. Seven new cases were taken on involving 30 children. All told, 1,110 visits of supervision, and 908 miscellaneous visits to public officials, voluntary organisations, etc., were made.

HOME NURSING

The home nurses have continued satisfactorily to render a good service from their headquarters at the Civic Centre. The non-resident nature of our service has now become established and seems to meet the needs of the modern nurse more easily than the older method of working from a nurses' home. Year by year it becomes more apparent that an increasing number of nurses is necessary to be able to fulfil all the needs of the elderly sick. This problem is probably more acute in an area where it is the custom of women to go out to work in addition to fulfilling their home duties, as in Bolton.

Staff:

The following staff were employed at the end of the year:-

Superintendent

Deputy Superintendent

Assistant Superintendent

8 Queen's Nurses (Full-time)

3 Queen's Nurses (Part-time)

6 State Registered Nurses (Full-time)

3 State Registered Nurses (Part-time)
2 State Enrolled Assistant Nurses (Full-time)

4 State Enrolled Assistant Nurses (Part-time)

TOTAL NURSING

STAFF: 26 Equivalent in full-time staff—22 excluding administrative staff.

The above included 4 male nurses full-time.

There were 6 students taking the Queen's Nurses' Training Course.

Comparison with the position at the end of 1955 shows an increase of 4 by the end of 1956. Part-time staff has increased from 6 to 10. These figures include those full-time nurses who asked to transfer to part-time work for domestic reasons. In all, 18 new appointments were made in 1956. Half this number applied for part-time work—mornings only, and this meant that fewer afternoon, evening and weekend visits could be made. This is an undesirable feature since an increasing amount of the nursing work is devoted to old people who live alone and who would benefit by more frequent visiting. Of the nurses who resigned during the year, 9 had worked for less than a year. This constant movement of staff is the greatest difficulty that we have encountered and is caused essentially by the fact that we must rely to a large extent on part-time and on married nurses without whom the service would meet only a fraction of the need. Part-time nurses, however, do increase the administrative problems.

Statistics of Cases and Visits:

In showing below the number of cases nursed in 1956, a comparison has been made with the previous three years.

	bei	o. of ping no eginn onth ye	ursed ing o	at	New Cases				Nursing Visits			
	1953	1954	1955	1956	1953	1954	1955	1956	1953	1954	1955	1956
January February	469 464 463 463 441 455 458 460 460 478 476 481	497 553 530 541 557 573 550 570 610 592 615 898	681 721 716 732 746 744 748 763 768 775 805 812	817 809 845 854 864 869 833 861 835 842 870 872	323 284 342 279 279 257 240 245 239 261 263 284	315 272 293 277 251 230 250 238 229 284 284 378	328 267 309 314 267 221 249 225 225 266 256 303	308 344 354 233 249 196 225 205 215 226 226 256	7,168 6,289 7,553 7,446 7,329 6,502 6,971 6,774 6,650 7,264 7,185 7,388	8,038 7,690 7,950 7,740 7,815 7,527 7,455 8,020 8,036 7,861 8,393 9,384	8,835 8,307 8,866 8,616 9,057 7,939 8,278 8,694 8,193 9,113 9,558 10,330	10,481 9,966 10,645 9,671 10,734 9,421 8,189 9,071 8,133 9,211 9,318 9,323
TOTALS					3,297	3,301	3,230	3,037	84,519	95,909	105,786	114,163

Patients being nursed on the 1st January	 817
New patients attended during the year	 3,037
Total cases nursed	 3,854

The above figures illustrate several important points. Each year there is an increase in the number of cases being nursed at the beginning of each month. This means that cases are accumulating on the books and are not being removed for the simple reason that the aged population, which is itself increasing year by year, demands more and more service for a longer time and indeed in many cases, until they die or are removed eventually to hospital. This mass of growing responsibility is constantly with us and shows no seasonal variation throughout the year.

New cases, on the other hand, have not increased in number and show the usual seasonal variation—being more numerous in the winter months.

The number of visits by nurses continues to grow each year—in 1956 over 8,600 more visits were paid than in 1955. There seems no sign of the visits yet reaching a peak although this must come soon by sheer volume of work on a staff which is not likely to be settled.

CLASSIFICATION OF CASES NURSED BY CONDITION AND AGE:

		Age Groups			
Condition	0-4 years	5-64 years	65 years and over		
Tuberculosis	-	183	4		
Other infectious diseases	-	10	9		
Parasitic diseases	-	1	_		
Malignant and Lymphatic neoplasms	-	110	125		
Asthma	2	6	15		
Diabetes mellitus	-	26	66		
Anaemias	-	77	133		
Vascular lesions affecting the Central Nervous			207		
System	_	59	207		
Other mental and nervous diseases	3	57	56		
Diseases of the Eye	5	5	4		
Diseases of the Ear	52	45	204		
	7	176	394		
Diseases of the Veins	13	106	12		
Jpper Respiratory diseases	74	194	183		
onetination	17	91	87		
Constipation	9	63	32		
Diseases of the Urinary System and Male Genital	,	03	32		
	2	40	21		
organs Diseases of the Breast and Female Genital organs	_	36	98		
complications of Pregnancy and the Puerperium		61	_		
Diseases of the Skin and Subcutaneous Tissues	7	111	35		
Diseases of Bones, Joints and Muscles		83	83		
njuries	4	34	46		
enility		_	187		
Other defined and ill-defined diseases or					
disabilities	7	16	8		
Diseases not specified	-	146	54		
TOTALS	195	1,755	1,904		
GRAND TOTAL		3,854			

The above classification has been adopted for the first time and follows the suggestions made by the Special Committee of the Society of Medical Officers of Health in May 1955. If universally adopted, this classification could be useful for comparison purposes with other Authorities.

The number of cases nursed aged 65 years and over increased once again and although the total number of cases nursed has slightly decreased, the number of visits has considerably increased. All this is proof, if any further was needed, that the number of old people nursed is increasing not only in numbers, but in the nursing time taken by each individual case.

Nursing Treatments:

INJECTION THERAPY:

Increasingly the home nurses are called upon to administer drugs by injection on family doctors' instructions. A comparison of this work with that of the previous year follows:—

1956	1955
Insulin 19,635	Insulin 15,640
Streptomycin 10,148	Streptomycin 7,518
Penicillin 6,905	Penicillin
Drugs for cardio-renal diseases (Mersalyl, Neptol, etc.) 12,461	Drugs for cardio-renal diseases (Mersalyl, Neptol, etc.) 22,801
Drugs for Anaemia, Debility, etc. (Anahaemin, Cytamen, etc.) 7,260	Drugs for Anaemia, Debility, etc. (Anahaemin, Cytamen, etc.)
Miscellaneous 1,908	Miscellaneous
Narcotics 855	Narcotics 873
TOTAL 59,172	TOTAL 46,832

Some of the headings in the above table are not strictly comparable as between the two years, but the rapid trend upwards in the total column of this kind of work is obvious.

It will be noted that injections of insulin have increased by 4,000. This diabetic treatment is given to patients who, on account of old age and failing eyesight, are unable to be taught to give their own injections and have no available relatives who would undertake this treatment which should be given at fixed times once or twice daily.

Streptomycin injections for tuberculosis have increased by 2,600. The number of patients has not increased, but treatment often continues over long periods varying from six months to two years.

Separate figures were not kept in 1955 for other injections, but there has been an increase in the group which includes penicillin, mersalyl, cytamen and miscellaneous drugs.

TREATMENTS OTHER THAN INJECTIONS:

The following is an analysis of the general nursing given:-

Enemas				 	1,809
Bed baths				 	8,639
Dressings				 	16,149
Attention to pessaries				 	609
Wash-outs, douches, ca	athete	risin	g	 	1,376
Bedside nursing				 	33,612
Preparation for X-ray	invest	igati	on	 	176
Others				 	3,457
Minor operations				 	28
TOTAL				 	65,855

'Others' indicate nurses' visits where no actual treatment was given because:—

The visits were for observation of debility or old age—usually where people were living alone.

In a few cases it was necessary only to instil eye drops.

Drugs for injection were not available.

Patients had been admitted to hospital prior to visit or were not at home for other reasons.

The last two can be classified as ineffective visits.

There were no special provisions for the home nursing of sick children and each nurse attended children on her own district.

SUMMARY OF NURSING TREATMENT:

Nursing car	e	 	65,855	
Injections		 	59,172	
TOTAL		 		treatments given at 114,163 visits

Disposal of Cases:

The reasons for patients ceasing to need nursing visits are given below:-

Month	Fully recovered	Removed to Hospital	Died	Not recovered but not requiring further nursing	Total
January	149	43	64	60	316
February	165	37	69	37	308
March	166	50	75	54	345
April	101	32	42	48	223
May	115	39	34	56	244
June	93	41	50	48	232
July	88	35	38	36	197
August	96	36	44	55	231
September	101	33	29	45	208
October	94	39	32	33	198
November	108	27	46	43	224
December	116	34	53	36	239
TOTALS	1,392	446	576	551	2,965

Fewer cases were discharged as cured, fewer were removed to hospital, and more died compared with last year. This is another illustration of the accumulation of old cases in the Home Nursing Service.

Transport:

The four cars provided by the Corporation have continued to be fully used. Three 'Vespa' motor cycles were also in use. Two new bicycles were bought in 1956 making a total of twelve.

District Nurse Training:

During the year, 13 students were successful in passing the examination set by the Queen's Institute of District Nursing. Six of these students were trained on behalf of Lancashire County Council and returned on completion of the training period. Nine students took the shortened course of four months' training.

As in the previous year, student district nurses joined with the Manchester training course for specialist lectures and visits of interest. Practical training centred round the nursing of sick people in their own homes, and district management under supervision. Regular tutorials, discussion groups and practical demonstrations were held in the Home Nursing Section of the Bolton Health Department.

The rather unusual method of training Queen's Nurses in Bolton by a non-residential scheme has, so far, proved satisfactory and is being watched with interest.

Laundry Service:

A total of 93 incontinent patients were assisted by the Laundry Service because of inadequate facilities for dealing with this in their own homes. The service provided sheets, nightgowns and pyjamas, and deliveries were made daily to 57 cases, the remaining patients receiving the service two or three times weekly.

Nursing Equipment:

The amount of equipment loaned to patients increases year by year and details of this service, which is of value to patients and nurses alike, are given on page 72.

Treatment Sessions in the Health Department:

For a trial period it was decided towards the end of 1955 to allow ambulant patients to attend at the Health Department to receive treatment. This had the dual purpose of saving nurses' visiting time and allowing ambulant patients to become more independent. It has been decided to continue this as it has proved useful. Patients attend between 2.30 and 3.30 p.m. and between 5 and 6 p.m. This latter is very useful to people who are at work. In all, 3,703 attendances were made by 59 patients during the year. Most of them—49—were for streptomycin injections. In addition, there were 9 medical cases and 1 surgical case.

Training of Hospital Nurse Students:

In connection with the revised syllabus of nurse training which emphasises the need for knowledge of the social aspects of disease, student nurses from Bolton Royal Infirmary, Bolton District General Hospital and Townleys Branch, have accompanied home nurses on their rounds to see the nursing of patients in their homes. A total number of 130 nurses have had a day on the district to gain this experience.

Combined Home Nursing and Midwifery:

As already reported in the section of the report on Midwifery, some of the midwives with general training have undertaken a certain amount of home nursing particularly in connection with injection therapy. This has helped to relieve the home nurse, but the work is only done at times when the midwife is not fully employed on midwifery work. At the end of the year 3 midwives were working in this scheme.

VACCINATION AND IMMUNISATION

Vaccination against Smallpox:

Vaccination of babies has been continued in the Infant Welfare Centres. In most cases this has been carried out at about three months of age. Once this procedure is completed we advise mothers to have immunisations done without delay. There has been a very slight fall in the number of children vaccinated during the year, but on the whole the position has been maintained at a much higher level than existed before the smallpox outbreak in this area in 1953 which, together with our propaganda efforts, has produced a fair result.

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

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

The bulk of this work was carried out by medical officers at the child welfare centres.

The above figures include the following children who were primarily vaccinated by family doctors:—

Under 1 year	 	319
1-5 years	 	43
TOTAL	 	362

Our aim is to vaccinate as many children as possible in the first year of life. Propaganda to this end has continued by health visitors and by means of letters to parents of newly born children issued by the Bolton Executive Council, and by the showing of the film "Surprise Attack" at several Bolton cinemas.

SUMMARY OF VACCINATIONS:

	Age at date of Vaccination							
	Under 3 months	3 to 6 months	6 to 12 months	1 to 2 years	2 to 4 years		15 years and over	TOTAL
No. Vaccinated	153	727	138	21	34	37	137	1,247
No. Re-vaccinated	_	_	_	1	14	41	330	386

The number of persons vaccinated or re-vaccinated at 15 years and over shows a definite increase on the previous year, the figure for 1956 being 467, compared with 283 in 1955. The explanation almost certainly lies in the fact that many families have been vaccinated in anticipation of emigration.

Record cards were received from general practitioners during 1956 relating to persons vaccinated in 1955 which had not been previously recorded, as follows:—

PRIMARY VACCINATION		
	5-14 years 15 years and over	
Re-vaccination	5-14 years	 2
	15 years and over	 5

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

Vaccination against Poliomyelitis:

Plans for the issue of a vaccine giving protection against poliomyelitis were announced at the beginning of the year by the Minister of Health, and the Council obtained the necessary powers to offer this protection to Bolton residents. The arrangements made for the whole country provided for the registration of children born between 1947 and 1954 inclusive, if their parents wished them to be protected by this vaccination.

Publicity was given to this scheme locally in the press, through letters distributed by health visitors, and through schools. A total of 4,852 children—2,397 girls and 2,455 boys—registered for vaccination. To ensure impartiality in allocating the very limited supplies of vaccine available, the Ministry of Health made arrangements for children born in certain months to be chosen first. The first supplies of vaccine were not available until May, and vaccination was carried out in the Health Department, special sessions being held for this purpose. Protection consists of two injections given at a month's interval, and involves very little discomfort or inconvenience. A total of 227 boys and 214 girls received a course of two injections during the year. A further 5 boys and 5 girls received only one injection. Arrangements will be made in 1957 for the remainder of the children who registered to be vaccinated as and when supplies of vaccine become available.

The Statistical Research Unit of the London School of Hygiene and Tropical Medicine was supplied with information relating to vaccinated children, and cases of poliomyelitis occurring in Bolton during the summer. The evaluation of this information, which was provided by every authority, will help to establish facts on the long-term efficacy of the vaccine and the length of immunity it gives.

With the prospect of larger supplies of vaccine, the Ministry offered supplies of it—through Health Departments—to family doctors, towards the end of the year. The vaccine was to be used only on registered children for the time being. At a meeting of the family doctors in Bolton, however, it was unanimously decided to leave the scheme entirely in the hands of the Health Department until the registered children had been dealt with. Family doctors are being kept informed of the progress of the scheme.

A confusion of thought in the minds of many parents on this matter has been apparent from the large numbers of parents who have withdrawn consent since the publicity given to the reason for the delay in the issue of vaccine. I am sure that this same confusion has spread to prophylactic measures in general and is partly the cause of the sudden decrease in diphtheria immunisation procedures.

Immunisation against Diphtheria and Whooping Cough:

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

VACCINATION AGAINST
SMALLPOX Preferably at 3 months of age.

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

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.

Diphtheria Immunisation in relation to Child Population

Age Groups	Percentage of mid-year Population completely immunised
Under 1 year	50.8
Aged 1-4 years	54.6
Aged 5-14 years	88.5
TOTAL UNDER 15 YEARS	77.3

Source of Immunisation

	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Triple Antigen	Re-inforcing Injections (Diphtheria only and Whooping Cough and Diphtheria combined)
No. of children immunised at Infant Welfare Centres	17	1,093	_	53
No. of children immunised in Schools	135	292	-	801
No. of children immunised by general practitioners and for whom a record card was received by the Health De- partment	13	349	36	111
TOTALS	165	1,734	36	965
GRAND TOTAL		2,9	000	

There is a clear indication here, when the figures are compared with the previous year, that immunisation against diphtheria only is much reduced, preference being given to the combined antigen. In fact, injections against diphtheria alone are now seldom done except where children have already at an earlier age suffered an attack of whooping cough.

Although the number of children immunised against Whooping Cough and Diphtheria (combined) also fell during the year, from 3,647 in 1955 to 2,900 in 1956, when related to population the percentage of children under 15 years who were completely immunised was satisfactory, as shown in the table. If during future years this percentage of 77.3% of the mid-year population can be maintained, the state of protection of the child population will remain a source of great satisfaction to the authority.

The above note of optimism must be tempered with the realization that for the first time the number of children immunised—this is particularly important in the younger age group—has shown a sudden decrease. Hitherto our progress has been upwards. Although the overall position for children under 15 years as described above may still be satisfactory, unless we reverse the trend for younger children very quickly, we shall soon find that the immunity of the population will fall off at the imminent risk of the return of diphtheria. It has become increasingly obvious during the year that parents are not now accepting immunisation as just one of those things to be done as a routine. They are beginning to question the procedure and this can only be due to the focus of attention on immunisation as a whole which has been prompted by the introduction of poliomyelitis vaccination.

Age at Immunisation

		Completely 1	Immunise	d	Re-inforcing Injections	
Age	Diphtheria Immuni- sation only	Whooping	Triple Antigen	Whooping Cough only	(Diphtheria only and Whooping Cough and Diphtheria combined)	TOTAL
2-8 months 9-11 ,, 1-2 years 2-3 ,, 3-4 ,, 4-5 ,,	6 1 6 5 4 9	844 326 175 43 27 28	22 7 6 - 1	- 1 - 1 1	- - - - 9 89	871 334 188 48 42 127
Total 0-5 years	30	1,443	36	3	98	1,610
5-6 years 6-7 ,, 7-8 ,, 8-9 ,, 9-10 ,, 10-11 ,, 11-12 ,, 12-13 ,, 13-14 ,, 14-15 ,,	79 49 2 2 2 2 1 -	280 8 2 - 1 - - -		1111111111	720 118 17 6 2 - 2 1 1	1,079 175 21 8 5 1 2 -
Total 5-14 years	135	291	-	-	867	1,293
GRAND TOTAL	165	1,734	36	3	965	2,903

Number of cases of Diphtheria in 1956 ... Nil
Number of deaths from Diphtheria in 1956 ... Nil
Number of deaths from Whooping Cough in 1956 Nil
Number of cases of Whooping Cough notified ... 318
250 were aged 5 years and under
68 were over 5 years of age.

Of the children under 5 years, 58 had been immunised and 202 had not been immunised. This is an encouraging fact which indicated that whooping cough immunisation does give a high degree of protection from the disease.

Combined Immunisation against Diphtheria, Whooping Cough and Tetanus:

In November, the Ministry agreed to a modification of the Corporation's proposals to allow the use of a triple antigen in the Corporation's scheme of immunisation. The triple product contains antigens against diphtheria, whooping cough, and tetanus. This scheme will be brought into operation in January, 1957. However, family doctors used the triple antigen on 36 children in the latter months of the year.

Ulpartnerra Immunisation

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

TOTAL		0	0-5 years	0,943			10	3-10 years	10,009			10 16	10-12 years	10000		Over 15 years 3,845	30,094
1956	1,205	187	48	32	37	359	57	4	2	3	-	1	1	1	1	1	1,935
1955	1,323	414	110	58	69	673	88	12	2	4	3	2	1	2	1	1	2,761
1954	1,005	554	70	42	49	490	35	6	3	1	1	1	1	1	1	1	2,258
1953	119	588	79	43	06	260	249	151	162	26	10	17	10	15	5	7	2,378
1952	159	638	100	63	56	164	163	64	32	7	-	1	-	-	1	-	1,937
1981	869	029	9/	09	46	58	35	21	5	-	2	1	1	1	1	9	1,678
1950	835	909	94	72	53	93	83	63	54	43.	7	6	2	1	-	2	2,017
1949	661	657	124	48	58	114	94	37	26	23	6	1	-	1	1	1	1,991
1948	756	1,115	103	65	75	100	77	33	20	16	5	3	-	1	-	2	2,366
1947	425	1,037	101	29	69	36	17	=	91	20	4	5	2	-	-	18	1,830
1946	103	1,121	171	128	105	54	59	19	57	54	54	43	35	12	2	3	2,068
1945	54	1,253	243	120	89	53	46	4	26	26	23	9	15	91	2	1	1,995
1944	6	844	179	75	53	28	23	17	21	14	16	19	21	20	00	3	1,468
1943	18	1,017	281	267	257	206	156	150	137	126	156	171	214	187	69	L	3,412
Age at date of inoculation	Under 1 yr.	1-2 years	2-3 ,,	3.4 "	4-5 "	9-9	6-7 "	7-8 ,,	8-9	9-10 ,,	10-11 "	11-12 "	12–13 "	13–14 "	14-15 "	15 years and over	Totals

AMBULANCE

The area served remains the same as last year, a full service being supplied within the County Borough and also, on an agency basis, for Lancashire County Council in the area of Turton Urban District Council and for the National Coal Board at the Bolton Collieries. The following tables show the total mileage and the total number of patients carried during the past four years.

Total Mileage

	1953	1954	1955	1956
Ambulances	79,592	76,792	75,138	73,726
Sitting Case Vehicles	72,928	79,712	87,612	87,852
Totals	152,520	156,504	162,750	161,578

Total Number of Patients Carried

	1953	1954	1955	1956
Ambulances	19,749	18,642	18,874	18,802
Sitting Case Vehicles	17,353	24,180	31,622	32,563
Totals	37,102	42,822	50,496	51,365
Average mileage per patient	4.1	3 · 65	3 · 22	3 · 15

The most interesting feature of the above tables is that the rate of increase in the total number of patients carried has fallen considerably between 1955 and 1956. The greater increases during the period 1953-1955 were largely the result of the opening of additional hospital out-patient clinics and the acceptance by the Authority of the responsibility for much inter-hospital transport of patients. It is reasonable to assume that any further appreciable increase in the demand will come only as the result of further out-patient provision.

The mileage per patient has fallen again though by a smaller amount than in previous years. This was to be expected since there must obviously be an irreducible minimum to this figure beyond which increased efficiency will have little or no effect. It would appear that we are approaching that minimum. In part, therefore, this slowing-up of a satisfactory trend is the expression of the fact that the more patients carried, the less will be the number of miles per patient. Since the number of miles travelled this year has actually decreased, and since we are also carrying more patients—but only in communal sitting case vehicles—it seems likely that any future reduction in mileage per patient will be very small and there may even be a slight increase.

Monthly Analysis of work done by the Ambulance Service:

Bolton

Month	Par	tients carried	by	M	Miles travelled by						
Wolldi	Am- bulances	Sitting Case Vehicles	Total	Am- bulances	Sitting Case Vehicles	Total					
January	1,823	2,699	4,522	6,436	6,356	12,792					
February	1,497	2,756	4,253	5,592	6,334	11,926					
March	1,638	2,729	4,367	6,139	6,235	12,374					
April	1,482	2,554	4,036	6,037	5,781	11,818					
May	1,698	2,761	4,459	5,739	6,653	12,392					
une	1,393	2,762	4,155	5,352	6,663	12,015					
uly	1,195	2,477	3,672	4,889	6,524	11,413					
August	1,337	2,622	3,959	5,322	7,015	12,337					
September	1,399	2,333	3,732	5,157	6,268	11,425					
October	1,538	2,733	4,271	5,399	6,872	12,271					
November	1,471	2,664	4,135	5,485	6,321	11,806					
December	1,682	1,943	3,625	5,943	5,193	11,136					
TOTALS	18,153	31,033	49,186	67,490	76,215	143,705					

Turton District of Lancashire County Council

Month	Pa	tients carried	by	M	iles travelled	by	
Month	Am- bulances	Sitting Case Vehicles	Total	Am- bulances	Sitting Case Vehicles	Total	
January	63	75	138	544	729	1,273	
February	45	91	136	436	948	1,384	
March	45	103	148	507	839	1,346	
April	38	88	126	462	665	1,127	
May	64	98	162	622	831	1,453	
lune	38	75	113	412	646	1,058	
luly	39	101	140	433	1,066	1,499	
August	43	96	139	461	824	1,285	
September	42	115	157	415	937	1,352	
October	83	211	294	788	1,430	2,218	
November	59	279	338	453	1,607	2,060	
December	90	198	288	703	1,115	1,818	
TOTALS	649	1,530	2,179	6,236	11,637	17,873	

Arrangements were made to convey eleven patients by rail.

Emergency Calls:

There has been a slight increase in the number of emergency calls compared with the previous year.

Bolton Emergencies and Special Journeys

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Pa- tients
ACCIDENTS IN THE HOME: Burns Scalds Falls Gas and Electricity	4 5 26	4 3 25	3 6 29	2 2 15	1 2 20	5 6 32	2 2 20	2 5 16	2 3 24	1 2 26	6 9 21	2 4 39	34 49 293
Mishaps Poisonings Collision with struc-	3 2	6 2	2	2	6 -	1 3	3	3 7	4 6	3 5	3 2	4 2	40 32
tures	1	1	1	-	-	1	-	-	-	-	-	-	4
falling)	1 1	2 2 1	4 1 2	4 3 1	3 2 2	8 1 2	8 3 2	5 1 3	5 1 4	8 1 1	7 -	2 1 2	60 17 21
poisons)	4	3	1	1	3	2	2	2	1	-	-	1	20
TOTAL OF ALL ACCI- DENTS IN THE HOME	51	49	50	31	39	61	43	44	50	47	48	57	570
Road Accidents Collapse Industrial Accidents Sudden Illness Falls in the Street	27 45 36 12 25	19 22 24 19 29	23 31 18 25 29	20 26 21 16 27	31 17 26 24 16	24 25 22 13 18	37 39 21 16 15	38 25 15 16 24	37 38 24 15 17	26 26 21 15 21	23 41 20 8 22	37 40 21 26 29	342 375 269 205 272
Children injured at school or at play.	11	8	21	25	38	32	28	40	48	32	17	18	318
Violence— Fights and Drunks Assaults Drunks Drunks	3 1 -	9 1 -	6 3 -	2 2 -	- 3 -	5 1 -	3 1 -	6 -	10 1 -	3 2 1	8 1 -	4 -	59 16 1
Falls in shops or places of entertainment Sporting Accidents Attacks by animals	2 2	5 -	2	1 1	5	7 2	4	3 2	4	4 5	4 .3	2	43 20
and insects Fairground Accidents Hanging	- 1 - 6	- - - 16	- 1 1 3	1 - - 6	2 - - 8	- 1 - 6	1 1 - 4	2 - - 10	1 - - 3	- - - 7	- - - 4	- 1 - 11	7 3 2 1 84
TOTAL EMERGENCIES	222	201	214	179	210	217	214	225	249	210	199	247	2,587
MATERNITY CASES Births in Ambulances Born before arrival of Ambulance	140	131	177 –	169	138 -	118 -	134 - 2	127	120	108	118 -	139	1,619 1
TOTAL MATERNITY CASES	140	132	177	171	139	122		127	120	108	118	142	1,632
Long Journeys (60 miles or more)	4	2	2	4	2	7	5	10	7	7	7	3	60
TRANSPORT OF MID- WIVES AND GAS AND AIR APPARATUS	41	31	31	80	59	56	39	23	35	43	35	31	504

Turton District Emergency and Maternity Cases

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Pa- tients
ACCIDENTS IN THE HOME: Burns Scalds Falls	1 - 2		- 1 -	111	- - 1	- - 1			- - 2	- - 1			1 1 7
Gas and Electricity Mishaps Cuts (other than from	1	-	-	-	-	-	-	1	-	-	1	-	3
falling)	1	-	_	-	_	_	1	1	1	-	_		4
DENTS IN THE HOME	5	-	1	-	1	1	1	2	3	1	1	-	16
Road Accidents Collapse Industrial Accidents Sudden Illness Falls in the Street	3 1 3 1 2	3 1 2 -	2 - 2 - 1	3 1 - 1 1	4 1 4 - 1	1 1 1 1	6 1	5 3 - 1	4 - 1 - 1	2 2 2 - 1	3 -	1 1 2 1 1	34 11 20 4 10
Children injured at school or at play.	-	2	1	1	2	-	3	-	3	2	1	2	17
Violence— Fights and Drunks Assaults Falls in shops or places	_	_	-	-	=	-	-	-	-	-	=	1 -	1 -
of entertainment Sporting Accidents Attacks by animals	-	- 2	1 -	-	-	-		-		-	-	-	1 2
and insects Miscellaneous	1 -	-	- 1	- 1	_	-	_	-	1 -	_	=	-	2 2
TOTAL EMERGENCIES	16	10	9	8	13	5	11	11	13	10	5	9	120
TOTAL MATERNITY CASES	5	8	2	2	13	3	8	6	7	5	6	3	68

National Coal Board

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Pa- tients
Industrial Accidents	9	4	5	2	4	6	5	1	2	3	4	3	48

Total Mileage for Collieries ... 469

It is a matter of regret that the number of patients removed to hospital with injuries caused by accidents at home continued to increase. Many of these were preventable accidents. Fortunately, it was unnecessary to put into operation the scheme which was completed last year and which is to be used in case of major disasters. The arrangements involve many organisations—Local Authorities, Hospitals, Police, etc. Minor amendments were made during the year.

Vehicle Strength at 31st December, 1956:

Make	H.P.	Reg. No.	Purchase Date	Total Mileage	
Ambulances					
Austin	16	DBN 226	29.10.48	75,685	
Austin	16	DBN 250	5.11.48	106,012	
Commer	14	DBN 386	30.11.48	67,275	
Austin	16	DBN 444	20.12.48	112,769	
Austin	27	EWH 345	23. 8.51	37,307	
Austin	16	JWH 660	9. 3.56	5,564	
Austin	16	JWH 699	9. 3.56	5,850	
ITTING CASE AMBULANCES:					
Morris	16	FWH 333	13. 3.53	49,617	
Morris	16	GBN 999	10. 3.54	46,192	
Morris	16	HWH 499	6. 4.55	18,022	
ITTING CASE CARS:					
Austin	16	CWH 626	28. 4.48	86,543	
Austin	16	EWH 111	4. 6.51	117,063	
Austin	16	EWH 222	6. 6.51	106,383	

Two stretcher case ambulances CWH 606 and DBN 800 were sold during the year. As part of the programme of replacement of worn vehicles, tenders were accepted in October, 1955, for the supply of two ambulances to be built on B.M.C. 30 cwt. chassis. These replacement vehicles were brought into service in March of this year.

Staff at 31st December:

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 stationing of a shift leader as liaison officer at the Bolton Royal Infirmary has proved a considerable success. This scheme was started as an experiment early in the year, but soon became a permanent feature by reason of its success. Patients have benefited from a substantial reduction in waiting time after treatment at the out-patient clinics and, by the careful composition of passenger loads, the liaison officer has made a significant contribution to the maintenance of a low mileage-patient ratio.

The amount of out-patient work at the Bolton District General Hospital does not warrant the services of a similar officer.

The liaison officer has also, by agreement, given a certain amount of assistance to the County Ambulance Service and transmits requests for county transport as required. The county scheme for complete radio control was introduced towards the end of the year. This brings the county and county borough services into line and will lead to easier co-operation and speedier action.

Civil Defence-Ambulance & Casualty Collection Section:

There were 249 volunteer members of the section.

Training sessions were held twice weekly 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 22.

The Civil Defence Ambulance was used during the evenings for the purpose of giving instruction to selected volunteers. Driving instruction was suspended when petrol rationing was introduced.

Five specially trained volunteers were included in the Bolton team which competed at the North Western Civil Defence Regional Tourney at Squires Gate, Blackpool, in September.

Ambulance Control Room:

By the nature of the service, the Control Room is manned twenty-four hours a day by a senior member of the staff. The shift leader in charge virtually controls the service by his telephone and radio links. It is not surprising that such an organisation attracts more duties because of its constant availability. Thus, besides controlling the ambulance service the shift leader deals with a large number of other duties such as the reception and transmission of messages for home nurses after the Home Nursing Service headquarters have closed for the night; emergency transport of midwives and sometimes transmitting messages for them; emergency transport of oxygen; the many and sometimes complex duties arising from the running of the Medical Bureau, and arrangeing amongst other things for the supply of Night Attendant Service when needed in emergency at night or weekend. Transport of the Hospital Flying Squad is also undertaken. The control room also acts as a second line of approach if the Duly Authorised Officers are not immediately available,

LOAN OF NURSING EQUIPMENT—CONVALESCENCE

Loan of Nursing Equipment:

The number of articles issued on loan to patients being nursed in their own homes continued to increase and the consequent advantages to patients and nurses alike were fully appreciated. There has been an increase of more than a third in the articles loaned since the previous year. The rapid increase in the service is shown below where the figures from 1952 to 1956 inclusive are given. A good deal of the increase has been due to the expansion of the scheme to provide fresh linen for incontinent patients. During the year 736 such articles were issued compared with 422 in 1955.

Mar. June Sept. Dec. 1956	Article	Number Avail-	No	. issue Qua	d duri	ing	Total for	No. in stock at
Rubber Bed Pans 5 4 1 - 2 7 1 Air Rings 180 55 49 34 40 178 19 Tan Sad Invalid Chairs 44 5 19 7 - 31 10 Junior do. 7 - - 3 - 31 10 Self-propelled Chair 1 1 1 1 2 - 4 1 1 1 2 - 4 1 1 1 2 - 4 1 1 1 2 - 4 1 2 - 4 1 2 - 4 1 2 2 7 4 1 2 1 - 2 7 4 1 2 1 - 2 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		able	Mar.	June	Sept.	Dec.	1956	31st Dec., 1956
,, ,, —Self-propelled 1	Air Rings Tan Sad Invalid Chairs Junior do. Self-propelled Chair Bed Rests. Bed Cradles Single Beds—Iron ,, ,—Iron, with lifting pole Mattresses—Sectional ,,—Hair ,,—Interior Spring ,—Dunlopillo Cushion: Float-on-Air Biscuit Mattresses Mattress Covers ,,—Plastic Pillows—Feather ,,—Flock Bedspreads Blankets Sheets—Cotton Draw Sheets Pillow Cases ,,,—Plastic Pyjama Jackets Pyjama Trousers Nightshirts Nightdresses Rubber Sheets Towels Urinals Hot Water Bottles Fracture Boards Chair Commodes ,,—Self-propelled Crutches —Self-propelled Crutches —Self-propelled	5 180 44 7 1 133 18 4 2 1 4 3 8 1 1 2 4 1 1 1 2 1 2 1 2 1 3 5 8 108 306 64 1 36 4 24 30 30 60 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	73 4 55 5 1 37 11 2 - - 1 1 1 1 - - - - - - - - - - -	49 1 49 19 - 1 41 6 1 1 1 2 - - 1 1 - - - 4 1 8 4 9 - - - - - - - - - - - - - - - - - -	44 -34 7 3 2 35 6 2 1 -1 - - - - - - - - - - - - -	70 2 40 - - 37 6 2 - - 1 - 1 4 40 140 4 - 9 - 5 10 93 - 30 - 4 -	7 178 31 3 4 150 29 7 2 1 6 1 3 2 - 1 6 2 1 155 399 27 - 37 - 32 73 350 24 120 - 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 1 19 10 - 1 5 5 4 1 - 1 - 1 2 48 43 111 43 1 12 4 14 7 24 16 24 4 4 16 24 4 4 3 1 1 1

Total	number	of	articles	issued	in	1956	 1,994
,,	,,	,,	,,	>>	,,	1955	 1,475
,,	,,	,,	,,		,,	1954	 899
,,	,,	,,	,,	,,	,,	1953	 901
,,,	,,	55	,,	,,	,,	1952	 522

Convalescent Home Accommodation:

During the year there were 33 applications for convalescence in respect of 22 adults and 11 children. Subsequently, 9 applications were withdrawn.

