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COUNTY BOROUGH OF BOLTON

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR

1946

BOLTON

HOPKINS & SONS, CENTRAL STREET,

1947





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ANNUAL REPORT

OF THE

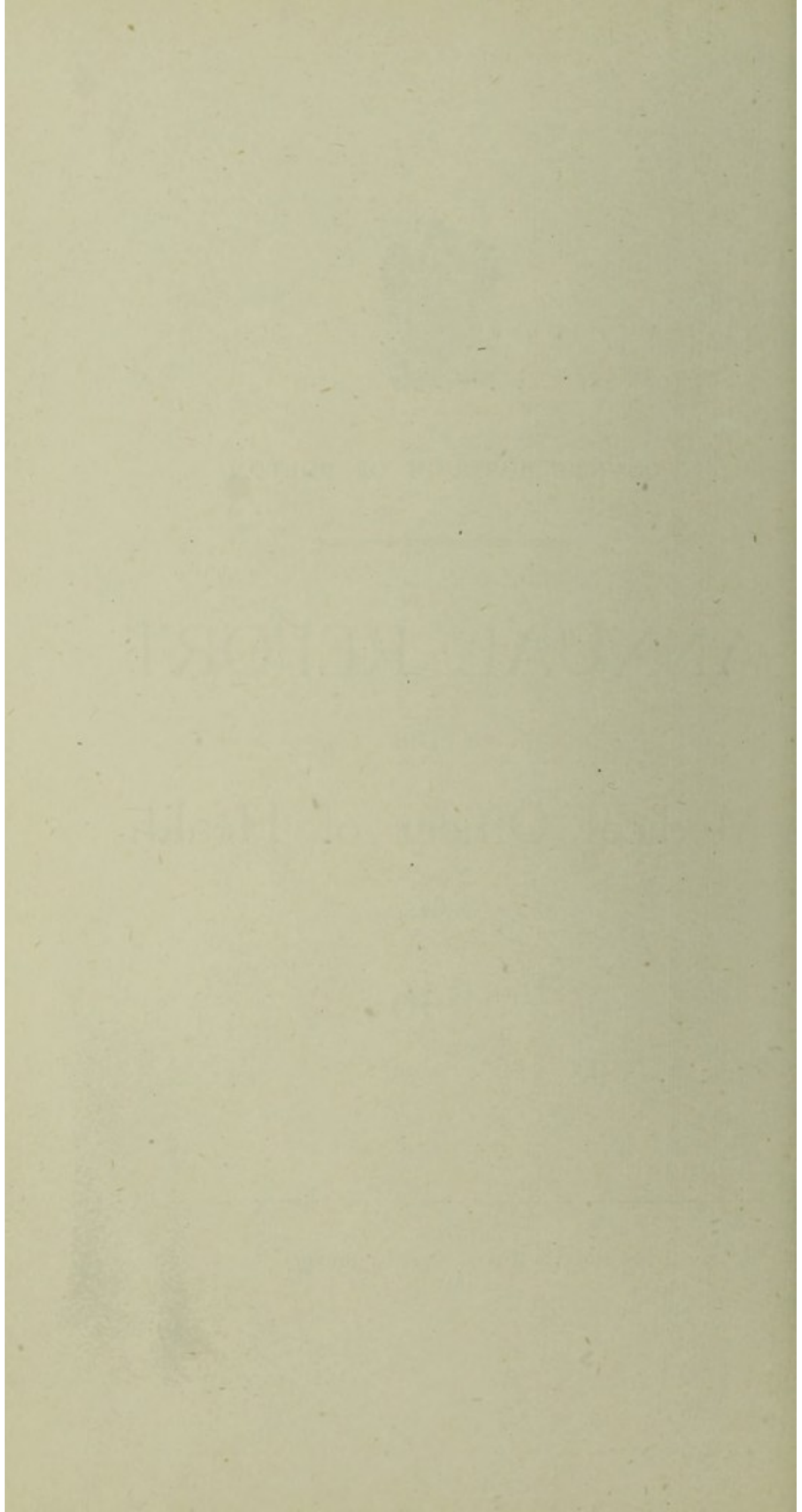
Medical Officer of Health

FOR

1946

BOLTON
HOPKINS & SONS, CENTRAL STREET,
1947

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THE LOCAL HEALTH AUTHORITY,
CIVIC CENTRE,
BOLTON.

June, 1947.

To the Chairman and Members of the Health Committee :

LADIES AND GENTLEMEN,

I have the honour to present the Report for 1946, the seventy-fifth Annual Report on the Health of Bolton.

It is again possible to report a year of general improvement in the health of the town. The number of births is greater than it has been since 1923. There is evidence of substantial improvement in the health of infants and children. The Infantile Mortality rate of 38 per 1,000 births is lower than has ever been recorded in Bolton and is substantially lower than the rate of 43 for England and Wales. The incidence of epidemic disease has been low and the deaths few. It is satisfactory to note the low incidence of Diphtheria with only three deaths. The sustained effort of the last few years to immunise the child population against Diphtheria is bearing fruitful results.

Throughout the year the shortage of nurses in hospital resulted in considerable hardship to old and sick people. The demand for admission to hospital continued to grow but shortage of nursing staff made it impossible to utilize all the available hospital accommodation and waiting lists for admission to hospital became larger. Some of the needs of the patients awaiting admission to hospital have been met by means of an effective system of Home Helps. Bolton has provided such a service for twenty years but it has been greatly enlarged and extended in the last few years. Thirty Home Helps were employed during the year under review and the number has since grown to nearly sixty.

During the year, the planning of future Health Services has been in the minds of Parliament and people. The National Health Service Act, 1946, marks the end of the Public Health Administration which has evolved during the last hundred years. It seems appropriate to review the achievements and failures of Public Health Administration in Bolton during the last hundred years and to take stock for the future.

At the end of the Eighteenth Century, the beauty of rural England was still unspoilt and the Englishman was a country man. Bolton, lying in the foothills of the Pennines with good trout fishing in its primrose-banked streams, still held the setting which explained its former reputation as a minor Spa. The factory regions were only a part of the whole although they were a model for the future. During the early part of the Nineteenth Century, England led the world in the industrial revolution. Unfortunately, the revolution was accompanied by a rampant individualism inspired chiefly by ideas of quick money returns which set up the nasty model of modern industrial life, and the first part of the nineteenth century saw the change from a pleasant Bolton in a rural setting to a town of squallor and pestilence. The welfare of most of the working people was given little consideration and it was not until the middle of the century that the public conscience was stabbed sufficiently wide awake to demand better things for the ordinary man. An uneasy conscience was finally stirred to serious action throughout the country in the panic following cholera epidemics. One hundred years ago, in 1847, the first Medical Officer of Health was appointed by the City of Liverpool. In the following year, the first of many Public Health Acts was placed on the Statute Book. The years 1847 and 1848 are notable as the commencement of an epoch of Local Government which has had profound effects on the attempts to order a good life in large industrial communities, and to repair the damage done in the first half of the Nineteenth Century.

The relative austerity of the present day tends to encourage romanticism about the good old times. A comparison of Bolton today with the Bolton of one hundred years ago gives no encouragement of any sort to this kindly view of the past. Great and Little Bolton had been incorporated as a Borough in 1838 but a hundred years ago, Local Government was still confused. The town had a population of

about 53,000 and the acreage of 2,301 included Bradford, Church, Derby, East, Halliwell, North, Rumworth and West Wards. There were no laws to regulate the erection of new buildings and the town had become a motley assemblage of ill-constructed dwellings and irregular streets, unpaved and practically undrained. The crossing of Moor Lane in rainy seasons was a hazardous exploit. The portion of the town bounded by the River Croal on the North, Bradshawgate on the East, Moor Street on the South and Moor Lane on the West was "as crowded with houses as it was almost possible that such an area could be." In this area the houses were old and decayed, many of them in yards with pigsties, middens and all the refuse of the surrounding dwellings. Most of the working class houses were back to back, with one room on a floor. There were still 1,500 cellars let as separate dwellings with a population of nearly 7,000 people inhabiting them. The congestion and overcrowding described in such places as Gaffers Ginnel, Clarkes Entry and Spring Gardens, make the bad overcrowding of the present day appear almost insignificant. In a cellar 14ft. x 15ft. in a lodging house in Dawes Street, there lived 25 human beings "sleeping on the straw covered floor as opportunity offered". A house in King Street was let as 10 furnished rooms to fifty persons, although each letting only contained one bed. There were 84 mendicant lodging houses in the town. Alcoholic drink was available in abundance with one place of sale or public resort to every 136 inhabitants—three times as many as there are now. The problem of burying the dead without causing harm to the living had not yet been solved. An observer at the time noted that the grave yards were well kept but that they all stood higher than the street owing to excessive use. He also noted that the large pits which acted as communal graves caused a public nuisance. The Belmont water supply owned by the Corporation supplied 7,500 of the 9,500 houses and cellars in the town. The remaining houses obtained their water from stands in the street which were fed from Bolton Moor and reservoirs situated between Fletcher Street and High Street. When money was free, diet appears to have been good. Education was carried out in the Sunday Schools which were attended by upwards of 10,000 persons who were taught to read and some to write. Three thousand children attended day schools. There were 100 boys at the Grammar School. The care of the sick was in the hands of the sixteen medical practitioners in the town—1 to 3,000 of the population in the Borough,

but taking into account the population outside the Borough, one doctor to about 4,000 persons compared with the 1 to 1,700 of the present day. The Bolton Dispensary, then situated in Nelson Square admitted upwards of 2,000 cases annually. The Workhouse in Fletcher Street had sick wards, where the sick were cared for by other inmates of the Institution and were attended gratuitously by a medical man when required. "A visitor to the town," says a writer of the period, "will be struck with the number of halt and maimed, the former to be attributed to bad and neglected nursing, the latter to the many accidents in mills and workshops". The young cotton operative of the time when choosing a wife, selected a factory girl who continued working and was not practiced in home thrift or cooking. Conditions in factories in Bolton a hundred years ago were as bad as in the rest of industrial Lancashire. The Ten Hours Act was law but it was circumvented by a relay system which kept the workers in the factory for perhaps fifteen hours. With husband and wife both working such long hours, and the wife having neither the time nor the ability for homemaking, it was inevitable that their young children should suffer in all kinds of ways. They were frequently cared for by elderly "minders" who fed them badly and used opiates and gin to keep them quiet.

Nobody could describe the Bolton of a hundred years ago as "a place where people lived together a common life for a noble purpose". The vital and mortal statistics of the time are revealing. In the five years 1841-44, the Death Rate for the Bolton Union was 27 per 1,000 of the population. This compared favourably with the rate of 35 in Liverpool and 32 in Manchester. The Bolton Union, however, contained an appreciable amount of genuine rural country where healthier conditions prevailed. The Death Rate in Great Bolton itself for this period was 36.5. The Infant Mortality Rate for the whole Union was 204 Infant Deaths per 1,000 Live Births per year. For the Borough of Bolton itself, the rate appears to have been about 250. An examination of the causes of death shows a vastly excessive number of deaths from infectious disease. In the more or less normal years, 1843-46, infectious diseases including Consumption caused nearly 22% of the total number of deaths. If the year 1847 had been included, the percentage would have been much higher on account of a violent

epidemic of Typhus which occurred. Deaths due to teething and convulsions attributable no doubt to the bad feeding and the drugging of infants—accounted for 13% of the total death rate.

Such were the conditions in Bolton when the epoch of Public Health Activity commenced. The Borough incorporated in 1838 had an uneasy beginning, with the legality of its very existence challenged in its early years by a large section of the population. It settled down to serious and honest Local Government and year by year, persistently pressed on with measures to remedy the results of 50 years of unregulated private enterprise. The first basic need of communal living—a good water supply—was already in public ownership. It was enlarged and extended to cover all the town. The Sanitary Committee of the Corporation made progress in the closing of cellar dwellings and by 1860 the number had been more than halved. In 1861, the Borough adopted byelaws for new streets and buildings, slaughter-houses and nuisances. The byelaws gave powers to set a standard for the quality of houses erected and to control in some measure, the development and layout of the town. The Corporation was not, however, so zealous in modernising its methods of sewage disposal. Bolton, in 1870 was not “a water closeted town”. The midden privy was all but universal. It met the eye and nose unpleasantly everywhere. In the last quarter of the century, the Corporation were driven to tackle the problem of sewage disposal. In the end it was done well and the present day lack of interest in the subject is a testimonial to the efficiency of the present methods. In 1866, Queen’s Park was opened. Foul and insanitary property in the town centre continued to be demolished mainly to allow of general improvements in the town’s layout—the construction of the Market Hall in Knowsley Street, Marsden Road high level Street, the Wholesale Market, Hotel Street, the widening of Meal-house Lane, Bradshawgate, Great Moor Street and the building of the Town Hall, all contributed to the elimination of slum property in the central area of the town. The Corporation had appointed an Inspector of Nuisances but in 1871 there were complaints about the ineffectiveness of his work. In 1869 “a medical gentleman in the town of old standing and experience, was appointed with the name of Medical Officer of Health but no salary was appended to the office”. He was paid fees for occasional advice—ten guineas in two years. “The medical gentleman in the town” was Dr. Mallett, the first of

three generations of doctors who have given service of the highest quality to Bolton. The first whole-time Medical Officer of Health was appointed in 1874 and he gave many years of successful service. The Sanitary Committee continued to work hard at the improvement of general sanitation, and with the passing of the 1875 Public Health Act, there was a new impetus to the progress of Public Health. Housing, Sanitation, Food and the ever present curse of atmospheric pollution received increasing attention. Bolton in 1877, was the first town in the country in which the notification of infectious diseases was made compulsory. The powers granted in the Bolton Improvement Act of 1877 were quickly copied by Nottingham, Derby, Leicester and other towns. The need for hospital accommodation for infectious diseases exercised the minds of the Council. The Medical Officer of Health in his Report for 1874 stressed the need for hospital accommodation for the isolation of patients suffering from infectious disease. He proposed that the hospital should be more or less self supporting by the payment of moderate charges for maintenance and attendance. Paupers suffering from infectious disease should, he stated, be sent as now to the hospital provided by the Guardians of the Poor. "It is eminently undesirable to mix the more respectable class of patients with the paupers as the feeling of degradation connected with them is so insuperable. Accommodation for infectious diseases would in my opinion be most desirable in connection with a General Infirmary". His views regarding the segregation of a separate class of "paupers" are now fortunately out of date. The suggestion that the hospital treatment of infectious diseases should be closely associated with a General Infirmary on the other hand is as modern as the hour. In fact, a separate isolation hospital was opened in Hulton Lane in 1883. In the same year, the Infirmary moved from Nelson Square to its present position in Chorley New Road.

