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**CITY AND COUNTY OF NEWCASTLE UPON TYNE**

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**ANNUAL REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

ON THE

**Sanitary Condition of the City**

DURING THE YEAR

**1946**







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**1946**



CITY AND COUNTY OF NEWCASTLE UPON TYNE

LOCAL BOARD OF HEALTH

MEDICAL OFFICER OF HEALTH

REPORT ON THE

STATE OF THE

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

MY LORD MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit to you the 74th Annual Report of the Medical Officer of Health. The report has been prepared on the lines indicated to the Council by the Minister of Health in Circular 13-47 (England).

Outstanding amongst the statistical returns of the year 1946 was that showing the continued rise of the birth rate which reached the figure of 21.4 per thousand of the population. 6,079 births in the City provided the highest annual total for 21 years. The death rate of 12.4 per thousand was lower than that of 13.0 per thousand, which was the rate for 1945. Of the total of 3,515 deaths, 538 were attributed to Cancer, a proportion which has tended to increase in recent years.

During the year 1946, the infantile mortality rate (41) for the City remained as in 1945 (40) at a low level and the rate of 41 compared very favourably with the corresponding rates of 43 and 46 for England and Wales and for the 126 County Boroughs and Great Towns respectively. So far as the City records are concerned, it would be true to say, apart from the actual increase in the number of births, that more than 150 babies are annually reaching the age of one year than was the case 10 years ago. A review of suggested causes for this remarkable improvement is given by the Senior Child Welfare Medical Officer on pages 21 and 22 of this report. This progress has been most encouraging and calls for further research and for follow-up of the results so far obtained.

Maternal mortality was the lowest ever recorded but the still-birth rate remained too high. It was suggested that toxæmia of pregnancy and "ill health" of the mother accounted for 60% of the cases of stillbirth in the City. More mothers sought hospital for confinement, mainly because of poor housing conditions at home. The domiciliary midwives attended 3,397 cases during the year, without the occurrence of a single serious case of infection. The schemes for specialised nursing of premature babies and for sympathetic and efficient management of the problem of illegitimate births were continued along the lines set out in previous annual reports. There were 84 deaths from prematurity, equivalent to a mortality rate of 13.8 per 1,000 births.



The year passed without any major outbreak of infectious diseases. The number of notified cases of Diphtheria fell from 399 in the previous year to 191 and there were 15 deaths from the disease. Immunisation of young children and school children continued on a large scale. Some 7,726 notifications of infectious diseases were received during the year and consisted mainly of cases of Measles, Whooping Cough, Scarlet Fever and Chickenpox. Owing to a general decline in the number of severe cases of infectious disease, the number of cases admitted locally to the City Hospital for Infectious Diseases has fallen considerably in recent years. There is, however, a field for excellent work of nursing the more serious and complicated cases of Measles and Whooping Cough, if more nurses and additional separate cubicle patient accommodation were available.

The attack rate of Pulmonary Tuberculosis remained as it had done since 1942, at over 2.0 cases per 1,000 of the population. Prior to 1942 there had been a period since 1926, during which the attack rate had been less than 2.0 per thousand. The number of deaths from Pulmonary Tuberculosis continued the decrease experienced in the pre-war years. The Health Committee were, towards the end of the year, directing their attention to the problem of the incidence of Pulmonary Tuberculosis in the City.

The number of cases treated at the Newcastle General Hospital reached a record figure of 13.937 during the full year. In the general wards and in the special units of Neurosurgery, Urology, Maternity, Children's diseases, Cardiovascular diseases, Radiology, etc., the work continued to grow and serve an increasing demand from the City and neighbourhood.

Shotley Bridge Hospital encountered difficulty owing to shortage of nursing staff, and the number of admissions dropped to half those of the previous year. The Facio-maxillary, the Thoracic and the Radiotherapy Departments, therefore, added to their extensive waiting lists. The shortage of nursing staffs was a matter of national as well as of local concern. Locally, schemes for provision of additional amenities for nurses in the way of better and additional accommodation, allowances for fares, etc., were formulated during the year.

It was a matter of grave concern to the Health Committee that so little could be done in the way of re-housing. Seven long years with no replacement building and many houses worn out and awaiting condemnation, together with the degree of overcrowding which existed in the City, were all factors which had a distressing effect upon the well-being of many of the townspeople. Over 1,000 families were



living in houses condemned as unfit for human habitation in 1938 and 1939. The enormous handicaps confronting those who attempt to rear and maintain families were made manifest daily to the Health Department in the number of applications for help. The danger to health of infants under such conditions had been mitigated somewhat by improved economic and other conditions of the immediate proceeding years but the continued incidence of Tuberculosis and the degree of social unhappiness were associated with the large extent of overcrowding and the low standard of housing which existed in parts of the City. A tribute was due to the Housing Committee for help in consideration of persons known to the Health Authority to be living in very unhealthy circumstances.

The routine work of prevention and abatement of nuisances and inspection of food premises continued, as in previous years, to give the public a sound and protective service.