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

Eighteen adults and 6 children were accepted for periods varying from two to six weeks and of these, 15 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 13 cases and the other patients met part or the whole of the cost.

HOME HELP

In 1955 there appeared to be a slowing down in the demand for Home Help Service but this year, however, the upward trend has continued and particularly amongst the aged and chronic sick. There has been little change in the demand from other cases. With the increasing number of old people in the community this trend is understandable.

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

			1
	1954	1955	1956
Maternity	55	41	49
Tuberculosis	14	8	10
Chronic sick including aged and infirm	752	803	859
Others	176	136	122
Totals	997	988	1,040

The number of cases on the books at the end of 1956 was 606, an increase of 66 over the number on the books at the same time in the previous year. This is another indication of the increase in pressure on the service.

New Cases:

Although the total number of cases helped during the year has increased fairly substantially and the trend has generally been upwards during the last few years, the number of new cases showed no strong upward tendency. There were, in fact, 500 new cases brought on to the books compared with 467 the previous year, and 582 in 1954.

Distribution of New Cases

			Tuberculosis	Chronic Sick, etc.	Other Cases	Maternity
January		 	2	36	4	5
February		 	1	27	14	3
March		 	-	43	8	3
April		 	_	36	9	6
May		 	1	29	11	4
une		 	-	23	6	6
uly		 	-	25	7	2
		 	-	32	4	4
September		 	-	32	2	_
October		 	1	26	5	5
November			1	19	3	4
December		 	-	43	5	3
Тота	ALS	 	6	371	78	45

Payment for Service:

No change has been made in the standard charge for the service which is still 2/3d. per hour. However, only a small percentage of the cases served paid the standard charge. Rather more than 70% of all cases received the service free of charge and approximately equal numbers of the remainder paid part or full cost. When we consider the chronic sick category, the percentage receiving free service is as high as 76%. All the charges were based on the Council's scale of assessment which was subject to appeal in difficult cases.

	Free	Part Cost	Standard Charge
Maternity	3	10	36
Tuberculosis	6	2	2
Chronic Sick, etc	651	122	86
Others	73	13	36
TOTALS	733	147	160

Staff:

The recruitment of suitable women for the Home Help Service is not easy and there are constant changes amongst the staff. It is expected, because of the high rate of sickness amongst women employed that staff difficulties will inevitably arise from time to time. Sickness amongst home helps very often coincides with the season of greatest demand and this makes the service doubly difficult to run in the winter months.

Instruction continued to be given to selected home helps at the Women's Institute under arrangements made with the Education Department.

Home Helps employed at 31st December:	1953	1954	1955	1956
(a) Whole-time	36	39	36	37
(b) Part-time	87	83	84	84
TOTAL NUMBER OF HOURS WORKED DURING THE YEAR	188,057	189,854	192,111	192,612

Night Attendant Service:

The night attendants performed a very useful function in cases of severe emergency. On average there have been 4 night attendants available at any time during the year to be called out at short notice for this type of work. In all, 23 very ill patients were provided with the service during the year and they received between them 112 nights' attention. It has never been intended that this should be an expanding or indeed, popularised service. Only where really urgent need is shown by the family doctors or district nurses is the service supplied.

Administration:

It has always been the intention of the Corporation to place the Home Help Service under the general supervisory control of the Superintendent Health Visitor. Steps to this end were taken during the year and the assessment of need became a function of the health visitor. The Home Help Organiser and her assistants dealt with the general administration of the service.

The general impression from the figures given above is of a reasonably static service with regard to staffing, but that the staff employed are dealing with more cases. Undoubtedly the number of cases dealt with has increased and the number of cases left on the books at the end of the year also shows an increase. This suggests an accumulation of old cases being served and who are not likely to be removed from service in their lifetime. The demand for the service also fluctuates very rapidly and the waiting list may alter from nil to 100 in a very short time. All these factors have had the inevitable effect of each case receiving less hours of service. In 1953 each case received 201 hours of service. This has dropped this year to 185.

MENTAL HEALTH

Further progress has again been made in the building up of the community mental health services. For instance, the nucleus of a training and occupation centre for adult males was established in a small outbuilding on the site of the Cotton Street Occupation Centre. There was also further improvement in the quality and quantity of case work and the Psychiatric Social Club must now rank as a very useful and efficient preventive and after-care organisation and compares very favourably indeed with any similar attempts elsewhere to provide means of guidance to ex-hospital cases. Shortage of hospital beds still presents problems from time to time, but there has been some improvement in the situation during the year.

Staff:

No new appointments were made, but a female officer completed twelve months' in-service training during August and her appointment to Mental Welfare Officer (Duly Authorised to act as relief or in emergency), was confirmed and has been justified by the subsequent performance of her duties.

On the 31st December, 1956, the staff comprised:-

- 1 Senior Mental Health Officer (Duly Authorised)
- 2 Mental Welfare Officers (Duly Authorised)
- 1 Female Mental Welfare Officer (Duly Authorised for relief or emergency)
- A vacancy for a further Mental Welfare Officer (Duly Authorised) remains to be filled as the service develops.

All officers are fully aware of their responsibility to the public, and for the personal liberty of the subject when taking action under the Lunacy and Mental Treatment Acts. The policy of allowing all officers to carry out comprehensive mental health social work continued and no one undertook Duly Authorised work solely. This avoided the possibility of any one aspect of their duties getting out of perspective. It was unnecessary to delegate any of the functions of the Local Health Authority to Voluntary Associations.

Training:

The staff must be adequately trained to deal with the problems arising in a sphere of activity where active treatment is developing rapidly and social care is ever assuming greater significance. Consequently, one officer commenced the first comprehensive course organised by the National Association for Mental Health in conjunction with the Department of Extra-mural studies of Leeds University, and following the initial four weeks' residence at the University, facilities were made available for a group of the students to hold their weekly casework seminars in Bolton. Application has been made for the female mental welfare officer to attend the second course commencing in September 1957.

One officer attended the week-end educational conference of the Federation of Associations of Mental Health Workers and one Assistant Supervisor from the Occupation Centre attended a seven day refresher course for Teachers of the Mentally Handicapped.

The training of personnel outside the mental health section is considered an essential part of preventive work and an aid to co-operation. The Senior Mental Health Officer lectured to the students on the Health Visitors' Course at Bolton Technical College and was also invited to speak to several local groups of the community. Six student health visitors from the Manchester course received practical instruction in the Mental Health Section.

Liaison:

Liaison with the Regional Hospital Board and the Hospital Management Committee was actively maintained. The fortnightly meetings between the mental health staff and the Consultant Psychiatrist at Townleys Branch Mental Hospital again proved beneficial as in addition to discussing the needs of specific patients, the Consultant Psychiatrist was able to give instruction and guidance on the latest developments in care and treatment. Similar meetings were held quarterly with the Medical Superintendent at Prestwich Hospital.

There was representation on the monthly case conference of the Care of Children Co-ordinating Committee dealing with problem families and by this means, active case co-operation with statutory and voluntary services was maintained.

Mental Illness

Hospital Admissions:

The modified method of operating the Regional Hospital Board's Bed Bureau scheme has been very helpful, and with the co-operation of the Consultant Psychiatrist at Townleys Branch Mental Hospital, to whom initial application was always made, the majority of admissions are now made to that Unit. A small percentage were still admitted to Prestwich Hospital of necessity because certain cases needed facilities which were not available at Townleys, and only two other mental hospitals were used in isolated cases.

By the middle of the year there was no difficulty in securing accommodation for emergency cases and the waiting list for other cases was negligible. Towards the end of the year, however, difficulties again began to arise over the availability of beds for female patients, and it was necessary for patients regarded as not immediately urgent, to wait an increasing number of days for admission; the one case on the waiting list at the end of the year had been waiting two weeks.

The use of Section 16 of the Lunacy Act was avoided where possible and the number of cases requiring to be so dealt with remained fairly constant. Full use was made of psychiatric clinics and domiciliary consultations. Voluntary admissions increased and of the cases dealt with on short orders (Sections 20 and 21 of the Lunacy Act), only a small minority were subsequently dealt with under Section 16 of the Lunacy Act. The steady flow of voluntary admissions of patients referred direct to the Consultant Psychiatrist by general practitioners continued.

Senile Patients:

Much greater difficulty was experienced in securing beds for the elderly senile group of patients. The condition of such patients may fluctuate rapidly and while many can probably be left at home waiting for accommodation in hostels or chronic sick hospitals, swift action must be taken as soon as their mental condition threatens danger to themselves or to others. Such symptoms are usually cleared up quickly in the mental hospital, but with hostel and other hospital accommodation in short supply, difficulty is experienced in discharging the patient and so beds become blocked. Thus the urgent need for some sort of accommodation for the elderly, whether in hospital or otherwise, and where these varying conditions can be managed without the necessity for frequent transfer is all too apparent. This shortage and the consequent blockage of beds, adds to the reluctance of the mental hospital staff to deal with such patients under the Lunacy Act. Wherever possible arrangements were made for the patients to be seen by the Consultant Psychiatrist, either at the clinic or at home. This practice accounts for the reduction in the number of patients over the age of 65 years referred to the mental health section, a contra-expectation in an ageing population. Although the clinics should only be used for cases where the diagnosis is in doubt, some general medical practitioners probably felt they could obtain speedier service by referring all cases direct.

The Day Hospital at Townleys Branch Mental Hospital was extensively used but some of the patients catered for were really in need of full-time care.

Cases reported for investigation:

	Under	Under 65 years Over 65 years			Total
	Male	Female	Male	Female	
REPORTED BY— Medical Practitioners	 32 9 1 16 5	43 13 13 16 14	15 7 - 2 2	23 5 3 6 6	113 34 17 40 27
Totals	 63	99	26	43	231
Under Sec. 16 Lunacy Act Under Sec. 20 Lunacy Act	 10 8 22 4 -	12 13 25 15	2 3 5 5	3 3 4 4 1	27 27 56 28 1
TOTALS	 44	65	15	15	139
Referred to Psychiatric Clinic Placed under Community Care Died	 44 6 1 8	65 14 9 - 11	15 2 1 1 7	15 8 5 3 12	139 28 21 5 38

Community Case Work:

There was in increase in the number of cases under the age of 65 years reported for investigation. With more staff available it was possible to devote more time to individual cases and an increasing number were helped by social work in conjunction with attendance at psychiatric clinics. Members of the mental health staff frequently attended the clinics and at the request of the Consultant Psychiatrist carried out social work to assist patients who had been referred direct by general practitioners.

After-care of patients discharged from the mental hospitals increased, but this work was hampered at times by the lack of suitable accommodation where patients could live whilst employment was found and sufficient money earned to pay for suitable lodgings. The closing of the Women's Hostel, Folds Road, during the year and the contemplated closure of the Church Army Men's Hostel were therefore viewed with concern. Instances have already occurred of patients being compelled to remain in hospital until residential jobs were obtained, a task which was not simplified when the applicant's address had to be given as a mental hospital.

The demand increased for social histories of patients in hospital or attending clinics.

On the 31st December, 1956, there were 46 persons (13 male and 33 female) receiving regular after-care visits. The total number of visits made was:—

		1956	1955
To investigate reported cases	 	520	439
To complete social histories	 	26	20
After-care visits	 	200	141

Psychiatric Social Club:

Under the guidance of the Consultant Psychiatrist, assisted by the mental health staff, the "Happy Circle Club" continued to flourish and the committee elected by its members made progress towards making the club self-supporting. A very successful Bring and Buy Sale was an outstanding feature of the moneyraising efforts and the club committee took over its own weekly catering arrangements. In addition to purchasing equipment, coach outings were arranged for the members and a large Christmas Party was held, but the cost to members was kept to a minimum. The therapeutic value of such a club is obvious when the members, having adjusted themselves sufficiently, begin to ask for, and promote, such major social activities. With an average weekly attendance of forty to forty-five members, the need arose for small subgroups, especially among the newer members, for therapeutic discussions.

Along with the social events, a balanced programme of panel games, films and lectures leading to discussion, was arranged by the committee.

The predominance of female members would indicate their greater need for such a club possibly due to the limited social contacts of the housewife compared with those available to the men through their employment. In addition to the benefit of regular friendly meetings between the Consultant Psychiatrist, social workers and patients, the contribution of club activities towards preventing relapse in specific cases was most rewarding.

Section 47-National Assistance Act, 1948:

Officers of the Mental Health Service effected the removal of 2 males and 1 female under orders obtained under the above Act.

Mental Deficiency

Supervision:

All newly reported cases were visited by the Deputy Medical Officer of Health and the Senior Mental Health Officer for ascertainment and classification. Social work and routine visiting of defectives under supervision was more adequately covered and the number of visits increased from 476 in 1955 to 568 in 1956. Advice and all possible assistance was given to relatives to help deal with their problems, and in one case of a defective sustaining injury in employment, the relatives were advised on a course of legal action to secure the boy's future, a step which they would not otherwise have taken, but was considered necessary in view of the fact that the natural parents were both dead and the nature of the injury might have prejudiced the boy's chances of future employment. The outcome of this action is awaited.

A friendly relationship was fostered between the officers of the Mental Health Section and the officers of the Bolton Society for Mentally Handicapped Children, and the facility for discussion goes far to create mutual understanding of the difficulties to be overcome in achieving the service which all desire.

In addition to visits by the Mental Welfare Officers, 2 cases not in attendance at the Occupation Centre were visited each week in their own homes by one of the medical officers of the department and steps were taken to arrange any further advice or treatment considered desirable. The availability of a consultant opinion from Dr. D. J. Rose, the Medical Superintendent of Brockhall Hospital, on mental deficiency problems was greatly appreciated, and advice was given on four cases by Dr. Rose or his deputy.

Visits to complete reports on the homes of defectives being considered for short and long licence, and for those cases being reconsidered under Section 11 of the Mental Deficiency Act increased from 171 in 1955 to 191. Patients on licence from hospitals were visited by the Mental Welfare Officers and excellent co-operation continued between these officers and the social worker on the staff of Brockhall Hospital.

Orders in the case of one patient on licence in Bolton, and the one patient under Guardianship, were discharged by the Board of Control, both patients being satisfactorily rehabilitated in the community; they both welcome the friendly supervision now available.

The following 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

Institutional Accommodation:

Eight defectives were admitted to Mental Deficiency Hospitals during the year. Three were not on the waiting list, one being admitted through the Court having been found guilty of a criminal offence, and two were emergencies arising through the death of sole surviving relatives. Therefore, with new names being added there was a net increase of two on the waiting list. Included in the list, however, was one defective temporarily accommodated in a 'Place of Safety', one in a contractual bed in a private hospital arranged by the Regional Hospital Board, and one in a Children's Hospital under similar arrangements. It is regrettable, however, that some of the defectives still waiting at home are urgent cases causing acute distress to their relatives and others, and it is hoped that improvement in the provision of hospital beds will continue and enable such cases to be dealt with in the near future.

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

			Under	16 years	Over 1	Total	
			Male	Female	Male	Female	
IN URGENT NEED:							
Cot and chair cases	 	 	1	1	_	-	2
Ambulant low grade	 	 	2	1	-	2	5
Medium grade	 	 	-	-	_	1	1
High grade	 	 	-	1	-	_	1
NOT IN URGENT NEED:							
Cot and chair cases	 220	 10.0	2	-	-	1	3
Ambulant low grade			_	_	_	2	_
Ambulant low grade Medium grade			2	_	_	_	2
High grade	 	 	1	1	-	1	2 3
Totals	 	 	8	4	-	5	17

Short-term Care:

The relief which can be given to relatives of patients on the waiting list and to help other parents over emergencies by short-term care is invaluable and there was an increase in the number of defectives for whom such care was provided under the provisions of Ministry of Health Circular 5/52. Fourteen periods of care varying from two weeks to two months were allocated in National Health Service Hospitals, and the Local Health Authority paid for two other patients in private homes. The Bolton District General Hospital co-operated in providing accommodation for a doubly handicapped child while the mother had a holiday. For only one application out of a total of eighteen was it impossible to provide accommodation.

Mental Deficiency Acts, 1913-1938

New Cases Reported by—	MALE	FEMALE	TOTAL
Local Education Authority Section 57 (3) Education Act, 1944		6	6
Section 57 (5) Education Act, 1944	-	3	3 5
Relatives	2	3	5
Others	1	-	1
Totals:	3	12	15
Disposit of thought cases			
DISPOSAL OF ABOVE CASES—			
Placed under Statutory Supervision Not ascertained as defectives	2	11	13
Not ascertained as defectives	1	1	
Totals:	3	12	15
CASES PREVIOUSLY ASCERTAINED WHO BECAME THE SUBJECT OF AN ORDER DURING THE YEAR—			
Placed in Hospital —Sec. 3	-	1	1
Admitted to Hospital —Sec. 6	5	1	6
Admitted to Hospital —Sec. 8 (1) (b)	1	-	1
TOTAL CASES DEALT WITH	9	14	23
	-		

The following table shows the total number of ascertained defectives with details of the care they were receiving at 31st December, 1956:—

In Hospitals	 	 MALE 108	FEMALE 94	TOTAL 202
In 'Place of Safety' Under Statutory Supervision Under Voluntary Supervision	 	 74 9	1 88 3	1 162 12
TOTALS		191	186	377

Training of Defectives-Occupation Centre:

Progress was maintained at the Occupation Centre but unfortunately there were further staff changes. A third female assistant supervisor was appointed early in the year, but resigned after a few months and was replaced. On each occasion there were no applications from qualified or experienced personnel and it was necessary to appoint untrained assistants for in-service training. This was even more apparent in selecting a male assistant to take charge of older boys in establishing the nucleus of an adult centre, but the Committee were fortunate in receiving application from a man whose interest in the work was such that he had regularly assisted in Occupation Centres in his spare time and was prepared to enter full-time into the work even though suffering a reduction in income,

The staff position on the 31st December, 1956, was:-

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

Two children on the register were admitted to mental deficiency hospitals and three others were placed in homes out of town by the Children's Committee, therefore the anticipated difficulty in admitting further young children did not materialise.

An outbuilding on the premises was equipped with a work bench and tools and the male assistant took charge of three of the older boys in the Centre. Shortly afterwards, a thirty-eight year old defective man was successfully absorbed in this group. The main activities of the group consisted of gardening, firewood chopping, basket work, making window leather mops and simple carpentry. Improvement in behaviour and output of these defectives under male supervision is already apparent.

Three girls attending the Centre were over the age of sixteen years but in view of the Council's intention to provide an Adult Training and Occupation Centre, it was decided that such cases should not be discharged and emphasis was given to their domestic and handicraft training. There was a total of 35 children (14 males and 21 females) on the register on the 31st December, 1956, with an average attendance of 28. The Centre was open Monday to Friday and was closed for primary school holidays.

Children in the junior section of the Centre were organised into three groups each carrying out appropriate schemes of work in a curriculum including hygiene and social training, speech therapy and eurythmics. A Harvest Festival Service was conducted by the staff during October and the response of parents, both in gifts and attendance at the Service was most encouraging. There remain, however, a few parents who fail to appreciate the necessity of the regular attendance of their children.

A special 'bus was used for transporting the trainees to and from the Centre under supervision of a member of the staff. The children remained at the Centre for the mid-day meal. A nominal charge was made for the meal, but free meals were granted in cases of hardship.

Regular medical and dental examinations were again carried out and at the last dental inspection a marked improvement was noted in the condition of the children's teeth, probably due to the emphasis given to hygiene training, together with correct diet.

The staff accompanied the children on another successful day out to Southport, and this is now regarded as an essential feature of social training. The behaviour of the children in public was a tribute to the staff.

An 'open day' was held on the 27th June, 1956, when visitors were able to inspect a display of goods made by the children and to see the normal training in operation. Although the attendance was not so large as on the first 'open day' held the previous year, entries in the Visitors' Book show that the visitors were more representative.

Members of the staff attended evening instruction in Manchester organised by the National Association for Mental Health and occasionally Saturday morning lectures at the Centre were given by the medical and senior lay staff.

FUTURE DEVELOPMENT:

Further progress has been made in the plans to extend the existing Occupation Centre to include in the same curtilage an Adult Occupation and Training Centre. The Council have agreed to this extension and have included a proportion of the money needed for this purpose in the capital estimates. It has been calculated that by the time such a Centre could be completed there would be some sixty adult members of the community suitable for accommodation at the Occupation Centre. In addition to this, there would be ten untrainable persons for whom day care is essential. Plans for a building to accommodate these seventy people are being formulated and will be presented to the Ministry as soon as possible in the hope that a start may be made on the project in the financial year 1957/1958.

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.

Dis	ease	Total Cases Notified	No. of Cases after Correction				
Diphtheria				 		-	
Dysentery						752	851
cute Encephalitis						1	2
interic Fever (including	Parat	vpho	oid)			2	_
rysipelas						33	32
Malaria						1	1
Aeasles						721	721
Meningococcal Infection						4	3
phthalmia Neonatorum						3	3
neumonia—				 ****			
Acute Primary						141	145
Acute Influenzal				 		13	13
cute Poliomyelitis—		***		 		**	10
Paralytic						7	8
Non-Paralytic				 		6	6
uerperal Pyrexia						5	6 5
carlet Fever				 		96	94
mallpox					1000	_	
m						319	319
Good Poisoning						267	215

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

Disease	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Diphtheria	18	9	32	20	12	-	-	1	1	-
Dysentery	-	4	1	28	294	202	263	615	154	851
Acute Encephalitis	-	-	-	-	-	1	1	3	3	2
Enteric Fever (including	1000	09.0		50	2	1	2	2	5	120
Paratyphoid)	30	48	36	30	24	39	22	34	30	32
Erysipelas	30	40	36	30	*1	39	*1	*1	*1	1
Maiaria Measles	1000000	2360	522	1881		2369	1308	672	2205	721
†Cerebro-Spinal Fever	16	3	2	-	-	2507	-	0/2	_	-
†Meningococcal Infection	-	_	_	3	2	_	7	4	1	3
Ophthalmia Neonatorum	4	3	2	1	1	-	-	2	2	3
†Pneumonia	91	125	2 85	56	214	273	000	100000	1000	
Acute Primary				1100000			94	123	123	145
Acute Influenzal							21	33	20	13
Acute Poliomyelitis	36	1	9	5	1	9	3	1	9	14
Puerperal Pyrexia	7	8	7	3	4	5	7	2	5	5
Scarlet Fever	229	636	296	149	448	351	246	149	74	94
Smallpox		-		-	270	220	-	167	244	210
Whooping Cough	231	363	431	583	278	220	593	167	244	319 215
Food Poisoning	-	-	-	4	46	54	66	53	1129	215

^{*}Induced for therapeutic purposes.

[†]The figures prior to 1953 include all forms of pneumonia. †From 1950 onwards Cerebro-Spinal Fever has been notifiable as 'Meningococcal Infection'.

Deaths from Infectious Diseases, 1947-1956 inclusive:

Disease	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Diphtheria	3	-	-	1	-	-	-	-	_	- 2
Diarrhoea and Enteritis under 2 years of age	10	6	2	5	5	2		1		1
Acute Encephalitis Enteric Fever (including	9	1	2 3	-	1	3 2	-	2	4	-
Paratyphoid)	1	-	_	-	-	-	_	_	-	_
Malaria	3	-1	_	- 1	- 2	_	3	-	1	1
Meningococcal Infection Ophthalmia Neonatorum	3	1 -	1 _	_	_	-	-	-	1 -	1 -
All forms of Pneumonia including—	91	72	64	78	103	74	112	51	69	65
Acute Primary Pneumonia Acute Influenzal ,,	2						36	16	20	16 1
Acute Poliomyelitis Puerperal Pyrexia	6	-	_	2 -	-	3 -	1 -	_	2	_
Scarlet Fever		1 - 2	- 2	- 2	-		-	-	-	-
Whooping Cough Food Poisoning	-	-	-	-	_	-	-	-	2	-

Diphtheria:

Six notifications of diphtheria were received. None of these was confirmed.

Dysentery:

The number of cases notified rose to 851, the highest figure so far recorded in Bolton. The organism responsible for all these cases was Shigella sonnei. Outbreaks occurred in three day nurseries, one residential nursery, a maternity home and a common lodging house. The majority of the cases occurred in the first quarter of the year, particularly in two primary schools, but similar outbreaks occurred in the last quarter of the year in a day nursery and in a residential nursery.

The rise in the number of cases of dysentery appears to be national. The disease is spread largely amongst young children and evidence has been produced in other areas to show that infection may well be spread through the agency of the lavatory seat.

There was no evidence to show that any of the Bolton outbreaks were due to the infection of food. The disease was mild in character but caused considerable disturbance of schooling in the primary and infant schools.

There were two deaths from dysentery due to Shigella sonnei—one in a lady of 83 and one in a man aged 92, who were both frail, infirm people.

Encephalitis:

There were two cases of acute post-infectious encephalitis. One, a boy aged 5 years following an attack of measles, and the other a girl aged 7 years following an attack of rubella. The boy, unfortunately, died.

Enteric Fever:

No case of enteric fever occurred—a welcome but uncommon situation. There have usually been one or two cases of paratyphoid fever of recent years.

Malaria:

A boy aged 7 years was notified as suffering from benign tertian malaria. It was found that he contracted this disease in West Africa and on his return to Bolton the symptoms had become manifest.

Measles and Whooping Cough:

As expected from the known epidemiological behaviour of measles, the number of cases was fewer—721 as against 2,205—compared with 1955, but there was evidence at the end of the year suggesting that the normal two-year epidemic could be again expected early in 1957.

There was an increase in the number of cases of whooping cough—319 compared with 244 in 1955.

A boy aged 5 years contracted encephalitis after measles and unfortunately died.

Meningococcal Infection:

Three cases of meningococcal infection were notified and confirmed a man aged 30, a girl aged four months and a girl aged 5 years. A Bolton boy aged 4 years died in a hospital in the area of another local authority from fulminating meningococcal septicaemia.

Ophthalmia Neonatorum:

Two notifications were received. The infection was mild in each case and cleared up quickly.

Poliomyelitis and Polioencephalitis:

Fourteen cases of poliomyelitis were notified and confirmed, 8 being paralytic and 6 non-paralytic. Two other cases were notified as poliomyelitis but later the diagnosis was revised—one, a boy aged 7, was suffering from osteomyelitis; the other, a boy aged 5, had a severe streptococcal infection of the throat. Details of the confirmed cases are given below.

Date of Notification	Sex	Age	Paralytic or Non-paralytic
7. 6.56	Female	9	Non-paralytic
11. 7.56	Male	10	Paralytic
25. 7.56	Female	3	Paralytic
13. 8.56	Female	21/2	Paralytic
14. 8.56	Female	7	Non-paralytic
18. 8.56	Male	11	Non-paralytic
24. 8.56	Male	22	Paralytic
27. 8.56	Female	19	Non-paralytic
1. 9.56	Male	4	Non-paralytic
5.11.56	Male	3	Non-paralytic
8.11.56	Female	11	Paralytic
23.11.56	Male	1	Paralytic
18.12.56	Female	21/2	Paralytic
31.12.56	Female	23	Paralytic

This is the highest number of confirmed cases since the epidemic of 1947, but only reflects the national incidence during the year. There was no recent history of inoculation or other injection in any of these cases. There were no deaths.

Puerperal Pyrexia:

Five notifications were received. All were mild in character.

Food Poisoning:

Two hundred and fifteen cases of food poisoning occurred. There was no large scale epidemic, but in June a coach party of 21 persons was affected. In addition, there were seven family outbreaks, one of these being in members of a family keeping a confectioner's shop. It was possible to identify the agent in three outbreaks, Salmonella thompson causing one with five cases, Salmonella typhimurium causing the other two with a total of nine cases. The total number of outbreaks, including that of the coach party, accounted for 47 cases, 26 of these being in outbreaks limited to single families.

The remaining 168 cases of food poisoning appeared to be isolated; 65 of these were due to Salmonella typhimurium and one to Salmonella anatum. In the other 102 cases, in spite of bacteriological investigation, it was not possible to prove the cause.

OUTBREAK AMONGST COACH PARTY ON THE 10TH JUNE:

On the 10th June, 1956, a coach party of 20 ladies, and the coach driver, visited a Lancashire County area and had lunch at a hotel. On the journey home the entire party, including the driver, were affected with symptoms of food poisoning. All the persons had diarrhoea and two also had vomiting. The earliest cases commenced just over two hours after the consumption of lunch, and the last eighteen hours after that time, the usual incubation period being about nine hours. The symptoms lasted from two to twenty-one hours, mostly for about twelve hours. Three of the persons concerned needed medical attention and six were unable to go to work the following day. The only foods eaten that were common to all those affected were pea soup and roast chicken.

In addition to this party, it is known that three other visitors had the same meal and were affected, but that the licensee and his family had precisely the same meal except for the chicken and were not affected. Two members of the catering staff had had diarrhoea two days previously, although these were not supposed to have come into contact with the food.

It seemed likely that the roast chicken was probably the vehicle of infection. Twenty of these chickens were purchased from a local dealer three days previously and were cooked, some two days previously and some the day previously, put into a refrigerator and cut up and prepared on the morning of the 10th June. A specimen of chicken, on bacteriological examination showed the presence of Cl. Welchii, and all the seven persons on the staff of the hotel also had this organism present in their faeces. It was not possible, however, to recover the organism from any of the persons affected by the food poisoning, but two of these latter were found to carry staphylococcus aureus, coagulase positive. It was not possible to be sure, therefore, that this outbreak was due to cl. welchii.

An interesting feature, and one which gave some concern at the time, was the fact that out of 20 ladies in the party, no fewer than 9 were employed as food handlers in various catering establishments in the town.

OUTBREAK IN CONNECTION WITH FOOD SHOP:

A family doctor notified a 3 year old child as suffering from suspected food poisoning. Enquiry revealed that this child's parents kept a confectioner's shop, but the parents denied at this stage that they themselves had had any symptoms. Later the same day four further notifications of food poisoning were received, the date of onset being the same as that of the original case, and it was found that these cases had eaten vanilla cake and meat and potato pie purchased from the shop. Unfortunately, none of these foods was available for analysis. In the face of this evidence the father and mother of the original case, who owned and ran the confectionery business, admitted that they had had some slight symptoms three or four days previously, and the mother was found to be a carrier of Salmonella typhimurium. Bacteriological investigation of the other people affected also showed the presence of Salmonella typhimurium. No other cases, in spite of a considerable search, came to light, and the outbreak appeared to finish.

The mother who was a carrier received a notice in accordance with the Public Health (Infectious Diseases) Regulations, and did not undertake work until this condition had cleared up.

This outbreak illustrates clearly the danger of ignoring slight symptoms of diarrhoea in persons who are engaged in the food trade.

Although it is pleasing to record that the number of cases of food poisoning was smaller than in the previous year, the situation must not be allowed to cause complacency, and it is most important that caterers and persons engaged in the food trade are fully alive to the serious dangers of ignoring trivial illness amongst themselves or their employees and in permitting any relaxation of the highest possible standards of hygiene.

General Administration of the Control of Infectious Diseases:

Public health inspectors carried out 766 visits, and health visitors 186 to make enquiries about cases of infectious disease.

A total of 4,102 pathological specimens was sent for examination to the Department of Pathology at the Bolton Royal Infirmary. This figure is a considerable reduction on 1954, but is still in excess of the number for 1953. The following table shows the numbers and types of specimens examined, and the results obtained:—

Specimen	Examined for	Res	ults	Total	
		Positive Negative			
Faeces	Sh. Sonnei	738	1,946	2,684	
33	Salm. paratyphi B	Ξ.	3	- 3	
33	Salm. typhimurium	74	73	147	
.53	Other Salmonellae	3	18	21	
22	Staphylococci	4	474	401	
33	Food Poisoning Organisms	1	474	481	
,, Organisms c	Organisms causing Gastro-enteritis	1	719	720	
	Totals	827	3,233	4,060	
Throat Swabs	C. Diphtheriae	_	18	18	
Nose ,,	C. Diphtheriae	_	18	18	
Throat ,,	B. haemolytic streptococci	-	2	2	
Nose "	B. haemolytic streptococci	-	2	2	
Throat ,,	C. Diphtheriae and B. haemolytic				
	streptococci	-	1	1	
Nose ,,	C. Diphtheriae and B. haemolytic			A CONTRACTOR	
	streptococci	-	1	1	
	GRAND TOTALS	827	3,275	4,102	

Use was made of the Public Health (Infectious Diseases) Regulations, 1953, and notices were served upon 24 persons suffering from various conditions likely to cause food poisoning requiring them not to engage in food handling until further notice. Seventeen claims for compensation were received, and £238 5s. 7d. was paid. No legal proceedings were taken in connection with any failure to carry out the terms of the notice.

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

			Examinations for							
Catego	ry	Sonne Sysentery	Other Intestinal Infections	Scarlet Fever	Diphtheria	Total				
FOOD HANDLERS Positive Negative		 18 62	3 37	- 2	-	21 101				
Nursery Staff Positive Negative		 2 12	- 8	=	= -	2 20				
HOSPITAL STAFF *Positive †Negative		 4 8	2 1	=	-	6 9				
School Staff Positive Negative		 2 4	-	-	-	2 4				
HOME HELPS Positive Negative		 -	1 2	=	-	1 2				
Totals		 112	54	2	-	168				

^{*}Includes one district nurse.

Medical certificates were issued for the purpose of claiming National Insurance to 40 persons who, although not suffering from illness, were contacts or carriers and, by virtue of their occupations, in a position to spread infection.

Once again 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 and Dr. D. A. Woodeson have 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	2	4	10	12	4	2	37
Females	-	2	-	-	4	7	8	10	4	2	-	37
Totals	-	2	-	-	7	9	12	20	16	6	2	74

[†]Includes one help at a Children's Home, and one health visitor.

Non-Respiratory Tuberculosis

Age in Years	0 to	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	up-	Total No. of Cases
Males	-	2	1	3	-	-	1	1	2	-	_	10
Females	1	1	-	-	-	-	1	2	-	-	1	6
TOTALS	1	3	1	3	-	-	2	3	2	-	1	16

There was no change in the number of cases on the register on the 31st December, 1956, compared with the previous year, the figure being 1,227.

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		Total No. of Cases
Males	-	-	-	-	-	-	1	1	1	3	3	9
Females	-	-	-	-	-	-	-	2	-	1	3	6
Totals	-	-	-	-	-	-	1	3	1	4	6	15

Altogether there were 6 notifications of tuberculosis after death, all of them pulmonary cases.

Non-Respiratory Tuberculosis

One female aged 67 died from non-respiratory tuberculosis.

Summary of the Work of the Chest Clinic:

	1948	1949	1950	1951	1952	1953	1954	1955	1956
No. of new cases notified	157	119	105	153	127	96	87	87	90
No. of deaths	70	65	43	48	47	24	26	18	16
No. of attendances of new cases No. of cases referred	890	900	901	1,255	1,454	1,144	1,127	1,217	1,624
from Miniature Ra- diography Units Artificial Pneumothorax	163	31	4	4	148	10	49	463	20
and Pneumoperitoneal Refills	1,352	1,414	1,455	1,498	2,351	2,200	2,115	1,692	956
B.C.G. Vaccinations	-	-	8	47	52	89	94	84	125
No. of Contacts examined	74	92	151	671	580	438	401	463	749
Total Attendances at					2000000		li de la constantina		2200
Clinic	4,846	5,152	5,365	6,772	6,298	6,745	7,354	6,901	6,510

Contact Tracing:

Of the 749 contacts examined, 7 had active tuberculosis.