The Sanitary Committee of the Council was busy concerning itself with environmental hygiene and infectious disease. The Infirmary was developing the services it provided to the town. All the time, the Bolton Union was continuing its work of relief among the poor and destitute. The Union of Parishes about Bolton gave the Board of Guardians control of four workhouses. Those in Turton, Farnworth and Bolton were used for a time but only the Bolton Workhouse in Fletcher Street was retained. This was replaced in 1861 by the Fish-

pool Workhouse, which provided accommodation for the destitute and the sick and for infectious diseases cases. Throughout the Nineteenth Century, the Bolton Union remained the important agency providing for the sick and the destitute. Towards the end of the century, the Union's need for more accommodation for the infirm became apparent and in 1896, the building of Townleys Hospital was commenced. The Guardians in much of their work lacked popular appeal. The central Poor Law administration had in earlier years been controlled by the hard brilliance and devastating inhumanity of Chadwick, and to the very end, appeared to restrain the attempts of the Boards of Guardians to make their work facile and generous. There is, however, abundance of evidence today of the sound and solid achievements of the Bolton Guardians of the Poor and due recognition is rarely given to the excellence of their work.

At the beginning of this century, the Council began to be concerned with personal health services for its citizens. The Midwives Act, 1902, became operative in 1905 and placed on the Council the duty of supervising midwives. In 1905 also, the Corporation were the second authority in the country to obtain powers for the compulsory notification of Tuberculosis. The School for Mothers was started in 1908, largely as the result of the interest of the Co-operative Women's Guild. The school was the second to be established in England. The Council supported the venture from its beginning. The generosity of T. Wilkinson provided the Sanatorium named after him in 1910. The Council had duties imposed on it in relation to the treatment of Venereal Disease in 1916 and in 1918 was given much greater responsibilities in connection with Maternity and Child Welfare. Haslam Maternity Home opened in 1920, quickly set the fashion in Bolton of removing the domestic upset of a confinement away from the home. The overflow bookings from Haslam Maternity Home were directed to Townleys Hospital and started the growth of the Maternity Department there for the ordinary mother. In 1940 and 1943, Havercroft and Heaton Grange were opened. In 1938, the Council provided a new suite of offices and clinics for the Public Health Department, and in 1939 commenced the rebuilding of the Isolation Hospital, Hulton Lane.

Whilst the Council's interests were extending from general sanitation to personal health, the Guardians of the Poor continued with the building of their new hospital at Townleys over a period of thirty

years. The hospital was designed for the sick poor, to give them better accommodation than was available in Fishpool. With the abolition of the Guardians in 1930, the work of the Union was merged with that of the Council. There still remained the separate agency of voluntary effort. Bolton Royal Infirmary with its associated convalescent Homes, and Wilkinson's Sanatorium, continued in their separate administration. Now in 1947, the National Health Service Act proposes to nationalise all hospitals and most health services. The Public Health Authority ceases to exist and is replaced by the Local Health Authority under the new Act.

In a hundred years of Public Health work in Bolton, the Death Rate has fallen from 36 per 1,000 of the population to 14 per 1,000. The percentage of the total death rate attributable to infectious diseases and consumption has fallen from 22 to 5. Cholera and Typhus fever have gone. Typhoid and Smallpox have practically disappeared. The character of other infectious diseases has changed greatly. Scarlet Fever a hundred years ago caused as many as 170 deaths in a year. Today in a town more than three times as large, it causes two to four deaths a year. Measles and Whooping Cough are much less fatal. The number of Infant Deaths per 1,000 Births has fallen from 250 in 1846 to 38 in 1946. A hundred years ago, the infant deaths in Bolton attributed to teething and convulsions numbered 240. Today in the much larger town, the number ranges from 5 to 16. Deaths from Infantile Diarrhoea numbered 120 or more per annum. Today they number from 10 in an average year to 35 in an epidemic year.

In the discussions preliminary to the passing of the National Health Service Act, little mention was made of the work of Local Authorities in the last hundred years, and it would have been hard to expect the medical profession which was opposed to a general salaried service, attributing much good to the work of the whole-time officers engaged in Local Government Service. Nevertheless, it is true that in the last hundred years, the efforts of local authorities and their officers to repair the damage done in the first half of the Nineteenth Century, can rarely have been equalled for the wealth of

their results. Bolton Council has always faced its problems in a realistic way. Improved sanitation, housing and food supplies have brought about the enormous reduction in mortality from infectious disease. The education of women in mothercraft, coupled, it is true, with a fall in the birth rate, has resulted in the great saving of infant life. Bolton has been a pioneer in several ways. It was the first town in the country to make the notification of infectious disease compulsory, and the second town to compel the notification of consumption. The first "School for Mothers" in the provinces was started in Bolton and proved to be a pioneer in the important educational work in Child Welfare of the last forty years. The value of the work of the Bolton Board of Guardians prior to their abolition in 1930 has generally been underestimated. The Guardians dealt with problems of poverty and infirmity which no other agency was able or willing to face. The excellence of Townleys Hospital testifies to the value of their work. The hospital was built to give the sick and infirm better accommodation than was available in Fishpool. It is indeed doubtful whether the aged sick receive today the same consideration which was given to them by the Guardians, owing to the extended use of Townleys Hospital for other purposes.

The treatment and prevention of sickness is now to become the responsibility of the Regional Hospital Boards nominated by the Minister of Health. The general practitioner service is to be controlled by the Minister of Health and various nominated committees. The publicly elected Local Health Authorities play a relatively minor part in the new service. They are to provide for Home Nursing, Health Visiting, Domestic Helps, such Domiciliary Midwifery as may remain, the Ambulance Service, and are to act as agents in providing and maintaining Health Centres for the general practitioner service. In addition, they retain the responsibility as Sanitary Authorities for dealing with the two major environmental problems of unhealthy dwellings and smoke polluted air. Members of the Bolton Public Health Committee are bound to regret the loss of work they have cherished. They will wish the new Regional Hospital Boards well in their new duties and will themselves try to maintain and extend their tradition of Service in the spheres of activity which remain with them.

In conclusion, I would again take the opportunity of recording my appreciation of the support and encouragement given by the Chairman, Vice-Chairman and Members of the Health Committee during the year under review.

I am, Ladies and Gentlemen,

Your obedient servant,

R. M. GALLOWAY,

Medical Officer of Health and School Medical Officer.

Table of Contents

Summary of Statistics	...	...	...	...	...	14-15
Births	...	...	...	...	...	16
Deaths	...	...	...	...	...	16-19
Laboratory Facilities	...	...	...	...	...	20-21
Nursing in the Home	...	...	...	...	...	21
Hospitals—Voluntary and Public	...	...	...	...	...	22-24
Maternity and Child Welfare...	...	...	...	...	...	25
Domiciliary Midwifery	...	...	...	...	...	25
Institutional Midwifery (Townleys Hospital, Haslam and Havercroft Maternity Homes)	...	...	...	...	...	26-28
Health Visitors' Work...	...	...	...	...	...	29
War-time Nurseries	...	...	...	...	...	29-30
Massage and Artificial Sunlight	...	...	...	...	...	30
Premature Infants	...	...	...	...	...	30
Sanitary Inspection	...	...	...	...	...	31-32
Common Lodging-houses	...	...	...	...	...	32
Legal Proceedings	...	...	...	...	...	35-36
Milk and Dairies Order, 1926...	...	...	...	...	...	37
Milk (Special Designations) Orders, 1936 and 1938	...	...	...	...	...	37
Meat—Carcases Inspected and Condemned...	...	...	...	...	...	38
Notifiable Infectious Diseases	...	...	...	...	...	39
Diphtheria Immunisation	...	...	...	...	...	40-41
Deaths from Infectious Diseases	...	...	...	...	...	41
Borough Isolation Hospital—Admissions and Discharges	...	...	...	...	...	42
Cancer	...	...	...	...	...	43-44
Tuberculosis	...	...	...	...	...	45-50
Venereal Diseases...	...	...	...	...	...	50-55
Annual Report of the Public Analyst	...	...	...	...	...	56-62
Meteorological Summary...	...	...	...	...	...	63

SUMMARY OF STATISTICS, 1946

COUNTY BOROUGH OF BOLTON

Position	..	...	...	Lat. 53° 35' N., Long. 2° 27' W.	
Elevation above sea level	...	...	...	230-ft. to 1,450-ft.	
Geological Formation : Boulder Clay and Sand over Coal Measures.					
Rainfall (Av. 1887-1946, 44.4076")	...	...	...	52.322	
Area in Acres (Land and Inland Water)	...	...	...	15,280	
Population (Census 1921)	...	...	...	178,683	
„ (Census 1931)	...	...	...	177,250	
„ (Estimated Civilian Population, 1946)				161,120	
Persons per acre	...	...	...	10.54	
Inhabited Houses (Census 1921)	...	...	...	41,825	
„ „ (Census 1931)	...	...	...	46,618	
Private Families or Separate Occupiers (Census 1921)				42,635	
„ „ „ „ (Census 1931)				47,706	
New Houses Certified 1946	...	...	...	76	
Existing buildings altered to provide dwelling accommodation	...	...	...	4	
Temporary prefabs. completed by Ministry of Works and tenanted	...	...	...	204	
Estimated No. of Houses in the Borough at 31st December, 1946	...	...	...	53,400	
Rateable Value at 1st November, 1946	...	...	£1,159,205		
Sum represented by a Penny Rate (1945-46)	...	...	£4,425		
Births	...	...	...	3,055	
Birth-rate (per 1,000 of population)	...	...	...	18.95	
Deaths	...	...	...	2,239	
Death-rate (Crude) (per 1,000 of population)	...	...	...	13.89	

SUMMARY—Continued.

Still-Births...	...	...	...	...	...	...	...	103
Still-Birth Rate (per 1,000 total Births)	...	...	...	...	...	...	...	32.6
Average Death-rate (1937-1946)	...	...	...	...	...	...	...	14.4
Heart and Circulation Death-rate	...	...	...	...	...	...	...	4.3
Cancer Death-rate...	...	...	...	...	...	...	...	1.94
Respiratory Death-rate	...	...	...	...	...	...	...	1.74
Phthisis Death-rate	...	...	...	...	...	...	...	0.39
Infantile Mortality (Deaths under one year per 1,000 live births)	...	...	...	...	...	...	...	38.3
Diarrhœa Death-rate (Deaths under two years per 1,000 live births)	...	...	...	...	...	...	...	2.61
Puerperal Death-rate (per 1,000 total births)	...	...	...	...	...	...	...	2.25

ENGLAND AND WALES :—

Birth-rate (per 1,000 civilian population)	...	...	...	...	19.1
Death-rate (per 1,000 civilian population)	...	...	...	...	11.5
Infantile Mortality (Deaths under one year per 1,000 live births)	...	...	...	...	43
Diarrhœa and Enteritis (under two years), Death-rate per 1,000 live births	...	...	...	...	4.4

STATISTICS

Births

There were 3,055 live births to Bolton residents in 1946, 1,502 being males and 1,553 females. 2,877 of these births were legitimate and 178 illegitimate. The birth-rate per 1,000 of the population was 18·95. 1,038 births occurred to Bolton residents in Townleys Hospital, 367 in Haslam Maternity Home, 356 in Havercroft Maternity Home, and 132 in Heaton Grange Maternity Home.

Still-births

The number of still-births in Bolton in 1946 was 103, giving a still-birth rate of 32·6 per 1,000 total births.

Deaths

Bolton had 2,239 deaths (1,136 males, 1,103 females) in 1946, giving a crude death-rate of 13·89 per 1,000 of the population.

During the year, 578 persons, whose usual place of residence was in the area of this county borough, died outside the borough; of these, 472 died in Townleys Hospital or Fishpool Institution and 45 died in Mental Hospitals and hospitals for mental defectives.

Non-residents who died in the area numbered 164, including 26 victims of the Burnden Park football disaster.