Staff changes during the year included the termination of the Ministry's loan of Dr. Banks' services as temporary Medical Officer of Health and the taking up of the duties of Medical Officer of Health by myself in September. Dr. E. G. Brewis (Surgeon Commander, R.N.V.R.) resumed duty in February after  $6\frac{1}{2}$  years of war service and was appointed Medical Superintendent of the City Hospital for Infectious Diseases and Acting Tuberculosis Medical Officer. (Dr. Sage Sutherland relinquished the temporary appointment of Medical Superintendent of the City Hospital for Infectious Diseases). Dr. Wilson Minns (Lieut.-Colonel, R.A.M.C.) was appointed Assistant Medical Officer of Health in June.

This report is in the main factual since with only four months' experience in the Department, I do not feel competent to give any detailed review of the service. During the short space of time in which I have served I have realised what a debt the Department owes to the Chairman and members of the Health Committee and I should like to thank the staff for their loyal and efficient work and ready co-operation in the take-over.

I am,

Your obedient Servant,

W. S. WALTON,

*Medical Officer of Health.*


*Health Department,*

*Town Hall,*

*Newcastle upon Tyne, 1,*

*10th February, 1948.*





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CITY AND COUNTY OF NEWCASTLE UPON TYNE.

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## **Health Report 1946.**

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### **I—GENERAL**

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



# Health Report 1946

## I—GENERAL

MORTALITY TABLE  
SOCIAL CONDITIONS, CLIMATE, &  
WATER SUPPLY, DISPOSAL OF REFUSE.

CITY AND COUNTY OF NEWCASTLE UPON TYNE.  
Population, Birth Rate, and Special Mortality Rates during the period of the Notification of Infectious Diseases.





## GENERAL STATISTICS.

---

**POPULATION.**—As estimated by the Registrar General at the middle of the year 1946—**283,740.**

**INHABITED HOUSES.**—**81,270** inhabited houses, which, on the estimated population, shows an average of 3.49 persons per dwelling.

**RATEABLE VALUE.**—**£2,765,620.** A penny rate produced £11,116 14s. 1d.

**SOCIAL CONDITIONS.**—The principal **Trades and Occupations** are of a healthy nature, being generally engineering and machine making; building and works of construction, e.g., ship building; and connected with ships and boats, sea-faring and harbour work; food, tobacco, drink, and lodging; coal mining and commercial or business occupations.

The amount of **Public Assistance** granted during the year ended 31st March, 1946, was £98,500 for out-door relief, and £66,682 for indoor maintenance, making a total of £165,182, as compared with £155,073 in the previous year.

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

STATEMENT OF NUMBERS OF INSURED PERSONS REGISTERED AS UNEMPLOYED  
AT LOCAL OFFICES SITUATED IN NEWCASTLE COUNTY BOROUGH.

Date. . . . .	Males (aged 14-64).	Females (aged 14-59)	TOTAL.
14th January, 1946	4,205	1,996	6,201
9th December, 1946	4,792	2,117	6,909

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

The City contains many Hospitals and other medical charities, but since wide surrounding districts are also served by them, figures as to patients treated are not of local value.

**MARRIAGES.**—2,832 marriages took place during the year, as compared with 2,935 in 1945, and 2,479 in 1944.



**BIRTHS.**—6,079 equivalent to a rate of 21.4 per 1,000 population.

**DEATHS.**—(All causes)—4,569 equivalent to a gross rate of 16.1 per 1,000 population, and, after deduction of the deaths of 1,242 non-citizens and addition of 188 Newcastle residents who died elsewhere, to a net rate of 12.4 per 1,000 population. In 1945 the net death rate was 13.0.

*One Order for Burial* (Newcastle upon Tyne Improvement Act, 1882 Sec. 47) was made, being in respect of a body lying in a hospital.

### CREMATION ACT, 1902.

The following table shows the number of cremations up to the 31st December, 1946 :—

	Newcastle Residents.	From Outside of the City.	Total.
*1934 .....	11	15	26
1935 .....	84	104	188
1936 .....	109	161	270
1937 .....	142	235	377
1938 .....	206	279	485
1939 .....	261	376	637
1940 .....	304	412	716
1941 .....	340	583	923
1942 .....	354	643	997
1943 .....	403	784	1,187
1944 .....	512	1,027	1,539
1945 .....	566	1,152	1,718
1946 .....	645	1,414	2,059
TOTAL .....	3,937	7,185	11,122

\* 22nd Oct.—31st Dec., 1934.

During the year 12 applications were authorised after a post-mortem internal examination had been carried out and in no case was authority for cremation refused where the requirements of the Act had been correctly completed.

The above figure is equivalent to an average of approximately seven per day when the Crematorium was open—a very high daily average for the apparatus and facilities available at West Road, as on some days as many as 12 cremations have been arranged.

Authorisation of applications under the Cremation Act by the Medical Referee and attendance at such post-mortem examinations as he should deem advisable takes up a considerable amount of time each day and it is recommended that if the total Cremations should continue to rise and if any increase in apparatus is under consideration—as would appear essential with the present trend in popularity of Cremation—the position of Medical Referee be reviewed in the near future.