Four other patients who developed tuberculosis had been in contact with known cases.

General Comment:

The number of deaths from tuberculosis continued to decline, but the number of new cases remained fairly static and has done for the last four years. Also, the number of cases on the register has remained constant. It would seem, therefore, that we must not be too complacent about the tuberculosis situation; the prospects are bright, but much work still remains to be done and in this direction there are certain encouraging signs in the above statistics. For instance, the number of attendances of new cases has increased although the total number of attendances at the clinic has declined. The number of contacts examined has also increased and the number of B.C.G. vaccinations carried out on contacts has also gone up. By this means it is hoped to make further inroads into the hold which this disease has had on the community for so long and which is now at last beginning to relax.

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

The Authority's duty under Section 28 of the National Health Service Act, 1946, to arrange for the after-care of persons suffering from tuberculosis was discharged through a panel of officers who held a monthly Case Conference. The panel consisted of a medical officer from the Chest Clinic, two from the Health Department, the Superintendent Health Visitor, the Housing Lettings Officer from the Housing Department, and one of the tuberculosis health visitors. The panel co-ordinated all the various efforts on behalf of the patients with the exception of such immediate necessities as home help, district nursing or sick room equipment. Every newly notified case was discussed.

Although this method of dealing with the problems was very timeconsuming, there is no doubt that the pooling of ideas and comments, and the careful thought given to the personal problems of each person suffering from tuberculosis has been well worth while.

The panel met on ten occasions during the year and considered the problems arising from 90 new cases of tuberculosis, 101 patients discharged from sanatorium, and 48 other cases brought forward by members because of individual problems.

The panel can recommend the supply of articles, e.g. bedding and clothing, to necessitous cases, and these recommendations can be met after approval by a small sub-committee of the Health Committee. Two patients were supplied with additional bedding as they were not eligible for National Assistance and yet had a genuine need. It was found that the National Assistance Board, when approached, were prepared to assist patients in need to a considerable extent, and instances in which help in kind was required from the Committee were few.

REHOUSING:

As expected, a great deal of the discussion was about applications for rehousing on the grounds of tuberculosis, each case being considered carefully in detail before a recommendation was made to the Housing Committee. A total of 14 patients was recommended for rehousing. One refused the accommodation offered. The Housing Department actually rehoused 19, some of these being recommended in the closing part of 1955.

OTHER AFTER-CARE GIVEN:

The Home Nursing Service undertook the care at home of 184 patients requiring streptomycin injections. If the patient was able to attend the Health Department, the injection was given there. This was a great help to those patients who were working during the day because arrangements could be made for evening sessions, and proved not only to save the time of the district nurses, but also to avoid loss of working time for ambulant patients.

The Home Help Service assisted 9 patients.

Sick room requisites were lent by the Health Department from the store of equipment, without charge.

Fifteen children were admitted to residential nurseries under arrangements made with the Children's Officer.

One patient was admitted to the Papworth Colony.

Tuberculosis health visitors paid 2,800 visits during the year.

The Disablement Resettlement Officer of the Ministry of Labour, and the Chest Physicians, interviewed patients to try and find suitable employment and assist in the difficulty of resettlement in industry.

B.C.G. Vaccination of School Children:

Two medical officers visited twenty-two schools in connection with the B.C.G. vaccination scheme for the older school children. The parents of 1,163 children consented to take part in the scheme, that is, approximately 58% of eligible children. These included consents from 9 contacts. One child who had been in contact with a case of poliomyelitis was not included. Twenty-six children were absent for the Mantoux Test and 9 children were absent for reading of the test. As in previous years the Mantoux Test, using Old Tuberculin (10 TU) was used. Of the remaining 1,118 children, 766 had negative reactions, 2 refused vaccination, and 3 were not vaccinated because of skin conditions. Consequently, 761 children were finally vaccinated.

Three hundred and forty-nine children gave positive reactions, i.e. 31.2%. Each of these children was offered a chest X-ray, resulting in 315 children being X-rayed at the parents' request. Eight children were recalled for large films—in no film was there evidence of active disease. Eighteen films showed calcified primary complexes, and in one there was evidence of a previous pleurisy (school record card history states pneumonia). One cervical rib was noticed. One child was referred to the school medical officer because of an abnormal heart shadow and is now under the care of the consultant paediatrician. One child was referred to the chest physician because of the catarrhal condition of the respiratory tract.

Analysis of Positive Reactors by Age Group

AGE GROUP	TOTAL NO. OF CHILDREN	No. FOUND POSITIVE	% POSITIVE
12 years 13 ,, 14 ,, 15 ,,	6 919 191 2	1 217 75 2	29.5 39.26
ALL AGES:	1,118	349	31.21

Mass Radiography Survey in Bolton-August to December, 1955:

I am indebted to the staffs of Nos. 1, 4 and 6 Mass Radiography Units for the following information which is extracted from their report.

A Mass Radiography survey—the third of its kind since 1948—was carried out in Bolton during the last four months of 1955, the results of which were not available in sufficient detail for full inclusion in the 1955 Annual Report. All persons employed in the borough and residents over the age of 13 were invited to take part. Three units were used, and a total of 50,530 persons were examined.

DEPLOYMENT OF UNITS:

The No. 4 unit operated in a static role at the Health Department in the Civic Centre. This unit held open sessions for the general public, including evenings and Saturday mornings, and examined by appointment persons employed in works and offices in the town centre. Examinations carried out here included 14,530 members of the general public and 8,450 employees from industrial establishments. In addition, general practitioners in the area were invited to send patients here for chest X-ray and 1,180 were so referred. The total examination on miniature film at the Civic Centre was 24,750, and 1,462 were recalled and X-rayed on large films.

Nos. 1 and 6 units visited factories and workshops, etc., No. 1 working on the north side and No. 6 on the south side of the borough. Between them these two units carried out 25,780 examinations.

PUBLICITY:

The local press gave valuable assistance in publicising the campaign with articles and comments. The official opening by the Chairman of the Health Committee was well reported upon, and weekly announcements giving totals examined and the times of public sessions were inserted.

Posters and leaflets were distributed to public places, advertising slides were shown in cinemas and NAPT book marks were given out at libraries. In addition, a personal letter from the Medical Officer of Health calling attention to the survey and giving full particulars of the sessions were sent to all householders in the borough using the services of commercial canvassing agents. To avoid overloading the static unit at the commencement of the survey, the distribution of these letters was staggered over several weeks, and the result was most successful.

Certain groups such as innkeepers, hairdressers, and food shop proprietors, were sent letters by the Medical Officer of Health asking for their special co-operation in view of the nature of their work.

GENERAL PRACTITIONER CASES:

General practitioners were kept informed of the times of sessions, and provided with pro forma for referring their patients for X-ray. Reports of these patients were sent to the doctor concerned, with whom was left the responsibility for further investigation or treatment were indicated.

REFERENCE OF ABNORMALITIES:

The Local Medical Committee agreed to the reference of volunteers with abnormalities direct to the Chest Physician.

Special sessions for Mass Radiography cases were held at the Chest Clinic, and there was no delay in seeing the cases referred.

RESULTS:

In assessing the results of this survey it is believed that since relatively large numbers of examinees were dealt with the conclusions are based on a reasonable statistical foundation.

We are also fortunate in having for comparison a detailed report of the first large survey of the area carried out in 1948.

It seems a good opportunity, therefore, in addition to analysing the present figures, to assess where possible the changes that have taken place in the area during the interim period (as seen by Mass Radiography)—a period dominated by the increasing use of antibiotics and the advances in the treatment of tuberculosis.

In comparing the two surveys, however, it is necessary to bear in mind several points of difference:—

1. The numbers examined in the various groups—

				1948	1955
General Public		 	 	2,296	14,640
Factories/Offices		 	 	22,748	29,830
Others (including school					
from family doctors)		 	 	2,280	6,060
TOTALS	S	 	 	27,324	50,530
				Section Section 1	-

- Some divergence of radiographic opinion is expected with different medical directors.
- 3. The 1948 survey was carried out by one static unit, whereas in the present survey one static and two mobile units were used.

TUBERCULOSIS

In all, 66 cases of respiratory tuberculosis requiring treatment were discovered, an incidence of 1.3 per thousand examined. Sixty-four of these were new cases; 2 were already on the Chest Clinic register; 33 cases produced positive sputum, and 18 of these had frank cavitated disease; 22 cases were symptom free.

The table below shows the incidence of tuberculosis requiring treatment in the various groups, per 1,000 examined:—

General Public:	MALES	FEMALES	BOTH SEXES
(a) Housewives	-	.2	111
(b) Others	1.8	2.4	2.1 } 1.4
Factories/Offices	0.9	1.7	1.2
General Practitioner referrals	3.6	8.0	5.9
School leavers	0.4	-	0.2

As usual, general practitioner referrals showed the highest incidence and, as expected, the yield in school leavers was very low.

The low incidence in housewives contrasts very markedly with the relatively high figure in employed females. Of the 36 employed females with tuberculosis requiring treatment, 18 were married and 18 unmarried.

Of the 64 new cases, 37 had never been X-rayed previously, 24 had been X-rayed at some time since 1948, and 15 of these within the last three years. Five of those X-rayed within the last three years had frank cavitated disease.

The overall incidence of 1.3 per thousand compares favourably with that of 1.7 per thousand recorded in the 1948 survey. This drop follows fairly closely the declining incidence of the disease generally in England and Wales.

Although realizing that the two surveys are not stricly comparable, an attempt has been made to assess the changing pattern of the disease in relation to sex and age groups, and the distribution of active cases in the two surveys is shown in the following tables:—

	Males									
Age Group		1948		1955						
			Incidence per 1,000	No. examined	Cases	Incidence per 1,000				
0 - 14	1,113	0	0	1,980	1	0.5				
15 - 24	2,813	4	1.1	5,190	2	0.4				
25 - 34	3,453	8	2.5	5,600	7	1.2				
35 - 44	3,526	11	3.0	4,650	6	1.3				
45 and over	4,434	7	1.6	6 8,250 12		1.5				
All ages	15,339	30	2.0	25,670	28	1.1				

	Females									
Age Group		1948		1955						
	No. examined	Cases	Incidence per 1,000	No. examined	Cases	Incidence per 1,000				
0 - 14	933	0	0	1,970	1	0.5				
15 - 24	4,026	8	2.0	6,190	17	2.8				
25 - 34	2,714	4	1.5	4,490	7	1.6				
35 - 44	2,319	3	1.3	4,560	7	1.5				
45 and over	1,993	1	0.5 7,650		6	0.8				
All ages	11,985	16	1 · 3	24,860	38	1.5				

The change in the age pattern of the disease in males is rather striking. The high peak in the 25 to 44 age groups seems to have disappeared, and the pattern now appears to be a steadily rising incidence with age.

The overall incidence in males, however, has decreased.

In females the age pattern appears to have changed very little, but there is an increased incidence in all age groups, with a relatively greater increase in the 15-24 age group.

This increase is most marked in industry. The incidence in females in 1948 (mainly an industrial survey) was 1.3 per thousand, whereas the present figures for females in industry is 1.7 per thousand.

INTRATHORACIC NEW GROWTHS (MALIGNANT)

MALES: In all, 19 malignant tumours were detected in 12,900 men over the age of 35. This represents an incidence in the group of 1.5 per thousand. In 1948 three cases were discovered in 7,960 of the same age group, an incidence of .37 per thousand.

There would appear, therefore, to have been a fourfold increase since 1948.

The incidence of malignant tumours in males of all ages is .76 per thousand, which is not a great deal lower than the figure of 1.1 per thousand for active tuberculosis, and in the over 35 age group the incidence of cancer (1.5 per thousand) actually exceeds the incidence of active tuberculosis (1.3 per thousand).

FEMALES: Of the 4 intrathoracic tumours in this category, only 1 was a primary growth.

INTRATHORACIC NEW GROWTHS (BENIGN)

MALES: Excluding retrosternal thyroid prolongations, only 1 benign intrathoracic tumour was detected, this being a neurofibroma in a boy of 14.

FEMALES: Again excluding retrosternal thyroid prolongations and 1 case who had had a recent thoracotomy for a benign mediastinal tumour which remained undiagnosed, 5 cases of benign intrathoracic tumours were detected. These included 2 lipomata, 1 dermoid, 1 haematoma and 1 round tumour in which no concrete diagnosis has been made.

ACQUIRED HEART LESIONS

For obvious reasons it is difficult to obtain accurate statistical information relating to this group as a whole on purely radiological grounds. Radiological estimation of heart size is notoriously unreliable, especially on the miniature film, unless the changes are gross. When we come to abnormalities in heart shape, however, we are on much firmer ground. We have, therefore, compared the findings in the under 25 age group in the two surveys, the abnormalities in this group being almost wholly valvular, of rheumatic origin producing changes in the heart shape rather than heart size.

In 1955 we found 13 radiological abnormalities in 15,330 of the 0-25 age group examined, this figure including 11 not shown in the tables in whom no large film was taken. In 1948, 52 abnormalities were detected in 9,895 of the same age group (almost all of these 52 were confirmed abnormalities clinically). These figures give an incidence of 5.8 per thousand in 1948, as opposed to .84 in 1955. We consider this marked change in incidence probably reflects the falling attack rate of rheumatic fever in the area. Unfortunately, we are not in possession of accurate statistical data relating to the disease, either locally of generally.

BRONCHIECTASIS

Here again there appears to be a very marked fall in the incidence of this condition in the younger age group. We have again analysed the 0-25 age group as being the one most likely to mirror the incidence of new cases and to show any changes that have taken place between the surveys. We include here only cases diagnosed on large films and it is obvious that this will exclude a certain number of mild cases not detected on the miniature film. In 1948 twenty cases were detected out of 8,985 examined in this age group, an incidence of 2.2 per thousand. In the 1955 survey fourteen cases were picked up out of 15,330 in the age group, an incidence of .9 per thousand. Even allowing for the source of error mentioned we consider the drop shown to be significant. The explanation probably lies in the advent of antibiotics in the treatment of the respiratory infections of childhood and also the fall in the attack rate of primary hilar glandular tuberculosis in younger children. The condition may have become less common, or is appearing in a milder form less easily detectable on the plain radiograph. It is the view of the Consultant Paediatrician that the disease is undoubtedly on the wane in children in this area, although no accurate figures are available.

SUMMARY OF DEFECTS REFERRED FOR FURTHER INVESTIGATION:

TUBERCULOSIS			
Healed Tuberculosis	22 48 49 28	23 27 29 38	45 75 78 66
Acquired abnormalities of the Bony Thorax and Soft Tissues Bacterial and Virus infection of the Lungs Bronchiectasis Honeycomb Lung Emphysema Pulmonary Fibrosis—Non-Tuberculous Pneumoconiosis Spontaneous Pneumothorax Benign Tumours of Lung and Mediastinum Carcinoma of Lung and Mediastinum Enlarged Mediastinal Gland—Non-Tuberculous Sarcoidosis Pleural Thickening Abnormalities of the Diaphragm and Oesophagus Congenital abnormalities of the Heart and Vessels Acquired abnormalities of the Heart and Vessels Miscellaneous: Empyema Enlarged Liver Pneumoconiosis with Tuberculosis Failed to attend for large film or Clinical Examination.	2 13 22 2 6 39 37 1 6 19 1 1 7 5 3 37 1 1 1 1 1	3 6 17 - 2 19 - 23 4 - 7 13 7 75 - - 11	5 19 39 2 8 58 37 1 29 23 1 1 14 18 10 112 1 1 1 22

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 coming from the County Borough of Bolton increased by 12 on the previous year.

There has been 1 case of primary syphilis which was acquired outside the Borough. The total number of cases of syphilis for the year was 23 which is a decrease of 20 on the previous year.

There have been no cases of congenital syphilis reporting at this clinic under the age of fifteen years which speaks well for the ante-natal screening and treating of infecting cases in previous years.

It is interesting to note that the rate of syphilis per head of population in the Borough of Bolton is 1 in 7,500, as compared to the rate throughout the country, which is 1 in 10,000. Five years ago the rate per head of population in Bolton was 1 in 3,000, so there is a very significant decrease.

Out of 21 Bolton ante-natal cases attending the clinic in 1956, 3 were found to be suffering from syphilis and underwent treatment.

Patients who defaulted from treatment and who were suffering from syphilis numbered 11, but this was offset by 11 patients who returned for treatment from previous years.

The number of cases of gonorrhoea was 58, which was a decrease of 17 on the previous year, so that the actual increase in the number of new patients attending the clinic falls into the category of non-venereal diseases.

The following table records the events of the past few years:-

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

Members of the clinic staff carried out 130 domiciliary visits for the purpose of ascertaining the cause of non-attendance.

The total figures show a slight increase in the number of cases which is mainly in those suffering from non-venereal diseases and I think that the pattern of this year will remain much the same in succeeding years, although it is to be expected that there will be further cases of congenital syphilis uncovered within the next ten years who were born previous to the complete ante-natal cover that we now have.



PART IV

ENVIRONMENTAL HYGIENE

Work of the Public Health Inspector
Slum Clearance

Air Pollution

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Work of the Borough Analyst

Statistical Tables

WORK OF THE PUBLIC HEALTH INSPECTOR

Staff:

The staffing position showed some improvement, largely because the Corporation began to offer housing accommodation and "casual user" car allowances in approved cases, and partly because of the pupil training scheme. Nevertheless, at the end of the year the number of inspectors fell short of the establishment by four district inspectors and one specialist inspector. 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 Drug Sampling Officer
- 11 District Public Health Inspectors, plus 1 in H.M. Forces (4 vacancies)
- 5 Pupil Public Health Inspectors (1 in H.M. Forces)

SCHOOL HILL DISINFECTING STATION

Foreman

- 4 Rodent Operatives
- 1 Mortuary Attendant/Disinfector

The scheme for the training of pupil inspectors continues to prove its usefulness. During the year one pupil inspector was called up for service in H.M. Forces. It is expected that two of the present pupils will be sitting for their qualifying examination in May, 1957.

A former member of the specialist inspectorial staff has been appointed as Chief Public Health Inspector to the City of Wakefield and another has recently been appointed as Deputy Chief Public Health Inspector to West Hartlepool County Borough Council.

Complaints:

The following complaints were received and investigated.

Housing defects	 	1,479
Choked and defective drains		481
Accumulations of offensive matter	 	87
Relative to unsound food	 	332
Verminous premises:—		
(a) Bed Bugs	 	16
(b) Rat and mouse infestations	 	661
(c) Cockroaches and other insect pests	 	45
Keeping of animals and poultry	 	26
Miscellaneous	 	225
TOTAL COMPLAINTS	 	3,352

Standing Commitments:

Premises Subject to Routine Inspection									
Туре о	F ESTA	BLISHN	ENT						No. of Premises
Common lodging-houses									2
Houses-let-in-lodgings									178
Movable dwellings									38
Bakehouses									375
Basement bakehouses									5
Fish friers									208
Registered premises, Sec. 16				Act,	1955				851
Industrial canteens				***			***		105
Other catering establishment		:							95
Miscellaneous food preparing									82
Ice cream premises—manufa									35 611
Mass share									218
Classalassalassa									6
Dairies									10
Milk shops									717
Food shops									1,400
Licensed premises (On-)									316
" " (Off-)									126
Food Stalls									150
Vehicles—Meat									15
" —Milk									165
Factories (Mechanical)									1,076
,, (Non-Mechanical)							***	***	154
Shops									996
Outworkers' premises	*** **							***	37
Factory chimneys							***	2.22	210 272
Hairdressers' premises Places of entertainment									44
CL-1									39
Offensive trades									7
77 1 1									1
Registered premises, Rag Floo	ck & O	ther Fi	lling	Mate	erials	Reg	ulatio	ns,	
1951 & 1954									16
Pet shops (Pet Animals Act,	1951)								17
Detection of Sanitary Def	ects:								
6	C X	7:-:	1	I					
Summan	ry or	VISILS 2	ina	inspe	ectio	ns			No. of
Natio	DE OF	Visit							VISITS
NATURE OF VISIT									1 10110
Dwelling-houses for housing									1 000
After complaint									1,982
Subsequent visits							***		3,417
Dwelling-houses under Hous									-
Detailed inspections									1,565
Re-inspections, re-visits			***		2.2.5				3,193
Certificates of disrepair			***	***	***	***			12

	NATU	RE O	F VIS	SIT							No. o
Infected dwelling-houses:—											
	After notified infectious	dise	ase (other	than	tub	ercu	losis))		695
	Contacts										71
Scho	ools and church halls										7
Swin	nming baths										22
Wat	er sampling:—										
	Swimming baths										22
	Dwelling-houses										3
Busi	ness premises										326
Cine	emas, dance halls, billiar	ds ha	alls								24
Offe	nsive trade premises										51
Stab	les, piggeries, keeping o	f ani	mals								128
											83
	ories Acts, 1937 and 194										
	Factories with mechanic										267
	Factories without mecha	anica	l pov	ver							20
	Outworkers' premises										3
Con	mon lodging houses										12
Und	erground rooms										9
											33
	ts, vans and sheds										74
	ke abatement:—										
	Boiler house surveys										35
	re Prior Approval applie		ns								2
	re Smokeless zones										128
	Smoke observations										401
	Smoke investigations										53
	Revisits										52
	Combustion readings										33 162
Total.	Deposit gauge visits										
	grounds	***	100		***	***			***		58
Dra	nage:—							2002			660
	Conversion from waste						-	em			669 548
Dul	Miscellaneous tests and lic sewers										36
											17000
	ercourses and ditches									***	12
	d and tips										61
	cic tanks and cesspools										6
	tary conveniences—incl	udin	g pub	olic h	ouses	S					11
											1,849
Visi	ts not inspections										3,025
Ver	minous premises:										1,889
	Rats and mice:—After			or fi	rom s	surve	ey		***		1,889
	Subse										4,747
	Bug infestations:—No.	of pr	remis	es vis	sited	1.0					50
				es w	nere	defin	nte i	nfest	ation		42
	Caalmaaahaa	existe									43 298
	Other vermin										139
		* * *						7.5.7		111	241

Nature of Visit			No. of Visits
Inspections for supervision of food:—			
Unfit foodstuffs other than meat			535
Slaughterhouses and coldstores Butchers' shops (Public Health (Meat) Regulations,	1024 1	052	1,936
and Food Hygiene Regulations, 1955)	1924-1	932	391
Food Hygiene Regulations, 1955:—			371
			100
Fish share and 1			498 932
F			2
Doctornant leitalana Cal Ciana			482
Hotel and beerhouse bars and cellars:—			402
Day inspections			286
Night inspections			15
Food and Drugs Act, 1955—Section 16:—			
Ice cream premises (Heat Treatment Regs. 1947-1952)		155
Sausage manufacturers			177
Preserved meat preparation premises			152
Preserved fish preparation premises			9
Milk and Dairies Regulations, 1949: Food and Drugs Ad Section 91:—	ct, 195	5—	
Milk sampling for bacteriological examination			66
C			8
Dairies			32
Shops Act, 1950—Section 38			43
National Assistance Act, 1948—Section 47			3

Diseases of Animals Acts and Orders			2,020

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 Regu- lations 1955	Factories Acts 1937 and 1948	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	974	1,244	45	11
No. of informal notices complied with	452	277	11	15
No. of statutory notices served	895	-	-	-
No. of premises concerned	735	-	-	-
No. of statutory notices complied with	697	-	-	-
No. of premises concerned	602	_	_	_
No. of cautionary letters sent by Town Clerk	334	-		-

The large number of notices served under the Food Hygiene Regulations, 1955, and still outstanding was the outcome of an intensive survey of food premises. Although many notices were still outstanding at the end of the year it was known that in a large number of these cases the necessary repairs and improvements were in hand.

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—Section 93	Failure to comply with abatement notice in respect of leaking roof	Nuisance Order made against agent and costs of 10/6 imposed
2	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of leaking roof	Nuisance Order made against agent and costs of 11/6 imposed
3	Public Health Act, 1936—Sections 45 and 93	Failure to comply with abatement and statutory notices in respect of defective wallplaster and defective water closet seat	Nuisance Order made against agent and fine of £2 imposed
4	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of defective skylight	Nuisance Order made against agent and costs of £1/11/6 imposed
5	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of defective roof	Nuisance Order made against agent and costs of £2/1/6 imposed
6	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against agent and costs of £1/11/6 imposed
7	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of leaking roof	Nuisance Order made against agent and costs of 11/6 imposed
8	Public Health Act, 1936—Section 93	Failure to comply with abatement notice in respect of leaking roof	Nuisance Order made against agent and costs of £2/-/6 imposed
9	Public Health Act, 1936—Sections 93 and 39	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutters	Nuisance Order made against agent and fine and costs of £5/11/6 imposed

In addition, fifty-eight 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.

							No. of
NATURE C	F IMI	PROV	EME	T]	[MPROVEMENTS
Floors repaired					 		75
Internal walls repaired					 		663
Ceilings repaired					 		356
Doors and windows rep	aired				 		413
Stairs repaired					 		24
Roofs repaired					 		374
Chimneys and flues repa	aired .				 		128
Eavesgutters repaired	***				 		433
Rainwater pipes repaire	d .						158
Soil and waste pipes rep	paired.				 		49
External walls repaired					 		91
Yards, paths, gates, etc.	, repa	ired			 		7
Sanitary conveniences r					 		253
"Tippler" conversions					 		1
Refuse accommodation					 		163
Drains repaired					 		184
Fire-ranges repaired					 		42
Sinks, water supplies, w							35
Miscellaneous					 		59

SLUM CLEARANCE

Clearance Areas:

Further progress was made towards clearing away large areas of slum properties, and the statutory information concerning the Bolton (School Hill Nos. 1, 2 and 3) Compulsory Purchase Orders was submitted to the Minister of Housing and Local Government, on the 21st June, 1956. The areas include 326 dwelling houses and 23 combined shops and dwellings. Approximately 944 persons will require rehousing.

The Minister received written objections in respect of 74 houses, and statements of the principal grounds of unfitness were forwarded to each objector. A Public Inquiry was held on 4th December, 1956, and the result is awaited.

Deferred Demolition:

In addition to the above and in accordance with the proposals for dealing with slum clearance submitted by the Corporation to the Minister of Housing and Local Government under section 1 of the Housing Repairs and Rents Act, 1954, the unfit houses to be dealt with during the first year as deferred demolition properties were inspected in detail.

Official Representations were made, and on 5th December, 1956, the Town Council approved a resolution to deal with the premises in the following areas:—

Bolton	(Moss Stre	et No.	. 1)	Clearance	Area
>>	,, ,,	22	2)	>>	"
>>	(,, ,,		3)	,,	>>
33	(Greenhalg	h Stre	eet)	,,,	,,
,,	(Progress S	treet)		>>	,,
>>	(Raglan Str	reet)		>>	,,
	(Rossini St	reet)		"	,,
	(Phoenix S	treet)		"	,,
	(Old Road)			,,	22

The areas collectively contain 147 dwelling-houses and approximately 365 persons will require rehousing.

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, in accordance with procedure laid down under the Housing Consolidated Regulations as amended in 1932. Accordingly, detailed housing inspections have been carried out which are supplementary to the considerable slum clearance programme prepared by this local authority in 1955. These 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:

Many enquiries from intending purchasers of houses within the borough, as to the inclusion of the properties in the Slum Clearance Programme, have been dealt with by the Health Department. Information has been provided to ensure that as far as possible house purchasers do not, in ignorance of the Council's intentions, buy houses included in the Council's Slum Clearance Programme for action by way of Clearance Areas in the next five years, or which are intended to be the subject of Demolition Orders.

Compensation:

Additional provision for payments of compensation in respect of certain unfit houses subject to Compulsory Purchase, Clearance, Demolition or Closing Orders was made on 2nd August, 1956, by means of the Slum Clearance (Compensation) Act, 1956. The purpose of the Act is to provide increased payments to mitigate the hardship being suffered in certain cases through the resumption of slum clearance on a large scale.

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

Nine applications were received from occupiers of houses requesting certificates of disrepair. Eight certificates were issued after payment of one shilling. One application was not acceded to. Applications from owners for revocation of certificates of disrepair numbered eighteen, and appropriate certificates were issued in nine cases. A total of 245 certificates of disrepair was outstanding at the end of the year.

Housing Act, 1936-Legal Proceedings:

Legal proceedings were taken against the owner of a dwelling being dealt with as an individual unfit house, for failing to provide information as to her interest in the property, formal action being held up by the absence of such information. The Magistrates imposed a fine of £1.

Action was also taken against a local estate agent who had let, for reoccupation by a new tenant, a house against which the Corporation had made a closing order approximately one year before. Fortunately the new tenant had not moved into the premises although she had begun to move her furniture. A fine of £2 was imposed. Legal proceedings had to be taken against the occupier of a house subject to an operative closing order. The Corporation made several offers of alternative accommodation to the tenant but each offer was refused on the grounds that the accommodation offered was unsuitable. The Magistrates fined the tenant 10/- and subsequently a further offer of accommodation was accepted.

Housing Statistics:

H	lousing Statistics:	
H	Iouses 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	5 308
	Demolition Orders made	
	Closing Orders made	. 73
	Chactakings not to re-let for naman habitation	
	COMPLETED ACTION:	
	Houses demolished	
	Persons rehoused	
	Houses closed	
	Persons rehoused	
	Cases pending at the close of the year	. 36
H	lousing Inspections:	
	Inspection of Dwelling Houses	
1.	. Dwelling-houses inspected for housing defects (under Public Healt	a
	Act or Housing Acts)	
ı	Inspections made for the purpose	. 12,169
2.		
П	inspected under the Housing Consolidated Regulations, 1925, a	S
П	amended by the Housing Consolidated Amendment Regulations	
П	Inspections made for the purpose	
П	inspections made for the purpose	. 1,505
ı	Repairs—Informal Action	
	Jufit or defective houses rendered fit as a result of informal action b	
-	the Local Authority under the Public Health Act or Housing Acts	. 452
ı	The Boom 11 and 1	
ı	ACTION UNDER STATUTORY POWERS	
0		
•	Public Health Act, 1936	
1	Houses in which defects were remedied after service of formal notice	
	By owners	. 600
	By Local Authority in default of owners	. 2
1		
1	Housing Act, 1936	

HOUSING ACT, 1936

No action under Section 9, 10 or 16.

AIR POLLUTION

On the 31st December, 1956, some of the most important of the provisions of the Clean Air Act, 1956, were brought into effect and it is expected that further important sections of the enactment will be brought into force in 1958.

In Bolton, since 1949, private legislation enabled the Council to declare smokeless zones and also to give prior approval to the installation of new furnaces. The purpose of the latter provision was to secure that, so far as practicable, new furnaces should be installed to be capable of being operated continuously without emitting smoke.

In our private Act this requirement applied to the installation in any building of furnaces for steam raising or for any manufacturing or trade purpose, but the new legislation embraces a wider range of installations and in future the work of prior approval of furnaces will be considerably increased.

Prior Approval of New Furnaces

Briefly, it is now necessary to give notice to the local authority where it is intended to install in a building certain boilers or plant specified in section 3 of the Clean Air Act, 1956.

It is now an offence to install any new industrial furnace or other new furnace of a heating capacity of more than 55,000 B.Th.U's. per hour which is not, so far as practicable, capable of operating continuously without emitting smoke when burning fuel of a type for which it was designed. This means that small domestic appliances in houses, offices and shops would not normally fall within the stipulation.

Any approval given by the Council would be to the effect that the installation complied with the requirements of section 3, but it would not bar institution of legal proceedings for contraventions of any other provisions of the Clean Air Act, 1956, e.g., the emission of dark smoke resulting from improper use of the furnace.

The method already existing in Bolton for dealing with applications for prior approval of new furnaces will be substantially unchanged but an increase in the number of applications because of the extension of the requirements to certain additional types of furnace can be expected and in order to save the time of members of the Prior Approval Panel who are not officers of the Council it has been arranged that the smaller type of installation shall be approved on the recommendation of the Health Department. In the case of larger complicated installations which may be affected it will continue to be necessary to employ the services of the Panel which it will be remembered comprises:—

The Medical Officer of Health

The Chief Public Health Inspector

The Borough Architect

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.

Measurement of Density of Smoke:

Section 4 of the new Act enables the Minister by Regulation to impose requirements about the provision and installation of apparatus for the purpose of indicating and/or recording the density or darkness of smoke emitted from any furnace. The Regulations may also relate to the adaptation of the chimneys of furnaces to accommodate such apparatus; to the using and maintaining of apparatus and making available to the local authority any results recorded.

It will be readily understood that the purpose of the Regulations would be to deal with furnaces emitting smoke during the hours of darkness and it is known that at the present time, in the absence of the control now envisaged, that inexperienced persons operating boilers cause needless pollution, particularly where firms are working on night shift.

Smoke Control Areas:

The power to make smoke control areas has now been given to all local authorities, whereas before the passing of the Clean Air Act, 1956, only those Councils with private enactments were able to proceed in this direction. It can be said at once that broadly speaking the memorandum on smoke control areas which has accompanied the new Act has followed to a large extent the practice which has been obtaining in Bolton since 1954.

The financial provisions are very similar to those formulated in Bolton, but it should be mentioned that in normal circumstances in the case of domestic premises an Exchequer grant will be given to the local authority equivalent to 40% of the cost of approved works of adaptation reasonably necessary to comply with a Smoke Control Order. The minimum local authority contribution to owners or occupiers towards these costs would be 30% except, of course, where the local authority decide in special cases to bear more than the normal proportion of the expenditure. There are special financial provisions relating to grants given by the Ministry in respect of Council owned dwelling-houses. There is no financial grant by the Exchequer or the local authority for non-dwelling-house premises except in the case of churches, chapels and charitable institutions where the local authority can make grants at their discretion but there is no corresponding Exchequer contribution for this purpose.

The Minister requests that caution be observed when the question of industrial premises is under consideration for inclusion in smoke control areas, because of the possibility of impossible demands being made on the supply of smokeless fuels if large scale changes were made by including industrial establishments. It is stated that the available smokeless fuels will be needed and can be used to better advantage for the prevention of domestic smoke. The provisions of the Act are flexible and a smoke control area may be the equivalent of a completely smokeless zone or it may be that certain buildings are exempt and the area as a whole will not be entirely smokeless. This is exactly in accordance with the comments made in my Annual Reports of the past two years.

It is not expected that industrial establishments will be permitted to emit smoke where it is practicable and reasonable to prevent it and all possible should be done to secure complete smokelessness in industrial premises which are included in any smoke control area.

However, in some cases in present circumstances of fuel supplies and comparative costs some factories may have to operate on bituminous coal and will not be completely smokeless at all times.

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The question may be raised as to how much smoke generally can be said to be reasonable when emitted from premises where bituminous coal is burned. The answer is that under Section 1 of the Clean Air Act, 1956, dark smoke which can be assessed by reference to the chart illustrated in the photograph facing page 2, shall not be emitted from a chimney of any building subject to certain conditions which are yet to be set out. In addition, emissions of smoke for limited periods will be permissible and the Minister will specify what period of dark smoke emission can be exempted by Regulations which are not yet issued.

New Smoke Control Area:

The Council has approved in principle the declaration of a further area of about 58 acres as a smoke control area. The new area comprises mainly residential and industrial premises including Corporation houses and covering new buildings in course of erection on land in the East Ward which has been cleared by slum clearance action. Details of the draft smoke control area are given in Table 1 on pages 139 to 141.

Existing Smokeless Zone:

In accordance with the Council's resolution grants have been made to occupiers or owners of dwelling-houses in the Bolton town centre smokeless zone in respect of expenditure necessarily incurred in adapting or replacing firegrates and appliances. The total paid up to 31st December, 1956, was £748 19s. 11d.