SUMMARY OF THE PRINCIPAL CAUSES OF DEATH, 1946

		No. of Deaths	Per cent. of total Deaths
INFECTIOUS AND PARASITIC DISEASES ...	...	125	5·582
Measles ...	...	—	—
Diphtheria ...	...	3	·134
Influenza ...	...	28	1·250
Pulmonary tuberculosis ...	...	64	2·858
Other forms of tuberculosis ...	...	9	·401
Syphilis ...	...	9	·401
Other infectious and parasitic diseases ...	...	12	·535

	No. of Deaths	Per cent. of total Deaths
CANCER AND OTHER TUMOURS	320	14·292
Cancer	313	13·979
Tumours (non-malignant or undetermined)	7	·312
RHEUMATISM, DISEASES OF NUTRITION, ETC. ...	35	1·563
Rheumatic fever	10	·446
Chronic rheumatism, osteo-arthritis, etc....	4	·178
Diabetes	13	·580
Diseases of Thyroid... ..	5	·223
Other diseases	3	·134
DISEASES OF THE BLOOD AND BLOOD FORMING		
ORGANS	26	1·161
Anæmias	18	·803
Leukæmia, aleukæmia	6	·268
Other diseases	2	·089
DISEASES OF THE NERVOUS SYSTEM AND SENSE		
ORGANS	248	11·072
Convulsions in children under 5 years of age	1	·044
Cerebral hæmorrhage	167	7·458
Cerebral embolism and thrombosis ...	63	2·813
Mental disorders and deficiency	1	·044
Epilepsy	7	·312
Other diseases	9	·401
DISEASES OF THE CIRCULATORY SYSTEM ...	703	31·398
Heart diseases	600	26·797
Arterio-sclerosis	71	3·171
Gangrene	3	·134
Other diseases	29	1·295
DISEASES OF THE RESPIRATORY SYSTEM ...	280	12·505
Bronchitis	151	6·744
Pneumonia	85	3·796
Pleurisy	2	·089
Congestion of lungs, etc.	12	·535
Asthma	15	·669
Other diseases	15	·669

	No. of Deaths	Per cent. of total Deaths
DISEASES OF THE DIGESTIVE SYSTEM ...	83	3·707
Ulcer of the stomach or duodenum ...	10	·446
Diarrhœa and enteritis ...	20	·893
Appendicitis ...	4	·178
Hernia and intestinal obstruction ...	20	·893
Cirrhosis of the liver ...	2	·089
Diseases of the gall bladder and ducts ...	3	·134
Other diseases ...	24	1·071
DISEASES OF THE URINARY AND GENITAL SYSTEMS...	80	3·573
Nephritis ...	53	2·367
Diseases of the prostate ...	13	·580
Other diseases ...	14	·625
THE PUERPERAL STATE ...	7	·312
DISEASES OF THE SKIN AND CELLULAR TISSUE	3	·134
CONGENITAL MALFORMATIONS ...	26	1·161
DISEASES OF EARLY INFANCY ...	52	2·322
Congenital debility ...	2	·089
Premature birth ...	38	1·697
Injury at birth ...	7	·312
Other diseases ...	5	·223
OLD AGE ...	168	7·503
DEATHS FROM VIOLENCE...	75	3·349
Suicide ...	18	·803
Accidents ...	57	2·545
Other violent deaths ...	—	—
MISCELLANEOUS CAUSES ...	2	·089

Deaths from Puerperal Causes

Maternal mortality is the number of deaths of women classed to pregnancy and child-bearing. It is expressed as the rate per 1,000 births (live and still).

There were 7 deaths from puerperal causes in 1946, giving a maternal mortality-rate of 2·25. The rate for England and Wales was 1·43.

	Deaths	BOLTON Rate per 1000 total births	ENGLAND & WALES Rate per 1000 total births
Puerperal sepsis ...	1	0.32	0.31
Other puerperal causes	6	1.92	1.12
Total ...	7	2.24	1.43

Death-rate of Infants under One Year of Age

The death-rate of infants is expressed as the number of deaths under one year per 1,000 live births, and is called the infantile mortality-rate. There were 117 such deaths during the year.

Bolton's infant mortality-rate for 1946 was 38.3. The figure for England and Wales was 43.

Of Bolton's 3,055 live births, 2,877 were legitimate and 178 illegitimate.

The infantile mortality amongst the legitimate children was 36.1, and amongst the illegitimate 84.3.

Deaths under Four Weeks

The part of the infantile mortality which occurs in the first four weeks of life is called the neo-natal mortality. There were 24.8 deaths of infants under 4 weeks per 1,000 live births.

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

CAUSES OF DEATH	0—7 days	8—14 days	15—21 days	22—28 days	Total under 29 days
Pneumonia ...	2	—	2	1	5
Diarrhoea and Enteritis ...	1	—	—	—	1
Injury at Birth ...	6	—	—	1	7
Atelectasis ...	1	—	—	—	1
Congenital Malformations ...	8	2	1	5	16
Premature Birth ...	31	1	3	2	37
Other Diseases ...	4	1	—	4	9
Totals ...	53	4	6	13	76

GENERAL PROVISION OF HEALTH SERVICES

LABORATORY FACILITIES

The Bolton Joint Advisory Committee in Pathological Services continues to function and to advise both the Bolton Royal Infirmary and the Local Authority on their services in Pathology. The Advisory Committee has eight representatives from the Royal Infirmary and eight from the Local Authority and meets not less frequently than once a quarter.

The Pathologist in charge at the Bolton Royal Infirmary visits Townleys Hospital three sessions each week and the Assistant Pathologist five sessions each week to supervise the work of the Townleys Laboratories. The Local Authority pays the Bolton Royal Infirmary for the services of their Pathologists in Townleys and for any work carried out in the Bolton Royal Infirmary Laboratories on behalf of the Local Authority.

ANALYSIS OF WORK IN UNIT VALUES—1946

	Bolton Royal Infirmary	Townleys Hospital
Bacteriology	15,903	6,799
Basal Metabolism	2,120	—
Chemistry	23,284	4,733
Cerebro Spinal Fluid	836	863
Haematology	21,891	6,043
Histology	10,180	2,991
Inoculations	6,604	—
Post Mortems	3,875	250
Serology	1,915	132
Urine	6,764	6,804
Totals	93,372	28,615

The figures for the Bolton Royal Infirmary include various specimens from Townleys Hospital and the Borough Isolation Hospital. They also include 502 sputa for examination for the Tubercle Bacillus from patients attending the dispensary and 208 samples from milk produced or retailed in the town for the inoculation test for Tuberculosis. Nine of the milks gave positive results for Tuberculosis.

The following specimens were sent for examination to the Public Health Laboratories of Manchester University :—

Wassermann reaction...	...	4015	(including 31 Blood Donors).
Kahn test	...	...	678
Gonorrhoea :			
Microscopical test	...	9	
Complement fixation test		901	

Medical Officers of the Venereal Diseases Department in the course of routine clinical work examined 3,018 smears for the gonococcus and 84 slides by dark ground illumination for syphilis.

PROFESSIONAL NURSING IN THE HOME.

The Bolton District Nursing Association provides nursing in the home for all cases of illness other than certain infectious diseases and maternity nursing.

During the year, 1,951 cases were nursed, and these received a total of 70,920 visits. The nurses were also present at 53 operations.

The Bolton Corporation makes an annual grant of £400 to the funds of the Association. The Public Health Committee pays for any home nursing of the following diseases : puerperal pyrexia, measles, whooping cough, epidemic diarrhoea, ophthalmia neonatorum, tuberculosis and influenzal pneumonia.

AMBULANCE SERVICE.

The Ambulance Depot maintained by the Health Department in Blackhorse Street, provides a comprehensive service for the removal of Bolton cases to hospital and for dealing with street accidents. It also serves a number of adjoining County districts for the removal of cases to Townleys Hospital and to the various Lancashire Mental Hospitals. The Department provides 8 Ambulances and 1 Sitting-case Car. During the year the calls numbered :—

Ambulances	...	...	...	...	15,996
Sitting-case Car	...	...	...	...	182

The mileage run was :—

Ambulances	...	...	...	...	82,442
Sitting-case Car	...	...	...	...	4,960

Hospitals

THE BOLTON ROYAL INFIRMARY.

During the year under review the number of cases admitted was 5,282 of whom approximately 35 per cent. were from outside the Borough of Bolton. In addition, 15,173 cases were dealt with as out-patients and 14,229 cases were received into the casualty department. At the end of the year there were 1,085 patients on the waiting list for admission.

The Edmund Potter Hospital, an auxiliary to the Bolton Royal Infirmary, has 43 beds for females. All the patients who are admitted are sent from the Bolton Royal Infirmary for convalescence. 846 patients were admitted during the year.

The Blair Convalescent Hospital, Bromley Cross, is a voluntary institution with 42 beds for male patients only. 577 cases were admitted in 1946 from the Bolton Royal Infirmary.

TOWNLEYS HOSPITAL.

The following statistical return relates to the year ended 31st December, 1946 :—

Total No. of admissions (including infants born in hospital)	6,854
No. of women confined in hospital	1,801
No. of live births	1,739
No. of stillbirths	95
No. of infant deaths within 10 days of birth (born in hospital)	44
Total No. of deaths among children under 1 year ...	84
No. of maternal deaths among women admitted to hospital for confinement	8
Total No. of deaths	528
Total No. of discharges (including infants born in hospital)	6,336
No. of cases whose total stay was for the following periods :—	
(a) Under 4 weeks	5,686
(b) 4 weeks and under 13 weeks	963
(c) 13 weeks or more	215

No. of beds occupied (excluding cots in maternity wards) :—

(a) Average during year	...	...	...	404
(b) Highest (27th March, 1946)	...	...	...	455
(c) Lowest (19th July, 1946)	...	...	...	354
No. of operations under general anæsthetic...	...	...	...	1,268

Ante-natal Clinic :—

Total No. of expectant mothers seen	...	...	...	3,050
No. of attendances	...	...	...	14,261

Classification of In-Patients who were Discharged from or who Died in Townleys Hospital during the year, including

DISEASE GROUPS					Children (under 16 years of age)		Men and Women	
					Dis- charged	Died	Dis- charged	Died
A.	Acute infectious disease (1)	...	...	...	8	—	25	—
B.	Influenza (2)	...	...	...	—	—	—	—
C.	Tuberculosis :							
	Pulmonary	...	...	...	1	1	8	7
	Non-pulmonary	...	...	...	1	—	4	2
D.	Malignant disease	...	...	...	—	—	47	83
E.	Rheumatism :							
	(1) Acute rheumatism (rheumatic fever) together with sub-acute rheumatism and chorea	...	...	...	2	—	7	—
	(2) Non-articular manifestations of so- called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica)...	...	...	...	—	—	3	—
	(3) Chronic arthritis	...	...	...	4	—	13	—
F.	Venereal disease	...	...	...	1	—	10	—
G.	Puerperal pyrexia:							
	(a) Women confined in the hospital	...	...	...	—	—	9	—
	(b) Other cases	...	...	...	—	—	—	—
H.	Other diseases and accidents connected with pregnancy and childbirth	...	...	...	—	—	675	8
I.	Mental diseases :							
	(a) Senile Dementia	...	...	...	—	—	—	—
	(b) Other	...	...	...	—	—	—	—
J.	Senile decay (3)	...	...	...	—	—	50	13
K.	Accidental injury and violence (4)	...	...	...	9	—	72	—
<i>In respect of cases not included above :</i>								
L.	Disease of the Nervous System and Sense Organs	...	...	...	36	12	122	38
M.	" " Respiratory System	...	...	...	510	15	175	48
N.	" " Circulatory System	...	...	...	15	14	177	192
O.	" " Digestive System	...	...	...	72	9	239	16
P.	" " Genito-urinary System	...	...	...	16	—	304	30
Q.	" " Skin...	...	...	...	14	—	32	—
R.	Other diseases	...	...	...	—	—	—	—
S.	Mothers and infants discharged ... from Maternity Wards and not included in above figures	{ Mothers Infants		...	—	—	1809	—
				...	1684	—	—	—
T.	Any persons not falling under any of the above headings	...	...	...	70	38	112	2
TOTALS					2443	89	3893	439

(1) Includes—with the exception of Acute Primary and Influenzal Pneumonia, Tuberculosis, Puerperal Pyrexia—all generally notifiable diseases, together with Measles, German Measles, Chickenpox, Whooping Cough and Mumps. Cases of Influenzal Pneumonia, Tuberculosis, Puerperal Pyrexia, and Acute Primary Pneumonia are recorded respectively under Groups B, C, G and M. Cases of Encephalitis Lethargica are entered under Group A if acute and under Group L if chronic.

(2) Includes Acute Influenzal Pneumonia.

(3) Confined to cases and deaths in which no more specific diagnosis was practicable.

(4) Includes suicides, attempted suicides and poisoning cases.

MATERNITY AND CHILD WELFARE

Midwifery and Ante-Natal Work

1—DOMICILIARY.

The following figures give a statistical summary of the work in relation to domiciliary midwifery for the year :—

- (a) Ante-natal clinics—Public Health Department (2 weekly).
465 expectant mothers attended and made 1,424 attendances.
189 X-ray examinations were made in the department.
- (b) Confinements conducted by midwives.
1,118 confinements were conducted by midwives.
- (c) Confinements conducted by medical practitioners.
In addition to the 295 cases where practitioners were called in by the midwives, the doctors conducted approximately 120 confinements in patients' homes.

The following table gives particulars of the domiciliary midwives' work during the year :—

No. of midwives who have practised...	...	...	24
No. of cases attended ...	...	...	1,118
Average No. of cases per midwife ...	...	...	46.6
No. of calls for medical aid ...	...	...	295
Per cent. of cases in which medical aid was sought			26%
No. of midwives on the register at the beginning of the year...	...	...	26
No. who ceased to practise in Bolton ...	...	...	2
No. on the register at the end of the year ...	...	...	24

Included in the above are 95 cases attended by the midwives as maternity nurses.

The following 358 notifications were received from domiciliary midwives in accordance with the regulations of the Central Midwives Board :—

Medical assistance ...	...	...	295
Still-births ...	...	...	20
Artificial feeding ...	...	...	39
Death of mother or child ...	...	...	4

When a family is not eligible for maternity benefit under the National Health Insurance Acts and the family income falls below a scale approved by the Council, the Public Health Committee pay the midwife's fee for her work at a confinement. During the year 88 such fees were paid.

Home helps were provided in 175 instances. In 114 cases part of the fees were recovered and in 14 cases the whole of the fee was recovered.

MUNICIPAL MIDWIVES.

During the year, the ten midwives appointed booked 640 cases, 588 as midwifery cases and 52 as maternity cases, an average of 64 cases per midwife.

The midwives paid 12,827 ante-natal and post-natal visits to their patients during the year.

2—INSTITUTIONAL MIDWIFERY.