LEGAL PROCEEDINGS:

The occupier of one dwelling-house had received financial assistance from the Council and carried out the necessary adaptations of the firegrate to comply with the Order but despite repeated advice and cautions continued to burn coal and to contravene the legislation. The Council reluctantly instituted legal proceedings and a fine of 10/- was imposed.

Smoke Observations: Industrial Premises:

In addition to routine observations, 401 official half-hour smoke observations were taken. The results are summarised as follows:—

BLACK SMOKE	EMISSION	No. of Observations
Nil	Minutes*	322
Nil to 1	,,	28
$\frac{1}{2}$ to 1	,,	18
1 to $1\frac{1}{2}$	>>	9
$\frac{1\frac{1}{2}}{2}$ to $\frac{2}{3}$	>>	6
	>>	8
3 to 4	"	4
4 to 5	,,	2 3
5 to 10	>>	5
Over 10	,,	1
		TOTAL: 401

^{*}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 6 instances, statutory notices were served under section 103 of the Public Health Act, 1936.

Eighty-five visits were made to various boiler plants in an effort to secure reduced smoke emissions.

Education in Fuel Technology:

The training of stokers has been continued at the Bolton Technical College and 3 candidates secured certificates in boiler house practice at the examination of the City and Guilds Institute, London.

The National Industrial Fuel Efficiency Service has carried out excellent work in this field and classes have been conducted for stokers during the day-time which has meant a reduction in the number of men attending the evening classes at the Technical College.

In addition to theoretical education, discussions have taken place between the public health inspectors engaged on smoke abatement and the representatives of about 200 major industrial undertakings in the borough regarding the best methods of dealing with the special problems peculiar to each case where compliance with the impending provisions of the Clean Air Act, 1956, relative to dark smoke will be necessary.

During the past two years the inspectors have been endeavouring to familiarise users with the advantages of smokeless fuel in lieu of bituminous coal especially in those cases where industrial installations can operate successfully using smokeless solid fuels. Demonstrations under normal working conditions have been arranged to focus attention on the use of industrial boiler fuel.

It would seem to us that the policy of the North Western Gas Board is to withdraw a type of coke known as industrial boiler fuel and to substitute a similar grade of coke at a much higher price and it may be that the work done by the public health inspectors in this field will be rendered abortive because of the price factor. Arrangements have been made for the sampling of various consignments of fuel which on the one hand is said to be industrial boiler fuel (a type of coke) and Number 4 Gas Coke which so far as can be ascertained is the same coke under another name but commanding a higher price. If it is found that this is, in fact, the case, it is intended to make representations to the appropriate Minister.

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES REGULATIONS 1949 TO 1954:

	of Dairies						
	of Milk Shops						
No.	of Dairy Vehicles		 	 	 	 	167
No.	of Milk Distributors	 	 	 	 	 	895

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"-	-Produce	rs' Licences					 	2
,,	,, -	-Dealers'	Licences					 	89
,,	,, -	-Supplen	nentary Lice	nces				 	-
"Sterilised A	Ailk"—I	Producers	' Licences					 	1
,,	" —l	Dealers' I	icences					 	564
,,	,, -5	Suppleme	ntary Licence	ces				 	-
"Tuberculin	Tested	(Pasteuri	sed) Milk"-	-Dea	lers'	Lice	nces	 	67
"Tuberculin	Tested	(Sterilise	d) Milk"—I	Deale:	rs' L	icen	ces	 	-
"Tuberculin	Tested	Milk"—I	Dealers' Lice	ences				 	63
,,,	,,	,, -	Supplementa	ry L	icen	ces		 	-

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. It is unfortunate that 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:			DAIRY
		DAIRIES	VEHICLES
No. of Inspections	 	125	178
No. of Notices served	 	30	_

The trend towards the gradual elimination of the producer/retailer continues and many of the dairy vehicles now in use are owned by the large dairy companies and are, generally, maintained in a satisfactory condition.

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 134.

Four samples of pasteurised milk failed to satisfy the phosphatase test indicating that the milk had either been insufficiently heat treated so as to destroy possible infection, or that it had contained an admixture of raw untreated milk. In the case of the samples produced within the Borough, detailed investigations were made and appropriate advice given. Reports on the samples produced outside the Borough were notified not only to the proprietors of the pasteurising establishments concerned, but also to the local authorities in whose areas they were situated. Follow-up samples were obtained in all cases and found to be satisfactory.

BIOLOGICAL SAMPLING OF MILK:

Forty-five samples of milk from various sources were examined for tubercle bacilli, and all were reported to be negative.

Thirty-seven samples of milk were examined for the presence of brucella abortus, which causes undulant fever in man. Two samples of milk obtained from roundsmen during retail distribution were found to contain this organism. Incidentally, each sample was of raw tuberculin tested milk, an indication that the special provisions relating to this type of milk offer no protection against brucellosis and emphasises the desirability of pasteurisation of all milk supplies regardless of their origin. In each case the infected milk had been produced on dairy farms outside the Borough and the findings were reported to the appropriate Medical Officers of Health. In both cases the infected milk was immediately diverted for pasteurisation and this embargo continued until the herds had been shown to be free from brucella infection.

BACTERIOLOGICAL EXAMINATION OF MILK VESSELS:

Routine rinses of churns and milk bottles were taken. The results are given on page 135. Visits were made to the dairies concerned following the receipt of unsatisfactory reports and appropriate advice was given. Subsequent samples in all cases were shown to be satisfactory.

SAMPLING OF MILK FOR CHEMICAL ANALYSIS:

Details of the samples taken are given on page 134. Twenty-five samples were reported unsatisfactory and in three cases legal proceedings were taken with the following results:-

DETAILS

ACTION TAKEN

Tuberculin tested raw milk—average Case dismissed—Magistrates satisdeficiency in milk fat 2.62%

fied that milk genuine even though low in fat content.

Tuberculin tested raw milk—contained Fine of £20 imposed. 10.2% of added water

Tuberculin tested raw milk—contained Fine of £5 imposed. 8.7% of added water

Bacteriological and Chemical Examination of Ice Cream:

Ice cream retailed in the borough was sampled on 104 occasions for bacteriological examination. Eighteen 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 pages 135 and 136. In considering the results it should be borne in mind that sampling was mainly concentrated on the smaller manufacturers selling "loose" ice cream where opportunities for contamination are particularly numerous. Nevertheless, the number of unsatisfactory samples is much smaller than in the previous year.

In the case of samples manufactured in Bolton detailed inspections were made in each case following the receipt of an unsatisfactory report and appropriate advice or warnings given. Where the ice cream had been manufactured outside the borough both the manufacturers concerned and their respective local authorities were notified of the unsatisfactory results.

Thirteen samples of ice cream were examined by chemical analysis and were all found to be satisfactory.

Inspection of Meat and Other Foods:

The inspection of human food at slaughterhouses, markets and food shops required 5,709 visits to be made by the inspectors.

MEAT INSPECTION:

The rate of slaughtering was as follows:-

	CATTLE	CALVES	SHEEP	Pigs	TOTAL
Average Weekly "Kill"	191	39	680	324	1,234
Maximum Weekly "Kill"	230	70	1,306	975	2,581

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

	Cattle ex- cluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number killed	5,050	4,865	2,014	35,363	16,864	-
Number inspected	5,050	4,865	2,014	35,363	16,864	-
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS: Whole carcases condemned	1	3	10	16	20	-
Carcases of which some part or organ was condemned	359	880	-	358	72	-
Percentage of the number inspected affected with disease other than tuberculosis and cysticerci	7.1	18 · 1	-5	1.05	-54	-
TUBERCULOSIS ONLY: Whole carcases condemned	5	50	4	_	12	-
Carcases of which some part or organ was condemned	162	780	4	-	156	-
Percentage of the number inspected affected with tuberculosis	3 · 1	17.05	·2	-	1.0	-
Cysticercosis: Carcases of which some part or organ was condemned	24	10	_	-	-	-
Carcases submitted to treatment by refrigeration	24	10	-	-	-	-
Generalised and totally condemned	-	-	-	-	-	-

Danger to health from eating of flesh containing Parasites:

CYSTICERCUS BOVIS:

Certain tapeworms are communicable to man through eating infected meat. One of these is the bladder worm stage of Taenia saginata which occurs in cattle and is known as Cysticercus bovis. If the flesh of an ox in which these parasites are present be eaten raw or in an imperfectly cooked condition, adult tapeworms develop in the intestine of man. When meat is properly cooked the danger of infection from these parasites is slight, but in Bolton there are many colonies of people from Middle Europe who prefer to eat meat which is not fully cooked by English standards.

DOG TAPE WORM

Heart, Spleen and Kidneys riddled with Cysts

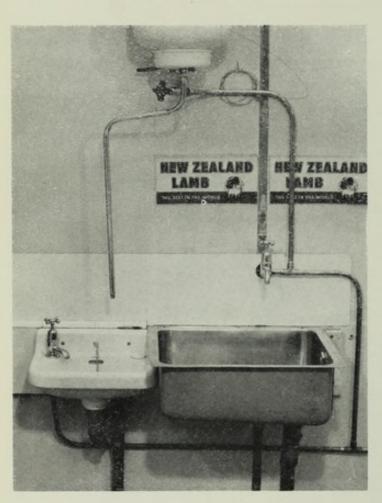


PHOTO BY J. D. ALLAN

The above are abattoir specimens from animals intended for human food — over 140 cases were found in Bolton abattoirs in 1956. Human beings can also be infected.

One of the reasons why

DOGS SHOULD BE KEPT AWAY FROM FOOD PREMISES



FOOD HYGIENE REGULATIONS, 1955

Bolton Markets

LEFT:

Standard type of dual washing facilities introduced on all food stalls in the covered market.

* * *

BELOW:

A protected food stall in Bolton Market.



The number of animals found to be affected with Cysticercus bovis was appreciably greater than in 1955, due to the introduction of an improved technique of examination, 34 cases of localised cysticercosis being found, compared with 6 in 1955. In only 7 instances were the cysts degenerated, the cysts in the remaining cases being active and viable. No case of generalised cysticercosis was discovered. Only 5 of the animals were of local origin, the remainder being imported Irish cattle.

WHY DOMESTIC ANIMALS SHOULD BE KEPT AWAY FROM FOODSTUFFS:

From research work carried out it is known that bacteria of the food poisoning group are frequently excreted by cats, dogs and pigeons. In addition, many of the diseases which affect animals are transmissible to humans. One of the cysts found in meat is known as the hydatid cyst (Echinococcus veterinorum) which is the bladder worm stage of a small tapeworm found in the intestine of the dog, while cases of its occurrence in the human subject are by no means rare. The cysts of the tapeworm vary in size from that of a marble to that of a hen's egg. Man becomes infected by water, vegetables, etc., contaminated by the faeces of dogs which contain the eggs of the parasite. This is the reason why legislation prohibits dogs entering slaughterhouses.

One hundred and forty-two cases of meat affected with hydatid cysts were found in Bolton last year.

A photograph showing Echinococcus cysts can be seen facing page 118.

Foodstuffs Condemned

	Tons	CWTS.	QRS.
Meat (Fresh)	44	6	-
Meat (Tinned)	1	14	-
Boiled Ham (Tinned)	1	13	2
Tongue and Corned Beef (Tinned)	-	13	3
Fish (Fresh)	-	19	3
Milk (Tinned)	-	7	2
Poultry and Rabbits	-	3	1
Fresh Fruit and Vegetables	1	16	2
Tinned Fruit and Vegetables	2	15	2
Fish (Tinned)	-	3	2 3
Chinese Frozen Egg	-	4	3
Provisions (Miscellaneous)	2	3	3
TOTAL	57	1	3

Disposal of Condemned Meat:

Condemned meat and offals are collected for processing purposes from the public abattoir and private slaughterhouses in the town by 2 private companies approved by the Corporation and subject to safeguards laid down by the Corporation. Payment for condemned meat and offals is made by the processing companies direct to the butchers owning the meat.

Slaughterhouses:

There were 4 private slaughterhouses licensed for the year 1956, providing facilities additional to the public abattoir. Structural improvements were carried out at all these premises.

Public Abattoir:

REMOVAL OF DUNG, ETC.:

During the year a special vehicle was provided by the Cleansing Committee to permit dung, inedible offals, etc., to be laid directly into the vehicle to obviate storage on the ground outside the slaughtering bays as was previously the case.

Hours of Killing:

Despite the operation of a rota system by which the services of a meat inspector are available at weekends, difficulty was experienced on several occasions during the year as a result of butchers failing to observe the times laid down by the Markets Committee as to the hour at which killing (which for this purpose includes dressing) shall cease on weekdays, necessitating the overtime employment of meat inspectors on weekdays beyond the normal working hours.

Slaughter of Animals Acts, 1933-1954:

Fifty-eight licences were issued to slaughtermen.

LEGAL PROCEEDINGS:

A slaughterman was prosecuted for contravening section 1 of the Slaughter of Animals Act, 1933. In this case the slaughterman stunned a small pig by striking it with a heavy iron bar despite the fact that within the slaughtering bay there was a perfectly satisfactory electrical stunning instrument in good working order. The defendant was fined £5.

Diseases of Animals Acts:

TUBERCULOSIS ORDER, 1938:

Sixteen cows were slaughtered in accordance with the provisions of the above Order. Eleven of the carcases and organs were totally condemned; the remaining five carcases were affected with localised tuberculosis and were dealt with appropriately.

ANTHRAX ORDER, 1938:

Eleven cases of suspected anthrax were investigated, but in only one was the infection proved by bacteriological examination. The carcase and all articles likely to be infected were removed and destroyed by burning and the premises thoroughly disinfected.

FOWL PEST ORDER, 1936:

Temporary restrictions were imposed in September and October respectively on the movement of poultry from 3 premises in the Borough.

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

One premises and one vehicle were disinfected in accordance with this Order.

SWINE FEVER ORDER, 1938:

One case of suspected swine fever was notified in March and the usual restrictions were imposed; the incidence of swine fever was not, however, confirmed and the restrictions were withdrawn.

An outbreak of swine fever commenced at a local farm in June and the usual restrictions were imposed. Four pigs died while 10 were slaughtered under licence. The restrictions were removed in July.

A further outbreak at another local farm commenced in July. In all, 22 pigs died and 18 were slaughtered under licence. The restrictions were removed in September.

Two additional outbreaks commenced in September. In the first case 2 pigs died and 17 were slaughtered under licence, restrictions being removed in October. In the other outbreak 10 pigs died and 40 were slaughtered under licence and restrictions were removed in November.

During September restrictions were imposed against a local pig keeper in respect of contact pigs from the Bolton Auction Mart.

WARBLE FLY (DRESSING OF CATTLE) ORDER, 1948:

In June, 2 cattle of local origin were found to be affected with warbles. Ten local farms were visited as a result of this finding and at 4 of these premises infested cattle were detected and subsequently treated in accordance with the Order.

FOOT AND MOUTH DISEASE ORDER, 1928:

No outbreaks occurred within fifteen miles of the borough.

Food and Drugs Sampling for Chemical Examination:

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

		GENUINE	UNSATISFACTORY	TOTAL
Food Samples	:			
Formal		 98	6	104
Informal		 158	34	192
Drug Samples	:			
Formal		 _	_	_
Informal		 34	2	36
Milk Samples				
Formal		 317	22	339
Informal		 559	3	562
m				1 222
To	TALS	 1,166	67	1,233

Full details of the above samples are given in Table 2 on page 142.

No legal proceedings were instituted, but in all cases where unsatisfactory samples were reported warning letters were sent to the vendors concerned.

Food Hygiene

The Food Hygiene Regulations made under sections 13 and 123 of the Food and Drugs Act, 1955, came into operation on the 1st January, 1956, with the exception of certain Regulations relating to important structural matters which came into operation on the 1st July, 1956. The Regulations are a notable event in the history of food hygiene legislation in that for the first time the comparatively simple code of hygiene contained in section 13 of the Food and Drugs Act, 1938, was replaced by a more detailed code of requirements applicable to a wide variety of food premises. Among the more important legislative changes introduced by the Regulations were more stringent requirements relating to personal washing facilities and to sinks or other facilities for cleansing utensils and for the associated supplies of hot and cold water; for provisions relating to temperature control of certain foodstuffs in specified circumstances, specific requirements in relation to certain practices, e.g., smoking in food premises, etc. Not all food premises are covered by the Regulations and it is the intention to supplement the present Regulations by further statutory instruments dealing with special trades or types of food premises.

It was felt desirable in the interests of food traders generally and to assist the officers concerned that standards of enforcement should be uniform over a reasonably wide area. For this purpose a number of meetings were held between the appropriate chief officers of Bolton Corporation and of the surrounding local authorities to discuss the interpretation of the legislation and to establish agreed standards of enforcement.

Following these joint meetings detailed inspections of the town's food premises were commenced and notices served upon the persons concerned. By the end of the year 1,510 premises had been inspected in accordance with Regulations and the survey is still continuing. Table 11 on page 148 illustrates the nature of the contraventions detected in the survey, the figures given being percentages of the total number of premises inspected. It will be seen that by far the commonest defect encountered has been the inadequacy of personal hand washing facilities and as strict cleanliness of the hands is the simplest, cheapest and most effective barrier against food infection, the steps now being taken to ensure the provision of proper hand washing basins with hot and cold water, soap, towels and nail-brushes in situations where they are readily accessible to food handlers when carrying out their routine operations ought to do much to reduce the risk of food poisoning to a minimum, given the full co-operation of the traders and workers in the utilisation of these facilities.

There has, in the past, been considerable criticism from food traders in the town that the Corporation owned markets fell short of the privately owned food premises in the town as regards the provision of sinks and hand washing facilities and it was apparent from the outset that any attempt to bring about higher standards in private premises would meet with strong criticism unless action was also taken by the Corporation to ensure that their own premises conformed to the same standards. During the year the Markets Committee paid a great deal of attention to the problem of equipping the Market Hall and the Ashburner Street Market with improved facilities and ultimately a scheme was evolved on the following lines:—

MARKET HALL:

Stalls handling those foodstuffs which, from a food infection point of view are particularly vulnerable, e.g., snack bars, butchers' shops, etc., were each to be provided with a sink and small wash hand basin.

Each of the other food stalls handling foodstuffs where the risk of infection is comparatively slight to be provided with a wash hand basin only.

ASHBURNER STREET MARKET:

The wholesale fish market stalls each to be provided with a sink and small wash hand basin.

Each stall handling those foodstuffs which, from a food infection point of view, are particularly vulnerable, e.g., cooked meat stalls, shell fish, dairy products, etc., were to be provided with a sink and small wash hand basin.

The other food stalls handling foodstuffs where the risk of infection is comparatively slight to be provided with a wash hand basin only.

Suitably sited sinks and wash hand basins were to be provided for the use of other food stalls.

The above fittings were, of course, to be provided with hot and cold water and proper drainage facilities. This work is now in hand.

Considerable improvements have been effected to many of the stalls by the traders themselves, e.g., by providing improved working surfaces, better screening and protection of foodstuffs, etc. There can be no doubt that the Corporation's policy in providing improved washing facilities has encouraged many of these improvements and that when the scheme is eventually brought to completion the Bolton markets will have a high standard of hygiene.

Generally speaking the response of the private traders to the new requirements has been equally satisfactory although many practical problems have naturally arisen in relation to the installation of new equipment. The cooperation and advice of the inspectors has been given in all these cases and a considerable amount of time has had to be spent in consultations with local plumbers and other craftsmen.

EDUCATIONAL ACTIVITY:

Talks were given by the Chief Public Health Inspector to all the sectional food traders' organisations in the town for the purpose of advising their members as to aims and content of the new Food Hygiene Regulations and for the purpose of answering the many and varied problems faced by their members. There can be no doubt that these informal talks greatly assisted in the subsequent inspections of food premises and in the enforcement of the Regulations.

A number of talks and film shows were also given to other interested organisations.

"Foreign Bodies" in Food:

There were 11 complaints as to the presence of foreign objects in food-stuffs:—

"Cake alleged to contain glass." In this case the presence of glass fragments in a partially eaten cake was alleged. Three whole cakes, a partially eaten cake and a number of fragments of glass were submitted for examination, the glass closely resembling that from a broken electric lamp. No particles of glass were found in the remaining cakes or in the partially eaten cake. A minute search was made in the retail bakehouse concerned to see if any similar glass fragments could be found but this search proved fruitless. It was stated by the occupier that no electric lamps had recently been broken or renewed. The vendor was warned of the occurrence and was also served with a notice regarding contraventions of the Food Hygiene Regulations, 1955, detected during the inspection of his premises.

"Bread containing string." A complaint was received that slices of bread containing "string" had been purchased in a canteen. On examination the "string" proved to be jute fibre of a type used for sewing up flour sacks; some colouring matter of a doubtful origin was also present and subsequent investigation suggested that this might have been dye from a label. An inspection of the flour sieving apparatus at the bakery showed it to be in good order, the sieve itself having recently been replaced by one of finer gauge. It was concluded that the jute fibre had entered the mixing machine immediately below the flour sieving machinery when the sieve had been removed for cleaning. Instructions were given as to the methods to be used when removing and cleaning the sieve; these instructions were carried out and an assurance given that in future the removal and cleaning of the sieve would be supervised by a foreman.

"Bread containing rodent excreta." In this case the bread was found to contain mouse excreta. An examination of the flour sieving machine showed that the gauge of the sieve was too large to retain mouse droppings. Advice was given as to suitable modifications of the plant and these were carried out immediately. There was no evidence of rodent infestation on the premises.

"Orange drink alleged to contain glass." In this case the complainant submitted an empty orange drink bottle and a glass tumbler containing small pieces of glass alleged to have come from the orange drink. Although the neck of the bottle was slightly chipped the fragments of glass did not correspond with this damage nor did the fragments appear to have been derived from such a bottle. No action was taken in this case beyond advising the vendor as to the nature of the complaint.

"Bilberry tart containing insect fragments." The insect fragments were identified as the wings of a "dor" or "dung" beetle which is in flight during part of the year only and is known to infest fruit of this type. The beetle was not easily distinguished from the bilberries and there seemed little doubt that it had been in the bottled fruit when this had been delivered to the vendor. The vendor was requested to exercise greater care in the examination of raw materials before their use for food production.

"Bread containing piece of string." The bread in this case had been purchased locally but had been manufactured outside the borough. Legal proceedings were taken against the manufacturer and a fine of £5 was imposed. The matter was also reported to the local authority in whose area the bakehouse was situated.

"Trifle containing grub." A small trifle purchased locally was found to contain a grub. A thorough inspection of the premises concerned was carried out but no evidence could be found to show how the trifle had been contaminated. A warning was issued to the vendor.

"Tin of tongue containing rubber finger stall." An imported tin of tongue was found to contain part of a rubber finger stall. As this contamination had clearly occurred outside this country the importers were traced and were given a strong warning and requested to take the matter up with the foreign manufacturers with a view to preventing any recurrence of this complaint.

"Sultana scone containing metal nut." The nut had been derived from a mixing machine used in manufacture and had worked loose from the mixing arm immediately above the mixing bowl during use. This machine was being serviced regularly by its suppliers but the owners of the bakehouse concerned made arrangements to have this machine and similar plant used in the bakehouse serviced more regularly.

"Bread containing a dark substance." The dark matter complained of was found to be hardened dough and caramel colouring matter used in the manufacture of brown bread. The premises and plant were examined and found to be generally satisfactory and the vendor was accordingly requested to exercise greater care during production.

"Bread containing dark matter." The bread in question contained dark streaks and chemical examination showed that these were produced by fine particles of grit. A detailed inspection of the bakery and of the methods of production showed that the grit was emitted from an air blowing pipe on the dough proving machine. The management agreed to experiment with the provision of fine gauze screens over the opening in the air pipe to prevent grit being blown on to the dough. As it was necessary to assess the effect of any restriction in the air supply to the machine experiments are being conducted with various gauges of wire gauze in order to determine the best size; these experiments were still continuing at the end of the year.

When investigating complaints regarding foreign bodies in food it is, of course, necessary to view them in relation to the total amount of food prepared or handled and also to bear in mind the record of the firm or trader concerned before deciding on the serious step of recommending legal proceedings for what may perhaps be an isolated occurrence and the result only of thoughtlessness. Nevertheless, the increasing number of cases of this nature, not only in Bolton but in the country as a whole, does indicate a lack of appreciation on the part of many food traders of the seriousness of these incidents and a failure in many cases to foresee such happenings and to take the simple and inexpensive precautions required to prevent them.

Chinese Frozen Eggs:

Mention was made in the report for 1955 that towards the end of that year bacteriological sampling of a large stock of this product held in a local cold store had been commenced although at the end of that year all the samples examined had been reported negative. During 1956 sampling operations

continued and 124 further tins of Chinese frozen egg were examined, bringing the total number of containers sampled up to 172 (equivalent to 5.2% of the original consignment). 21 tins, equivalent to 12.2% of those examined were found to contain salmonella organisms, those found being as follows:—

Salmonella thompson ... 15
Salmonella aberdeen ... 3
Salmonella typhi-murium ... 2
Salmonella newport ... 1

All the infected tins were destroyed by incineration under the supervision of a public health inspector.

In February, 1956, the Health Committee, perturbed by the results of the samples being taken, passed a resolution in the following terms:—

"That the Ministry of Agriculture, Fisheries and Food be informed of the concern of this Committee at the doubtful bacteriological nature of such Chinese frozen eggs, and of the Committee's opinion that steps should be taken to prevent the risk of food poisoning from this source, or alternatively that such foodstuffs should be withdrawn from sale for human consumption."

Nevertheless, releases from the remaining stock of Chinese frozen egg were made to other parts of the country and whenever this occurred the Medical Officer of Health of the district concerned was notified immediately. The balance of the stock amounting in all to more than $1,000 \times 22$ lb. tins was exported to the Continent where it was stated they would be used for manufacturing purposes and would, in the process of manufacture, be completely sterilised.

The bacteriological examinations of this product were undertaken by the staff of the Public Health Laboratory Service at Monsall Hospital, Manchester, in conjunction with the Birmingham Laboratory and the Central Public Health Laboratory for the Ministry of Health from whom came the first intimation that the local consignment might possibly be infected.

Legal Proceedings:

Legal proceedings were taken against a local firm and against their shop manager for exposing meat to contamination. A police officer saw a cat gnawing meat on the shop counter when the premises were closed. The shop manager was found guilty and fined $\pounds 2$, but the summons against his employers was dismissed.

A local grocer was fined £15 for permitting an accumulation of filth in a food room. This case arose out of a sale of rice containing rodent excreta and inspection of the premises showed them to be badly contaminated with rodent droppings. He was also fined £15 for selling rice unfit for human consumption.

Proceedings were taken against an employee in a confectioner's shop who was observed to lick her fingers when serving a cream bun to a customer. A fine of £2 was imposed.

The manager of a fish and poultry store was fined £5 for selling a boiling fowl unfit for human consumption by reason of decomposition,

GENERAL SANITATION

Factories Act, 1937:

There were 1,230 factories which were the subject of 186 inspections, and in 47 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 4 to 7 on pages 144 and 145.

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

There were 178 known lodging-houses within the borough and 83 visits and inspections were made.

The 2 registered common lodging-houses provided accommodation for a total of 189 men at the following premises:—

The Salvation Army Hostel, 96-100 St. George's Road The Church Army Homes, 20 Crompton Street.

Twelve inspections were made.

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 allocation of 375 grants of £8 each was made for the financial year commencing 1st April, 1956. By the end of December, 1956, 286 of these grants had been paid.

Sewage Disposal:

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

During 1956 the sewage treatment plant at Hacken dealt with a total flow of 4,127 million gallons, which represents an average of 11.3 million gallons per day. Six million gallons of this daily flow was given full treatment by the activated sludge process followed by a high rate biological filtration. Tests made on the effluent from these processes showed that out of 174 tests made, 172 were satisfactory. Of the remaining 5.3 million gallons per day which could not be given full treatment only 48 samples were satisfactory out of 175 examined. The Bolton and District Joint Sewerage Board approved conditions for regulating the nature and quantity of trade effluents discharged from six premises into the Bolton sewers.

On the 8th November, 1956, excavation began at Ringley for the construction of the new trunk sewer which will be driven towards Bolton to join up with the main Bolton outfall sewer. This is the first practical step towards the eventual transference of the treatment of Bolton sewage from the Hacken works to a new regional treatment plant to be installed at Ringley. The Bolton sewage will combine in the trunk sewer with the sewage from the areas of seven other local authorities before passing through the treatment plant.

Pet Animals Act, 1951.

Seventeen premises were licensed and 34 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 the cleanliness standards are being observed. There are 16 premises in the borough registered under the Act. During the year the following informal samples of upholstery materials were taken:—

Rag Flock	 	1
Woollen Mixture Felt	 	1
New Grey Hair	 	1
Teased Coir Fibre	 	1

The results of the analyses were satisfactory.

WASHED RAGS:

Twelve samples of cleansed rags were taken at a local factory for the purpose of certifying their bacteriological cleanliness for the purpose of export to certain foreign countries. In all but one case the samples were of a satisfactory standard and certificates of satisfactory sterilisation were issued.

Hairdressing Establishments:

There were 243 hairdressers' premises registered in accordance with the Bolton Corporation Act, 1949, Section 48. Thirty-three 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 191 persons entitled to sell poisons included in Part II of the Poisons List, for the period 1st May, 1956 to 30th April, 1957. A full survey of the premises concerned has been commenced.

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 3 blood specimens were examined during the year. No evidence of typhoid, salmonella or dysentery infection were 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 the raw and filtered water are subjected to full bacteriological examination each week and to full chemical analysis every three months by the Borough Analyst. Special examinations and analyses are made as circumstances require.

During 1956, 250 samples of raw and 253 samples of filtered water received bacteriological examination, and 20 samples of both raw and filtered water received chemical analysis. The results showed that generally filtration and treatment of the raw water were necessary, and that the filtered and treated water was of excellent quality, B. Coli being absent in 98.8% of the filtered water samples tested. Where 100% bacteriological purity was not obtained, a second sample taken immediately proved to be satisfactory. All water is filtered and treated before passing into supply.

From tests made weekly, the final water was shown to have no 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 165,000 and 56,566 dwelling-houses—no supply was afforded to dwelling-houses by stand-pipes.

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

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 8 on page 146.

Disinfestation:

Whenever the public health inspectors visit food preparation establishments, including factory canteens, care is taken to discover whether insect pests are prevalent. In addition, the staff at School Hill have themselves reported verminous conditions discovered in the course of their work as rodent operatives. In every case the services of the Health Department were offered at an appropriate charge for the carrying out of measures for the destruction or eradication of the insect pests. Frequently the occupiers or owners of the premises concerned, because of the nature of their trade enter into an agreement with the Council for regular service to their premises so that at all times the danger of insects being reported in articles of food or in other ways contaminating food is minimised. It is often possible to deal with rodents in the same premises.

An indication of the increasing value of this section of the Department is that the income for destruction of rodents and insect pests has now risen to £2,359 16s. 0d. 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 9 and 10 on pages 146 and 147.

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

The past year, as far as requests for identification have been concerned, has shown a continuation of recent trends inasmuch as the numbers of domestic pests has diminished further and most of the plaster beetles and other small fry which occur in newly-built houses to plague occupants and public health inspectors alike have passed away with the drying out of the property.

The insects we have seen have been mainly from food sources and stem for the most part from stored products which seldom improve in delay from producer to consumer. This seems likely to continue until standards of hygiene at remote sources are brought into accord with those which are beginning to obtain at home. A dor-beetle in a bilberry tart was obviously due to wholesale methods employed in the commercial gathering of the fruit and to its close resemblance in colour to bilberry. Wasps in fruit confectionery suggest the need for better screening but the overall success of higher standards of hygiene and more efficient insecticides is making it difficult to obtain cockroaches for teaching purposes,

New Methods of Pest Destruction:

The use of insecticidal lacquers, particularly where infestations of cockroaches are discovered, has been extended and it has been confirmed that one application of the lacquer is lethal to insects for very many months. The active chemical agent employed is a substance known as dieldrin and the resinous lacquer in which it is contained can be washed or scrubbed but the lethal chemical reappears on the surface in a similar manner to the salt deposit on the external surface of certain types of brickwork.

General Insecticides:

The majority of common insect pests can be dealt with by the use of D.D.T. fortified with pyrethrins or by using BHC (Gammexane) either in powder form or in liquid solutions. In food premises D.D.T. solutions in odourless distillate are employed but there is room for improvement in the type of solvent used by some manufacturers because even though the solutions are reputed to be odourless, sometimes the solution is insufficiently refined and smell is apparent.

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.

One hundred and twenty-eight bodies were received during the year. Post-mortem examinations were carried out on 106, 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	36	166	8	10	-	20	
Scabies	8	17	1	5	1	4	
Body Lice	-	-	-	-	25	-	
TOTALS	44	183	9	15	26	24	

THE WORK OF THE BOROUGH ANALYST

The total number of samples examined in the Borough Laboratories was 4,348—a figure rather more than in the previous year and in line with the general increase which has been noted during the past few years.

The number of foods and drugs submitted was the highest yet recorded during any one year and the proportion of food and drugs found to be adulterated or otherwise unsatisfactory was also higher than for several years—5.4 per cent.

In addition to food and drugs the laboratory staff were responsible for the bacteriological examination of milks, ice creams, dairy utensils, swimming bath waters, etc. The whole of the chemical and bacteriological examinations and other investigations for the Waterworks Committee were also carried out for which service that Committee contributed a proportion of the expenses of the laboratory.

The determination of the amount of atmospheric pollution has been continued and results have been forwarded each month to the Department of Scientific and Industrial Research. A summary of the results is included in this report.

The Food and Drugs Act, 1955, came into operation on the 1st January, 1956, consolidating previous Food and Drugs Acts with new legislation. During the year, a number of Regulations have been made under the new Act by the Minister of Agriculture, Fisheries and Food and the Minister of Health acting jointly. These Regulations have included standards for the fat content of Channel Isles and South Devon milk; Amendment Regulations increasing the limit for lead in curry powder; an alteration of the limits for copper in tomato ketchup, etc.; and compositional requirements for nutrients and chalk in flour.

The Ministers also approved the publication of Reports by the Food Standards Committee on—

- (a) Processed cheese and cheese spread
- (b) Colouring matters in foods
- (c) Revised recommendations for limits for copper
- (d) Sausages
- (e) The use of emulsifying and stabilising agents in foods.

Regulations, however, have not yet been made for the items detailed in these Reports.

Recent legislation and modern methods adopted by food manufacturers have assisted in eliminating most of the crude forms of adulteration which were prevalent in the past, but the work of the food analyst becomes more intricate and exacting in order to comply with modern standards.

The Council have agreed to an increase of one on the establishment of chemists—a necessary step in order to deal with the expansion of the work of the laboratories,

The samples examined during the year were as follows:-

Food and Drugs	1,233
Designated Milk	553
Ice Creams (Bacteriological Examination)	104
Rinses from dairy utensils	82
Atmospheric Pollution samples	827
Domestic and private water supplies	
Swimming bath waters	
Fertilisers and feeding stuffs	20
Miscellaneous examinations	134
	3,088
Samples for the Waterworks Committee	1,134
Samples for other Departments, Authorities, etc.	126
TOTAL	4,348

The growth of the work in recent years is illustrated below:-

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

Food and Drugs Samples:

The total number of samples submitted under the Food and Drugs Act was equivalent to 7.5 samples per 1,000 of population. Of these samples, 67 were adulterated or otherwise unsatisfactory.

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

Particulars of food and drug samples submitted are listed in Table 2 on page 142, and details of the unsatisfactory samples in Table 3 on page 143.

Milk Samples:

The number examined was 901, including 7 "Appeal to Cow" samples.

The Sale of Milk Regulations prescribe a standard of quality for milk. Where the milk fat is less than 3.0 per cent and the non-fatty solids are less than 8.50 per cent, it may be presumed, until the contrary is proved, that the milk has been adulterated by the abstraction of fat or the addition of water.

Milk which does not reach these standards may be naturally poor in quality and it is customary, therefore, when a milk is below the standard, to take further samples direct from the cows and to subject all milks which are low in non-fatty solids, to a freezing point test.

The freezing point test detects the presence of extraneous water, and by this means, added water has been found in 10 samples, whereas 5 other samples were naturally low in non-fatty solids and free from extraneous water.

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

		No. of		SOLIDS-NOT-	
		SAMPLES	FAT %	FAT %	WATER %
1st Quarter, 1956	 	235	3.61	8.89	87.50
2nd Quarter, 1956	 	220	3.58	8.89	87.53
3rd Quarter, 1956	 	221	3.80	8.89	87.31
4th Quarter, 1956	 	225	3.93	8.91	87.16
Full Year	 	901	3.73	8.90	87.37

DESIGNATED MILKS:

Pasteurised Milk and Tuberculin Tested Pasteurised Milk were subjected to a phosphatase test and a methylene blue test, the former being a test of the adequacy of the heat treatment, and the latter a measure of the keeping qualities of the milk.

Sterilised Milk was subjected to a turbidity test which, with a different technique, was also indicative of the adequacy of the heat treatment.

Tuberculin Tested Raw Milk was subjected to an extended methylene blue test.

In the methylene blue test, if the atmospheric shade temperature exceeded 65° F, the test was void.

EXAMINATION OF DESIGNATED MILKS:

Designation	No. Examined	Satis- factory	Failed meth. blue test only	Failed phos. test only	Failed meth. blue and phos. test		Test Void
Pasteurised	240	236	0	1	0	-	3
Tuberculin tested Pasteurised	120	118	0	0	0	0	2
Sterilised	168	168	-	-	-	0	-
Tuberculin Tested Raw	25	23*	1	0	0	-	0
TOTALS	553	545	1	1	0	0	5

^{*1} T.T. Raw Milk was deficient in fat and contained added water.

CLEANLINESS OF MILK BOTTLES AND CHURNS:

Bacteriological examinations of rinses, taken from milk bottles and churns at local dairies, have been carried out using the methods recommended by the Ministry of Agriculture and Fisheries.

Bottles containing more than 600 organisms, and churns containing more than 250,000 organisms were classified as unsatisfactory.

Six of the 73 milk bottles and one of the 9 churns were found to be in an unsatisfactory condition by virtue of containing excessive numbers of organisms.

Coliform organisms were absent in all cases.

Ice Cream Samples:

The hygienic quality of ice cream was assessed by the methylene blue test which is an indirect method of estimating the number of organisms present in the ice cream.

Samples were graded according to the time taken to decolourise the blue solution under prescribed conditions. Only those samples which attained grades 1 or 2 were classified as satisfactory.

Samples were also examined, at the same time, for the presence of coliform organisms.

BACTERIOLOGICAL EXAMINATION OF ICE CREAMS:

	Bolton Mar	nufacturers	Outside Manufacturer		
	Wrapped Ice-Cream	Loose Ice-Cream	Wrapped Ice-Cream	Loose Ice-Cream	
No. of samples of Grade 1 standard	 2	27	31	5	
No. of samples of Grade 2 standard	 3	12	5	_	
No. of samples of Grade 3 standard	 -	9	4	-	
No. of samples of Grade 4 standard	 -	5	-	-	
Test Void	 -	-	1	-	
Totals	 5	53	41	5	

A greater number of retailers appeared to be selling wrapped ice cream manufactured by the larger firms, and in order to avoid duplication of sampling, more attention has again been paid to the sampling of unwrapped products.

Compared with previous years, there has been an appreciable reduction in the proportion of samples classified as unsatisfactory.

CHEMICAL EXAMINATION OF ICE CREAM:

There are legal standards for the chemical composition of ice cream. Under the Food Standards (Ice-Cream) Order, 1953, the minimum standards for ice cream are 5 per cent fat, 10 per cent total sugars (of which 7.5% must be sucrose), and 7.5 per cent milk solids other than fat.

All of 13 samples examined chemically complied with these standards, the average composition being 10.5 per cent fat, 17.7 per cent total sugars (13.3% sucrose), and 12.4 per cent milk solids-not-fat.

Domestic Water Supplies:

In addition to the examination of waters sampled at the filter stations of the Waterworks Committee, samples from domestic premises and from private supplies to farms, etc., have also been examined, and complaints from consumers investigated.

Of the 22 samples examined, 2 were classified as unsatisfactory—one being contaminated with sewage and one contained a slight excess of lead in solution; 3 were classified as suspicious in containing small numbers of coliform organisms; 5 were slightly turbid due to the presence of traces of iron, and the remainder were of a satisfactory standard of purity.

Swimming Bath Waters:

The water in each of the public swimming baths under the control of the Health Committee was subjected to a continuous system of treatment, filtration and chlorination. The water in the plunges was of course expected to be of the same high standard of purity as the drinking supply.

Samples were taken on 113 occasions from the plunges during periods of use by bathers, and upon examination, 7 of the samples showed evidence of some contamination. In each of these cases, the high number of total organisms present coincided with a low chlorine content. Subsequent samples from these sources, after adjustment of the chlorine dosage, were of a satisfactory standard of purity.

Fertilisers and Feeding Stuffs Act:

The 20 samples submitted under the above Act, consisted of 8 fertilisers and 12 feeding stuffs.

Regulations under the Act prescribe limits of variation in composition compared with the Warranty issued with each article. After allowing for such variations, the following discrepancies were found:—

Dried Blood Manure showed an excess of nitrogen.

Raw Bone Meal should have been labelled Bone Meal, Grade II.

Steamed Bone Meal contained an excess of nitrogen and of phosphate.

Calf Mixture was sold without a Warranty.

Pig Food No. 1 showed a deficiency of oil and of fibre.

Pig Food (Sows and Weaners) showed an excess of oil.

Atmospheric Pollution:

Atmospheric pollution investigations include the analyses of the contents of deposit gauges, measurement of active sulphur gases in the atmosphere by means of lead peroxide instruments, and estimation of the smoke and sulphur dioxide concentrations in the atmosphere surrounding the Civic Centre by means of a volumetric apparatus in the Borough Laboratories.

Owing to interference with the deposit gauge and lead peroxide instrument situated at Withins Farm, the apparatus was transferred to a new site at Red Lane School on November 1st. An additional deposit gauge was placed in Heaton Cemetery on June 1st.

The average amount of total deposit in all the gauges showed a slight reduction compared with the results for 1955, and was appreciably lower than those during the preceding six years.

The daily average amount of smoke in the town centre was slightly higher than last year, but lower than the figures obtained before the inception of the smokeless zone.

A summary of the results is given in Tables 12 to 14 on pages 149 and 150.

Miscellaneous Examinations:

FOR THE HEALTH COMMITTEE:

1 bread (contained rodent excreta), 1 canned grape-fruit (no metallic contamination, 1 milk (sour), 1 strawberry jam (low fruit content), 1 toffee (contained nut), 2 dried milk (excess acidity), 1 portion of meat pie (no rodent excreta), 1 canned soup (free from rancidity), 6 grits (volatile matter), 3 cakes (contained glass particles), 3 sliced bread (string), 2 tapiocas (normal), 1 insecticide lacquer, 1 rusk (starch content), 1 sewage effluent, 4 rice (mites), 1 canned pineapple (no abnormalities), 1 rat bait (zinc phosphide and rusk), 1 flour (Vit. C), 3 meat pies, 3 pastries, pie meat and fat, 1 oats (no abnormalities), 6 canned foods (normal), 1 canned mutton (contained rubber finger stall), 1 water (? sewage), 2 soap powders (baths), 8 malted milk (complaints), 1 ground almond substitute, 1 barrier cream, 1 butter (taste normal), 1 bread (contained grit), 2 orange drinks (glass particles), I pie (contained hairs), 6 walnuts (infested with mites, etc.), I candied peel, I whole walnuts, I bread (free from rodent excreta), 1 liquid (urine), 1 wrapping paper, 1 vinegar (contained deposit), 57 waters (to trace cause of flooding).

FOR THE EDUCATION COMMITTEE AND BOLTON SCHOOL:

30 swimming bath waters

FOR THE HIGHWAYS COMMITTEE: 8 effluents, 7 concretes, 2 sewer

solids, cinders

MUSEUMS: 1 mineral
BOLTON DISTRICT GENERAL HOSPITAL: 2 margarines

ATHERTON U.D.C.: 48 atmospheric pollution samples

4 waters

PRIVATE Sources: 12 cleansed rags (for export)

2 cakes and wrappers

2 bread 2 medicines

2 sago

2 waters 1 rice

Sampling for the Waterworks Committee:

Bolton's water supply is mainly from upland surfaces from where it passes into storage reservoirs and thence to various slow sand or pressure filters for treatment, filtration and finally chlorination,

The raw and filtered waters were subjected to frequent bacteriological examinations and tests for plumbo-solvency. The chemical constituents of the waters have not varied appreciably, and consequently complete chemical analyses of the waters have been carried out at less frequent intervals.

A total of 1,134 samples have been examined and reports thereon issued to the Waterworks Engineer.

The methods used for the bacteriological examination of water supplies are contained in a Report (No. 71) issued by the Ministry of Health. The Report also contains recommendations for the classification of drinking waters—"Ideally, all waters intended for drinking should show no coliform bacteria in 100 mils", and 98 per cent of the filtered waters examined during the year have reached that standard.

EXAMINATION OF FILTERED WATERS FOR BACT. COLI:

		Bact.	Probable No. of Bact. Coli per 100 mls. of water			
Source	No. of Samples	Coli Absent	1 to 2	3 to 10	more than 10	
Sweetloves Sand Filters	50	50	0	0	0	
Canastlerias Duoscores Eiltons	50	50	0	0	0	
Harton Cond Filton	53	50	1	1	1	
T. D. I. D	50	50	0	0	0	
Springs Pressure Filters		50	0	0	0	
Cadshaw	49	49	0	0	0	
Daddy Meadows	51	46	0	3	2	
Crowthorne	48	48	0	0	0	
Thirlmere Supply (at Lostock)	49	46	1	0	2	

CHEMICAL EXAMINATION OF FILTERED WATERS—LATEST AVAILABLE RESULTS:

	Sweetloves Sand Filters	Sweetloves Pressure Filters	Heaton Sand Filters	Ferns Park Pressure Filters	Springs Pressure Filters
Total Solids p.p.m.	80	80	90	70	85
Free Ammonia ,,	0.06	0.10	0.00	0.02	0.05
Albuminoid Ammonia ,, -	0.06	0.06	0.04	0.03	0.05
Nitrate Nitrogen "	0.40	0.40	0.90	0.80	0.75
Nitrite Nitrogen "	nil	nil	nil	nil	nil
Chlorine as Chloride ,,	14	13	15	15	13
O = absorbed in 4 hrs. ,,	0.65	0.70	0.65	0.55	0.90
Suspended Matter	nil	nil	nil	nil	nil
Odour	nil	nil	nil	nil	nil
Total Hardness p.p.m.	50	45	80	50	50
Hazen Number	5	<5	<5	<5	5
pH value	6.7	7 · 1	6.9	6.7	8.1
Plumbo-solvency ,,	0.3	0.3	0.3	0.3	0.3
Iron (as Fe) ,,	nil	nil	nil	nil	nil
Aluminium (as Al) ,,	0.50	0.35	0.15	0.20	0.30
Manganese (as Mn) ,,	0.10	nil	<0.10	0.10	0.15
Total Residual Chlorine "	0.12	0.30	0.25	0.20	0.30
Free Residual Chlorine "	0.04	0.04	0.25	0.12	0.06

The analyses have shown that the treatment of the water at the various sources has been effective in producing water of a high standard of purity.

ENVIRONMENTAL HYGIENE—STATISTICAL TABLES

TABLE 1

Proposed Smoke Control Area No. 1

Schedule

Area:	Approximately 58 acres.				
BOUNDED BY:	Higher Bridge Street, Dale Street, Kay Street Waterloo Street, Slater Lane, Turton Str St. George's Street.				
Exclusion:	The premises numbered 12, 12a, 14, 16, 18, 30, 32 Phoenix Street to be excluded from the houses are scheduled for deferred demolialready closed.	he a	rea,	as t	en of
ANALYSIS OF	PREMISES CONTAINED IN THE AREA:				
	of industrial premises				40
	of commercial premises				9
	of combined commercial and dwelling premises				15
	of dwellings				105
	of other premises				21
	of dwellings being built in the area				132
	of dwellings excluded (deferred demolition)				10
					222
	TOTAL	***		***	332
ANALYSIS OF	PRESENT FUEL USAGE:				
	being built in the area and equipped for the	bur	ning	of	
	less solid fuels				132
Premises 1	ourning only smokeless solid fuels				27
Premises 1	burning both smoke producing and smokeless s	olid	fuel	S	21
Premises 1	burning only smoke producing solid fuels				122
Premises 1	ourning only oil fuel				4
Premises 1	ourning no fuel other than gas or electricity				16
	premises to be exempted from the Order				
	Total				332
author	of the premises, including new buildings, using ised fuels				52.7
Proportion author	of the premises, including new buildings, usin ised fuels	g oth	ner ti	han	47.3

METHOD OF CALCULATION AND ESTIMATE OF SOLID SMOKELESS FUELS REQUIRED PER ANNUM:

	REQUIRED PER ANNUM:		Torrelannun
			Tons/Annum
	105 Occupied dwelling-houses (average require	ment 3 tons)	315
	132 New dwelling-houses ,, ,,	,,	396
	39 Other premises at present using 335 tons o	f gas coke an	d
	117 (11.		150
	40 Industrial premises at present using 1,669 to	ons of gas cok	e
	and 4,712 tons of bituminous coal in addi		
	ganono or various grades or race on		
	Total		7,544
	D	orrowro 0.	
		OMESTIC &	
	CC	MMERCIAL	Lamazomnaa
	To	ETC.	INDUSTRIAL TONE (AND INC.)
		NS/ANNUM	Tons/annum
1.	Present annual tonnage of bituminous coal	460	4.710
12.77	and other smoky fuels (excluding oil)	462	4,712
2.	Annual tonnage under (1) not to be replaced	30	Nil
3.	Annual tonnage to be replaced	432	4,712
	A 1 12 1 1 1 1 1 1 (2) 1	-	-
4.	Additional fuels required to replace (3) above:	100000000000000000000000000000000000000	124-19922
	Solid smokeless fuels for open fires	432	170
	Solid smokeless fuels for stoves and		
	boilers including coke, I.B.F., coke-		
	breeze, anthracite and low volatile		
	steam coals	Nil	4,542
5.	Additional fuels required for new buildings:		
	132 new dwelling-houses (average re-		
	quirement three tons p.a.)	396	_
6.	Present annual tonnage of smokeless fuels	335	1,669
7.	Overall future annual requirements	1,163	6,381
	GRAND TOTAL	7,54	14
		_	_
Dr	OVISIONAL ESTIMATE OF COSTS OF ADAPTATIONS	Driver	Howere
TR		IN PRIVATE	HOUSES
	WHICH WOULD QUALIFY FOR GRANT:		
	Houses owned by Bolton Corporation:		
	Adaptation of seventy-one existing combinat	ion ranges in	cluding £
	the provision of means for gas ignition of sme	okeless fuel	1,075
	Four houses need no adaptation.		
	Houses owned by persons other than Bolton C	orporation:	
	Adaptation or renewal of sixteen combination	ranges and	twenty-
	four other fire grates including provision of m	eans for gas i	gnition.
	Provision of two gas or electric cookers.		THE STATE OF THE S
	Provision of means for gas ignition to six fire	grates	1,175
	Total		2,250
			-

Domestic premises and com qualifying for 70% repa of reasonable cost of ne	yment b	y Bolte	on Corp	oration is	n respect	t
Premises qualifying for 40 Exchequer Grant				on Corpo		. 120
SUMMARY OF FUEL BURNING I	PLANTS I	n Indu	JSTRIAL	PREMISES	:	
				FIRED V	VITH:	
		(COAL	Соке	OIL	TOTAL
Horizontal shell type boile	rs		3	4	Nil	7
Vertical shell type boilers			3	Nil	2	5
Cast iron section boilers			13	15	2	30
			FIRE	D WITH:		
	COAL	COKE	OIL	GAS	ELEC.	TOTAL
Large bread-baking units	-	-	2	-	-	2
Small furnaces of various types	1	14	-	1	2	18

TABLE 2
Samples of Food and Drugs Submitted

									UNSATIS-
							TOTAL	GENUINE	FACTORY
Milk							901	876	
									25=2.8%
Almonds (Grou							5	5	-
Beef Suet	0.00						2	2	-
Beer							6	6	-
Butter							18	18	-
Cereals							29	19	10
Cheese, Cheese	Spread	d, et	c.				6	6	THE PERSON NAMED IN
Chewing Gum							5	5	-
Christmas Pudd	ing						4	4	-
Coffee	_						6	6	1000-
Coffee and Chic							3	3	_
Condensed Mill							8	4	4
Cream							6	6	
Currants, Raisir						****	15	1	14
Dried Fruits							13	7	14
The state of the s	7.7.7						26	24	-
Drugs							36	34	2
Fish (Canned or	Bottle	ed)					3	3	7
							4	4	
Fish Paste, etc.							3	3 2	-
Flour and S.R I	Flour		***				2		-
Honey							4	4	-
T 0							13	13	-
Ice-Cream Powe							5	-	5
Jelly							8	7	1
Lard							9	9	
Luncheon Meat							5	5	
Margarine							6	6	
							1	1	
							1	1	111111111111111111111111111111111111111
Meat Pies				• • • •	***		0	6	7.55
Mincemeat							3	3	-
Mint and Mint	Sauce						2	2	
Nuts							6	2	4
Nuts and Raisin	S				***		1	1	-
Orange Drinks							4	4	-
Pepper							4	4	-
Preserves							5	5	-
Salad Cream and	d May	onn	aise				4	4	
Sausages	u 1,144,	OIIII	4100				23	21	2
Sausage Rolls							3	3	-
Soft Drinks							10	10	
			• • • •				6		
Spices					***		1000	6	
Spirits							10	10	
Sweets and Cho					***		2	2	
Tea							6	6	ALTO STATE OF THE PARTY OF THE
							4	4	-
Miscellaneous F	oods				***		14	14	-
							-		
	TOTAL	S			***		1,233	1,166	67=5.4%

Unsatisfactory Samples of Food and Drugs

MILK:

- 25 samples were reported as adulterated or otherwise unsatisfactory.
- 10 of these were deficient in fat, in amounts varying from 3.7 to 26.0 per cent.
 - 8 contained added water in amounts between 1.5 and 10.2 per cent.
- 2 contained added water and were also deficient in fat (0.6% added water and 6.0% deficient in fat: 1.1% added water and 1.9% deficient in fat, respectively).
- 4 samples, sold as Pasteurised or T.T. Pasteurised Milks, were insufficiently pasteurised or admixed with raw milk.
- 1 sample, sold as Raw Milk, had been heat treated.
- CONDENSED MILK (Unsweetened): 4 samples were deficient in milk fat (from 3.3 to 8.9 per cent), and also in total milk solids (from 9.8 to 11.6 per cent).
- CEREAL SOUP MIXTURE: I sample, a pre-packed article, contained no label with a list of ingredients, and also contained a small number of mites.

 I sample was infested with mites and was unfit for human consumption.
- CEREALS: 2 samples of rice, 3 samples of sago and 3 samples of tapioca were all infested with mites and were unfit for human consumption.
- CURRANTS AND SULTANAS: 1 sample of currants and 13 of sultanas (from one source), were all infested with mites, moulds, insect fragments and/or larvae, ova, rodent hairs or webbing. All were unfit for human consumption.
- ICE-CREAM POWDER: 5 samples, all taken from damaged containers, had acidities slightly in excess of normal.
- SAUSAGES (PORK): 2 samples were deficient in meat, containing 57 and 45.2 per cent total meat respectively, instead of not less than 65 per cent.
- TABLE JELLY: 1 sample did not comply with the "setting test" prescribed in the Table Jellies Order.
- WALNUTS (SHELLED): 4 samples were infested with mites, insect fragments and larvae or rodent hairs, rendering them unfit for human consumption.
- BORAX: 1 sample did not comply with B.P. limits (Crystalline Borax=112 per cent).
- Boric Acid: 1 sample contained a slight excess of sulphate (515 p.p.m. instead of not more than 333 p.p.m.).

Factories Act, 1937 Places of Employment Defects Found

	Numl				
			Refe	No. of cases in which	
Particulars	Found	Remedied	to H.M. Inspector	by H.M. Inspector	prosecu- tions were instituted
Want of Cleanliness (S.1)	2	2	-	-	-
Overcrowding (S.2)	-	-	- 10	-	-
Unreasonable temperature (S.3)	-	-	-	-	-
Inadequate ventilation (S.4)	1	1	-	-	-
Ineffective drainage of floors (S.6)	-	-	- 1	-	-
Sanitary Conveniences (S.7):— (a) Insufficient (b) Unsuitable or defective (c) Not separate for sexes	1 64 2	28 1	1111		
Other offences against the Act (not including offences relating to Outwork)	-	-	-	-	-
Totals	70	32	-	-	-

TABLE 5
Factories Act, 1937
Outwork (Sections 110 and 111)

		Section 110		Section 111					
Nature of Work	No. of Outworkers in Aug. list required by Sect. 110	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 unwhole- some premises	Notices served	Prosecu- tions			
Wearing (Making etc.) apparel	12	-	-	-	-	-			
Furniture and Upholstery	19	-	-	-	- 1	-			
Brush making	5	-	1112	-	-	-			
Stuffed Toys	1	-	-	-	-	-			
TOTALS	37	-	-		-	-			

Factories Act, 1937 Places of Employment—Improvements Secured

Cleanliness improved				 	 4
Temperature improved				 	 _
Sanitary Accommodation:-					
Additional accommodati	on j	provi	ded	 	 2
Accommodation improve	ed			 	 31
Accommodation reconst	ruct	ed		 	 _
Ventilation improvements				 	 1
Drainage improvements				 	 5
Miscellaneous improvements		***		 	 25

TABLE 7

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

	Number	Num	ber of	Occupiers	
Premises	on Register	Inspec- tions	Written Notices	Prosecuted	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	112	24	5	-	
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	1,034	161	42	-	
(iii) Other premises in which Section 7 is enforced by the Local Authority * (excluding outworkers' premises)	35	1	_	_	
TOTALS	1,181	186	47	-	

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

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TABLE 8
Disinfection

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	75	1	76
Beds	95	-0.24	95
Rooms	57	-	57
Articles	638	42	680
Articles Destroyed	50	-	50

The 75 premises disinfected free of charge were for the following reasons:—

Tuberculosis				37	Cancer				 8
Dysentery				5	Venereal	Dis	ease		 1
Suspected Po	liom	velit	is	1	Vermino	us c	ondit	ions	 23

TABLE 9
Disinfestation

	Nur	Number of Premises Disinfested						
Infestation by	Domestic Premises	Business & Industrial	Hospitals	Schools	Total			
Bed Bugs	43	-	-	-	43			
Cockroaches	112	180	4	2	298			
Fleas	15	5	-	-	1			
Golden Spider Beetles	6	3	-	-	9			
Wasps	3	-	-	-	3			
Wood Lice	4	1	-	-	5			
Body Lice	2	-	-	-	2			
Silver Fish	-	-		1	1			
House Fly	2	63	-	-	65			
General Disinfestation	47	1	-	-	48			
Others	4	1	- 0		5			

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

		Түр	E OF PROPE	ERTY				
	Local Authority	Dwelling Houses	Agri- cultural	All other (including Business and Industrial)	Total			
I. Total number of properties in Local Authority's District	156	56,446	102	8,892	65,596			
II. Number of properties inspected by the Local Authority as a result	(a) 61	610	16	225	912			
Authority as a result of (a) notification or (b) otherwise	(b) 90	332	139	3,938	4,499			
III. Number of properties (under II) found to be	Major 11	4	4	18	37			
infested with rats	Minor 28	391	10	138	567			
IV. Number of properties (under II) found to be seriously infested with mice	33	250	-	357	640			
V. Number of infested pro- perties (under III and IV) treated by Local Authority	56	498	15	356	925			
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 fol- lowing issue of notice under Section 4								
VIII. Legal Proceedings			Nil					
IX. Systematic control of blocks of buildings			197					

Food Hygiene Regulations, 1955 Summary of Contraventions found during Survey

Floors—Structural defects 25 —Defective floor coverings 15 —Lack of cleanliness 29 Walls—Structural defects 15 —Lack of cleanliness 62 Ceilings—Structural defects 6 —Lack of cleanliness 54 Defective doors 14 Windows—Defective 11 —Lack of cleanliness 17 Inadequate lighting—Natural 2 —Artificial 8 Inadequate ventilation 16 Inadequate personal washing facilities 78 Sinks for cleansing of utensils, equipment, etc.—Inadequate 7 Defective 14 Inadequate hot water supplies 20 Benches defective 41 Defective yard surfaces 11 Refuse accommodation—inadequate or defective 19 Drainage defects 10 Inadequate proofing of premises against rodents 3 Sanitary accommodation—Inadequate 3 —Defective 20 —Lack of cleanliness 23 <t< th=""><th>Contravent</th><th>TION</th><th></th><th></th><th></th><th></th><th>of I</th><th>CENTAGE PREMISE SPECTED</th></t<>	Contravent	TION					of I	CENTAGE PREMISE SPECTED
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Walls—Structural defects 62 Ceilings—Structural defects 64 —Lack of cleanliness 54 Defective doors 54 Windows—Defective 11 —Lack of cleanliness 17 Inadequate lighting—Natural 2 —Artificial 8 Inadequate ventilation 16 Inadequate personal washing facilities 78 Sinks for cleansing of utensils, equipment, etc.—Inadequate 7 Defective 14 Inadequate hot water supplies 20 Benches defective 41 Defective yard surfaces 11 Refuse accommodation—inadequate or defective 19 Drainage defects 10 Inadequate proofing of premises against rodents 3 Sanitary accommodation—Inadequate 3 —Defective 20 —Lack of cleanliness 23 —Absence of first aid kit 38 Absence of clothes lockers, etc. 14 "Hand washing" notices not displayed 6 Food exposed to contamination by domestic animals 26 Food otherwise exposed to contamination 34 Lack of cleanliness of shelves, equipment, etc. 31	—Defective floor coverings	3						15
—Lack of cleanliness62Ceilings—Structural defects6—Lack of cleanliness54Defective doors14Windows—Defective11—Lack of cleanliness17Inadequate lighting—Natural2—Artificial8Inadequate ventilation16Inadequate personal washing facilities78Sinks for cleansing of utensils, equipment, etc.—Inadequate7Defective14Inadequate hot water supplies20Benches defective41Defective yard surfaces11Refuse accommodation—inadequate or defective19Drainage defects10Inadequate proofing of premises against rodents3Sanitary accommodation—Inadequate3—Defective20—Lack of cleanliness23—Absence of artificial lighting22Absence of clothes lockers, etc.14"Hand washing" notices not displayed6Food exposed to contamination by domestic animals26Food otherwise exposed to contamination34Lack of cleanliness of shelves, equipment, etc.31	—Lack of cleanliness							29
Ceilings—Structural defects 6 —Lack of cleanliness 54 Defective doors 14 Windows—Defective 11 —Lack of cleanliness 17 Inadequate lighting—Natural 2 —Artificial 8 Inadequate ventilation 16 Inadequate personal washing facilities 78 Sinks for cleansing of utensils, equipment, etc.—Inadequate 7 Defective 14 Inadequate hot water supplies 20 Benches defective 41 Defective yard surfaces 11 Refuse accommodation—inadequate or defective 19 Drainage defects 10 Inadequate proofing of premises against rodents 3 Sanitary accommodation—Inadequate 3 —Defective 20 —Lack of cleanliness 23 —Absence of artificial lighting 22 Absence of clothes lockers, etc. 14 "Hand washing" notices not displayed 6 Food exposed to contamination by domestic animals 26 Food other	Walls—Structural defects							15
—Lack of cleanliness	—Lack of cleanliness							62
Defective doors	Ceilings—Structural defects	***						6
Windows—Defective	—Lack of cleanliness							54
—Lack of cleanliness	Defective doors							14
Inadequate lighting—Natural 2 —Artificial 8 Inadequate ventilation 16 Inadequate personal washing facilities 78 Sinks for cleansing of utensils, equipment, etc.—Inadequate 7 ——Defective 14 Inadequate hot water supplies 20 Benches defective 41 Defective yard surfaces 11 Refuse accommodation—inadequate or defective 19 Drainage defects 10 Inadequate proofing of premises against rodents 3 Sanitary accommodation—Inadequate 3 ——Defective 20 ——Lack of cleanliness 23 ——Absence of artificial lighting 22 Absence of first aid kit 38 Absence of clothes lockers, etc. 14 "Hand washing" notices not displayed 6 Food exposed to contamination by domestic animals 26 Food otherwise exposed to contamination 34 Lack of cleanliness of shelves, equipment, etc. 31	Windows-Defective							11
—Artificial	—Lack of cleanliness							17
Inadequate ventilation	Inadequate lighting—Natural							2
Inadequate personal washing facilities	—Artificial							8
Sinks for cleansing of utensils, equipment, etc.—Inadequate Defective	Inadequate ventilation							16
Inadequate hot water supplies	Inadequate personal washing faci	lities						78
Inadequate hot water supplies	Sinks for cleansing of utensils, equ	iipme	ent, e	tc	-Inac	lequ	ate	7
Benches defective								14
Defective yard surfaces	Inadequate hot water supplies							20
Defective yard surfaces	Benches defective							41
Refuse accommodation—inadequate or defective								11
Drainage defects								19
Inadequate proofing of premises against rodents								10
Sanitary accommodation—Inadequate								3
—Defective		-						
—Lack of cleanliness								
Absence of first aid kit								
Absence of first aid kit	—Absen	ce of	artif	icial	light	ting		22
Absence of clothes lockers, etc						100		
"Hand washing" notices not displayed 6 Food exposed to contamination by domestic animals 26 Food otherwise exposed to contamination 34 Lack of cleanliness of shelves, equipment, etc 31								
Food exposed to contamination by domestic animals 26 Food otherwise exposed to contamination 34 Lack of cleanliness of shelves, equipment, etc 31								
Food otherwise exposed to contamination 34 Lack of cleanliness of shelves, equipment, etc 31								
Lack of cleanliness of shelves, equipment, etc 31								

TABLE 12
Atmospheric Pollution—Deposit Gauges

	Average Total Monthly Deposit (Tons per square mile)						
Site	1951	1952	1953	1954	1955	1956	
Withins Farm/Red Lane	25·1 17·2 24·4 21·3 29·3 23·8	22·7 16·5 19·5 19·1 30·0 20·8	21·5 15·5 23·8 18·8 27·4 21·9	26·0 16·9 23·1 18·1 33·4 25·4	22·1 12·4 20·5 15·8 26·4 14·8	20 · 2 13 · 3 20 · 3 17 · 1 23 · 0 16 · 6	
Average of 6 Districts	23 · 5	21.4	21.5	23 · 8	18.7	18 - 4	

TABLE 13

Daily averages of Smoke and Sulphur Dioxide by

Volumetric Estimation (Civic Centre)

1956	Smoke (mgms. per cub. metre)	Sulphur Dioxide (parts per million)		
January	0.447	0.162		
February	0.353	0.156		
March	0.196	0.093		
April	0.207	0.090		
May	0.135	0.077		
June	0.100	0.067		
July	0.070	0.042		
August	0.156	0.061		
September	0.169	0.075		
October	0.325	0.129		
November	0.425	0.137		
December	0.554	0.170		
Daily Average:—				
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 14

Atmospheric Pollution
Estimation of active Sulphur gases by Lead Peroxide Method

					Mgms. of	SO ₃ per 100 sq. cm	ns. per day
	1	956			Havercroft	Withins Farm or Red Lane	Civic Centre
January					 2.59	4.12	4.70
February					 2.57	3.14	4.78
March					 3.91	2.75	3.57
April					 1.74	-	3.20
May					 1.07	_	2.20
June					 0.62	2.05	2.03
July					 0.62	1.60	1.14
August					 0.69	_	2.04
September					 1.32	-	2.39
October					 1.58	-	3.34
November					 2.00	4.45	4.19
December					 2.75	5.16	4.24
Monthly A	vera	re.					
1956		50.	1023		 1.79	3 · 32 (7 mths)	3.15
1955					1.66	2.83	3.14
1954					 1.63	2.40	2.90

PART V

ADDITIONAL INFORMATION

A Survey of Old People

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 SURVEY OF OLD PEOPLE

The Geriatric Liaison Committee, with representatives from the hospital and local authority services, when considering the extent of the provision of services for elderly patients, found that there seemed to be insufficient evidence and suggested that a survey of a selected number of elderly persons might provide information of value in planning the institutional and domiciliary services for old persons. Accordingly, an enquiry was promoted.

The enquiry falls into two parts:-

- 1. An enquiry by health visitors into the circumstances of the elderly.
- 2. An enquiry by a consultant physician into the difficulties of those requiring social or medical help.

The Sample:

The sample was selected by taking every twentieth name on the Register of Electors, and visiting all those who had declared themselves as over 60 in the case of women and 65 in the case of men. It is therefore subject to the limitations resulting from sampling from the Electoral Roll, and in particular those caused by reliance on a declaration of age made for another purpose.

Health visitors completed a simple enquiry form and an analysis has been made of all those relating to persons of either sex who declared themselves as over the age of 65 and who at the time of the enquiry were living in the Borough.

The enquiry is also subject to the limitations resulting from visits by a number of health visitors and to some difficulties arising from the time taken to complete both these visits and those subsequently of the geriatric physician.

A total of 612 forms was completed, but 71 of these related to women between the ages of 60 and 64. These were therefore excluded.

The enquiry therefore relates to 541 persons.

The following table gives an analysis of the sample by age and sex.

SAMPLE

Age Group	Males	Females	TOTAL	
65 - 69	104	107 85	211 132	
70 – 74 75 – 79	47 40	61	101	
80 - 84 85 - 89	17	37	54 19	
90 – 99 Not disclosed but over	1	-	1	
pensionable age	13	10	23	
TOTALS	231	310	541	

Comparison has been made between the age and sex distribution of persons over 65 as shown by the 1951 census and the distribution within the sample. The following table shows, both for males and females, the number and percentage of the total of each sex in each of the age groups, compared with the 1951 Bolton census figures.

		М	en		Women			
	Sample		1951 Census		Sample		1951 Census	
Age Group	No.	% of total	No.	% of total	No.	% of total	No.	% of total
65 - 69 70 - 74 75 - 79 80 - 84 85 - 89 90 - 99 Not disclosed	104 47 40 17 9 1	45·0 20·4 17·3 7·4 3·9 0·4 5·6	2,987 2,339 1,374 513 120 16	40·6 31·8 18·7 7·0 1·7 0·2	107 85 61 37 10	34·5 27·4 19·8 11·9 3·2	4,430 3,441 2,171 921 270 55	34·51 27·42 19·68 11·93 3·23 3·23
TOTALS	231	100.0	7,349	100.0	310	100.0	11,288	100 · 0

The following table shows the percentage of males and females in each of the age groups, compared with the 1951 census:—

	San	nple	1951 Census			
Age Group	% Men	% Women	% Men	% Women		
70 - 74 75 - 79 80 - 84	49·3 35·7 39·6 31·5 47·4	50·7 64·3 60·4 68·5 52·6	40·3 40·5 38·7 35·8 30·8 22·1 33·4	59·7 59·5 61·3 64·2 69·2 77·9 66·6		

Although, therefore, the sample does not indicate a sex age structure exactly similar to the 1951 census, it would appear to be approximate to the probable age and sex structure of the population of elderly persons in Bolton in 1956.