(a) TOWNLEYS HOSPITAL.

Three ante-natal clinics are held weekly: During the year, 1,968 patients attended the clinics, 1,014 of whom were Bolton cases.

The following particulars relate to the maternity cases admitted during 1946 from Bolton and from the county areas served. Approximately 70 per cent. of the cases were from Bolton.

1. No. of maternity beds	...	...	...	...	121
2. No. of beds, included in above, allocated to, and reserved for, expectant mothers in need of hospital treatment	...	...	...	...	27
3. No. of cases admitted	...	...	...	...	1,952
4. No. of women treated in the beds shown against item 2	...	...	...	...	563
5. Average duration of treatment of expectant mothers in the beds shown against item 2	...	...	...	...	12.69 days
6. Average duration of stay of cases in the lying-in Wards	...	...	...	...	12.21 days
7. No. of cases notified as *Puerperal pyrexia	...	...	...	...	9
*i.e., rise of temperature to 100.4° F. for 24 hours, or recurrence within that period.					
8. No. of cases of pemphigus neonatorum	...	...	...	...	nil

9. No. of infants not entirely breast fed whilst in hospital	...	...	...	...	...	391
10. No. of cases of ophthalmia neonatorum	...					—
11. No. of maternal deaths	...	...	...	...		8
12. No. of infant deaths :—						
(a) Stillborn...	...	...	...	...		95
(b) Within 10 days of birth	...	...				44

(b) HASLAM MATERNITY HOME.

The following table gives particulars of all cases admitted to the Home in 1946 :—

No. of beds in the Home	...	...	...	...	21
No. of cases admitted	...	...	...	...	460
Average duration of stay in days	...	...	...		12·12
No. of cases delivered by :—					
(a) Midwives	...	...	...	...	360
(b) Doctors	...	...	...	...	100
No. of cases in which medical assistance was sought by the midwife	...	...	...	...	95
No. of cases notified as Puerperal Pyrexia	...				Nil
No. of cases of pemphigus neonatorum	...				Nil
No. of infants not entirely breast fed whilst in the Home					5
No. of cases notified as ophthalmia neonatorum	...				Nil
No. of maternal deaths	...	...	...	...	Nil
No. of infant deaths :—					
(a) Stillborn	...	...	...	...	4
(b) Within 10 days of birth	...	...	...		2

(c) HAVERCROFT MATERNITY HOME.

No. of beds in the Home	...	...	...	...	17
No. of cases admitted	...	...	...	...	363
Average duration of stay in days	...	...	...		12·54
No. of cases delivered by :—					
(a) Midwives	...	...	...	...	243
(b) Doctors	...	...	...	...	120

No. of cases in which medical assistance was sought by the midwife	...	...	...	...	...	85
No. of cases notified as Puerperal Pyrexia	...	...	...	...	...	1
No. of cases of pemphigus neonatorum	...	...	...	...	...	Nil
No. of infants not entirely breast fed whilst in the Home	...	...	...	...	...	34
No. of cases notified as ophthalmia neonatorum	...	...	...	...	...	Nil
No. of maternal deaths	...	...	...	...	...	Nil
No. of infant deaths :—						
(a) Stillborn	...	...	...	...	...	6
(b) Within 10 days of birth	...	...	...	...	...	2

(d) HEATON GRANGE MATERNITY HOME.
(Opened 16th May, 1946).

No. of beds in the Home	...	...	...	...	...	16
No. of cases admitted	...	...	...	...	...	136
Average duration of stay in days	...	...	...	...	...	12·22
No. of cases delivered by :—						
(a) Midwives	...	...	...	...	...	118
(b) Doctors	...	...	...	...	...	18
No. of cases in which medical assistance was sought by the midwife	...	...	...	...	...	52
No. of cases notified as Puerperal Pyrexia	...	...	...	...	...	Nil
No. of cases of pemphigus neonatorum	...	...	...	...	...	Nil
No. of infants not entirely breast fed whilst in the Home	...	...	...	...	...	9
No. of cases notified as ophthalmia neonatorum	...	...	...	...	...	1
No. of maternal deaths	...	...	...	...	...	Nil
No. of infant deaths :—						
(a) Stillborn	...	...	...	...	...	2
(b) Within 10 days of birth	...	...	...	...	...	1

DENTAL TREATMENT FOR EXPECTANT MOTHERS.

Thirty-one clinics were held for expectant mothers who were in need of dental treatment and unable to make their own arrangements with private dentists. One hundred and thirty one attendances were made by 39 mothers. Ten dentures were supplied, 53 fillings made and 70 teeth extracted.

HEALTH VISITORS.

The following table shows the work done by the Health Visitors :—

VISITS BY HEALTH VISITORS.

Primary birth enquiries	...	...	...	...	2,420
Visits to children, 1—5 years...	...	...	...	...	6,461
Primary visits to expectant mothers...	...	...	...	...	296
Re-visits to infants under 1 year	...	...	...	...	3,628
Re-visits to expectant mothers	...	...	...	...	176
Visits to puerperal pyrexia cases	...	...	...	...	5
Visits to ophthalmia cases	...	...	...	...	17
Stillbirth enquiries	...	...	...	...	59
Death enquiries made (under one year of age)	...	...	...	...	81
Visits to midwives' houses	...	...	...	...	20
Infant Life Protection	...	...	...	...	88
Miscellaneous visits	...	...	...	...	1,618
Total Visits	...	...	...	...	14,869

In addition to their visits to homes, the Health Visitors were in regular attendance at the various clinics during the year. They made 813 attendances at Child Welfare Centres, 284 at Ante-natal Clinics, 163 at Immunisation Clinics and 13 at Post-natal Clinics.

NURSERIES.

The work of the War-time Nurseries Committee came to an end in March, 1946. Two of the Nurseries were closed ("Woodlands" and "Vesperholme") at the end of March and another Nursery (40, Chorley New Road) was closed in July. The duty of supervising the other four nurseries was entrusted to the Maternity and Child Welfare Committee.

The following accommodation is provided :—

	Places
Arkwright Street ...	40
Newport Street	60
Shaw Street	50
Park House	49

Resident accommodation is provided in Park House for children whose parents are temporarily unable to look after them on account of illness and other causes.

Considerable difficulty has been experienced during the year in obtaining qualified staff. The work of the nurseries has been made difficult on account of outbreaks of Measles and Whooping Cough.

MASSAGE AND ARTIFICIAL SUNLIGHT TREATMENT FOR INFANTS.

Treatment is provided in the Central Massage and Light Clinic of the Department for debilitated and rickety children attending the Child Welfare Centres.

During 1946, 417 children received a total of 2,000 treatments at 272 sessions of the Massage Clinic. 378 children were given 2,458 treatments by artificial sunlight.

PREMATURE INFANTS.

Prematurity of birth is the direct cause of almost half the infant deaths in the first four weeks of life and is a contributing cause to the death of other infants. Every effort should be made to minimise this waste of life. Infants weighing less than $5\frac{1}{2}$ lbs. at birth are regarded as premature. There were 147 premature births notified amongst the 3,020 total births in Bolton during the period under review. Forty-nine of the premature babies were born at home and 98 in hospital. Three of the premature babies born at home were subsequently removed to hospital.

Three of the 49 premature babies born at home died during the first twenty-four hours of life. Thirty-nine survived at the end of one month. Ten of the 98 babies born in hospital died during the first twenty-four hours. Sixty-one survived at the end of one month. The survival rate of the premature babies born at home was appreciably greater than of those born in hospital.

The survival of the premature infant is dependent on the most careful attention to the details of feeding, warmth and atmospheric conditions and to freedom from the risk of infection. In hospital, a generous staff of specially trained nurses is required to care for the premature infant in special wards which have ready control of heating and of means of humidifying the atmosphere. A small ward in

Townleys Hospital has been prepared for the care of premature infants but present day circumstances have made various improvisations inevitable. The Maternity and Child Welfare Department issues on loan specially constructed cots and other requisites for the premature infant born at home.

SANITARY INSPECTION

The nature and extent of the work done by the Sanitary Inspectors is shown in the following statement :—

	1946.
INSPECTIONS....	33,188
ACTION TAKEN.	
Verbal notices ...	910
Informal notices served ...	2,740
Legal notices served ...	648
	<hr/> 4,298 <hr/>

RESULT OF ACTION

DWELLINGS.

Repairs to floors, walls, ceilings, roofs, spouting ...	3,727
Additional windows provided... ..	8
Windows repaired or made to open	755
Sinks provided	20
Verminous houses disinfested... ..	150

DRAINAGE, CLOSETS, ASHPITS, ETC.

Drains cleansed or repaired	397
Yards drained, paved or repaired	31
Additional W.C's provided	26
W.C's reconstructed or repaired	416
Flushing cisterns provided or repaired	130
Closets converted	74
Ashpits abolished	41
Dustbins provided	272

VARIOUS.

Smoke nuisances abated	...	...	...	...	3
Nuisances from animals abated	...	...	...	...	3
Offensive accumulations removed	...	...	...	...	15
Improvements in factories, shops and food premises					180
Cowshed or dairy improvements	...	...	...	...	11
Miscellaneous	...	...	...	...	1,394
					<hr/> 7,653

DISINFECTIONS.

					1946
Houses disinfected	...	...	...	...	494
Beds disinfected	...	...	...	...	558
Articles disinfected	...	...	...	...	1,980
Articles destroyed	...	...	...	...	60

PLACES UNDER INSPECTION.

Common lodging-houses	...	...	...	...	9
Houses-let-in-lodgings	...	...	...	...	107
Factories without mechanical power...	...	...	...	...	202
Factories with mechanical power	...	...	...	...	866
Factory chimneys	...	...	...	...	206
Bakehouses	...	...	...	...	389
Fish friers' premises	...	...	...	...	194
Premises where food is prepared	...	...	...	...	477
Outworkers' premises	...	...	...	...	3
Offensive trades	...	...	...	...	20
Slaughterhouses (in actual use)	...	...	...	...	3
Cowsheds	...	...	...	...	263
Milk shops	...	...	...	...	750
Theatres, cinemas, etc.	...	...	...	...	28
Public sanitary conveniences	...	...	...	...	26
Travelling vans	...	...	...	...	82

Common Lodging-houses

The number of registered common lodging-houses in Bolton at the end of the year was 9. Eight of these are used by males only and accommodate a total of 430 men. The other is used exclusively by women and accommodates 38.

Statutory Notices Served During 1946

PUBLIC HEALTH ACT, 1936 :

Sec. 39 (Drainage defects)	188
Sec. 45 (Defective closet accommodation)	70
Sec. 75 (Provision of dust bins)	67
Sec. 93 (Nuisances, general defects)	204

HOUSING ACT, 1936 :

Sec. 9 (General Repairs)	119
TOTAL	648

STATUTORY NOTICES COMPLIED WITH 563

STATUTORY NOTICES OUTSTANDING 288

WORK CARRIED OUT BY CORPORATION IN DEFAULT OF OWNERS :

Public Health Act, 1936	56
Housing Act, 1936	29

MEANS OF ESCAPE IN CASE OF FIRE (FACTORIES ACT, 1937) :

Certificates issued during 1946	23
--	----

HOUSING ACT 1936

BOLTON (WILLOWS LANE AREA NO. 2) COMPULSORY PURCHASE ORDER, 1939.

BOLTON (WILLOWS LANE AREA NO. 3) COMPULSORY PURCHASE ORDER, 1939.

In October, 1946, the Ministry of Health re-opened the Public Inquiry originally held in July, 1939, in respect of the above-named Orders.

The Orders were confirmed by the Ministry without modification, and the Corporation undertook to rehouse the fifteen families involved.

DISINFESTATION SERVICE 1946

The Disinfestation Officer carried out the following work. All insecticides used contained D.D.T. :—

BED BUGS :

Dwelling Houses	...	...	...	...	...	146
Common Lodging Houses and Hostels	...	...	...	...	...	4

COCKROACHES :

Dwelling Houses	...	...	...	...	...	39
Other Premises	...	...	...	...	...	5

FLIES :

Restaurants	...	...	...	...	...	2
School Kitchens	...	...	...	...	...	1

OTHER INSECTS (Beetles, Moths, etc.) :

Dwelling Houses	...	...	...	...	...	3
Schools	...	...	...	...	...	1

MUNICIPAL MEDICAL BATHS

Scabies cases treated	...	...	...	...	...	417
Body Lice cases treated	...	...	...	...	...	59

1946

Conversion of Waste Water Closets

During the year 74 waste water closets were converted to fresh water appliances and in 50 cases the Corporation made a grant of £8 per house towards the cost of the work.

Application was made to the Ministry of Health for permission to take up a loan of £24,000 to cover a programme of conversions for several years ahead. Unfortunately the Ministry were not prepared to entertain the matter at that time.