Health Visitors' Enquiry:

Health visitors made enquiries as to whether elderly persons were living alone or with relatives or companions, and the following table shows the number and percentage of men and women found to be living alone in each of the age groups.

LIVING ALONE

		1	Men	Women		
Age Gr	oup	No.	% of total sample	No.	% of total sample	
65 - 69 70 - 74 75 - 79 80 - 84 85 - 89 90 - 99 Not disclosed	:: ::	14 5 8 2 - - 3	2·6 0·9 1·5 0·4 - 0·55	44 26 20 14 3 -	8·1 4·8 3·7 2·6 0·55	
Totals		32	5.95	110	20.3	

If these figures are applied to the population of Bolton (which according to the 1951 census was 167,162), this would indicate that 4,605 women and 1,016 men over 65 are living alone. For the purposes of this enquiry the definition means "persons who have no other person habitually sleeping in the house." No account has been taken of the many versions of help given by neighbours and relatives living in the same neighbourhood and it can be argued that many of these people are not completely alone due to the help they are receiving from other sources. They do not, however, have other persons regularly sleeping in the house.

THOSE THOUGHT TO BE IN NEED OF CARE:

The persons in this group, who were selected because the health visitors considered some form of social care was needed, amount to 31 men and 40 women. The age distribution is shown in the following table.

IN NEED OF CARE

Age Grou	р	Men	Women
65 - 69		8 7	6
70 – 74 75 – 79	: ::	11	6 9
80 - 84		2	12
90 - 99		-	-
Not disclosed .		2	1
TOTALS .		31	40

Consultant's Enquiry:

These cases were all visited by the Consultant Physician in charge of a Geriatric Unit, who made his assessment concerning those requiring institutional care (either in hospital or hostel). The following table gives the results.

Age Group		Requiring Ins	stitutional Care	Not requiring Institutional Ca		
			Men	Women	Men	Women
65 - 69 70 - 74			1 2	1	7	5
75 - 79		 	2	4	9	5
30 - 84 35 - 89			1	2	1	10
00 - 99				3	1	-
Not disclo	sed	 	2	1	-	-
To	TALS	 	9	14	22	26

Of those requiring institutional care, the following table shows the number needing admission to hospital.

HOSPITAL NEED

Age Group	p	Men	Women
65 - 69		1	1
70 – 74 · · · · · · · · · · · · · · · · · ·		1	1
80 - 84		î	2
85 - 89		-	1
	: ::	1	1
TOTALS .		6	6

If these figures are applied to the population of Bolton there would be a need for 191 beds for men over 65 and 218 for women of the same age.

The following table shows the number of persons in each sex and age group who are thought to require accommodation under Part III of the National Assistance Act, 1948,

HOSTEL NEED

Age Gre	oup	Men	Women
65 - 69		-	-
70 – 74 75 – 79		i	4
80 - 84		-	1
85 - 89 90 - 99		_	1
Not disclosed		1	-
TOTAL	S	3	8

If these figures were applied to the population of Bolton there would be a need for accommodation under Part III of the National Assistance Act for 95 men over 65 and 291 women of the same age. In considering institutional care both in hospital accommodation for the chronic sick and in accommodation provided under Part III of the National Assistance Act it is difficult to differentiate between those needing admission to hospital and those who are extremely frail but could manage in old persons' homes and therefore it is thought desirable to consider the problem as a whole. If this argument is accepted, the figures if applied to the whole of the population of Bolton would mean a need for 286 beds for men over 65 and 509 beds for women of the same age.

Cases in the community requiring help:

A total of 22 men and 26 women were thought to be in need of help in the community. Of these, 8 of the men and 13 women were living alone, that is, without another person sleeping in the house.

	Total Persons	Living alone	Re- quiring District Nurse	Re- quiring Home Help	Requiring Ground Floor Accom- modation	Living in In-	Re- quiring Chirop- ody	Re- quiring Super- vision	Re- quiring occa- sional help
MALES 65-69 70-74 75-79 80-84 85-89 90-99	7 4 9 1 1	2 2 4 - -	1	1 2 7 - -	1 1 1 - -	2	- 2 - - -	1 - 1 1 1	1 - - - -
	22	8	1	10	3	2	2	4	1
Females 65-69 70-74 75-79 80-84 85-89 90-99	5 3 5 10 3 -	1 1 2 7 2 -	1 - 1 1 - -	1 1 3 6 2 -	2	1	-	- 2 1 4 1 -	= = = = = = = = = = = = = = = = = = = =
	26	13	3	13	2	1	-	8	-
TOTALS	48	21	4	23	5	3	2	12	1

DISTRICT NURSING:

Only 4 persons required the services of the district nurses for nursing in their own homes. It is thought that these figures are too small for useful conclusions to be drawn on the demand for the district nursing service.

HOME HELP:

Twenty-three persons in the survey required the services of a home help. If the figures are applied to the population of Bolton as a whole this would mean a need for home help service for 791 persons over the age of 65 years; 473 of these would be men and 318 women.

In 1956 the Home Help Service was in actual fact providing help for 859 chronic sick persons which included the aged and infirm.

Housing:

Five persons were considered to require housing in ground floor accommodation. If this figure is applied to the population of Bolton as a whole, this would mean accommodation in ground floor housing for 168 persons over 65 years of age.

LIVING IN INSANITARY HOUSES:

It was found that 3 persons were in desperate need of rehousing, not on the grounds of frailty, but because their houses were completely insanitary. All of these could be rehoused in normal property and did not require special accommodation, bungalows or flats because of their condition.

CHIROPODY:

It was found in the survey that only two men required chiropody. This figure is obviously too small to make any estimate of the need for a chiropody service for the elderly.

SUPERVISION:

Twelve persons were found to require supervision only without the provision of any other service at present. If this figure was applied to the population of Bolton as a whole, it would mean supervision for 418 persons over 65 years of age.

OTHER FINDINGS:

In one case it was found that there would be a need from time to time for the services of the district nursing and home help sections but as enquiry had not been made on this point, it is impossible to draw any conclusions from this fact.

FINANCIAL HARDSHIP:

No enquiry was made concerning the financial circumstances of elderly people but it is interesting to note that 106 elderly persons complained bitterly about the difficulty of making ends meet and convinced the health visitors that their difficulties were real. I am certain that if the enquiry had been directed to this point, much more information could have been gathered and that this number might have been somewhat higher.

Summary:

- The sample has been compared with the 1951 Bolton census figures and it would appear that within the limitations noted above, the sample is reasonable.
- 2. Over 4,600 women and over 1,000 men of 65 years of age and over are living alone in Bolton. The definition 'living alone' applies to those who have no one else regularly sleeping in the house.
- 3. Seventy-one persons out of the sample of 541, that is to say 13% of the sample, needed some care and attention however slight, based on the health visitor's assessment. The other 87% of people over 65 years of age were apparently managing perfectly satisfactorily.
- 4. Twenty-three persons out of the total sample, that is 4.3%, required institutional care and the needs seem to be approximately equally divided as between hospital and hostel.
- 5. For the population of the County Borough of Bolton, it would seem, therefore, that hospital beds for 191 men and 218 women over the age of 65 were required. For the same population it would also appear that hostel accommodation is required for 95 men and 291 women over the age of 65.
- 6. It is difficult to differentiate at times between those requiring hospital and those requiring hostel accommodation and it may be useful to consider the institutional need as a whole in which case the need is for 286 beds for men and 509 beds for women in the 65 plus age group.

- 7. The combined enquiry of consultant and health visitor revealed that 8.7% of old people living at home required some sort of community care. It is interesting to note that nearly half of this group were living alone which is a far greater proportion than in the sample group as a whole.
- 8. With regard to the need for home help, it would appear that the service at present being supplied is meeting the needs. It must be remembered, however, that there is always a seasonal demand for Home Help Service and at times in the year there may be a strain on the service.
- With regard to the other community care needs, it is not felt that the sample was sufficiently big enough to reach any definite conclusions.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

The medical officers undertook 1,445 examinations involving 1,415 persons. A summary is given below:—

		persons nined	No. of persons found unfit		
Examination for—	Males	Females	Males	Female	
Entry into Superannuation Scheme	464	144	9	2	
Entry into Sickness Payment Scheme	148	303	13	4	
Other medicals, e.g. Fitness to resume employment	4	1	2	-	
Retirement on medical grounds	15	2	15	2	
Surrender of part of Retirement Pension	2	-	-	-	
Fitness to be employed as a teacher	46	41	=	-	
Fitness for admission to a Training College	101	80	-	-	
Fitness to teach after leaving the Bolton Technical Training College	77	12	-	-	
Medical examinations carried out at the request of other Local Authorities	2	3	-	-	
TOTALS	859	586	39	8	

Included above are 12 incomplete examinations, i.e. where it was found that a decision had to be deferred and the person concerned had resigned before attending for a further medical examination.

The medical officers referred 204 of these persons to Mass Radiography Units; 44 because their employment involved working with children, 143 because they were training college students or were awaiting admission to a training college, and the remainder for medical reasons. One person was sent for X-ray to the Bolton Royal Infirmary on the request of the Medical Officer of Health for the County of Kent.

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 Payment Schemes to be found unfit is shown below:—

		nnuation eme	Sickness Payment Scheme		
Abnormality	Males	Females	Males	Females	
Cardiovascular disease (including hypertension)	2	-	4	2	
Diseases of Respiratory System	1	1	-	_	
Defective colour vision in drivers	2	-	-	-	
Disease of the Skin	-	1	2	-	
Disease of the Nervous System (including mental illness)	2	_	2	_	
Disease of the Ear	1	-	1	-	
Diseases of the Nose and Throat	-	-	1	1	
Severe Varicose Veins	-	-	2	-	
Disease of Kidney	1	-	-	-	
Disease of Abdomen	-	-	1	1	
TOTALS	9	2	13	4	

NATIONAL ASSISTANCE ACT, 1948—SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

Powers exist under Section 47 of the National Health Service Act, 1948 (as amended) for the compulsory removal of persons in need of care and attention to a hospital, or to accommodation provided under Part III of the National Assistance Act. Such action is only taken as a last resort when a patient is in an advanced stage of neglect, or suffering from grave chronic disease and in great need of institutional care but is unwilling, in spite of argument, to go voluntarily. On only two occasions was this necessary this year.

Action taken under the Act:

The first case was a spinster, stated to be 89 years of age, living alone, who had been known to the Health Department since the previous year and who had received for some time only the care and attention her neighbours could provide. Her condition deteriorated considerably, until it was obvious that even with all the help that could be given by the neighbours and by the domiciliary services, her condition at home would be unsatisfactory. When seen she was sitting in a chair at the side of the fire which had been lit by a neighbour. There was no fireguard. She was exceedingly dirty, and apparently only the dirty room in which she lived was used in the house. The remainder of the rooms had obviously not been cleaned for some time. She could move around the room but needed to feel the chair before she could lower herself into it. She was also very deaf. She had the unfortunate habit of emptying her chamber pot into the sink. Her neighbour, who did her very best for her and provided her with a certain amount of food as well as some care, stated that on three

occasions she had come in and found the gas tap on the gas stove still on and the gas unlit. The patient refused to go into suitable accommodation. She also refused the services of the district nurse for bathing, and that of a home help to assist her with the house work. Her only relative lived some distance away and had not been to see her for some time. It was impossible to secure her agreement, even after extensive argument, and regretfully, therefore, she was removed compulsorily to accommodation provided under the National Health Service Act at the Townleys Branch of the Bolton District General Hospital. She lived there for some months and then died.

The second case was that of a man aged 51. He had originally been seen the year previously and this time was visited at the request of the district public health inspector and the police. Complaints had been made by shop keepers concerning his personal condition, and the police had found him wandering and exposing himself. He was suffering from Parkinson's Disease, and when seen was obviously infirm with a marked tremor of the hands, difficulty in walking and in picking up objects. He himself said he had not been upstairs for some time. He only shuffled about the premises. He stated he had not worked for over ten years. He was personally completely filthy with dirt ingrained in his hands and face, and he stank. He was dressed in an extremely dirty overcoat and trousers, and the house was a complete shambles with pieces of newspaper over the floor, in the kitchen was a full bucket of faeces which had the appearance of having been there for some time, and a piece of toilet paper and urine in the sink. He slept in a filthy, tumble-down chair. The only food to be found in the house was tea and sugar, but there were piles of dirty crockery, obviously not recently used. The plaster on the walls and ceiling was falling. The patient was not prepared to go into hospital in spite of considerably argument, so an Order was obtained for his removal and he was taken into accommodation provided under Part III of the National Assistance Act. Before the expiry of the Order he agreed to remain there. He is still in such accommodation, where he gives very little trouble apart from occasional wandering, and where he states he is, and appears to be, extremely happy. The Order was obtained on the grounds that he was an infirm person living in insanitary conditions, and unable to devote to himself and not receiving from other persons proper care and attention.

Investigations not leading to legal action:

Apart from these two cases, there were three other cases on which requests were made to the Health Department for compulsory removal. The first of these was of a lady known to the Department. The police had called the duly authorised officer, who considered she was not certifiable under the Lunacy and Mental Treatment Acts.

She had previously been removed compulsorily, put into a good state of health and had been kept in this condition with assistance at home. Unfortunately, on this occasion a sudden thaw had occurred and apparently most of the pipes in the house had burst, with the result that most of the house was soaked with water which was running down the electric light fittings and the stairs. The lady, who was obviously extremely frail, had refused point blank to go anywhere and it was obvious that the condition of the house was now such that she could not be left there. After a considerable time we managed to persuade her to go and stay with the wife of a man she employed as a gardener and odd job man. She was removed by ambulance and she continued to live there for a month or two quite happily until she died.

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The next case was an exceedingly deaf man who was visited at the request of his family doctor. Apparently he had been admitted to hospital and discharged, his condition having improved. At some stage he had been admitted to a mental hospital, but not retained as he was not of unsound mind. He was living in extremely filthy conditions and did not wish to go into any other accommodation. A bed and bedding was lent to him, and a male home help and a district nurse provided, and this succeeded in greatly improving his condition and his happiness. He refused to be medically examined either by his own doctor or a doctor from the Health Department. Unfortunately, two months later it was obvious that his physical condition was deteriorating and on this occasion he agreed to be examined and an advanced carcinoma of the rectum was discovered. Although he was receiving care from the district nursing service, his condition so deteriorated that it was obvious that he should be in hospital. He refused to go, and application for an Order was about to be made when, after further persuasion, he suddenly decided he would go into hospital. He was admitted in the ordinary way and died from the carcinoma.

The last case was a lady who was visited at the request of the consultant physician in charge of the geriatric unit. When seen she was extremely frail with a very weak pulse, but she refused completely to go into hospital. The medical officer from the Health Department who visited her considered that she was actually dying, though it was possible that she might live for another 24 to 48 hours. She was entirely alone and only received attention from a neighbour. As she was going to be alone for the whole of that night arrangements were made for a night attendant to be provided, and she died the same night from cardiovascular degeneration. A night attendant was with her at her death.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 254 men and 307 women at the end of the year.

In addition, 15 men and 51 women were registered as partially-sighted.

A total of 88 forms B.D. 8 was completed by ophthalmic surgeons during the year.

The following tables show the age and sex distribution of the persons examined by ophthalmic surgeons:—

Age at Onset of Blindness

	Con- genital						65- 70						Unspe- cified	Total
Males	 1	5	4	2	5	4	1	4	6	2	-	-	4	38
Females	 2	6	2	3	5	5	11	6	7	1	1	-	1	50

	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	-	1	9	_	3	5	9	3	7	-	-	38
Females	1	1	1	1	2	6	14	8	7	7	2	-	50

A further analysis of these cases by cause and sex is as follows:-

A further analysis of these cases by cause			
Causes	1		Women's Eyes
Cataract		12	24
Incipient Cataract		19	19
Glaucoma		3	3
Cataract and Glaucoma		3 2	5
Cerebral Atrophy			-
High Myopia—Myopic Degeneration			-
High Myopia-Myopic Degeneration as			
detachment of Retina		1	-
Retinitis Pigmentosa			-
Optic Atrophy			4
Myopia and Incipient Cataract			5
Incipient Cataract and Macular degenerati	ion		4
Myopia and Cataract			1
Incinient Cotaract and Glaucoma	***	2	1
Incipient Cataract and Glaucoma			2
High Myopia		2	2
Incipient Cataract and Diabetic Retinitis			-
Macular Degeneration			4
Old Injury			1
Phthisis Bulbae			1
Retinitis Macular area			2
Aphakia		-	7
Retinitis Proliferans with Incipient Catara	ct	-	1
Old Detachment of Retina			1
Incipient Cataract—marked opacities		-	1
Extensive Choroidal Retinitis—aphakia		3	-
Detachment of Retina and Retinitis			1
Leukoma		-	1
Diabetic Retinitis and Glaucoma		-	2
Myopic degeneration			6
Artificial Eyes		1	-
Incipient Cataract—Toxic Ambloyopia		2	-
Astigmatism—"Gaze Palsy"		2	_
Astigmatism—"Gaze Palsy" Incipient Cataract—Retinitis		-	1
Traumatic Cataract		1	2
Old Thrombosis Central Retinal Vein		1	2
		2	
Arterio Sclerotic Optic Atrophy		4	2
Glaucoma and Macular degeneration		1	2
Embolism Central Retinal Artery		2	
Grey Atrophy		2	1
Incipient Cataract—Retinitis and Diabetes	5	-	1
Advanced Incipient Cataract—Diabetes		-	1
TOTAL		88	cases

Follow up work was carried out by visitors from the Welfare Department but in addition, a health visitor called on each new patient and each case under review.

Two cases of ophthalmia neonatorum, both of which fully recovered, were notified.

No case of retrolental fibroplasia was recorded.

Analysis of Form B.D.8 Recommendations

		Cause of	Disability	
	Cataract	Glaucoma	Retrolental Febroplasia	Others
Number of cases registered during the year in respect of which there was recommended—				
No Treatment	16	2	-	16
Treatment (medical, surgical or optical)	3 medical	1 medical	-	1 medical
	35 surgical			1 optical
Hospital Supervision	7	3	-	3
Total	State (State	88	cases	

Of the 35 persons for whom surgical treatment was advised, 11 have had no treatment as yet; 3 have refused; 5 were unfit to have treatment because of their general condition; 6 have finished their treatment; 5 were not recommended for surgery on subsequent examination; one was under hospital supervision; and due to various reasons it has not been possible to get information concerning the other four.

The 3 medical cases were receiving treatment.

At the end of the year 9 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 16 men and 17 women suffering from epilepsy. Of these—

- 8 men and 6 women were in colonies for the epileptic
- 2 men and 2 women were in homes provided by other local authorities
- 6 men and 4 women were at home
- 5 women were in residential accommodation provided by Bolton Corporation.

The local education authority knew of 50 boys and 30 girls attending ordinary schools who were suffering from this defect, and maintained 3 children in special schools.

Cerebral Palsy:

The Register of Handicapped Persons maintained by the Chief Welfare Officer included the name of only one man suffering from cerebral palsy.

The local education authority were aware of 31 children with this handicap distributed as follows:—

	Boys	GIRLS
Admitted to Birtenshaw Hall Special School	5	4
Awaiting admission to Birtenshaw Hall Special School	1	4
Attending Special School for the Deaf	1	2
Attending Special School for the Educationally sub-		
normal	-	1
Attending Open Air School	-	2
Attending ordinary schools	6	2
Pre-school children at home	3	-
TOTALS	16	15

Of the mental defectives known to the authority, 11 were suffering from cerebral palsy in addition to the mental handicap.

The special school for spastic children at Birtenshaw Hall, near Bolton, sponsored by the local branch of the National Spastics Society, opened at the end of the year and admitted a small number of children. In the early part of 1957 it is expected to admit many more and will prove a most valuable addition to the services available for children suffering from cerebral palsy.

Facilities available for Handicapped Persons:

The Welfare Department is charged with the responsibility of providing facilities for handicapped persons under the National Assistance Act.

The Education Authority is responsible for children over the age of 2 who need special educational treatment on account of the handicap.

The Health Department, therefore, has no specific arrangements for dealing with these persons, although close co-operation exists between all three departments.

The Welfare Department provides the full range of services for the blind as envisaged by Section 29 of the National Assistance Act, i.e. instruction in their own homes, workshop, recreational and social facilities.

The deaf are catered for by a voluntary organisation, acting as agent for the Council, which provides social facilities and handicrafts in the home. Grants are also made to local voluntary organisations concerned with the welfare of those who are hard of hearing.

For other handicapped persons the Welfare Department provides home training and handicraft classes held on 3 days a week.

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

The Health Department staff is responsible for the medical examination of children in the care of the Local Authority.

All children were examined prior to admission to, or discharge from, children's homes or on boarding out. The aim of this was to ensure freedom from infection and to ascertain any defect or disease needing attention before a change of responsibility for the child was authorised. There was a rota of medical officers for this duty.

In addition, the children in the Elizabeth Ashmore Nursery were medically examined periodically, children below one year of age were examined each month, and children aged one to five years of age at intervals of six months. Children over five were examined once yearly. A medical officer and a health visitor devoted one session each week to these routine examinations. Altogether, 659 medical examinations were performed as follows:—

No. of children examined on admission to Homes		 130
No. of children examined on discharge from Homes		 55
No. of examination made for the purpose of boarding	out	 26
No. of routine examinations: 0 — 1 year		 73
1 — 5 years		 136
over 5 years		 239
Total		 659

Nutritional Status:

Of the 239 children over the age of 5 seen at routine medical examinations, 237 were recorded as being "Satisfactory", and only 2 were found to be "Unsatisfactory."

Defects;

Defects found to require treatment at medical examinations were classified as follows:—

Classification of Defects

No.	of	defects	of '	Teeth					 	24
,,	,,	,,	,, ;	Skin					 	43
,,	,,	,,	,,]	Eyes					 	52
,,	,,	,,		Ears					 	16
,,	22	,,	,,]	Nose a	and	Thro	at		 	14
,,	,,	,,	,,]	Heart					 	3
,,	,,	,,	,,]	Lungs					 	9
,,	,,	,,	,, (Genita	llia				 	3
Her	nia								 	4
Ort	hop	aedic d	efec	ts					 	20
		s of Ner							 	5
		logical							 	4
Ana									 	6
Oth	er o	defects							 	9
									-	-
	To	TAL NO	0. 0	F DEFE	CTS	ASCE	RTAI	NED	 	212

The number of children with one or more defects detected at routine examination was 174 (39%). Of these 24 were referred to consultants and 14 to their family doctors for treatment.

A medical report was presented to the Children's Committee each quarter by the Medical Officer of Health.

CARE OF CHILDREN CO-ORDINATING COMMITTEE PROBLEM FAMILIES

Mr. P. E. Varey, Children's Officer, has supplied the following information:—

This Committee has met quarterly during the year under the Chairmanship of the Medical Officer of Health. It consists of senior officers of each of the Corporation Departments and statutory bodies concerned with the health and welfare of children in their own homes, together with representatives of all the voluntary organisations in the town who are concerned with this problem. Monthly "case conferences" under the Chairmanship of the Children's Officer have been held regularly during the year, attended by those representatives of Corporation Departments, statutory bodies and voluntary organisations intimately connected with problem families. The quarterly meetings are held to consider policy on the co-ordination of the services, and to review the work of the monthly case conference.

The object of the Committee which was set up in accordance with the suggestions of a joint circular from the Home Office, Ministry of Health and Ministry of Education in 1951, 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. The pooling of all known information about the various families is of much value, and after considering all the information available, individual members of the Committee are asked to take such action as is considered best fitted to the needs of the family. Here the services of the specialist health visitor and the woman visitor of the National Society for the Prevention of Cruelty to Children are especially valuable.

In work of this nature it is not possible to report any spectacular or rapid success. Much strenuous and sometimes unrewarding work is needed with many of the families known to the Committee. Such families, without achieving any apparent progress, are nevertheless prevented from breaking up, enabling children to remain in their own homes instead of being taken into the care of the Local Authority, a state of affairs which promotes the better happiness of the children concerned and at the same time effects a considerable saving to the rate-payer. The problems of squalor and ignorance and poor standards generally are always present, but the work of the Committee does concentrate the help available, and there are encouraging signs of progress.

During the year, 69 families involving 269 children were considered, of which 24 families involving 81 children were newly reported cases.

Of the total number-

- 24 families (98 children) were considered to have improved or their needs to have been met, and they were therefore deleted from the register
- 15 families (54 children) were improving, but still needed supervision
- 21 families (88 children) were regarded as chronic cases, or as needing continual supervision
- 7 families (27 children) were removed from the register, the children being in the care of the Local Authority with no apparent likelihood of rehabilitation
- 2 families (2 children) left the town

NURSING HOMES

The two nursing homes which have been registered for some years under Section 187 of the Public Health Act, 1936, continued to function and together provided 46 beds for private patients. These beds have been continuously occupied during the year by chronic medical patients all of whom have been elderly.

At one nursing home the bed complement is 24 and the structural changes made here during last year and the re-arrangement of the wards, have helped considerably in the day to day management of the nursing home.

At the second nursing home there are now 22 beds—an increase of 2 during the year. Several rooms and the downstairs cloakroom have been redecorated.

Both these homes have rendered good service in Bolton in helping to care for our chronic sick patients. Frequent visits have been paid by the Superintendent Health Visitor and the conditions with regard to staffing and accommodation are now considered to be reasonable following structural alterations and administrative changes made over the past two years.

CREMATION

The second full year of operation of the Corporation's Crematorium at "Overdale" has been completed. The considerable increase in work carried out is shown in the following table:—

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%

There was an overall increase in the use of cremation and more particularly in respect of persons from outside areas. Nevertheless, there has been a moderate increase of use by Bolton residents with a reasonable increase in the percentage of all deaths which were subjected to cremation.

There has been no change in the administrative machinery for medical documentation and the Medical Officer of Health has continued to act as Medical Referee, and the Deputy Medical Officer of Health and an Assistant Medical Officer, as Deputy Medical Referees. There have been no great problems and the work has proceeded smoothly, largely due to the goodwill and co-operation of the local medical profession and the Coroner,

BOLTON MEDICAL BUREAU

For the third consecutive year, the Bolton Medical Bureau seems to have increased its popularity and become more widely known, with the result that the number of enquiries received from patients has considerably increased. The scheme is administered through the Ambulance Control Room and family doctors leave specified messages which can be transmitted to any enquiring patient. I am not aware of any complaint concerning the service and in view of the increased number of enquiries—there were 744 enquiries during the year—the bureau would seem to be serving a useful purpose. The general practitioners, on a suitable occasion during the year, expressed their appreciation of the service and had no comments to make on its administration.

HEALTH EDUCATION

Developments:

A universally agreed method of tackling the difficult problem of Health Education has, so far, not been devised. This is probably due to the varying circumstances in different areas as much as to conflicting views on the most effective way of influencing public opinion. Consequently, it was decided to form a Health Education Group to discuss the whole problem and to formulate a policy best suited to the needs of the Bolton Health Department. The Group consisted of representatives from the health visitors, home nurses, midwives, mental health officers, public health inspectors, and medical staff. Several meetings were held during 1956 and the following conclusions were reached.

- 1. The only effective way of carrying out health education is at the personal or group level.
- Visual aids and propaganda are useful but are of only secondary importance.
- 3. It follows therefore that any programme for health education must have as its primary target the building up of a panel of speakers representative of various sections of the health department who are both willing to and capable of giving effective talks on their own subjects.
- 4. Parentcraft teaching is still of the greatest importance and there are various methods by which this interest can be stimulated.
 - (a) A parentcraft club could be started in a trial area. This could be run as an evening club with a programme, e.g. talk, tea, film show. It is suggested that it might be started in the Withins area.
 - (b) Expansion of parentcraft classes in secondary and grammar schools for both boys and girls.
 - (c) More use to be made of the infant welfare clinics for this purpose. A series of talks, film strips and demonstrations could be carried out effectively. It has been emphasized by several members that this could not be done unless either a further health visitor were to attend the clinic or the existing health visiting staff were to be utilised differently.
- 5. The panel of speakers would be available to give talks to interested societies and other groups, e.g. Parent Teacher Associations, Church groups of various ages.

- 6. A group of young people who tend to slip through the net are the young workers. Some large works run training schemes for their young workers and if entry could be obtained to this audience it would probably be of immense value.
- The co-operation of general practitioners, dental practitioners, and hospitals could be invited to assist in showing of posters in waiting rooms.
- 8. An approach might be made to local cinemas regarding the showing of short films.
- The library of visual aids could be expanded to cater for the increased requirement. A good nucleus of this is already in existence.
- 10. The propaganda side could be expanded at relatively little expense by making further use of existing premises, e.g. the waiting room in the Health Department and School Clinics.

Present Activities:

Steps are being taken to implement the above suggestions. In the meantime, we are carrying on with our not inconsiderable activities in the health education field which have been as follows.

The Family Doctor Bulletin has continued to be issued each week.

The Central Council for Health Education propaganda material has been used considerably.

The monthly publication "Better Health" has been distributed to a small extent in the welfare clinics, and the British Medical Association's publication "Family Doctor" has been issued to the staff of most of the schools in the borough.

Staff training has followed the same lines as in previous years. For instance, the in-service training lectures for health visitors and home nurses given by local consultants and others during the winter months, has been very popular and the clinical meetings for the medical staff at the Bolton District General Hospital conducted by the paediatric physician have been most useful. A representative from the Central Council for Health Education gave a lecture on Home Accidents, to members of the Health and other interested Corporation Departments.

A considerable number of lectures were given by members of the Health Department to outside bodies such as Parent Teacher Associations and similar societies, and to staffs of catering and food establishments.

Displays were used in the waiting hall and corridors of the Health Department and in the Welfare Clinics.

Several members of the Health Department also gave lectures to the students on the Health Visitor Training Course and to the student nurses at the hospitals.

Three health visitors have for some years carried out the hygiene lectures to the senior children in two Secondary Modern Schools in their areas.

Some local cinemas have co-operated well in the showing of films and slides of educational value in connection with vaccination and immunisation campaigns.

The local libraries have been used to distribute propaganda material, and most useful of all, the Corporation motor buses have displayed posters.

Automatic stamping of correspondence envelopes with slogans has also been introduced.

REHOUSING ON GENERAL MEDICAL GROUNDS

A total of 95 applications was received for special consideration for rehousing on medical grounds, and 83 of these were supported by the family doctor or a consultant. Of the remaining 12, two were already approved for rehousing in the normal way, one found alternative accommodation, one did not live in the borough, five had no medical grounds; two had recently given up a Corporation house and were anxious to return on social grounds, and one was living in a tied house and now wished to give up his work. Only those applications supported by medical certificate were considered.

Five of the applications were received towards the end of the year and it was not possible to make any recommendation before the 31st December.

In 30 cases the Housing Committee was recommended to give special consideration on account of the illness or disability of the applicant. In one of these cases the Housing Committee refused to rehouse on the grounds that the person had given up a Corporation house less than a year ago. Another case was rehoused through the normal points scheme. The remaining 28 cases were all approved by the Housing Committee. During the year the Housing Department actually rehoused 28 persons on medical grounds, though some of these were, of course, recommended at the end of 1955. The remaining applicants, with the exception of the one refused, were awaiting suitable accommodation at the end of the year.

The Housing Department was recommended to grant a transfer to ground floor accommodation, on medical grounds, to 12 persons. Of these, two had already been offered a transfer to suitable accommodation before their applications came to the Health Department, but were anxious to go to an area of their own choice.

Amongst the 30 families recommended for special consideration for rehousing-

7 men were suffering from heart disease

2 ,, ,, osteoarthritis
2 ,, ,, hemiplegia
2 ,, ,, Parkinson's disease
2 ,, ,, bronchitis and emphysema

and 5 were suffering from one of the following diseasesrheumatoid arthritis; pulmonary abscess; disseminated sclerosis; pneumoconiosis; psychoneurosis.

In addition to these complaints, which were the major cause for special consideration, two of the men had lost a leg and another a forearm.

8 women were suffering from heart disease

2 ,, ,, ,, osteoarthritis

" " " ,, chronic bronchitis and emphysema

and 5 were suffering from one of the following diseasesovarian tumour; pernicious anaemia; diabetes; rheumatoid arthritis; bronchiectasis.

Of the children concerned, three were suffering from asthma and one from haemophilia.

Of the 30 applications recommended, in 19 cases the application rested on the medical condition of one member of the household. In the remaining II there were at least two members suffering from chronic illness or disability.

Nine men, eight women and one child were sufficiently handicapped to have great difficulty with stairs, and two other women were virtually confined to one room because of illness or disability.

Rehousing of families on the grounds of tuberculosis is dealt with separately under 'Tuberculosis'.

The Housing Committee made a total allocation of 40 houses for cases requiring rehousing on medical grounds, including tuberculosis.

BATHS AND WASH-HOUSES

This section of the Health Department offered the following facilities:-

BATHS:

High Street 1 Plunge 9 Slipper Baths 2 Plunges Bridgeman Street ... 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 12 Hand-washing Stalls 6 Electric Rotary Washing Machines 1 Coin Slot Ironing Machine Rothwell Street ... 18 Hand-washing Stalls

The attendances at the various establishments during the last three years are compared below:—

12 Electric Rotary Washing Machines

1 Coin Slot Ironing Machine

	Swim	ming Plu	unges	Sli	pper Bat	hs	Wash-houses			
	1956	1955	1954	1956	1955	1954	1956	1955	1954	
High St. Baths	58,498	71,366	70,486	17,132	17,899	16,291	-	-	-	
Bridgeman St. Baths	110,323	120,492	108,777	36,111	36,169	35,887	-	-	-	
Moss St. Baths and Wash- houses	100,433	100,349	93,975	36,170	38,222	46,008	22,570	21,081	22,820	
Hennon St. Baths	-	-	-	19,562	25,452	-	-	-	-	
Rothwell St. Wash-houses	-	-	-	16,638	18,078	16,008	42,963	38,462	37,296	
TOTALS	269,254	292,207	273,238	125,613	135,820	114,194	65,533	59,543	60,116	

TURKISH BATHS:

Attendances at the Turkish Baths again increased and for the last three years were as follows:—

YEAR		ATTENDANCES
1954	 	 6,651
1955	 	 6,696
1956	 	 6,991

The wet weather of the summer followed the warm, dry summer of the previous year no doubt accounted for the decrease in attendances at the swimming baths. The decrease was almost entirely due to a decline in the number of school children who paid for admission, although this decrease at Moss Street Baths was offset by the increased use of free scholarship tickets. Possibly the wet weather was also responsible for the decrease in attendances at the slipper baths.

Each year 150 tickets are awarded to school children who pass the tests set by the Bolton Scholarship Scheme for the Encouragement of Swimming. Holders of the bronze medallion of the Royal Life Saving Society received 229 tickets. Under both schemes the holders of tickets are entitled to free swimming facilities for twelve months, and their attendances are included in the above figures. The figures also include 57,831 attendances by organised parties of school children between April and October under arrangements made with the Local Education Authority.