LEGAL PROCEEDINGS DURING 1946

OFFENCE	RESULT
<p>39 VERNON STREET, BOLTON : Contravention of various articles of the byelaws relating to houses-let-in-lodgings. HOUSING ACT, 1936, SECTION 4—Failure to inscribe in the Rent Books the name and address of the Medical Officer of Health and the Landlord</p>	<p>Fined £23/0/0. £1/3/0 Costs.</p>
<p>HOUSING ACT, 1936, SECTION 168 : 125 Kestor Street ; 107/115 Bury New Road and 92 John Taylor Street, Bolton. Failure to comply with Requisitions for Information</p>	<p>Fined £2/0/0. £1/10/0 Costs.</p>
<p>PUBLIC HEALTH ACT, 1936, SECTION 93 : 23, SOUTHERN STREET—General Defects.</p>	<p>The necessary repairs were completed in the afternoon of the day prior to the Hearing and in consequence the Magistrates dismissed the case and the costs were remitted.</p>
<p>17, HIGHER SWAN LANE—Defective eaves guttering and rainwater pipes causing dampness in 15, Higher Swan Lane.</p>	<p>The Magistrates granted a Nuisance Order. The work was carried out by the Corporation.</p>

Legal Proceedings—(Continued)

OFFENCE	RESULT
57, 59, 61, 63, 69, CELLINI STREET—Defective roofs and plastering.	The Magistrates made Nuisance Orders in respect of these houses, and allowed the Corporation £2/2/6 Costs.
<p>FOOD AND DRUGS ACT, 1938, SECTION 3(1) :</p> <p>SAMPLE NUMBER 2577—Selling Milk not of the nature, substance or quality demanded. (13·53% added water).</p>	<p>Fined £10/0/0. £1/1/0 Costs.</p> <p>A further summons taken out by the vendor against his cowman resulted in the latter also being fined £10/0/0.</p>
<p>SAMPLE NUMBER 2610—Selling Milk not of the nature, substance or quality demanded. (28·24% added water).</p>	<p>Fined £3/0/0. £1/1/0 Costs.</p>
<p>SAMPLE NUMBER 2928—Selling Milk not of the nature, substance or quality demanded. (20·12% added water).</p>	<p>Fined £3/0/0. £1/1/0 Costs.</p>
<p>SAMPLE NUMBER 2999—Selling Milk not of the nature, substance or quality demanded.</p>	<p>Fined £3/0/0. £1/1/0 Costs.</p>
<p>SAMPLE NUMBER 3000—Selling Milk not of the nature, substance or quality demanded.</p>	<p>Fined £3/0/0. £1/1/0 Costs.</p>

INSPECTION AND SUPERVISION OF FOOD

MILK

The Milk and Dairies Order, 1926

Cowkeepers on register, December, 1945...	...	...	109
„ added to register during 1946	...	...	1
„ discontinued during 1946	...	...	1
			<hr/>
„ on register, December, 1946	...	...	109
Cowsheds on register, December, 1945	...	...	265
„ added to register during 1946	...	...	1
„ discontinued during 1946	...	...	3
			<hr/>
„ on register, December, 1946	...	...	263
Number of cows provided for in the cowsheds, 1946	...	...	3,177
Average number of cows kept during the year	...	...	2,602
Number of dairies and premises of milk purveyors	...	...	750

Milk (Special Designations) Regulations, 1936-1946

The following licences were granted under these Orders during 1946 :—

Producer's licence to use the designation "Tuberculin Tested"	...	...	...	...	...	4
Supplementary licence to use the designation "Tuberculin Tested"	...	...	...	...	...	—
Dealer's licence to use the designation "Tuberculin Tested"	...	...	...	...	...	2
Producer's licence to use the designation "Accredited"	...	...	...	...	...	21
Supplementary licence to use the designation "Accredited"	...	...	...	...	...	3
Dealer's licence to use the designation "Pasteurised" (Licence in respect of a Pasteurising establishment).	...	...	...	...	...	1
Supplementary licence to use the designation "Pasteurised"	...	...	...	...	...	1

MEAT

The following table shows the number of animals slaughtered and inspected at the public abattoirs and private slaughterhouses in the Borough, with the diseased conditions grouped under two heads :—

- (1) Carcases affected with disease other than tuberculosis ; and
- (2) Carcases found to be affected with tuberculosis only.

Carcases Inspected and Condemned

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Total number killed and inspected ...	2,712	7,756	5,818	29,559	3,332
All Diseases except Tuberculosis :					
Whole carcases condemned... ..	1	18	19	9	7
Carcases of which some part or organ was condemned ...	238	1,973	2	668	4
Percentage of the number inspected affected with disease other than tuber- culosis	8.81	25.67	0.36	2.29	0.33
Tuberculosis only :					
Whole carcases condemned... ..	1	177	5	—	2
Carcases of which some part or organ was condemned ...	64	1,721	—	—	30
Percentage of the number inspected affected with tuber- culosis	2.39	24.47	0.08	—	0.96

NOTIFIABLE INFECTIOUS DISEASES

PREVALENCE AND MORTALITY

Below are shown the number of cases of notifiable diseases notified in Bolton in 1946 and the number of deaths resulting from each of these notifiable diseases.

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1946

Disease.	Total Cases Notified.	Total Deaths.
Smallpox	—	—
Scarlet Fever... ..	182	—
Diphtheria	87	3
Enteric Fever (including Paratyphoid)	1	—
Relapsing Fever (Undulant) ...	—	—
*Pneumonia	132	85
Puerperal Pyrexia	2	2
Cerebro-spinal Fever	5	2
Acute Poliomyelitis	2	—
Acute Polioencephalitis	—	—
Encephalitis Lethargica	—	4
Dysentery	7	1
Ophthalmia Neonatorum	8	1
Erysipelas	22	—
Malaria	1	—
Measles	239	—
Whooping Cough	264	2

*The cases notified are Acute Primary and Acute Influenzal, but the deaths include all forms of Pneumonia.

DIPHtheria IMMUNISATION.

The immunisation of children against Diphtheria has continued throughout the year under review. Every encouragement has been given to parents to have their children immunised as near their first birthday as possible. Facilities are available in the Child Welfare Department of the Civic Centre, where clinics are held twice weekly, and also at the eight suburban Child Welfare Centres. The following table shows that there were 216 more children immunised during 1946 than in the previous year :—

AGE GROUP	Children Immunised	
	1945	1946
0— 1 years	54	103
1— 2	1253	1121
2— 3	243	171
3— 4	120	128
4— 5	68	105
Total 0—5 years	1738	1628
5— 6 years	53	88
6— 7	49	99
7— 8	41	100
8— 9	26	66
9—10	26	58
10—11	23	62
11—12	6	52
12—13	15	39
13—14	16	14
14—15	2	2
Total 5—15 years	257	580
15 years and over	—	3
TOTAL	1995	2211

The estimated mid-1946 Population of children under 5 was 12,110. Of these, 5,461 had been immunised up to the 31st December, 1946, a percentage of 45·1.

The estimated mid-1946 Population of children aged 5—14 years was 20,020. Of these, 13,837 had been immunised up to 31st December, 1946, a percentage of 69·1.

The total estimated mid-1946 Population of children aged 0—14 years inclusive, was 32,130, and of these, 19,298 had been immunised up to 31st December, 1946, a percentage of 60·06.

Deaths from Infectious Diseases

The deaths in Bolton attributed to the various epidemic diseases are shown in the following table for the years 1937 to 1946 :—

CAUSES OF DEATH FROM EPIDEMIC DISEASES

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Smallpox	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	3	1	—	1	1	—	—	1	—
Diphtheria and Memb.										
Croup	23	22	11	17	16	13	6	5	2	3
Enteric Fever	1	1	—	1	—	—	—	—	—	—
Measles... ..	4	10	3	8	3	5	4	5	10	—
Whooping Cough ...	14	1	4	5	10	1	2	1	3	2
Diarrhoea and Enteritis under 2 years of age	4	3	14	10	22	34	6	12	8	8
Erysipelas	5	1	1	—	—	—	—	1	—	—
Puerperal Sepsis ...	2	4	3	4	2	—	3	3	—	2
Cerebro-spinal Fever ...	2	1	6	1	6	2	4	1	3	2
Encephalitis Lethargica	4	7	4	4	1	3	8	4	3	4
Influenza	104	24	42	86	23	21	88	24	7	28

BOROUGH ISOLATION HOSPITAL—ADMISSIONS AND DISCHARGES

No. of Patients	No. of Patients suffering from the following Diseases :						Total
	Scarlet Fever	Diphtheria	Measles	Pulmonary Tuberculosis	Other Tuberculous Diseases	Other Diseases	
Remaining, Dec. 31/1945	16	15	—	20	1	5	57
Admitted in 1946 ...	153	94	9	45	1	364	666
Total No. treated, 1946	169	109	9	65	2	369	723
Discharged in 1946 ...	155	95	6	41	1	345	643
Died in 1946	—	6	—	12	1	10	29
Remaining, Dec. 31/1946	14	8	3	12	—	14	51

DEATHS FROM CANCER, 1946

The following table shows the age and sex distribution of all persons who were certified as having died of cancer in Bolton in 1946. The table shows also the localization of the disease.

LESION	SEX		AGE																			
			0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and up		
	M.	F.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	85 and up		
BUCCAL CAVITY : Mouth	—	—																			...	
Pharynx	3	—														1	1	1		...		
Tongue	2	—															1	1		...		
Other Sites	2	—															2			...		
TOTAL—BUCCAL CAVITY ...	7	—														1	4	2		...		
DIGESTIVE ORGANS : Esophagus	4	2											1		2	1				...		
Stomach	27	35										3	2	3	3	9	3	3	1	...		
Intestines	19	28									1	2		3	2	1	6	3	1	...		
Rectum	11	2												3	1	2	2		3	...		
Liver	8	8											1		3	3	1			...		
Pancreas	6	5									1			1	2	1		1		...		
Other Organs	3	2								1			1		1					...		
TOTAL—DIGESTIVE ORGANS	78	82								1	2	5	3	12	9	18	15	8	5	...		

DEATHS FROM CANCER, 1946—continued

AGE AND SEX DISTRIBUTION AND LOCALIZATION OF DISEASE

LESION	SEX		AGE																	
			0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards
	M.	F.																		
RESPIRATORY ORGANS :	2														1		1			
Larynx		—																		
Lungs	27						1			2	2	3	5	8	3	3				
		3													2	1				
TOTAL—RESPIRATORY ORGANS	29						1			2	2	3	5	9	3	4				
		3													2	1				
FEMALE GENITAL ORGANS :																				
Uterus		22						1	1	1	1	4	2	4	1	2	3	2		
Ovary		7										4		2		1				
Vulva... ..		2											1	1						
TOTAL—FEMALE GENITAL ORGANS		31						1	1	1	1	8	3	7	1	3	3	2		
BREAST	1																	1		
		37							1	2	2	6	9	1	8	1		6	1	
MALE GENITAL ORGANS :																				
Scrotum	1															1				
Penis	2														1	1				
Prostate	8											1		3	3	1				
TOTAL—MALE GENITAL ORGANS	11											1		3	4	3				
URINARY ORGANS	6										1			2	2			1		
		8										1		3	1	3				
SKIN	1																			
		1																1		
OTHER OR UNSPECIFIED ORGANS	10					1						1	2	1	2		2	1		
		8						1				2	1	2	1		1			
TOTAL—MALES	143					1		1		1	4	9	9	18	25	28	28	12	6	
TOTAL—FEMALES		170						1	2	5	5	11	22	25	28	33	18	8	11	
TOTAL—BOTH SEXES		313				1		2	2	6	9	20	31	43	53	61	46	20	17	

TUBERCULOSIS

The total number of new cases notified in 1946 was 141 as compared with 116 in 1945. Ninety-six of the new cases were pulmonary tuberculosis and 45 were non-pulmonary tuberculosis.

AGE AND SEX DISTRIBUTION OF CASES OF TUBERCULOSIS
NOTIFIED IN BOLTON IN 1946 :

PULMONARY TUBERCULOSIS NOTIFICATIONS

SEX	AGES											Total
	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 and upwards	
Males	—	1	1	1	4	9	12	10	11	10	2	61
Females	1	—	1	1	4	5	11	7	3	2	—	35
Total	1	1	2	2	8	14	23	17	14	12	2	96

NON-PULMONARY TUBERCULOSIS NOTIFICATIONS

SEX	AGES											Total
	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 and upwards	
Males	—	2	9	4	2	1	5	1	—	—	1	25
Females	—	5	4	1	1	3	2	2	—	—	2	20
Total	—	7	13	5	3	4	7	3	—	—	3	45

DEATHS FROM TUBERCULOSIS

Seventy-four Bolton residents were certified as having died of tuberculosis during 1946. This compares with 92 in 1945.

Thirty-eight of these deaths took place in institutions.

The age and sex distribution of those who died from tuberculosis are given in these tables :—

PULMONARY TUBERCULOSIS DEATHS

SEX	AGES									Total
	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	
Males	—	—	1	—	13	3	10	12	3	42
Females	—	—	—	3	11	3	1	2	2	22
Total	—	—	1	3	24	6	11	14	5	64

NON-PULMONARY TUBERCULOSIS DEATHS

SEX	AGES									Total
	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	
Males	—	—	1	1	1	—	1	—	1	5
Females	3	—	—	—	—	—	1	—	1	5
Total	3	—	1	1	1	—	2	—	2	10

In 20 cases the disease had not been notified during life. Eight of these cases died in institutions, and the diagnosis was made after death.

TUBERCULOSIS DISPENSARY

1. The dispensary is open every week-day (except Saturday) from 9 a.m. to 12 noon and on Monday and Friday from 2 p.m. to 5 p.m. The work done at the dispensary is shown by the following figures :—

Total attendances	3,649
-------------------	-----	-----	-----	-----	-----	-------

Total number of patients sent for consultation	...	687
--	-----	-----

The results of these consultations were as follows :—

Number found to have pulmonary tuberculosis	...	84
---	-----	----

Number found to have non-pulmonary tuberculosis	...	36
---	-----	----

Number of cases kept under observation for suspected pulmonary tuberculosis	16
---	-----	-----	----

Number of cases kept under observation for suspected non-pulmonary tuberculosis	...	—
---	-----	---

Number in whom no evidence of tuberculosis was found	542
--	-----	-----	-----	-----	-----	-----

Number of specimens of sputum examined	...	502
--	-----	-----

Total number of cases on the dispensary register :—

Pulmonary tuberculosis	418
------------------------	-----	-----	-----	-----	-----

Non-pulmonary tuberculosis	236
----------------------------	-----	-----	-----	-----

Total	654
-------	-----	-----	-----	-----

X-ray examinations made in connection with dispensary work	1,148
--	-----	-----	-----	-----	-------

Patients under treatment at the dispensary by artificial pneumothorax	48
---	-----	-----	-----	----

Total number of cases on the notification register :—

Pulmonary tuberculosis	558
------------------------	-----	-----	-----	-----	-----

Non-pulmonary tuberculosis	334
----------------------------	-----	-----	-----	-----

Total	892
-------	-----	-----	-----	-----

2. The work of the dispensary continues to grow as increased use is made of the diagnostic facilities offered to practitioners. Cases are sent for consultation, or visited in their own homes. A full clinical examination is given by the Tuberculosis Officer, and most cases receive an X-ray ; and other aids to diagnosis, such as skin tests and blood tests, are employed. A report is sent to the practitioner advising as to diagnosis and treatment, whether in sanatorium, at home by the family doctor, or observation at the dispensary.

3. CARE WORK. An important function of the Dispensary is after-care and rehabilitation, and every effort is made to get the patient fit for suitable employment again. These activities include the supply of extra milk, cod liver oil, surgical appliances, ultra-violet ray treatment where advisable, contact examinations, administration of the Ministry of Health Financial Allowance Scheme under Memo. 266/T. In addition, many cases are recommended for re-housing under more sanitary surroundings, to the Housing Committee. Recommendations are frequently given to the Social Welfare, Unemployment Assistance Board, Guild of Help, British Legion, and Red Cross organisations, for extra help ; and consultations are held periodically with the Ministry of Labour officials to try and find suitable light work for the partially disabled.

This helpful co-ordination and co-operation with other departments and organisations is greatly appreciated and is a potent factor in returning many patients to a useful life under sheltered conditions.

TREATMENT OF TUBERCULOSIS

One hundred and twenty eight persons applied for treatment in 1946. Eighty-four of these were cases of pulmonary tuberculosis and 36 of non-pulmonary tuberculosis.

The treatment given to the new patients was as follows :—

Residential treatment ...	...	...	...	70
Domiciliary treatment...	...	...	...	55
Out-patient treatment...	...	...	...	3

No patient requiring residential treatment was refused such treatment.

The following table summarizes the residential treatment given during 1946.

ACCOMMODATION PROVIDED BY LOCAL AUTHORITY WITH NUMBER
OF PERSONS ADMITTED FOR TREATMENT DURING THE YEAR 1946

INSTITUTION	Beds	Admitted during the year			Under Treatment 31st Dec. 1946
		Total	Insured	Uninsured	
Wilkinson Sanatorium	30	45	33	12	26
Borough Hospital	24	49	33	16	12
*Heswall... ..	6	1	—	1	1
*Bolton Royal Infirmary	—	16	6	10	—
*Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry	—	8	3	5	8
*Children's Orthopaedic Hospi- tal, Marple	—	3	—	3	4
*Blencathra Sanatorium, Threl- keld	—	—	—	—	—
*Liverpool Sanatorium, Frod- sham	—	6	6	—	2
*Leasowe Open-air Hospital	—	—	—	—	—
*Crossley Sanatorium	—	1	1	—	1
*Baguley Sanatorium	—	1	—	1	—
*East Lancs. T.B. Colony	—	—	—	—	1
*Wrightington Hospital	—	—	—	—	—
Townleys Hospital	—	18	14	4	7
*E.M.S. Orpington, Kent	—	1	1	—	1
*Chadderton Pulm. Hospital	—	1	1	—	—
*Papworth Village Settlement	—	1	1	—	1
*North Wales Sanatorium, Denbigh	—	1	1	—	—

*Paid for per user.

4. ARTIFICIAL PNEUMOTHORAX AND CHEST SURGERY.

A.P. has now taken its place as one of the standard treatments in suitable cases, and Mr. Graham Bryce, Thoracic Surgeon of Manchester, comes and sees patients periodically; and suitable cases are admitted to Baguley Sanatorium (Thoracic Surgery unit) for operation.

No. of patients on A.P. treatment	48
No. of A.P. refills given	877
No. of Consultations with Thoracic Surgeon	18

Ultra-Violet Ray Treatment

During the year, 938 attendances were made to the Ultra-Violet Ray Department, the majority of the cases being gland tuberculosis. Forty new patients were referred ; most of them were given ultra-violet ray treatment, and in 6 cases the Kromayer and radiant heat lamps were used.

Examination of Contacts

During the year, 42 contacts were examined at the dispensary or in the home ; of these, 2 proved to be tuberculous.

Treatment Allowances

The number of patients assisted under the Ministry of Health Memorandum 266/T, in respect of which expenditure will be reimbursed by the Exchequer, is as follows :—

Maintenance Allowances	...	...	...	...	95
Discretionary Allowances	...	...	...	...	3
Special Payments	...	...	...	...	3

In addition, 226 patients were assisted by the provision of 42,912 pints of Milk and 48 lbs. of Malt and Oil, free of cost.

X-RAY AND ARTIFICIAL SUNLIGHT DEPARTMENT

546 patients made 3,396 attendances for treatment by Artificial Sunlight during the year.

The following X-ray Examinations were made :—

Chests	...	...	...	...	...	1,148
Pregnancies	...	...	...	...	...	189
Orthopaedic	...	...	...	...	...	30
Child Welfare	...	...	...	...	...	10
Dental	...	...	...	...	...	56
Miscellaneous	...	...	...	...	...	49
TOTAL	...	...	...	...	...	1,482

VENEREAL DISEASES

The tables on pages 49, 50 and 51 show the work carried out at the Bolton Treatment Centre.

**Return relating to all persons who were treated at the Treatment Centre
at Bolton Public Health Offices during the
year ended the 31st December, 1946**

	Syphilis		Soft Chancre		Gonorrhœa		Non- Venereal or undiagnosed conditions		TOTALS		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
1 Number of cases on 1st January under treatment or observation... ..	248	322	...	...	185	149	118	50	551 (25)	521	1072 (25)
2 Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	6	12	...	...	9	6	...	...	15	18	33
3 Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from :—											
Syphilis, primary ...	70	21	...	...	...	...	...	...	70 (2)	21	91 (2)
" secondary ...	33	38	...	...	...	...	...	...	33 (1)	38	71 (1)
" latent in 1st year of infection ...	7	11	...	...	...	...	...	...	7	11	18
" all later stages ...	22	18	...	...	...	...	...	...	22	18	40
" congenital ...	3	1	...	...	...	...	...	...	3	1	4
Soft Chancre ...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhœa, 1st year of infection ...	...	...	...	...	252	104	...	...	252 (19)	104 (1)	356 (20)
" later ...	...	...	...	...	...	2	...	...	...	2	2
Non-venereal conditions ...	...	...	...	...	...	...	465	239	465 (29)	239	704 (29)
Conditions remaining undiagnosed at 31st December... ..	...	...	...	...	...	...	...	4	...	4	4
4 Number of cases dealt with for the first time during the year under report known to have received treatment for the same infection, or to have been under observa- tion, at other Centres or Service Hospitals, or by General Practitioners approved under Ministry of Health Circular 2226...	57	2	...	...	49	...	14	...	120 (30)	2	122 (30)
TOTALS OF ITEMS 1, 2, 3 AND 4 ...	446	425	...	...	495	261	597	293	1538 (106)	979 (1)	2517 (107)

[illegible]

	Syphilis		Soft Chancre		Gonorrhœa		Non-Veneral or undiagnosed conditions		TOTALS		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Number of attendances:— (1) for individual attention of the medical officer(s) ...	6573	8913	...	...	3777	2733	2441	1370	12791 (164)	13016	25807 (164)
(2) for intermediate treatment, e.g., irrigation, dressing	94	581	...	...	69	621	31	107	194 (45)	1309	1503 (45)
	6667	9494	...	...	3846	3354	2472	1477	12985 (209)	14325	27310 (209)
In-patients :— Name of Institution (if other than the Treatment Centre) :— Morough Isolation Hospital :											
Total number of persons admitted for treatment during the year	104	44	...	...	15	21	...	...	119	65	184
Aggregate number of in-patient days" of treatment given	111	119	...	...	17	21	...	...	128	140	268
Number of cases treated with penicillin	161	115	...	...	138	116	8	...	307	231	538
	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
	Number of cases of congenital syphilis in Item 3 above classified according to age periods	2	—	—	—	1	—	—	1	3	1
Pathological Work :—	Microscopical		Cultural for Gonorrhœa		Serum		Cerebro-spinal fluid	Others for diagnosis of Venereal Disease			
	for Syphilis	for Gonorrhœa			for Syphilis	for Gonorrhœa					
(1) Number of specimens examined at, and by the medical officer of, the Treatment Centre ...	84	3018	—	—	—	—	—	—	—	—	
(2) Number of specimens from patients attending the Treatment Centre sent for examination to approved laboratory	—	553	—	—	3154	827	113	681	—	—	

**Statement showing the services rendered at the Treatment Centre
during the year, classified according to the areas
in which the patients resided**

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Bolton	Lancs. C.C.	Blackburn	Blackpool	Burnley	Bury	Leicester	Liverpool	Loughborough	Macclesfield	Manchester	Preston	Salford	St. Helens	Stockport	Warrington	Wigan	TOTAL
A. Number of cases from each area included under the following headings in Item 3 :—																		
Syphilis	151	67	1	-	-	1	-	-	-	-	1	-	-	-	-	-	3	2
Soft Chancre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gonorrhoea	237	108	-	1	1	1	-	-	-	1	-	1	1	1	1	2	3	3
Non-venereal and undiagnosed conditions	473	209	1	2	-	4	1	1	1	-	3	-	4	-	1	1	7	7
TOTAL	861	384	2	3	1	6	1	1	1	1	4	1	5	1	2	3	13	15
B. Total number of attendances of all patients residing in each area ...	18810	8113	8	36	2	66	1	3	1	5	23	31	13	2	17	15	164	27

NOTE.—Service Cases are included in the above figures and the numbers so included are shewn in brackets.

REGULATION 33B.

The effect of the Regulation is to make it an offence for any person, who has been indicated as the source of infection by two or more persons under treatment for Venereal Disease, to fail to undergo examination, and if necessary, treatment.

During the year, 12 persons (all women), have been notified to the Medical Officer of Health as the source of infection, in each case by one person under treatment for Venereal Disease. One person has been notified as the source of infection in two cases. Regulation 33B gives no power to compel the person who is only cited once as the source of infection to submit to examination and treatment.

The one woman cited in two instances as the source of infection was found and treated. Of the twelve women notified, it was possible to make personal contact with seven of whom six were persuaded to come for examination and treatment.

ANNUAL REPORT
of the
PUBLIC ANALYST AND BACTERIOLOGIST
for the year ended December 31st, 1946

The following is the report on the work carried out in the Borough Laboratory.

SUMMARY.						Number of Samples
Food and Drugs	...	...	...	...	...	544
Bacteriological Examinations of Milk	...	...	...	...	...	457
Analyses for the Waterworks Committee	...	...	...	...	...	722
Milks from Townleys Hospital	...	...	...	...	...	36
Atmospheric Pollutions	...	...	...	...	...	55
Examinations of Ice Cream	...	...	...	...	...	29
Miscellaneous Examinations	...	...	...	...	...	12
						1,855

HEALTH COMMITTEE

FOOD AND DRUGS.

	Total	Genuine	Adulterated	Per cent Adulterated
Milk	284	263	21	7.39
Margarine	2	2	0	—
Butter	13	13	0	—
Lard and Compounds	12	12	0	—
Coffee and Extracts	20	20	0	—
Cocoa	6	6	0	—
Vinegar	12	12	0	—
Spices and Condiments	24	24	0	—
Baking Powder ...	10	10	0	—
Cereals	28	28	0	—
Spirits	14	12	2	14.29
Cooking fats	7	7	0	—
Jams and Marmalade	12	12	0	—
Pickled Vegetables	14	14	0	—
Cordials	14	14	0	—

		Total		Genuine		Adulterated		Per cent. Adulterated
Meat Products	...	15	...	15	...	0	...	—
Fish Pastes	...	2	...	2	...	0	...	—
Sweets	...	13	...	13	...	0	...	—
Herbs	...	5	...	5	...	0	...	—
Gelatin	...	6	...	6	...	0	...	—
Health Salts	...	3	...	3	...	0	...	—
Bircarb. of Soda	...	3	...	3	...	0	...	—
Drugs	...	12	...	12	...	0	...	—
Miscellaneous	...	13	...	13	...	0	...	—
		544	...	521	...	23	...	4.23

MILK.

Total examined		Genuine		Adulterated
284	...	263	...	21

All the samples were examined for preservatives and colouring matter. In no case was any found.

The satisfactory quality has been maintained, the average being (exclusive of skimmed milk) for the year :—

Milk Fat		Non-fatty Solids		Water
3.83	...	8.77	...	87.40

The following table shows the monthly variation.

Month	No. of samples	Milk fat		Non-fatty solids	
Jan.	12	3.36	3.72	8.82	8.64
Feb.	11	3.88		8.79	
Mar.	45	3.77		8.55	
Apr.	28	3.52	3.60	8.69	8.78
May	27	3.48		8.76	
June	29	3.78		8.90	
July	16	4.23	4.06	8.77	8.85
Aug.	12	4.36		8.97	
Sept.	39	3.89		8.85	
Oct.	30	4.03	4.02	8.78	8.82
Nov.	22	4.05		8.91	
Dec.	12	3.97		8.82	

The foods examined (except the 23 adulterated samples) were of satisfactory quality, and call for no comment.

The drugs all satisfied the requirements of the B. P.

BACTERIOLOGICAL EXAMINATION OF MILK.

HEAT-TREATED MILK.

MINISTRY OF HEALTH STANDARDS :

Methylene blue must not be decolourised within 30 mins.

Phosphatase test must not show more than 2.3 Lovibond blue units.

No. of samples examined	...	...	...	...	141
No. which satisfied phosphatase test...			...	...	139
No. which satisfied methylene blue test			...	...	140

TUBERCULIN TESTED MILK.