Facilities were granted to Swimming Clubs for after hours swimming, for the holding of galas, and for the promotion of water polo matches.

At the wash-houses the later evening session has proved very popular and an increase in attendances has resulted. The coin slot ironing machine at Rothwell Street Wash-house was used more than 60,000 times during the year. A similar machine which was installed at Moss Street Wash-house in January was used more than 40,000 times.

METEOROLOGICAL SUMMARY, 1956

Compiled at Queen's Park Observatory by E. Hendy, F.R.Met.S.

Total	Inches	5.409 0.870 1.791 3.323 1.493 2.724 7.256 11.870 4.280 3.763 3.763 3.929 48.850	
Sunshine	Date	82.5323333333333333333333333333333333333	
	Maximum in one day Hours	4.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	
	Total Amount Hours	35.8 84.5 127.6 139.9 234.6 150.1 136.4 113.6 96.1 104.3 41.2 1.5	
Absolute extremes of Temperature	Date	22 112 123 124 125 127 127 128	
	Lowest °F.	25.5 27.5 27.5 27.5 33.5 25.5 25.5 25.5 25.5 25.5 25.5 25	
	Date	22 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	
	Highest °F.	51.5 60.4 58.8 71.0 73.7 73.7 61.0 53.7 53.7	
Mean of Maximum and Minimum Tempera-ture °F.		37.59 33.62 42.44 43.46 51.79 52.96 57.00 53.43 55.93 47.34 41.74 558.93	The second second
Mean Relative Humidity %		91 77 77 77 74 74 74 88 88 88 86 90 90 88	The second second
Barometer		29.863 30.277 30.009 30.019 30.182 30.073 29.933 29.98 29.966 30.174 29.998 360.405	
1956		January February March April May June July September October November December Totals Monthly Average	

Rainfall: Average 1887 to 1956 = 44.653"

COUNTY BOROUGH OF BOLTON EDUCATION COMMITTEE



ANNUAL REPORT

OF THE

Principal School Medical Officer

FOR THE YEAR 1956

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H., Principal School Medical Officer

5 9985

SPECIAL SERVICES SUB—COMMITTEE Municipal Year 1956-1957

HIS WORSHIP THE MAYOR (Alderman P. Lowe, J.P.)

COUNCILLOR MRS. N. VICKERS (Chairman)

COUNCILLOR MRS. D. BERRY (Vice-Chairman)

ALDERMAN F. BENTLEY, J.P.

COUNCILLOR T. S. BARLOW

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

School Medical Officers.... Dr. John Litt (Retired 6.9.56)

Dr. Audrey Seddon (Part-time from 1.10.56)

Dr. Rosa M. Galloway Dr. Godfrey Galea

Dr. Margaret T. McCaffrey Dr. Frank R. Calvert (Part-time to 30.6.56) (Full-time from 1.7.56)

Dr. Geoffrey A. Levell (Part-time to 30.6.56) (Full-time from 1.7.56)

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

Mr. George E. Frost (Resigned 11.12.56) Mr. Colin S. Brown (Resigned 3.2.56)

Mr. Lionel Ordman (Part-time)

(Resigned 19.4.56)

Mr. Peter Barton Bates (Part-time)

(Commenced 13.3.56)

Mr. J. Besant Davies (Part-time)

Dr. Elizabeth Berndt

Miss M. P. Joyce

Miss M. Gumuchian

Speech Therapists..... Mrs. F. Barber

Miss H. Jenkins (Commenced 1.9.56)

Superintendent Health Visitor and School

Nurse..... Miss F. E. Hunt

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 were working part-time on School Health and part-time on Maternity and Child Welfare work—the equivalent of 113 full-time School Nurses.

The Superintendent Health Visitor supervised the work of the staff and was assisted by her deputy.

DENTAL ATTENDANTS

There were 5 dental attendants employed on the 31st December.

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Health Department,

Civic Centre,

Bolton.

April, 1957

To the Chairman and Members of the Special Services Sub-Committee of the Bolton Education Committee.

On several occasions I have expressed the view that the present system of conducting the School Health Service does not lead to satisfaction to either the Education Department or the Health Department and indeed, the Committee have agreed with this view. Whilst some functions were carried out in the Health Department and others in the Education Department or even when aspects of the same subject were dealt with in different departments, there has always been the imminent possibility of duplication and confusion. This situation has led to inadequate school health clerical assistance being available in the Health Department and so, in turn, has led to my having great difficulties of administration and lack of opportunity of expanding the work to meet the demands. This has been particularly apparent in the all important matter of follow-up and re-inspections of children with defects found at routine inspection. It has been utterly impossible to do this at all adequately. I am relieved to note, therefore, that as a result of a survey of the whole field it has now been decided to transfer clerical assistance from the Education Department to the School Health Section of the Health Department. It is expected that at an appropriate time in 1957 this will take place. Certain professional members of the staff are also being transferred to the establishment of the Health Department.

Some progress has been made in the School Health Service in recent years in spite of the handicaps mentioned above and it is hoped that further improvements will be possible. Certainly, a simplification of administration should become apparent after an initial period to allow the new system to settle down.

I am sorry to have to follow the note of optimism in the last paragraph with one of despondency. The School Dental Service is about to embark upon a period of extreme difficulty. For several years we have been relatively fortunate in the number of school dental officers on the staff although we have never, of course, been up to establishment. We have had our difficult times, fortunately of short duration, but on the whole have fared reasonably well. A crisis is now developing and towards the end of the year it was becoming increasingly obvious that there would soon be too few dental officers to provide anything but a patchy service. This is extremely disappointing both to Dr. Davies and myself because Dr. Davies has gone to considerable lengths to arrange the work of his dentists in such a way that they could deal with the volume of work in hand in spite of shortage of staff. This has been done in various ways, not the least being the development of his planned extraction scheme which has been described fully in previous reports. It would seem that all these plans are likely to break down and unless further dental officers are forthcoming very quickly, only a skeleton service will be available. We shall particularly miss the orthodontic work which has been so successfully carried out in recent years.

The Committee have had before them a suggested scheme for the reorganisation of the school clinic services. It has been obvious for many years that Charles Street Clinic is unsatisfactory. This matter has been commented upon successively year by year and has been brought to the notice of the Committee on many occasions by its officials and it has also been commented on by Ministry representatives. The scheme of reorganisation suggested that the Robert Galloway Clinic should remain as the central clinic where a full school health service was available including special services such as Child Guidance, Speech Therapy, Dental X-Ray facilities, etc., in addition to the more routine work of the school clinic; that The Withins Clinic should be retained or replaced in the same area; that the Astley Bridge Clinic should be slightly enlarged to include an extra dental surgery; and that a new clinic should be built in conjunction with the Hayward Schools, this latter clinic to supply both School Health and Maternity and Child Welfare Services. The completion of this scheme would enable Charles Street Clinic to be disposed of. The necessary initial stage, of course, is the construction of the new clinic at the Hayward Schools. I do not see how progress can be made with this scheme without first providing the new clinic. Unfortunately, although the Special Services Sub-Committee agreed to this proposal, it was apparently not acceptable on financial grounds at a later stage. The position, therefore, remains that Charles Street Clinic, unsatisfactory though it is, must be retained until such time as a new clinic is available. When the scheme is completed it is considered that the four clinics then in use would serve the needs of the town, except that at some time in the indefinite future, it might be necessary to consider whether it is advisable to provide accommodation to the west of the town, but this would need to be considered carefully when we have had experience of the reorganised scheme.

The Committee have agreed to the employment, during the 1957-1958 financial year, of a chiropodist for one session a week, primarily for the treatment of plantar warts. This is a welcome feature. Both the school medical officers and the general practitioners in the town have expressed their desire to see such a service in being. Although plantar warts are not serious in themselves, they can be very painful and crippling, and cause loss of school time, and more important still, cause inability to take part in certain school activities.

The ophthalmic surgeons and school medical officers have jointly expressed their anxiety at the lack of adequate care given to children with squint. It is felt that we are not getting the cases early enough and parents are not being made aware of the seriousness of the condition. If a squinting eye is left too long without attention it will surely and inevitably become blind and any treatment given can be merely of cosmetic value and does not bring the eye back to usefulness. We wish to avoid this disastrous situation and I am pleased to report that the Committee have agreed to employ an orthoptist for up to four sessions a week to work in the school clinic where the patients will be in close contact with the rest of the School Health Service and therefore they will get the adequate follow-up which is so necessary to prevent children and parents losing interest in a treatment which is, of necessity, very prolonged. There are not many trained orthoptists available, but it is hoped that jointly with the hospital we may be able to extend the work which is already being done in the Eye Department of the Bolton Royal Infirmary to the school clinic and provide a more adequate service.

For a long time, we have been trying to obtain the services of a second speech therapist in view of the long waiting list which had been gradually accumulating. It is very pleasing to know that our efforts have at last been successful and a second full-time speech therapist took up duties during the year with the result that the waiting list has now dropped to manageable proportions.

The welfare and education of children with cerebral palsy has been considerably improved in this area by the opening of Birtenshaw Hall Special School towards the end of the year. This school is managed by a voluntary association and is recognised by the Ministry of Education. However, several members and officials of the Education and Health Departments have done a considerable amount of work in bringing this interesting project to fruition. As will be seen from the body of the report, a number of Bolton children are already in attendance at Birtenshaw Hall as day pupils. The school also has accommodation for resident pupils from further afield. Several members of the Health Department and Education Department staffs serve on the Medical Advisory Panel for Birtenshaw Hall together with the headmistress of the school and several consultants from the hospitals. A number of meetings have been held to advise the managers on various medical and allied problems. The Panel has also scrutinized each application for admission to the school and will continue to take an active interest in the progress of the children in the school.

I would like to draw attention to the progress of the arrangements for checking the hearing of school children, using pure tone audiometry. We have now extended the routine examinations to cover both 7 and 12 year old children as well as those referred specially by various members of the school health team and those in attendance at special schools or undergoing speech therapy. The value of this work is set out in the report and is accentuated by the fact that it is possible to discover a large amount of deafness in what would appear to be normal children, and a considerable number of defects have been rectified which would otherwise have gone unnoticed. I would like to express my appreciation of the value of having the Department for the Education of the Deaf of Manchester University so readily at hand. Professor A. W. G. Ewing, who is in charge, has been extremely helpful when we have referred difficult cases to him.

A review of the reasons given by senior girls for not taking milk in school is included in the report. It is interesting to see from the figures how, as the children get older, they tend to take milk less regularly. Some of the reasons given by the girls are, of course, amusing, but not very helpful, and it would seem that largely it is a question of developing a dislike for the taste of milk. Incidentally, the most frequent reason given for not taking the milk was because it did not taste like sterilized milk which was normally taken at home—an interesting comment on modern habits.

In spite of the opportunity given to us by the Ministry to change the ages at which we may carry out routine inspections in school, we have not so far made any alteration. This, however, is a matter for future consideration when we have more clerical staff available in the Health Department. It may be that it will be considered advisable to cut out the intermediate medical examination and replace it by something more in the nature of a personal follow-up of difficult cases. This will be more to the benefit of the children and of more academic interest to the doctors.

I cannot mention too often the excellent work which is now being done at Lostock Open Air School in the education of children suffering from chest conditions and particularly asthma. There can be no doubt that experience has shown that we are rendering a valuable service to parents and children alike by improving the physical condition of these pupils. This improvement in the physical health must inevitably have its reflection on education, which is particularly noticeable by the fact that children who have had long absences from ordinary school, when they get to Lostock, rarely have to have any time off at all. The number of asthmatic attacks decreases dramatically. This, I believe, to be the best use of the accommodation available at Lostock. The days have gone when it was necessary to fill open air special schools with children who were in that ill-defined group considered to be in indifferent health. No one has satisfactorily defined the "delicate" child and there is no doubt that many children were attending open air schools in the past who could well have been discharged to ordinary schools. School medical officers have always had a difficult problem in satisfying their consciences with regard to the best use of open air schools. Now we are convinced that we have found it. I do not suggest, of course, that we should fill the schools with chest cases. There will always be need for the admission of children who need the open air regime for other reasons.

I will briefly mention the increase in the number of cases of scabies. This, I believe, is a national trend at the moment and is the first time that we have seen a number of cases since the war years. The reason for its re-appearance is not known, but facilities are available for treatment at the School Hill Centre and every effort is being made to track down the disease at home and have all members of the family treated.

The need for an observation class for children suspected of being backward, between the ages of 5 and 7 years, is still very apparent and I would ask for urgent consideration to be given to such provision for these children. Also, the need for more places for educationally subnormal children in the special school is still urgent.

In the field of health education I would point to that part of the report dealing with the sanitary improvements which are necessary in some of our schools in order to help in the teaching of personal hygiene. We have also for some years taken part in a few schools only, in mothercraft instruction to the senior girls. This we feel to be an essential part of the equipment of the older girl. Certain school nurses have shown a particular aptitude and interest in this work.

Doctor John Litt, who had been a School Medical Officer with this Authority for twenty-six years, retired and I would like to record my appreciation of his work and to wish him many years of happy retirement.

I should like to thank the staff of the Education Department, and the medical, nursing, and clerical staff of the Health Department, for their great help during the year.

Principal School Medical Officer.

GENERAL INFORMATION

No. of school children attending main	ntain	ed so	chools	· · · · · · · · · · · · · · · · · · ·	25,341
Children attending:					
Nursery Schools				173	
Primary Schools					
Secondary Modern Schools				5,184	
Secondary Technical Schools				1,215	
Secondary Grammar Schools				981	
Special Schools				308	

The number of children attending primary schools included 1,036 children at 34 nursery classes held in 25 of the primary schools.

No. of schools maintained b	y the	Aut	horit	ty	 	92
Nursey Schools					 2	
Primary Schools					69	
Secondary Schools					 18	
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 at 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:

The six dental surgeries were in operation as follows:—

CHARLES STREET SCHOOL CLINIC 2 Surgeries

Monday to Friday, 9.30 a.m. and 2.0 p.m.
(except Tuesday at 2.0 p.m.), and
Saturday at 9.30 a.m.

ROBERT GALLOWAY CLINIC 2 Surgeries

Monday to Friday, 9.30 a.m. and 2.0 p.m.
and Saturday at 9.30 a.m.

ASTLEY BRIDGE SCHOOL CLINIC 1 Surgery

Monday to Friday, 9.30 a.m. and 2 p.m.
and Saturday at 9.30 a.m.

WITHINS SCHOOL CLINIC 1 Surgery

Tuesday and Thursday, 9.30 a.m.

Facilities for dental surgery at the Withins School Clinic were available only from April to September. Only one surgery was in use at Charles Street Clinic for part of the year because of staffing difficulties.

Aural Clinics:

The Consultant Aural Surgeon attended fortnightly at both the Charles Street School Clinic and the Robert Galloway Clinic to see by appointment school children who were referred by the school medical officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attended at the Charles Street and Robert Galloway Clinics for a total of 17 hours per week to examine by appointment children referred by the school medical officers. The Clinics were held as follows:—

Monday afternoon
Wednesday morning
Friday morning

Monday morning
Wednesday afternoon
Wednesday afternoon
Friday afternoon
Saturday morning

No. of Sessions
Weekly

3

At the Robert School 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. Due to the appointment of Miss Jenkins in September as the second full-time speech therapist it was possible to increase the amount of speech therapy given and also to commence again the sessions at the Woodside and Lostock Special Schools.

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 12 year age group in secondary schools. Children who failed the screen 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 basis of this scheme remained the same as in previous years. Three routine examinations were carried out—on entry to school, in the last year at primary school, and the last year of school attendance at a secondary school. The examinations were supplemented, where necessary, by special examinations and re-inspections. It was possible to complete all the inspections falling due during the year.

Periodic Medical Examinations

Number of children examined in the above groups:

Entrants	 	 1,932
Primary School Leavers	 	 2,201
Senior Leavers	 	 2,018
TOTAL	 	 6,151
Additional periodic examinations	 	 430
GRAND TOTAL	 ***	 6,581

Other Examinations

Special examinations							9.408
Re-inspections							7,697
TOTAL NUMBER	R OF	отн	ER EX	KAMI	NATIO	ONS	17,105

RESULT OF INSPECTIONS

Periodic Inspections

The number of defects requiring treatment found at periodic examinations was 1,390, compared with 1,404 in 1955. There is little change from last year in these figures, which are shown in the following table.

		Periodic I	nspections	NAMES		ΓAL
Defect or Disease	Entr	Entrants Lea			(including all other age groups inspected)	
	Requiring treatment	Requiring observa- tion	Requiring treatment	Requiring observa- tion	Requiring treatment	Requiring observa- tion
Skin Eyes:	22	26	41	29	117	104
a. Vision	73 33 5	274 57 7	260 2 2	147 5 1	600 85 15	750 133 17
a. Hearing b. Otitis Media c. Other	23 19 17	98 45 10	26 16 13	7 7 7	91 46 50	225 85 26
Nose and Throat Speech	63 13 6 2 26	340 59 164 21 58	13 - 7 2	43 6 10 30 31	118 22 9 16 36	599 188 261 89 150
Developmental: a. Hernia	3	12 42	2 1	2 10	10 6	32 108
a. Posture b. Feet c. Other Nervous system:	2 10 21	22 38 61	- 2 8	16 14 59	4 34 45	101 109 231
a. Epilepsy b. Other	1	7 7	=	1	3 3	26 22
Psychological: a. Development b. Stability Abdomen Other	1 2 5 21	6 34 12 27	_ 1 26	$\frac{-}{2}$ $\frac{2}{38}$	1 6 6 6	30 79 18 100
TOTALS	370	1,427	422	465	1,390	3,483

Special Inspections

The following table shows the number of defects found at special inspections.

1	Special Inspections					
Defect or Disease	Requiring Treatment	Requiring to be kept under observation				
Skin Eyes:	246	20				
a. Vision	57	76				
b. Squint	7	12				
c. Other	20	7				
Ears:						
a. Hearing	134	166				
b. Otitis Media	48	28				
c. Other	63	12				
Nose and Throat	195	140				
Speech	31	27				
Lymphatic Glands	13	26				
Heart	15	36				
Lungs	34	52				
Developmental:		2.2				
a. Hernia	2	11				
b. Other	9	23				
Orthopaedic:						
a. Posture	2 7	7				
b. Feet		15				
c. Other	36	49				
Nervous system:						
a. Epilepsy	5	11				
b. Other	18	16				
Psychological:	200					
a. Development	11	9				
b. Stability	24	40				
Abdomen	9	3				
Other	127	50				
TOTAL	1,113	836				

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)	73	250	309
Primary School Leavers (10 and 11 yrs)	238	246	437
Senior Leavers (14 and 15 yrs)	260	145	391
TOTALS	571	641	1,137
Additional periodic inspections	29	40	68
GRAND TOTALS	600	681	1,205

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	No. of pupils inspected	No. with parent present		
Entrants	1,932	1,556		
Primary School Leavers	2,201	1,326		
Senior Leavers	2,018	28		
Additional periodic inspections	430	133		
TOTALS	6,581	3,043		

There has been little change in the number of parents attending at school medical inspections. The value of these inspections is greatly enhanced if a parent can attend and it is unfortunate that so few take an interest, particularly when their children are due to leave school and commence life in the community.

Visits to the homes of children by school nurses:

The number of home visits paid by school nurses declined from 1,418 in 1955 to 808 during 1956. These figures do, 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 concerning 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 showed a decrease, from 4,380 in 1955 to 3,216. Some of this decrease was due to the reorganisation of clinic facilities which took place in 1955, but there is no evidence that the decline in attendance has resulted in minor diseases in children being neglected. The school clinic can become an efficient method of escaping from school work, and it is of course the aim of the School Health Service to keep children in school as much as possible and to avoid loss of educational time unless this is absolutely essential.

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 Atten- dances
Robert Galloway	1,201	722	189	1,158	3,220	5,289
Charles Street	962	439	150	1,405	2,829	4,823
The Withins	374	291	90	94	433	908
Astley Bridge	308	172	62	139	310	683
Treatment Centres	371	_	_	610	1,092	1,702
TOTALS	3,216	1,624	491	3,406	7,884	13,405

The number of visits by children to the treatment centres in schools was as follows:—

Whitecroft Road		 913
Gaskell Street	 	 434
Brownlow Fold	 	 355
TOTAL	 	 1,702

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

Diseases of the skin treated at the clinics have declined in number considerably.

A case of ringworm of the scalp was discovered in September, but examination of the heads of personal friends and class-mates of the boy affected did not reveal any other cases.

It is interesting to note the increase in the number of cases of scabies. There is evidence that this increase has been found in other areas and it is difficult to account for this rise as there is no reason to suppose that social conditions have altered greatly. It would appear that scabies will increase further. Facilities are available, in conjunction with the School Hill Cleansing Station, for the effective treatment of cases. The school nurses visited the home of each case, and endeavoured to get the entire family treated.

			Number of cases treate	d or under treatment
			By the Authority	Otherwise
Ringworm:				
(i) Scalp		 	1	-
(11) Body		 	2	-
0 1			23	1
Impetigo		 	43	1
01 1: 1:			177	73
Totals		 	246	75

Impetigo treated in School Clinics:

The number of cases of impetigo treated in school clinics has fallen. The following table gives the figures for the past ten years.

Year	No. of Cases	Year	No. of Cases
1947	92	1952	51
1948	46	1953	74
1949	71	1954	120
1950	45	1955	76
1951	39	1956	43

It was feared some two years ago that impetigo was likely to increase substantially, but this has fortunately not materialised.

Defects of the Ear, Nose and Throat:

The waiting list for children requiring to have their tonsils and adenoids removed has now been substantially reduced. Altogether, 670 children had this operation; 8 had operations for diseases of the ear, and 10 for other nose and throat conditions. One hundred and eighty-one of these children were seen by the aural surgeon at the school clinic and referred to the hospital for treatment, and 489 children were referred direct to the hospital by their family doctor.

Treatment

	Number of Ca	Number of Cases Treated		
	By the Authority	Otherwise		
Received operative treatment— for diseases of the ear	_	8		
for adenoids and chronic tonsillitis for other nose and throat conditions	=	670 10		
Received other forms of treatment	103	4		
TOTALS	103	692		

Mr. G. Gordon Mowat, the Consultant Aural Surgeon, reports:-

"These Clinics have continued throughout the year and the number of children seen is shown in the tables below. Chronic discharging ears continue to decrease and co-operation with the Bolton Royal Infirmary facilitates early treatment, where necessary. Eight operations were done on the ear, five of them radical mastoidectomies. Ten nasal operations were carried out, mainly for sinusitis and polypi. There were 181 tonsil and adenoid operations, and these clinics are of value in deciding whether the operation is necessary."

Ear, Nose and Throat Clinics

No. of visits by patients							711
No. of patients attending							414
No. of new patients							348
No. of children referred f	rom	perio	odic	inspe	ectio	ns	153
No. of children referred f	rom	scho	ol cl	inics			244
No. of children referred f	rom	other	r soi	urces			17

Children attending the clinics for the first time were seen for the following conditions, which may have been multiple in any particular child:—

		Re	ferred from	_	
Disease or Defect		Periodic Inspection	School Clinics	Other	Total
Deafness		29 11	65 27	4 3	98 41
Tonsillar abnormalities	: ::	6	8	-	14
Tonsil and adenoid abnormalities .		89	120	7	216
Adenoid abnormalities		4	7	2	13
Polypus—Ear		-	1	1	2
—Nose		-	1	1	2
Catarrhal conditions		12	23	-	35 8
Speech difficulties		13	14	_	27
Mouth breathing		13	14	_	27
Deflected nasal septum		4	6	1	11
Vasomotor rhinitis		i	1	_	2
Nasal obstruction		2	3	1	6 2
Nasal discharge		2	-	-	2
Requiring radical mastoidectomy .		1	1	_	2
TOTALS		180	281	20	481

Four children were recommended for a special school for the deaf or partially deaf, and all were admitted to the Thomasson Memorial Special School.

Twenty-seven children were recommended for the lip-reading class and prescriptions completed by the Aural Surgeon for hearing aids in respect of 8 children.

Four 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 referred for speech therapy or entering remedial classes for backwardness were also tested.

The following tables show the numbers of children in various groups tested in schools and tested at the clinic.

TESTING IN SCHOOLS

Sources of Children tested		Tested			Failed Test		
	Boys	Girls	Total	Boys	Girls	Total	
Remedial Classes	13	5	18	2	_	2	
Ordinary School	880	810	1,690	106	61	167	
Secondary Modern, Technical and Grammar	1,011	952	1,963	86	68	154	
Other Age Groups	35	37	72	18	10	28	
TOTALS	1,939	1,804	3,743	212	139	351	

TESTING AT THE CLINIC

			Result of udiogram		Unsatisfactory Audiograms and Recommendations				
Source of Reference	No. of children tested	App't not kept for test	Satis- factory	Un- satis- factory	Change of posi- tion in class	For obser- vation	Repeat audio- gram	Treat- ment at the clinic	To Aural Surgeon
Failed sweep test in school	351	37	98	216	21	114	18	7	56
School Medical Officers	179	12	53	114	6	44	6	9	49
School Medical Officer on ac- count of speech defects	45	-	39	6	-	3	2	-	1
On account of backwardness.	2	-	2	-	-	-	-	-	-
Others: Aural Surgeon Educational	21	1	7	13	3	5	1	4	-
Psychologist Family Doctor Headmaster Parent	6 2 9 2	1111	2 - 5 1	4 2 4 1	1111	2 1 1 1	- 1 1 -		2 - 2 -
Repeat Audio- grams	20	2	6	12	2	6	1	1	2
TOTALS	637	52	213	372	32	177	30	21	112

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. Three hundred and fifty-one children failed the sweep test and were recalled for full examination. Two hundred and sixteen of these children had an unsatisfactory full audiogram.

Diseases of the Eye:

There were 1,506 children examined for the first time by the ophthalmic surgeons at the clinic. Total attendances numbered 6,113, of which 5,927 were for refraction, repair to glasses and re-examinations, and 186 for diseases of the eye.

In 404 cases spectacles were repaired or replaced, a figure similar to that for last year.

Thirty-two 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 nothing outstanding to report. The work at the clinic has gone on quite smoothly during the year this being mainly due to the nursing and clerical staff at my disposal.

Again this year it has been very noticeable that there have been very few cases of inflammation of the eyes, a fact upon which I commented last year and, in my opinion, is due chiefly to the improved health of the children.

Occasionally I do find that children are not wearing the glasses prescribed as much as they ought and I was wondering if some method of supervision could be devised to see that the glasses are worn in school at least."

Dr. J. Morrison, the Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:—

"I am glad to report that the work of the clinic during the past year has gone on most satisfactorily, and the staff deserve thanks for their tactful and considerate assistance in every way.

The value of the visual acuity tests of the new entry children, carried out by the school medical staff, is shown by the many hitherto quite unexpected cases of defective vision, due to refractive error, which are brought to light solely by means of this systematic examination. If such cases are not discovered and treated at an early age, their education begins and continues under a heavy, and in some instances, insuperable handicap, ending in permanent subnormal vision. In these cases the provision of suitable glasses is not all that is required, for the reason that, even with the newly supplied glasses, the child at first is not capable of any much better sight as it has not hitherto been able to distinguish fine details, and the perception of these details can be achieved only with long and constant practice. In order to see better such a child must always be trying to see better, so that the long dormant visual areas in the brain may be brought into action and eventually trained to their full development. The child must have sense enough to understand what is wanted of it; it must want to succeed, and be willing to co-operate with the treatment.

The wearing of glasses is at the beginning unpleasant in several ways and it is here that the child most needs parental encouragement and support so that the treatment goes on at home as well as at the clinic and at school where teachers are always very willing to give valuable help. There is usually in these cases quite a considerable period before better sight begins to dawn, but once the improvement starts the child becomes a different being. Just as in cases of other defects, the importance of constant patient parental care cannot be rated too highly.

Resembling these cases in a way are the children who have excellent sight in one eye and poor sight in the other. As the child, by virtue of the good sight of one eye, sees with both eyes open about as well as any other child, there is difficulty in persuading it that anything in the way of treatment is needed, and when treatment, such as covering up the good eye, is definitely uncomfortable, co-operation is hard to obtain, but when it is obtained very gratifying results can be expected in about 60% of cases. When no success is arrived at after a few weeks' treatment it is reasonable to infer that the underlying cause is more than simple disuse.

A word of praise also is due to the parents who attend so well with their children despite the many difficulties of present day life."

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	64	8	
Errors of refraction (including squint)	1,442	76	
TOTALS	1,506	84	
Number of pupils for whom spectacles were prescribed	1,170	76	

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:—

	Age Groups Inspected						
Defect	Entrants	Primary School Leavers	Senior School Leavers	Additional Periodic Inspections	Totals		
Defective Vision	73	238	260	29	600		
Squint	33	41	2 .	9	85		
Blepharitis	1	2	2	-	5		
Conjunctivitis	3	2	-	-	5		
Other	1	3	-	1	5		

Orthoptics:

There is a strong impression that the number of children in Bolton who were not receiving adequate treatment for squint and who, as a result, had amblyopia of one eye, was much larger than it should be, and discussions took place between the consultant ophthalmologists working in the school clinics and the hospital, and the Principal School Medical Officer. As a result, it was decided to recommend that the authority should employ an orthoptist part-time, for not more than four sessions a week. This proposal was accepted by the Education Committee, but will not be implemented until after the 31st March, 1957.

Defective Colour Vision:

Routine colour vision testing was continued for secondary school leavers and 40 colour blind children were discovered—38 boys and 2 girls.

The Ishihara colour testing material was used in all cases.

Orthopaedic Defects:

One hundred and twenty-eight children were found to have orthopaedic defects, 83 on periodic medical inspection and 45 at school clinics.

Thirty-six children were referred to the Consultant Orthopaedic Surgeon at the Bolton Royal Infirmary for advice and treatment.

Chiropody

It has been agreed by the school medical officers that arrangements for chiropody, especially treatment of plantar warts, have been far from satisfactory. This matter was discussed with members of the Local Medical Committee and the Consultant Dermatologist, who agreed that a great improvement would result from the employment of a chiropodist in the School Health Service. The Education Committee accepted the recommendation that a chiropodist should be employed for not more than two sessions per week, but this service cannot commence until after the 31st March, 1957.

It is hoped that the provision of this service will fill a gap in the treatment of children's ailments, and will prevent repeated absence from school for the treatment of minor disorders of the feet.

Infestation of Children's Heads:

The fact that so many children are lousy appears to be accepted with complacency by some parents who tend to close their minds to the subject. It is still stated by some parents that "lice are a sign of health" in so far as they will only live on a healthy child. It is also stated that persons in high public esteem and notice all have them—a rather eighteenth century view of personal hygiene. It is difficult, under these circumstances, for the school nurse to assist, particularly when she receives criticism for her efforts from the family she is trying to help.

Routine head inspections were carried out on all school children attending maintained schools; 45,935 examinations were made, and 1,471 pupils were found to be infested with vermin or nits. This represents 5.9% of the registered school population, and is a slight decrease on last year's figure of 6.2%.

Notices to Cleanse were issued under Section 54 (2) of the Education Act in 11 cases, compared with 3 in 1955. No Cleansing Orders were issued.

Arrangements were made for the cleansing of unclean and verminous children at the School Hill Cleansing Station where both male and female staff were available. Altogether, 32 boys and 154 girls were cleansed.

Prevention is primarily a matter for the parents. It is commonly found on visiting the home of a badly infested child that other members of the family, especially adult women, are also infested, and cleansing the children under these circumstances is not of great value for re-infestation occurs. After the summer holidays the number of children needing attention is greatly increased.

Good personal habits can be taught at home, but since in many cases that seems to fail, recourse must be had to teaching at school, and it would be an advantage to increase our efforts to teach the fundamentals of personal hygiene to all school children. Some, on leaving school, may possibly remember this advice when they themselves become parents. One child from a family whose standard of personal hygiene is low can so often affect others from families whose parents take sufficient trouble to keep their children normally clean, but I would appeal to those parents who find themselves in this unfortunate position to realise that the school nurse is only endeavouring to prevent the spread of infestation when she draws their attention to the matter.

The problem of infestation presents peculiar difficulties to school medical officers and school nurses. Action to secure compulsory cleansing can be taken when vermin are present, but in so many cases vermin cannot be found although nits are present in quantity.

THE GENERAL CONDITION OF SCHOOL CHILDREN

Result of Routine Medical Inspection:

From the 1st January, 1956, a new classification was introduced nationally to minimise the difficulties inherent in the old classification of general condition. The reason for having only two categories is a practical one. Every child whose physical condition is considered unsatisfactory should be thoroughly investigated, including the home condition, to see what can be done to make him as fit as possible.

At periodic inspection in school, 6,581 children were examined. Of these, 6,526 (99.16%) were in a satisfactory general condition, and 55 (0.84%) were unsatisfactory. The latter children were investigated.

	Number of Pupils	Sati	sfactory	Unsatisfactory	
Age Groups (1)	Inspected (2)	No.	% of Col. (2)	No.	% of Col. (2)
Entrants	1,932	1,915	99 · 12	17	0.88
Primary School Leavers	2,201	2,177	98.91	24	1.09
Senior Leavers	2,018	2,010	99 · 60	8	0.40
Other Periodic Inspections	430	424	98 · 60	6	1.40
Totals	6,581	6,526	99 · 16	55	0.85

The School Meals and Milk in Schools Schemes:

The percentage of school children during 1956 taking school milk under the above schemes 83.89
No. of dinners produced in the school kitchens during 1956 2,463,749
Average number of children taking meals daily 10,639
Percentage of school children taking dinners in school during 1956:—
As percentage of number on roll 42.52
Expressed as percentage of average attendances 46.54
No. of central kitchens 5
No. of kitchen/dining rooms 15
No. of children on free meals list at 31st Dec 652

A special investigation was made in January by health visitors into the number of girls having school milk in a secondary modern school, and the reasons why girls did not have milk.

The following table shows the number of children in each age group, and the number taking or not taking milk:—

Age Group	Total	No. having Milk	No. not having Milk	% not taking Milk
11-12	73	47	26	35.6
12–13	128	102	26	20.3
13–14	124	59	65	52.4
14–15	94	54	40	42.5
Totals	419	262	157	37.5

REASONS FOR NOT TAKING MILK:

One hundred and fifteen children were able to give reasons why they were not taking milk. The remainder, with the exception of two who were absent, didn't know. The commonest reasons for not taking milk were—

- i. The preference for the taste of sterilised milk, which was drunk at home; 51 gave this as their reason for disliking school milk.
- ii. To drink milk made them feel sick-14 gave this as their reason.

QUALITY OF MILK:

Six children complained about matters connected with the apparent quality of the milk—

- I said she had seen a piece of black in it, which had put her off;
- 2 said they drank T.T. milk at home and therefore would not drink school milk;
- 2 said the milk tasted sour on one or two occasions; and
- 1 said she could taste it afterwards for ages.

TEMPERATURE:

- 14 children said the milk was too cold to drink;
 - 2 said it was too cold in winter, but they had it in summer;
 - 2 only liked milk when it was hot.

MEDICAL AND QUASI MEDICAL REASONS:

Four children did not take milk for various reasons connected with their health. Two of these were definitely on the advice of medical practitioners. One for a skin condition, and one for obesity. The remaining two merely said "the doctor said they shouldn't."

Ten children gave quasi medical reasons for not having milk—

- 2 complained that it gave you a chill on your stomach;
- 2 said that it was bad for their catarrh;
- 1 that it overheated her;
- 2 that it gave them headaches;
- 3 stated they were sick after it once and therefore had not had it since.

OTHER REASONS:

- 3 stated they only drank milk in tea;
- I stated that she drank plenty at home;
- I stated that her mother never forced her to drink it when she was small;
- 3 complained they didn't like the cream.