MINISTRY OF HEALTH STANDARDS :

Methylene blue must not be decolourised within $4\frac{1}{2}$ hours

1st May to 31st October. 5½ hours 1st Nov. to 30th April.

B. Coli absent in 1/100 mil. of milk.

No. of samples	56
No. which satisfied methylene blue test	54
No. containing B. Coli in 1/100th mil.	3

The two samples which did not satisfy the methylene blue test decolourised the methylene blue in 1 and 4½ hours respectively.

ACCREDITED MILK.

MINISTRY OF HEALTH STANDARDS :

Same as for Tuberculin tested.

No. of samples	...	...	...	...	...	...	241
No. which satisfied methylene blue test					...	...	232
No. containing B. Coli in 1/100th. mil....					...	...	12

The nine samples which did not satisfy the methylene blue test decolourised the methylene blue in 5, $3\frac{1}{2}$, $3\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, and 4 hours respectively.

VENDED MILK.

NO MINISTRY OF HEALTH STANDARD.

No. of samples examined	...	...	...	...	19
No. which satisfied methylene blue test	...	...	...	...	17
No. containing B. Coli in 1/100th mil.	...	...	...	...	5

The two unsatisfactory samples each decolourised methylene blue in 4 hours.

METHYLENE BLUE, COLI AND PHOSPHATASE TESTS FOR MILK.

By the Milk (Special Designations Order, 1936) the methylene blue test was adopted as a simple and rapid method of judging the cleanliness of milk.

The investigation of Wilson and his co-workers showed that with standard conditions as to quantity of milk examined, temperature and concentration of dye, the test gives a reliable indication of the cleanliness of the sample.

The mechanism of the test is complicated, but a simple explanation may be of interest.

The majority of organisms present in milk are capable by absorption of oxygen, of altering the oxidation-reduction potential of milk to a point at which the colour of certain dyes such as methylene blue is discharged.

The rate at which this reduction takes place depends on :—

- a. Number and species of organism present.
- b. Temperature of the reaction.
- c. Concentration of the dye.

If, therefore, a definite concentration of dye is used and the temperature is kept constant, the time taken to discharge the colour is an indication of the bacterial contamination of the milk.

B. COLI TEST.

The natural habitat of B.Coli is sewage, and although there are many strains of coli of varying virulence, the presence of this organism is indicative of harmful pollution.

METHYLENE BLUE AND PHOSPHATASE TESTS FOR HEAT-TREATED MILKS.

As heat treatment destroys the majority of organisms in milk, tests are made to determine :—

a. That the milk has been sufficiently heated to destroy all pathogenic organisms.

b. That the milk has not been over-heated. The temperature of efficient pasteurisation destroys the enzyme phosphatase so a test has been designed to prove the absence of this enzyme. If phosphatase is proved absent, then the milk has been efficiently sterilised.

To prove absence of over-heating, the methylene blue test is used but in an entirely different way from that in raw milk testing.

Boiled milk rapidly discharges the colour of methylene blue owing to the formation of aldehydes from milk sugar, but again by controlling concentration of dye, temperature, the time will give a measure of the amount of over-heating.

MISCELLANEOUS EXAMINATIONS.

55 Atmospheric Pollutions.

36 Milks from Townleys Hospital.

4 Bleaching Liquids.

29 Ice Creams.

1 Water.

2 Grits.

3 Crumpets.

2 Bricks.

The milks from Townleys Hospital were of satisfactory quality, without the addition of colouring matter or preservative.

The Ice Creams were examined to determine the state of purity of this article as sold in this Borough.

I have adopted the standard, that *B. Coli* should not be present in 1/100 mil. of sample.

The following table gives the findings :—

Average agar count per 1 mil of ice cream ...	...	31.487
No. showing B.Coli absent in 1/10 mil. ...	...	5
No. showing B.Coli present in 1/10 mil. ...	...	8
No. showing B.Coli present in 1/100 mil. ...	...	12
No. showing B.Coli present in 1/1000 mil. ...	...	4

The position is not satisfactory, 16 out of 29 failing to pass.

The crumpets were submitted by the Food Executive Officer, and found to contain more wheat flour than that allowed by the Ministry of Food.

Further samples were taken by an Inspector of the Ministry and the findings confirmed.

WATER SUPPLY 1946

The water comprising the town's supply is examined weekly bacteriologically and for plumbo-solvency, and chemically monthly.

The quality of the treated water during 1946 has been excellent as a domestic supply.

Routine water examinations	720
--------------------------------	-----	-----	-----	-----

Of the above samples 240 were filtered and treated waters, sampled at the filter stations, and 240 were the same water before filtration and treatment.

The following are the results obtained :—

AGAR COUNT. (Total number of organisms of all types growing on agar per mil. at 37°C.).

Number of samples	Average agar count.
240 ... Raw waters ...	80
240 ... Filtered waters...	6

B. COLI.

Standards adopted for filtered and treated waters at Stations:—

Number of B. Coli per 100 mils.

0 Good.

1—2 Tolerable.

2—4 Unsatisfactory.

Above 4 Bad.

Of the filtered waters 2 only showed the presence of B. Coli in 100 mils.

CL. WELCHII.

No. of samples examined.	Positive in 50 mils.
240	3

CHEMICAL EXAMINATION (AVERAGE RESULTS).

	Raw Waters	Filtered Waters
	Parts per 100,000	
No. of samples	50	50
Total Solids	10.16	9.93
Free Ammonia	0.002	0.001
Albuminoid Ammonia	0.002	0.001
Nitrogen as Nitrates	0.008	0.006
Nitrogen as Nitrites	none	none
Chlorine as Chlorides	1.22	1.21
Acidity	none	none
Oxygen absorbed in 3 hours		
(15.5°C.)	0.142	0.066
Poisonous metals (Lead, etc.)...	none	none
Suspended matter	trace	none
Odour	none	none
Total Hardness in degrees	3.20	3.20

PLUMBO-SOLVENCY.

No. of samples examined.	Plumbo-Solvency.
	Parts per 100,000
240 Raw Waters	0.09
240 Filtered Waters	0.07

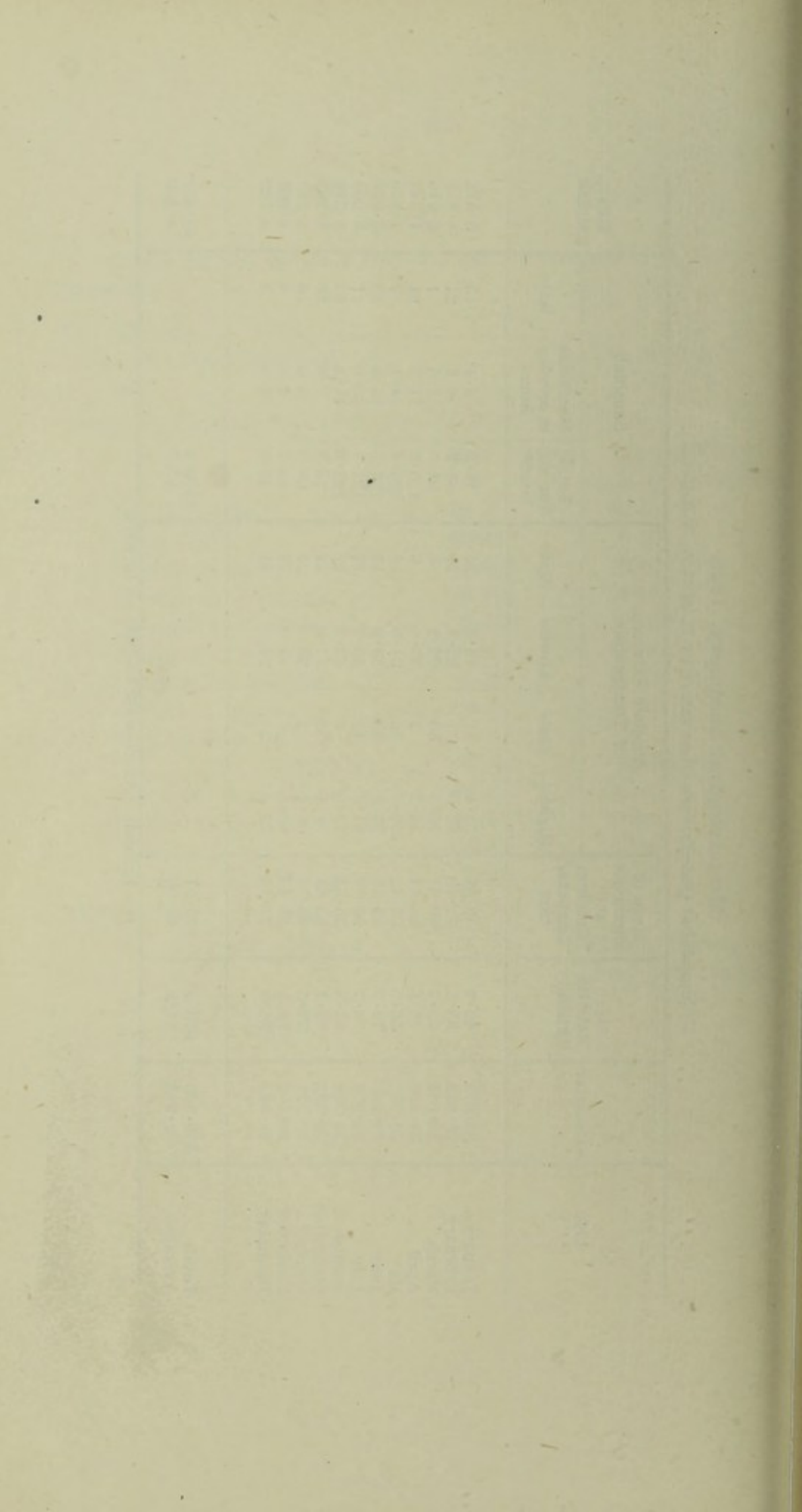
Meteorological Summary, 1946

(Compiled at Queen's Park Observatory by E. HENDY, F.R.Met.S.)

1946	Barometer "	Mean Relative Humidity %	Mean of Maximum and Minimum Tempera- ture °	Absolute extremes of Temperature				Sunshine		Total Rainfall "	
				Highest °	Date	Lowest °	Date	Total Amount hours	Maximum in one day hours		Date
January...	30.073	89.4	36.57	51.5	11	18.3	21	16.2	4.4	13	5.572
February	29.935	85.1	41.18	52.0	7	22.4	27	63.3	8.2	21	6.871
March ...	30.044	79.7	40.41	70.0	30	23.2	1	97.5	7.6	1	0.916
April ...	30.526	75.5	48.64	74.2	3	33.0	9	135.5	11.3	21	1.349
May ...	30.001	66.6	53.45	69.8	30	31.6	16	228.4	14.1	7	1.420
June ...	29.886	79.9	53.13	75.9	23	39.6	13	175.6	14.6	13	3.916
July ...	29.974	76.7	58.77	81.5	12	45.3	17	151.8	13.6	11	5.001
August ...	29.794	82.8	55.58	71.8	5	42.2	17	127.6	11.3	21	6.318
September	29.842	82.1	55.44	76.1	28	41.6	18	72.2	7.6	15	8.293
October...	30.131	78.7	48.75	64.4	2	28.0	29	66.3	8.6	10	1.165
November	29.707	88.4	46.43	64.5	4	33.3	23	18.5	5.5	4	6.962
December	29.947	89.0	37.16	47.9	25	24.5	21	20.9	6.0	4	4.539
Totals ...	359.860	973.9	575.51					1173.8			52.322
Averages	29.988	81.2	47.96					97.8			4.360

Rainfall. Average 1887—1946 = 44.4076"

52.322
4.360





COUNTY BOROUGH OF BOLTON

EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

School Medical Officer

FOR THE YEAR 1946.

R. M. GALLOWAY, M.D., D.P.H.

School Medical Officer and Medical Officer of Health.

BOLTON :

HOPKINS & SONS, "CENTRAL PRESS," CENTRAL STREET.

1947.

D5291



REPORT OF THE

COMMISSION

ANNUAL REPORT

School Medical Officer

for the year 1901

Presented to the Council of the

Public Health Department,

BOLTON.

1st May, 1947.

**To the Chairman and Members of the Special Services
Sub-Committee of the Bolton Education Committee.**

The School Medical Officer begs to submit the Annual Report on the work of the School Medical Department for the year 1946. In accordance with instructions the scope of the report is greatly reduced but the more important tables are reproduced to preserve the continuity of annual returns.

MALNUTRITION.

The school population does not appear to have suffered physically during the year. Of the 5,478 pupils inspected during the year in the routine age groups, the nutrition of 449 or 8·19% was excellent, 4,619 or 84·32% normal, 408 or 7·44%, slightly subnormal and only 2 or ·03%, bad.

The following table compares the average height and weight of 2 groups of children who attained the age of 12 years during the years 1938 and 1946 respectively, and who were examined for the purpose of employment outside school hours :—

Year.]	No. of children.	Average height in inches.	Av. weight in pounds.
1938	122	56·63	76·25
1946	175	56·74	76·84

It is worthy of note that the 1946 group shows an increase in average height and weight.

School meals have contributed to the physical well-being of the children. During the year, 1,616,908 meals were provided.

UNCLEANLINESS.

The Municipal Medical Baths continue to work satisfactorily. Two whole-time women attendants and a part-time male attendant are employed. Verminous conditions of the head are treated on three morning sessions weekly. During 1946, 236 children were treated.

SCABIES.

There has been a continued decrease in scabies. Five afternoon and two morning sessions are now allotted to the treatment of scabies each week in the Municipal Medical Baths. Special evening sessions are arranged for adult male members of the families. Every endeavour is made to examine and, if necessary, treat the whole family. 1,733 treatments for scabies were given to 644 children at the Medical Baths during the year.

DENTAL DEFECTS.

With the return of Mr. R. B. Keighley from military service in June, 1946, and the temporary appointment of Mrs. G. M. Walker, there were four dental surgeons working during the second half of the year. Consequently the amount of dental work was substantially increased compared with the previous year.

Of 11,240 children inspected by the dental surgeons in routine and special inspections, 7,714 were found to require treatment and 6,075 received treatment.

The actual figures for the work carried out are as follows :—

ROUTINE CASES—					Total.
No. of cases treated	..	..	..	..	2,966
No. of attendances	..	..	..	..	4,066
No. of temporary teeth extracted	..	..	..	..	2,520
No. of permanent teeth extracted	..	..	..	..	429
No. of temporary teeth filled	..	..	..	..	1,287
No. of permanent teeth filled	..	..	..	..	1,623
No. of general anæsthetics administered	..	..	..	..	393

CASUAL CASES—

No. of cases treated	..	..	..	..	..	3,109
No. of attendances	..	..	..	..	..	3,919
No. of temporary teeth extracted	..	..	..	..	..	2,904
No. of permanent teeth extracted	..	..	..	..	..	603
No. of temporary teeth filled	..	..	..	..	..	546
No. of permanent teeth filled	..	..	..	..	..	420
No. of general anæsthetics administered	..	..	..	..	..	611

INFECTIOUS DISEASE.

No schools were closed during 1946 on account of infectious disease. During the year 580 children between 5 and 15 years and 1,628 children under 5 years were immunised against diphtheria.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

During the year 1946, 15 children were notified to the Mental Deficiency Acts Committee of the Lancashire Mental Hospitals Board.

Flash Street Special School.

				Boys.	Girls.
No. of children on the roll, December, 1946	..	..	..	45	32
No. of children admitted during 1946	..	..	..	14	1
No. of children discharged during 1946	..	..	..	10	5

The Thomasson Memorial Special School.

				Blind Boys.	Deaf Dept. Girls.
No. of children on the roll, December, 1946	..	..	..	13	9
				Deaf Boys.	Deaf Dept. Girls.
No. of children on the roll, December, 1946	..	..	..	21	7

Bolton Area.

	Blind. (including partially sighted).		Deaf. (including partially deaf).	
	Boys.	Girls.	Boys.	Girls.
No. of children admitted during 1946	3	—	3	—
No. of children discharged during 1946	1	—	—	—
No of children transferred during 1946	5	—	—	—

	Outside Areas.			
	Blind. (including partially sighted).		Deaf. (including partially deaf).	
	Boys.	Girls.	Boys.	Girls.
No. of children admitted during 1946	2	—	6	1
No. of children transferred during 1946	8	13	1	1
			2	
			(attained 16 years of age)	

Blind Department.

The Blind Department has continued throughout the year as a Junior School for the Blind.

The health of the children has been very good. A medical inspection is carried out annually in a routine way. All children are medically examined on admission and one of the Assistant School Medical Officers visits the school twice weekly or more often when necessary.

LOSTOCK OPEN AIR SCHOOL.

The following are the relevant figures for 1946 :—

	Boys.	Girls.
No. of children admitted during the year (New cases)	95	74
No. of children on the roll, December, 1945, and re-admitted January, 1946	34	22
Total	129	96
No. of children discharged during the year by the Medical Officer	45	22
No. of children withdrawn by parents	38	41
No. of children attaining the age of 14 years	—	1
No. of children excluded	3	1
No. of children removed out of town	3	3
No. of children in residence, December, 1946	55	43

NURSERY SCHOOLS.

The following are the relevant figures for 1946 :—

KAY STREET NURSERY SCHOOL :

No. of children on the roll, December, 1946	110
No. of children admitted during 1946	83
No. of children transferred to elementary schools	21
No. of children removed by parents	29

PIKES LANE NURSERY SCHOOL :

No. of children on the roll, December, 1946	..	110
No. of children admitted during 1946	.. ..	74
No. of children transferred to elementary schools	..	48
No. of children removed by parents	.. ..	8

Employment of Children and Young Persons.

Three hundred and sixty-seven children were examined during 1946 for employment outside school hours in accordance with the Bye-laws made under the Children and Young Persons Act, 1933. Certificates were granted in 311 cases. The corresponding number in 1945 was 374.

Twenty-eight children who had made application for Juvenile Performers' Licences under the Employment of Children in Entertainments Rules, 1933, were examined and licences were granted in 26 cases.

REMEDIAL SPEECH TRAINING CENTRE.

Total number of cases receiving treatment :—

Stammer	.. ..	42
Cleft palate	.. ..	5
Other defects	.. ..	287
		—
Total		334
		—

CHILDREN UNABLE TO ATTEND SCHOOL THROUGH PHYSICAL DISABILITIES.

The arrangements under this heading remain the same as last year.

During the year, 16 children have been on the books of the teachers, and altogether, 1,011 hours of actual instruction have been given to these children.

REMAND HOMES.

(a) GIRLS. Seventy-five girls were admitted to the Girls' Remand Home. The routine examination of girls immediately after admission and before discharge was carried out as usual.

(b) Boys. The Townleys House Remand Home for Boys was opened on March 5th, 1942, and provides accommodation for 29 boys. Since the opening 500 boys have passed through the Home. This year 170 boys have been admitted.

During the year 45 boys had their mental age determined by the application of intelligence tests to discriminate their suitability for Approved School training.

STATISTICAL TABLES.

These Tables are appended.

COUNTY BOROUGH OF BOLTON.

Table I.

MEDICAL INSPECTION AND TREATMENT RETURNS
YEAR ENDED 31st DECEMBER, 1946.

MEDICAL INSPECTIONS OF PUPILS ATTENDING
MAINTAINED PRIMARY AND SECONDARY SCHOOLS.

A.—ROUTINE MEDICAL INSPECTIONS.

(Regulation 49 (2) of the Handicapped Pupils and School Health
Service Regulations, 1945).

Number of Inspections :

Entrants	..	..	..	..	..	..	4,090
Second Age Group	..	..	..	..	..	..	*85
Third Age Group	..	..	..	..	..	..	†1,008
							<hr/>
Total	..	..	..	..	..	..	5,183
Number of other Routine Inspections	..	..	..	..	..	..	295
							<hr/>
Grand Total	..	..	..	..	..	..	5,478
							<hr/>

B.—OTHER INSPECTIONS.

Number of Special Inspections	..	..	..	..	..	..	4,721
Number of Re-inspections	..	..	..	..	..	..	3,416
							<hr/>
Total	..	..	..	..	..	..	8,137
							<hr/>

* Primary School Leavers.

† Primary School Leavers examined on admission to Maintained Secondary Schools.

COUNTY BOROUGH OF BOLTON.

RETURN OF DEFECTS FOUND BY MEDICAL
INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1946.

DEFECT OR DISEASE.		ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
		No. of Defects.		No. of Defects.	
		Requiring treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.
(1)		(2)	(3)	(4)	(5)
Skin	Ringworm				
	(1) Scalp	—	—	1	—
	(2) Body	4	—	4	—
	(3) Scabies	6	—	203	—
	(4) Impetigo	7	—	99	—
	(5) Other Diseases (Non-Tuberculous)	65	20	249	1
TOTAL (Heads 1 to 5) ..		82	20	556	1
Eye	(6) Blepharitis	15	—	8	—
	(7) Conjunctivitis	1	—	4	—
	(8) Keratitis	—	—	—	—
	(9) Corneal Opacities	—	—	1	—
	(10) Other Conditions (excluding Defective Vision and Squint)	6	1	18	—
	TOTAL (Heads 6 to 10) ..	22	1	31	—
Ear	(11) Defective Vision (excluding Squint)	392	255	84	3
	(12) Squint	138	2	27	—
	(13) Defective Hearing	29	24	60	39
	(14) Otitis Media	34	2	123	—
	(15) Other Ear Diseases ..	22	26	69	53
	(16) Chronic Tonsillitis only	33	202	31	67
Nose and Throat	(17) Adenoids only	7	6	22	8
	(18) Chronic Tonsillitis and Adenoids	77	112	384	37
	(19) Other Conditions ..	62	33	151	48

Return of Defects found by Medical Inspection.—(Continued.)

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
	No. of Defects.		No. of Defects.	
	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.
(1)	(2)	(3)	(4)	(5)
(20) Enlarged Cervical Glands (Non-Tuberculous) ..	3	67	30	5
(21) Defective Speech ..	22	14	36	8
Heart and Circulation { Heart Disease :				
(22) Organic ..	9	—	9	3
(23) Functional ..	—	29	4	3
(24) Anæmia ..	15	—	58	4
(25) Bronchitis ..	47	2	66	3
Lungs { (26) Other Non-Tuberculous Diseases	11	35	39	5
Pulmonary :—				
(27) Definite..	—	—	2	—
(28) Suspected ..	—	—	1	—
Tuberculosis { Non-Pulmonary :—				
(29) Glands ..	1	—	4	—
(30) Bones and Joints	1	—	1	—
(31) Skin ..	—	—	—	—
(32) Other Forms ..	—	—	—	—
TOTAL (Heads 29 to 32)..	2	—	5	—
Nervous System { (33) Epilepsy ..	5	—	12	5
(34) Chorea ..	1	—	4	1
(35) Other Conditions	—	—	17	1
Deformities { (36) Rickets ..	8	—	10	1
(37) Spinal Curvature	2	—	6	—
(38) Other Forms ..	30	8	46	5
(39) Other Defects and Diseases (excluding Defects of Nutrition, Uncleanliness and Dental Diseases) ..	34	136	387	148
Total	1081	974	2270	448

Table II.—Continued.

CLASSIFICATION OF THE NUTRITION OF PUPILS INSPECTED DURING
THE YEAR IN THE ROUTINE AGE GROUPS.

Number of Pupils Inspected	A (Excellent)		B (Normal)		C (Slightly Sub-normal)		D (Bad)	
	No.	%	No.	%	No.	%	No.	%
5,478	449	8.19	4,619	84.32	408	7.44	2	0.03

Table III.

TREATMENT TABLES.
Group I.—Minor Ailments.

(Excluding Uncleanliness, for which see Table V).

Total number of Defects treated or under treatment during the year under the Authority's Scheme	6,570
--	-----	-----	-------

Group II.—Defective Vision and Squint.

No. of Defects dealt with under the Authority's Scheme :—

Errors of Refraction (including squint)	...	...	820
Other defect or disease of the eyes (excluding those recorded in Group I)	...	...	18
Total	...	...	838

No. of children for whom spectacles were

(a) Prescribed	...	...	691
(b) Obtained	...	...	691

Group III.—Treatment of Defects of Nose and Throat.

No. of children who have

(a) Received Operative Treatment under the Authority's Scheme	...	...	459
(b) Received other forms of Treatment under the Authority's Scheme	...	...	96
Total number treated	...	...	555

Table IV.—DENTAL INSPECTION AND TREATMENT.

(1) Number of Children who were :—

(a) Inspected by the Dentist

Aged :

Routine Age Groups	4 and under ..	557	Total 8,131
	5.. ..	815	
	6.. ..	910	
	7.. ..	988	
	8.. ..	952	
	9.. ..	969	
	10.. ..	774	
	11.. ..	716	
	12.. ..	710	
	13.. ..	658	
	14 and over ..	82	

(b) Specials 3,109

(c) TOTAL (Routine and Specials) 11,240

(2) Number found to require treatment 7,714

(3) Number actually treated 6,075

(4) Attendances made by children for treatment .. 7,985

(5) Half-days devoted to	Inspection	48	Total	1,329
	Treatment	1,281		

(6) Fillings	Permanent teeth	2,043	Total	3,876
	Temporary teeth	1,833		

(7) Extractions ..	Permanent teeth	1,032	Total	6,456
	Temporary teeth	5,424		

(8) Administrations of general anæsthetics for extractions 1,004

(9) Other Operations..	Permanent teeth	811	Total	1,887
	Temporary teeth	1,076		

Table V.—UNCLEANLINESS AND VERMINOUS
CONDITIONS.

(i)	Total number of examinations of children in the schools by school nurses	33,240
(ii)	Number of individual children found unclean ...	2,138

Table VI.

SCHOOL MEDICAL AND DENTAL STAFF.

NAME OF MEDICAL OFFICERS	Proportion of whole time (expressed as a percentage) devoted to	
	School Health Service	Public Health
SCHOOL MEDICAL OFFICER :		
Galloway, Robert M.	10%	90%
ASSISTANT SCHOOL MEDICAL OFFICERS :		
Litt, John (Bolton County Borough — 6 sessions per week) (Lancashire County Council—5 do.) From 1/4/46 to 31/12/46—Full-time service with County Borough of Bolton.	54.5%	—
Parker, Jean B. (Miss)	91%	9%
Reeves, Anthony Joseph From 14/5/46— 4 sessions per week S.H.S. 7 sessions per week—P.H.D. }	36.4%	63.6%
NAME OF DENTAL OFFICERS	Proportion of whole time (expressed as a percentage) devoted to	
	School Health Service	Public Health
SENIOR DENTAL OFFICER :	—	—
ASSISTANT DENTAL OFFICERS :		
Bray, Stanley J.	100%	—
Keighley, Richard B. (Released H.M. Forces and resumed duties 24/6/46)	100%	—
Wignall, Bessie (Miss)	100%	—
Walker, Gertrude M. (Mrs.) Temporary. Commenced duties 1/5/46	100%	—

SCHOOL NURSING STAFF.

(excluding Specialist Nurses such as Orthopædic Nurses.)

NURSES	Number of Officers	Aggregate of time given to S.H.S. work in terms of whole time officers
School Nurses... ..	14	9
District Nurses	—	—
Nursing Assistants*	—	—
Dental Attendants	4	4

*This term refers to the untrained assistants described in paragraph 3 of Circular 1604.