IMMUNISATION

Immunisation against diphtheria and whooping cough was offered to children during their first year at school. A total of 801 children received reinforcing doses on admission to school, and 427 were immunised for the first time—135 against diphtheria only, and 292 against both diphtheria and whooping cough.

It is unfortunate that there is such a large number of children needing immunisation for the first time on entry to school. Primary immunisation is best done in infancy, and reinforcing doses should be given preferably before admission to school. Unfortunately, parents tend to leave this until the child is actually in school.

DENTAL HYGIENE

Report of the Principal School Dental Officer

Staff:

The resignations of two full-time dental officers took place during the year and that of a part-time officer. Another dental surgeon, however, was appointed for part-time duties although regular advertising produced no response. At the end of the year there remained only three full-time dental officers (the authorised establishment being eight) and one part-time officer. Further resignations were imminent and the outlook for 1957 was gloomy.

There was a considerable amount of sickness of dental staff during the winter and autumn months and this, as well as the resignations, accounts for the general fall in the statistical return of items of work completed. This year, however, the sessions devoted by dental officers to the administration of general anaesthetics for a colleague have not been included in the number of sessions devoted to treatment, thus a more accurate indication can be found of the number of patients treated and the items of work completed per session, but this apparent increase of course is only a different statistical presentation.

Clinics:

The two surgeries at the Robert Galloway Clinic and the surgery at Astley Bridge were worked throughout the year, but one of the two surgeries at Charles Street Clinic was in use only part-time. The surgery at the Withins Clinic was not in regular use owing to the shortage of dental officers.

Treatment:

The general pattern of work established over the last few years was maintained with the exception of orthodontics which was slightly increased. One of the dental officers with post-graduate experience specialised in orthodontics and in addition to providing 106 appliances himself gave advice and assistance to the other members of the staff which was of great value. Unfortunately he is one who has left the school service to enter general practice and as it is extremely unlikely that we will be able to recruit another dentist of his experience, a very large fall in the number of orthodontic cases must be expected next year.

The increased number of "other operations" to permanent teeth (4,979) is related largely to the increased orthodontic work for which children have to make numerous visits for adjustments to their appliances.

Three orthodontic cases of great complexity were referred to the Orthodontic Department of the Manchester Dental Hospital for advice and treatment and a number of children suffering from tumours and infections of the jaw were referred to the Consultant Dental Surgeon at Bolton District General Hospital.

The number of 'special' inspections (children attending the clinics on their own initiative) was 2,946—almost exactly the same as last year (2,977), and as these children are all treated the number of others who could be offered treatment was limited, and thus the number of children inspected in school had to be restricted. The number of children inspected routinely was reduced from 16,360 in 1955, to 11,209, somewhat less than half the school population.

A difficult ethical problem with regard to school inspections faces dental officers when a small and rapidly changing staff is well below strength. The very existence of the School Dental Service discourages a proportion of parents from actively seeking treatment in the belief that the service is doing all that is necessary for their children's dental care. When parents are aware that a dentist has visited the school and yet they have not received an offer of treatment they justifiably draw the conclusion that their children do not need treatment whereas that is not necessarily so and in a completely developed service treatment might well be provided. Should these children be taken to a general dental practitioner and be accepted by him, such treatment will be given and thus an impression of inefficiency of the school service is given to those very parents who initially looked to it for their children's dental welfare. This difficulty can only be overcome by limiting the children per dental officer to that number which he can properly deal with or by restricting the forms of treatment offered. In either case parents (and employing authorities) should be aware of what can be done and what cannot be done by the School Dental Service. They are entitled to know, for example, if the School Dental Service is following the recommendation of the Chief Medical Officer of the Ministry of Education and extracting technically savable teeth with large cavities because to fill them would take a disproportionate amount of time. If they do not know, the service is in danger of being thought of as a refuge for the incompetent rather than a vocation for the devoted.

General Remarks:

It would appear from Bolton's experience that very few dental surgeons are willing to make a career of the School Dental Service. A reasonable number give it some sort of a trial, but the majority pass on to general practice. It is disappointing to find that these include people who are temperamentally suited to children's dentistry and apparently less so to general practice. It seems that general practice provides satisfactions not available to the school dentist, a conclusion that gives food for thought when it is considered that the impression given by the McNair Committee on Recruitment to the Dental Profession was that large numbers of dentists in general practice are dissatisfied, and that the majority would be unwilling to advise any young person to make dentistry his career. The large number of dissatisfied general dental practitioners does not seem to view the School Dental Service as acceptable alternative employment although the causes of dissatisfaction with general practice discovered by the McNair Committee are not found in the School Service, and the figures supplied to the Committee showing the income pattern of general dental practitioners indicate that a school dentist can expect to earn between the ages of twenty-five and sixty-five as much in the aggregate as he could as a single-handed general practitioner.

As the aim of the School Dental Service remains what it was twenty-five years ago, the hope that it will ever come within sight of this now seems to be centred on the use of ancillary personnel. An experiment in this field is to be conducted under the provisions of the Dentists Act of this year.

Dental Inspection and Treatment:

(1)	Number of pupils inspected by the	Ant	hori	tv's	Deni	al O	fficer	s·—
(-)				-50				
	At Periodic Inspections		• • • •					11,209
	At Special Inspections							2,946
	TOTAL							14,155
(2)	Number found to require treatmen	t						9,326
(3)	Number offered treatment							7,768
(4)	N							5,807
1 /	Number of attendances made by				eatm	ent	in-	2,007
(5)	cluding those recorded at heading				aciii	ciic,	111	12,458
(6)	Half days devoted to: Periodic (Sc.	-	2 7		ion			58
(0)	T		,	Peec			****	1,672
	Treatment			***			****	
	Total							1,730
(7)	Fillings: Permanent Teeth							2,212
1	Temporary Teeth							830
				8.000	0.000		100000	
	TOTAL							3,042
(8)	Number of teeth filled: Permanent	Tee	th					2,039
4	Temporary							793
	the state of the s							
	Total							2,832
(9)	Extractions: Permanent Teeth							3,350
	Temporary Teeth							8,049
	Total							11,399
(10)	Administration of general anaesthet	tics f	or e	xtrac	tion			4,377
(11)	Orthodontics:							
	a. Cases commenced during the	year	r					138
	b. Cases carried forward from p	revio	ous y	year				84
	c. Cases completed during the	year						146
	d. Cases discontinued during th							19
	e. Pupils treated with appliance							138
	f. Removable appliances fitted							178
	g. Fixed appliances fitted							18
	h. Total attendances							1,361
	n. Total attendances		• • •					1,501
(12)	Number of pupils supplied with ar	tificia	al de	entui	es			43
								1070
(13)	Other operations: Permanent Teet							4,979
	Temporary Teet	th						1,126
	Towns							6 105
	Total			***			***	6,105

INFECTIOUS DISEASES IN CHILDREN

There was a fall in the number of cases of measles reported but the monthly figures showed a rise towards the end of the year and indicated the probability of an epidemic in the Spring Term of 1957. Measles appears to have reestablished the cycle of two years, with a larger epidemic every fourth year. The disease is largely one of children from one to six years of age, and affects principally children in nursery schools and the new entrants to primary schools. It seems to be slightly milder in character.

Whooping cough notifications remain at about the same level although once again it seems as if there was a slight epidemic in the summer months.

The numbers of notifications of poliomyelitis in children were small in comparison with the increase in neighbouring areas.

One case of acute encephalitis following measles was reported. Unfortunately this child, a boy aged 7, died.

The year is most noteworthy for the increase in the number of cases of dysentery, all due to Shigella sonnei. The disease was prevalent mainly among children attending nursery and primary schools. There were extensive outbreaks in three primary schools, all of these being rather old buildings. Evidence has been produced nationally to suggest that contamination of the W.C. seat is an important factor in the spread of this disease. With the existing poor facilities in some school premises very little can be attempted to give sound training in hygienic habits. It is urgently necessary to improve archaic arrangements at some of the older schools. Until this is done it is difficult to instil sound methods of personal hygiene into the minds of school children, and there will always be the danger of outbreaks of dysentery.

Of the 65 cases of food poisoning none was found to be caused by spread through the school meals service.

No case of diphtheria was reported during the year.

Incidence of Infection:

The number of cases each month was as follows:-

	Number of Cases												
Disease	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Scarlet Fever Measles Whooping Cough Pneumonia Poliomyelitis (Paralytic) Poliomyelitis (Non-Paralytic) Enteric Fever (Paratyphoid B.) Dysentery Food Poisoning Erysipelas Diphtheria Meningococcal Infection Acute Encephalitis	12 6 43 10 - - 58 7 - 1	14 2 33 8 - - - 136 3 -	4 4 40 5 - - 160 5 - -	2 3 13 4 - - - 80 5 - -	4 4 26 5 - - - 52 2 - 1	9 4 48 1 - 1 - 48 4 - -	3 2 28 3 2 - - - 13 6 - -	6 12 48 5 1 2 - 14 4 - -	6 12 10 - - 1 - 5 8 - -	8 55 11 9 - - - 10 7 - -	9 113 4 4 1 2 - 8 3 - -	11 498 1 9 1 - - 3 11 - -	88 715 305 63 5 6 - 587 65 - - 2

Age at Infection:

The age of the children at infection is shown below:

	Age																
Disease	Un- der 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Scarlet Fever	-	2	3	15	15	20	11	5	6	4	4	1	1	1	-	-	88
Measles	18	59	89	126	104	153	90	42	10	10	5	6	3	-	-	-	715
Whooping Cough	28	37	49	43	40	53	21	14	6	9	-	-	4	-	1	-	305
Pneumonia	33	3	5	7	9	4	-	-	1	-	1	-	-	-	-	-	63
Poliomyelitis	-	1	2	1	-	-	-	-	-	-	1	-	-	-	-	-	5
(Paralytic) Poliomyelitis	-	-	-	1	1	-	-	1	-	1	-	2	-	-	-	-	6
(Non-Paralytic) Enteric Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Paratyphoid B.) Dysentery	28	68	72	70	79	85	43	34	33	21	18	9	11	10	3	3	587
Food Poisoning	4	6	8	5	5	7	8	4	3	5	-	-	-	4	3	3	65
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal Infection	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2
Acute Encephalitis	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
																	1

REPORT ON PHYSICAL EDUCATION

Interest in physical education continues to develop. The introduction of Putting the Shot, Throwing the Discus and Javelin, referred to in the last report has already shown pleasing results—Bolton competitors securing two firsts and several places in these events in the Inter-Town Schools Athletic Competition held at Rochdale in July.

A change has been made in the teaching of swimming, the emphasis on instruction being moved from the Secondary School to the top year of the Primary School.

Courses and demonstrations for teachers have been held throughout the year, the value and appreciation of these being shown by the large numbers attending.

THE WORK OF THE CHILD GUIDANCE CENTRE

Report of the Educational Psychologist

This report covers the work done by Miss M. P. Joyce, the Educational Psychologist. In addition, 59 children were seen and investigated, and in suitable cases, treated by Dr. E. Berndt, the Child Psychiatrist.

Analysis of Cases:

All the children seen have been classified under one of the following categories according to the main characteristics of their problems and the advice given.

Referred to Principal School Medical Officer:—			
As potentially educationally subnormal			18
As ineducable			8
For medical examination			14
For possible referral to Professor Ewing at the Departs Education of the Deaf	men	t of	5
As no longer educationally subnormal	***		3
For possible admission to Lostock Open Air School			3
For referral for speech therapy			2
For placement in a day nursery			1
Advice to schools			64
Personality and behaviour disorders, including referrals	to	the	
Psychiatrist			24
For subsequent inclusion in a Remedial Class			16
For further testing			11
To be considered for Birtenshaw Hall Special School for			
children			10
No action required			9
Advice to parents			5
For placement in Residential Special School:-			
For Educationally Subnormal Children			4
For Blind Children			1
For Deaf and Partially-sighted Children			1
For Deaf Maladjusted Children			1
For Maladjusted Children			6
For placement in School for Training of the Deaf	• • •		1
For Evening Class for Retarded Readers			2
For placement in the care of Bolton Children's Committee			1
Total			210

This does not include those tested in the routine way for inclusion in Remedial Classes.

The practice of giving shortened versions of individual tests was discontinued except in one or two cases, and each child has received a full psychological examination.

The Psychologist examined all results of testing for inclusion in Remedial Classes and Groups, and personally selected and arranged these groups. When all children with whom the Psychologist has been concerned are considered, the total number dealt with was 1,286.

During the absence of the Social Worker on three months' sick leave, the Psychologist conducted the interviews with parents and examined the children.

The cases were referred by:-

Schools	 	141
Principal School Medical Officer	 	32
Psychiatrist	 	16
Parents	 	8
Remedial Teachers	 	6
School Attendance Officer	 	3
Speech Therapist	 	2
Chief Education Officer	 	1
Area Children's Officer	 	1
TOTAL	 	210

The following table shows the chronological ages of the children seen at the Centre:—

CHRONOLOGICAL	AGE			N	O. SEI	EN
3— 4 y	ears	 		 	2	
4— 5	,,	 		 	6	
5— 6	,,	 		 	20	
6 7	,,	 		 	28	
7— 8	,,	 		 	26	
8— 9	,,	 		 	19	
9—10	,,	 		 	37	
10—11	,,	 		 	28	
11—12	,,	 		 	14	
12—13	,,	 		 	4	
13—14	,,	 		 	13	
14—15	,,	 		 	7	
Over 15	,,	 		 	6	
		Тота	AL	 	210	

Children in need of placement in Residential Schools:

Eleven children were referred to the Principal School Medical Officer as probably in need of special education, the types of schools recommended and obtained being as follows:—

Type of School	Number Recommended	NUMBER PLACED
For Maladjusted Pupils For Educationally Subnormal Pupils For Deaf and Partially-Sighted Pupils	1	6
For Blind Pupils For Maladjusted and Deaf Pupils		1 0
Totals	11	8

Children below the age of seven years:

Further investigation of this problem has been carried out. Head teachers were asked to refer children below the age of seven years who were thought to be backward and might subsequently be in need of special educational treatment as educationally subnormal or even found ineducable.

Forty-eight children in this category have been examined, and 26 of them were not, in the opinion of the Psychologist, receiving adequate educational treatment in ordinary classes.

Remedial Classes:

At the end of the year the following staff were employed:-

CLASSES IN JUNIOR SCHOOLS:

Each class comprised pupils drawn from several schools in the area, as follows:—

SCHOOL AT WHICH CLASS IS ESTABLISHED	No. of Staff (Full-time)	CONTRIBUTORY SCHOOLS
Brandwood Street	1	Morris Green Brandwood Street
Church Road	1	Church Road Castle Hill St. Thomas', Halliwell Johnson Fold
Clarendon Street	1	Victoria St. Mark's St. Michael's Emmanuel Ridgeway's Endowed Sunning Hill Holy Trinity Clarendon Street

Haulgh Haulgh St. John's Tonge Moor Crompton Fold Lever Bridge Lever Edge Lane 1 Victoria Morris Green SS. Simon and Jude's Lever Edge Lane St. Matthew's 1 Oxford Grove St. George's St. Thomas', Halliwell Gaskell Street St. Matthew's Chalfont Street

Johnson Fold

GROUPS IN SENIOR SCHOOLS:

The first year intake in each Secondary Modern School was given tests by a Remedial Teacher, and remedial groups were then selected. Certain pupils were retained from groups of previous years. Teachers were appointed to take groups in one or more schools as follows:—

Brownlow Fold Whitecroft Road Tonge Fold	} One full-time teacher
Castle Hill Folds Road	} One full-time teacher
Hayward School	One full-time teacher
SS. Peter & Paul's St. Edmund's (Eastbourne Grove) St. Mary's	} One full-time teacher

EXTENSION OF SENIOR GROUPS:

In September more teachers were recruited, and all except one of the Secondary Modern Schools had a Remedial group.

An analysis of the results of this work shows that in Junior Remedial Classes the total average increase in reading age after one year's training was 1.9 years. The average for 3rd year children (9 years old) was 2.1, and for 4th year (10 years old) 1.6 years.

In Senior Remedial Groups the average increase in reading age over the year was 2.1, the best result being in one class where 2.6 was recorded. In the 2nd year the average increase was 1.5; the best results were in one class where 2.8 was obtained.

Several pupils needed only one or two terms of remedial teaching.

The Social Worker visited the homes of 120 children selected for Junior Remedial Classes.

FUTURE PROPOSALS:

After detailed examination of the scope and results of Remedial Classes certain changes are recommended. These should take place over the next two years.

The majority of children should be admitted at the age of 8 years instead of 9. This would allow them to remain in a class for three years, if necessary, and allow—

Brighter children to have the time to make up their greater lee-way;

Others to have time to consolidate their improvement;

The attainment of a higher reading age before leaving a class;

The admission (to certain of the classes) of duller children who at present cannot attend because their comparative retardation is not as great as that of brighter children, and only a limited number of places are available;

The admission of brighter children who are retarded in comparison with their greater capabilities, but whose actual reading age is rather higher than that of other candidates who at present are not included.

This would mean providing extra classes in Primary Schools, and accordingly reducing the need in Secondary Modern Schools for these facilities. The teachers of the senior groups no longer required could then take the extra junior classes, as in almost every case they are willing and qualified to do. One or two peripatetic teachers of senior groups would then be sufficient.

EVENING CLASSES FOR RETARDED READERS:

A further evening class for children above school leaving age who are retarded in reading was established in the Christmas Term, and a third one is planned for Easter, 1957.

Other Activities:

The Educational Psychologist also gave lectures and attended (by invitation) the meetings of the Head Teachers' Association and various Parent/Teacher Associations. Discussion groups were held with groups of school medical officers, student health visitors and remedial teachers. She visited the Authority's Special Schools, and served on the Medical Advisory Panel for Birtenshaw Hall Special School for Spastic Children.

HANDICAPPED PUPILS

An increasing proportion of the work of school medical officers is becoming concerned with the problems of children with handicaps. The majority of these children are attending ordinary schools, since every attempt is made to see that children with a handicap are, as far as possible, given education in association with normal children, but there are of course some who cannot be so educated.

Ascertainment in 1956:

The following children were ascertained as in need of special educational treatment as handicapped pupils during the year:—

Blind							 	2
Deaf							 	3
Partially I)eaf						 	28
Education	ally	Subi	norm	al			 	10
Maladjust								
Physically	Ha	ndica	pped				 	10
Pupils suf	ferir	ng fro	m Sp	peecl	h De	fects	 	56
Delicate								
							-	_
		To	TAL				 	151

Children in Special Schools:

At the end of the year there were 249 handicapped pupils receiving special educational treatment in special schools, and the following table gives details.

		No. of Pt	UPILS
HANDICAP	SPECIAL SCHOOLS	BOARDERS	DAY
BLIND	Junior School for the Blind, Liverpool Henshaw's Institute for the Blind, Manches Condover Hall, Shrewsbury Overley Hall, Wellington Chorleywood College, Herts Yorkshire School for the Blind, York	1	1111111
PARTIALLY SIGHTED	Chorleywood College, Herts Sunshine Home, Southport Barclay School, Sunninghill, Berks. Preston School St. Vincent's, Liverpool Corporation Park School, Blackburn		
DEAF	Thomasson Memorial School, Bolton Royal Residential School, Manchester Royal Cross School, Preston		14 - -
PARTIALLY DEAF	Thomasson Memorial School, Bolton		11
DELICATE	Lostock Open Air School, Bolton	81	-
PHYSICALLY HANDICAPPED	Birtenshaw Hall School, Bromley Cross Burton Hill House School, Malmsbury Bradstock Lockett School, Southport Open Air School, Preston Hatchford Park, Cobham, Surrey Salmons Cross, Surrey		9 - 1

		No. of Pupils		
HANDICAP	SPECIAL SCHOOLS	Bos	ARDERS	DAY
EDUCATIONALLY SUBNORMAL	Woodside School, Bolton	on-	-	98
	Tyne		2	-
	Woodville School, Longridge		1	-
MALADJUSTED	Wennington School, Wetherby, Yorks.		1	-
EPILEPTIC	Maghull Homes, Liverpool			-
	Colthurst House School, Alderley Edge		1	-
	Soss Moss School, Chelford		2	-
	Chalfont St. Peter School, Bucks		1	-
	Totals		115	134
	Total		249	

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						 3
Physically Handicapped						 4
Educationally Subnormal						 14
Maladjust	ed					 5
Delicate						 6
		To	OTAL			 32

Total number receiving or needing special school accommodation ... 281

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., 1956	 58	41
No. of children admitted during 1956	 13	9
No. of children who left during 1956	 10	13

The above includes one child from the County area.

A medical officer visited the school monthly, and each pupil received a routine school inspection during the year.

THOMASSON MEMORIAL DAY AND RESIDENTIAL SPECIAL SCHOOL FOR DEAF AND PARTIALLY DEAF CHILDREN:

Pupils were admitted from our own and other authorities' areas. With a few exceptions, the children who lived in Bolton or nearby, attended as day scholars; the remainder were resident.

The Consultant Aural Surgeon paid 7 visits and carried out 136 examinations.

The numbers of children were:-

From the Bolton Area:	Boys	GIRLS
No. of children on the roll, Dec., 1956	 15	12
No. of children admitted during 1956	 3	2
No. of children who left during 1956	 3	1
From Outside Areas:		
No. of children on the roll, Dec., 1956	 38	23
No. of children admitted during 1956	 3	7
No. of children who left during 1956	 3	4

LOSTOCK RESIDENTIAL OPEN AIR SCHOOL FOR DELICATE CHILDREN:

As the number of delicate children from Bolton has been falling, places were offered in 1955 to children from the Lancashire County area. This has had the effect of increasing the number of children in the school with chest conditions, especially asthma, and it is apparent that the Lostock Open Air School is providing an excellent education for children with this type of handicap. It is extremely rare for the medical officer for the school to ask for any limitation of activity for a child, and the swimming bath is open all the year round. Regular breathing exercises are given, and children show a remarkable gain in weight and improvement in physical condition even after the first term.

A medical officer visited the school each week for routine medical examinations. Medical care was provided by a local general practitioner on whose list the children were placed on admission to the school.

The following table gives details of the number of children in attendance, admitted and discharged during the year:—

From the Bolton Area:	Boys	GIRLS
No. of children on the roll, Dec., 1956	 39	42
No. of children admitted during 1956	 19	15
No. of children discharged during 1956	 30	19
FROM OUTSIDE AREAS:		
No. of children on the roll, Dec., 1956	 35	5
No. of children admitted during 1956	 31	6
No. of children discharged during 1956	 4	2

An analysis of the medical conditions for which children were admitted to the school is given below:—

		No. of Children				
MEDICAL	L Co	1	BOLTON	OUTSIDE AREAS		
Anaemia			 		1	2
Asthma			 		13	- 27
Bronchitis			 		14	2
Bronchiectasis			 		3	4
			 		-	1
Poor nutritional star			 		9	-
Still's Disease			 		1	-
General debility			 		60	5
Neutropenia			 		-	1
Pseudo Coxalgia					1	_
Chorea					-	1
Post concussional sy					-	1
Plastic surgery			 		-	1
Recurrent respirator						1
Underweight					14	-
Various other condi	tions	3	 		14	-
To	TALS		 		130	46
				-	_	

The past two years have seen a gradual change in the type of case using the school. It is agreed by the medical staff that the school is being put to its best use at the present time by the acceptance of a good proportion of chest cases which have now been shown by experience to do very well indeed, and to lose very little educational time as a result of their handicap.

Children in other Special Schools:

Arrangements are made for the regular examination and review of handicapped pupils who were attending schools in other parts of the country. These examinations were usually carried out when the children are on holiday, and it is thus hoped to keep in close touch with their problems in spite of the fact that in some cases they are educated in residential schools far away.

Children suffering from Cerebral Palsy:

The Birtenshaw Hall Special School for Spastic Children, which is situated just outside Bolton, opened before the end of the year. At this stage only a few children were admitted to the school until it became fully organised, but it was hoped that the school would be running at full capacity in the early part of 1957.

Cases for admission to the school were considered by the Medical Advisory Panel, which consisted of the Principal School Medical Officer for Bolton and his deputy; the Deputy Principal School Medical Officer to the Lancashire County Council; the Consultant Paediatrician and two Consultant Orthopaedic Surgeons for the Bolton area; the Educational Psychologist to the Bolton Education Authority, and the headmistress of the school. During the latter half of the year the Panel met frequently to sort out applications received from many areas, and to advise also on matters connected with physiotherapy and speech therapy at the school.

The school will provide for the education of many spastic children in the district who previously have not had any special provision made for them, and it would appear that 14 children from Bolton would be admitted in early 1957, in the first instance for a trial period. Many of these will be attending school for the first time in their lives.

Altogether, there were 31 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 Awaiting admission to Birtenshaw Hall Special	5	4
School	1	4
Attending special schools for the deaf	1	2
Attending special school for educationally subnormal		1
Attending open air school	-	2
Attending ordinary schools	6	2
Pre-school children—at home	3	-
TOTALS	16	15

Children unable to attend school because of Physical Disabilities:

The service of home teachers was needed for 20 children and a total of 2,065 hours' instruction was given.

The conditions necessitating this service were as follows:-

					Boys	GIRLS
Asthma and bronchit	is				 1	-
Spastic paraplegia					 1	2
Eye operation					 1	-
Rheumatic fever					 -	2
Rheumatism					 -	2
Congenital abnormali	ity of th	ne sp	ine		 -	1
Appendicitis					 1	-
Burns					 1	-
Pulmonary tuberculo	sis				 -	1
Kidney trouble					 -	1
Ectopia vesicae					 1	-
Haemophilia					 1	-
Hydrocephalus					 -	1
Totally inverted left	foot				 -	1
Left hemiplegia follo	wing ro	ad a	ccide	nt	 -	1
Still's Disease					 1	-
To	OTALS				 8	12

Two boys and five girls were taken off the peripatetic teachers' list for the reasons stated below:—

RESUMED ATTENDANC	E AT	ORD	INAR	Y SC	HOOI	LS:	Boys	GIRLS
Rheumatic fever							-	1
Rheumatism							-	2
Burns Tubors							1	-
Pulmonary Tubero Kidney trouble	uiosi	S	***					1
							-	1
COMMENCED WORK OF LEAVING AGE:	N ATT	TAIN	ING S	CHOC	DL			
Appendicitis						***	1	-
To	TALS		***				2	5

FORM Y.9

This form was completed in respect of 74 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
Colour Blindness			 	 	38	2
Defective Vision			 	 	2	
Defective Hearing	z		 	 	-	3
Chronic Bronchit	is		 	 	4	2
Curvature of the	Spine		 	 	1	-
Hallux Valgus				 	-	1
Artificial Eye			 	 	2	-
Dizzy Spells			 	 	1	-
			 	 	-	1
Eczema of Hands					5	-
History of Rheum	atic F	ever	 	 	-	1
Hay Fever and Ca	atarrh		 	 	1	-
Asthma			 	 	4	2
Heart Disease			 	 	3	-
Diabetes	***		 	 	1	-
	Тота	LS	 	 	62	12

Form Y.9 completed for-

Leavers from—	Boys	Girls	Total	
Through Schools	6	-	6	
Secondary Modern Schools	43	9	52	
Technical College	12	2	14	
Grammar Schools	1	1	2	
TOTALS	62	12	74	

FORM Y.10

No Forms Y.10 were issued during the year. This form is used for children leaving school who have a major bodily defect which would interfere seriously with their chance of obtaining employment.

Speech Therapy:

An additional full-time speech therapist took up her duties in September, and therefore, there are two reports on speech therapy. The waiting list was 20 at the end of the year.

	REPORT OF THE FIRST SPEECH THER	APIST		
No. of	patients treated on once weekly basis		69	
No. of		14		
No. of	patients receiving daily treatment		1	
No. of	patients admitted during the year		36	
No. of	patients re-admitted during the year		2	
No. of	patients discharged during the year		26	
No. of	patients who left to commence work		2	
No. of	patients unable to benefit further		3	
No. of	patients who have left at parent's requ	est	3	
No. of	patients who have left town		1	
No. of	patients discharged due to poor attend	ance	1	
No. of	patients transferred to residential scho	ols	2	
Ty	PE OF DEFECT TREATED B	OYS	GIRLS	TOTAL
Stammering	(a) on once weekly basis	21	14	35
		12	-	12
Dyslalia		13	10	23
Retarded sp	eech development (Alalia)—			
	(a) once weekly basis	4	-	4
	(b) twice weekly basis	-	1	1
Cleft Palate	Speech—			
	(a) once weekly basis	2	3	5
	(b) twice weekly basis	-	1	1
Spastic Dysa	arthria	-	1	1
Alexia		-	1	1
Alexia + D	ysgraphia (has recently commenced			
	atment)	1	-	1
		52	21	0.4

TOTALS

31

53

84

DEFECTS REMEDIED								Boys	GIRLS	TOTAL
Stammering								 14	2	16
Dyslalia									2	7
Cleft Palate	Spe	ech						 1	-	1
Spastic Dysa	rthr	ia						 -	1	1
Alexia								 -	1	1
		Т	OTALS					 20	6	26

During the year appointments were made for 60 children to attend with parents. Of these, 14 appointments were not kept, and of the remaining 46 there were 10 with no apparent defect and 36 were admitted to the clinic.

A school medical officer visited the clinic frequently. Some of the patients thus examined were discharged, others were referred to specialists (psychologist, psychiatrist and E.N.T. surgeons).

SCHOOL VISITS:

On routine visits to school the therapist examined 127 children. Some of these children were already on the waiting list; others were examined at the request of the head teacher.

Twenty-seven cases were followed up in school to ascertain if progress had been maintained. All are progressing favourably.

LECTURES:

Two lectures were given at the Technical College to nurses taking the Student Health Visitors' Course on:—

The Mechanism of speech, and

The Emotional and Psychological problems relating to speech defect.

COURSES:

A refresher course was attended at Whitley Bay in October.

Type of Defect Treated:					
Stammer					5
Stammer and Dyslalia					3
Dyslalia—Multiple Dyslalia—Simple			***		27
Dysarthria (cerebral palsy)		***		***	16
Voice disorders				***	3
Alalia		***			1
			****	-	
	TOTAL				58
				-	_
Defects Remedied:					
Simple Dyslalia					3
INTERVIEWS:					
No. of appointments made					71
No. of appointments not kept by					10
No. of patients with no apparent					16
				-	
	TOTAL				97
No of shildness come in subsula				=	20
No. of children seen in schools No. of children seen at Woodside	Special	Saha	-1		39
No. of children seen at Lostock (10
140. Of children seen at Lostock (open Am	Scile	101	-	10
	TOTAL				80
			-	-	

All cases are at present receiving once weekly treatment. In cases where it is found necessary to increase the number of weekly treatments, this will be done during the coming term.

SPECIAL SCHOOLS:

One morning per week has been spent at Lostock Open Air School, and two afternoons per week at Woodside Special School. There are few children at Lostock requiring treatment, whilst at Woodside there are very many. The progress of many of the children at Woodside is very satisfactory, and seems to warrant the time expended there.

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 25 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 35 children because of alleged backwardness. Of these, one boy and 7 girls were found to be incapable of receiving education at school and were notified to the Local

Health Authority under Section 57 (3) of the Education Act, 1944. Three girls of school leaving age were examined and found to require supervision under the provisions of Section 57 (5) of the Education Act. In many cases, children excluded from school as incapable of receiving education attended the Occupation Centre run by the Local Health Authority.

ADDITIONAL REPORTS

Physiotherapy:

ULTRA-VIOLET LIGHT TREATMENT:

Fewer children have attended for ultra-violet light therapy. This is largely due to the milder weather in the spring and autumn.

School medical officers recommended 75 children for ultra-violet light therapy, and 2 children for repeat courses. The conditions for which treatment was given are shown in the following table:—

Nasal catarrh					22
Frequent colds			 ***	***	23
Bronchial catarrh	1				20
Recurrent bronchiti	5)				
Underweight					
General debility			 		19
Enlarged cervical gl					
Skin conditions					
Asthma			 		2
-				-	
To	ΓAL	***	 		75
				_	

The treatment was given in the Health Department 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		 25	17
School medical officers		 4	1
Paediatrician	***	 -	1
TOTALS		 29	19

Co-operation with the Youth Employment Service:

When a child reaching school leaving age suffered from a handicap which might cause difficulty in gaining employment, or might be such that his health would render it desirable for him not to enter certain types of employment, the Youth Employment Officers were informed accordingly by sending to them either Form Y.9 or Form Y.10, whichever was appropriate.

Hygiene in Schools:

There is a marked contrast between the hygienic conditions of new school premises and the older schools. The conditions in some of the latter are such that it is practically impossible for sound habits of personal hygiene to be

40

taught to school children. There is increasing emphasis nowadays on the problems of food hygiene, the most important step towards preventing food poisoning being the washing of the hands after using the lavatory. This is a habit which, though it should be started in early childhood at home, could be taught or re-enforced in schools. Conditions in many of our older schools make this difficult. It is appreciated that this is a national problem, but the circumstances and the conditions should be known to all concerned with the welfare of school children.

Health Education:

Two secondary modern schools in Bolton have had classes in mothercraft for the senior girls, given regularly by the school nurses. The teaching of mothercraft, no matter by whom it is given, is a very important part of the education of older girls which should be given every encouragement.

School medical officers have addressed various groups associated with Parent-Teacher Associations on matters connected with the health of school children. These meetings are extremely valuable for they keep school medical officers in touch with the current problems of parents, and provide for further discussion on matters of general interest. It is hoped that more requests of this nature will be received.

Mortality in School Children:

Seven children of school age died during the year. Two of these deaths were due to accidents—one to drowning and one to a fall; the remaining five were due to natural causes—glioma of the pons; pulmonary embolism following operation; asthma and chronic bronchitis; encephalitis following measles; chronic nephritis and Henoch-Schonlein purpura.

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, 1956			82
No. of children admitted during 1956			
No. of children transferred to primary schools			
No. of children removed by parents	***	***	15

PIKES LANE NURSERY SCHOOL:

No. of children on the roll, December, 1956	 	91
No. of children admitted during 1956	 	50
No. of children transferred to primary schools	 	15
No. of children removed by parents	 	15

Nursery Classes:

Medical examinations were carried out at the 34 nursery classes at which 1,036 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 School, and weekly to Lostock Open Air School.

Results of Periodic Medical Inspection (excluding Nursery Classes):

DEFECTS REQUIRING TREATMENT:

						Nursery Schools	SPECIAL SCHOOLS
SKIN						5	2
EYES:							
Defective vision						_	26
Squint						8	1
Other						1	-
EARS:							
Defective hearin	g					_	3
Otitis Media				v		4	1
Other						_	_
NOSE AND THROST							
						3	_
Tonsil abnormal						1	1
Speech abnorma						_	1
LYMPHATIC GLAND						_	1
LUNGS						_	_
DEVELOPMENTAL:							
Hernia				500		1	_
ORTHOPAEDIC:							
Posture						1	_
Flat Feet						_	1
Other						_	_
NERVOUS SYSTEM:							
Epilepsy	000		0.00		200	1	1
OTHER DEFECTS OR	Disi	EASES				3	i
CITAL DELECTO ON							
Т	OTAL	S				28	39

EMPLOYMENT OF CHILDREN

A total of 642 children were examined for employment outside school hours. Fourteen 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	 	 	7
Newspaper Delivery	 	 	602
Entertainment	 	 	14
Shop or Store Assistants	 	 	10
Milk Delivery	 	 	5
TOTAL	 	 	642

All the children were passed as being medically fit for employment.