**Total deaths during recent years from certain classes of disease.**

Classification in Table III. of Ministry of Health.

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



## Cancer Deaths in Ages (Male and Female), 1946.

Site.	Sex.	Under 1 Year	1—2 Years	2—5 Years	5—15 Years	15—25 Years	25—45 Years	45—65 Years	65 Years and over.	Total.
Cancer of the buccal cavity and pharynx	M.	..	..	..	..	..	..	2	11	13
	F.	..	..	..	..	..	..	..	..	..
Cancer of the diges- tive system ..	M.	..	..	..	..	..	8	62	97	167
	F.	..	..	..	..	..	6	42	77	125
Cancer of the respi- ratory organs ..	M.	..	..	..	..	1	5	37	19	62
	F.	..	..	..	..	..	..	12	5	17
Cancer of the Uterus	F.	..	..	..	..	..	1	19	3	23
Cancer of other fe- male genital organs	F.	..	..	..	..	..	2	7	9	18
Cancer of the breast	M.	..	..	..	..	..	..	1	..	1
	F.	..	..	..	..	..	3	26	12	41
Cancer of the male genital organs ..	M.	..	..	..	..	..	..	6	16	22
Cancer of the urinary organs ..	M.	..	..	..	..	..	1	6	3	10
	F.	..	..	..	..	..	..	1	8	9
Cancer of the skin ..	M.	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	1	..	1
Cancer of other or unspecified organs .	M.	..	..	..	..	..	2	12	3	17
	F.	..	..	..	..	..	1	8	3	12
	M.	..	..	..	..	1	16	126	149	292
	F.	..	..	..	..	..	13	116	117	246
TOTAL .....		..	..	..	..	1	29	242	266	538

The average age at death for males was 62 and females 63.

**INFANTILE MORTALITY.**—249 infants died before completing the first year of life, representing a rate of 41 deaths per 1,000 live births.

**ZYMOTIC DEATH RATE.**—There were 53 deaths from the "Chief Zymotic Diseases"—smallpox, measles, scarlet fever, diphtheria, whooping cough, fever (typhus, simple continued, and enteric) and diarrhoea (all ages)—equivalent to 0.19 deaths per 1,000 population.

**TUBERCULOSIS.**—263 persons died from various forms of tuberculosis, 227 being from pulmonary, and 36 from non-pulmonary. The equivalent death rates are: *all forms* 0.93, *pulmonary* 1.80, and *non-pulmonary* 0.13, per 1,000 population.

For comparison of death rates with previous years see large table, page 7A.

For particulars of deaths as to site of disease, age, etc., see table, page 10A.



RETURN OF DEATHS FROM "ALL CAUSES" DURING THE 52 WEEKS ENDED 28TH DECEMBER, 1946.

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[illegible]





RETURN OF DEATHS FROM "ALL CAUSES" DURING THE 52 WEEKS ENDED 28TH DECEMBER, 1946—Continued

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CAUSE OF DEATH.	AGE PERIODS.																		WARD—NET DEATHS.																		TRANS-FERRED DEATHS				
	GROSS.									NET.									WARD—NET DEATHS.																		Inward.	Outward.			
	Under 1 year.	1 year and under 2.	2 years and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 45.	45 years and under 65.	65 years and above.	Total (Gross).	Under 1 year.	1 year and under 2.	2 years and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 45.	45 years and under 65.	65 years and above.	Total (Net).	St. Nicholas.	Kenton.	Scottwood.	Stephenson.	Amisford.	Elmhurst.	Westgate.	Arthur's Hill.	Rowell.	Fenham.	Sandyford.	Jessmond.	Dene.	Heaton.	Byker.	St. Lawrence.	St. Anthony's.	Walker.			Waltergate.		
Brought forward	114	41	33	70	112	323	1091	1738	3522	61	18	13	33	77	230	870	1622	2924	174	101	136	223	225	156	181	219	147	117	163	157	80	150	170	124	149	139	113	143	741	1751	
IX.—DISEASES OF THE DIGESTIVE SYSTEM.																																									
Diseases of the Buccal Cavity, Pharynx, etc.							1	2	3							1	2	3																						3	
Diseases of the Oesophagus			1				34	15	2				1					27	2	2		1	1																	3	
Ulcer of the Stomach or Duodenum							10	34	50									1	4																					52	
Other Diseases of the Stomach		2	1	1			3	2	9			1	1	1		3	16	8	2		1	1																		6	
Dyspepsia and Enteritis (under 2 years)	31									31	20							1	4			2	3																	21	
Dyspepsia and Enteritis (over 2 years)							3	5	4	12							1	4	5					1																6	
Ulceration of the Intestines										30								1																						26	
Appendicitis		1	2	3	2	5	13	4	30							3	4	4																						28	
Hernia, Intestinal Obstruction	10	3			1	2	12	21	49	2	2					1	5	7	17			1	1			1	3				1	1	1	2	1	1	2	1	2	34	
Other Diseases of the Intestines					1	1	11	2	14							1	1	2																						12	
Cirrhosis of the Liver (Alcoholic)							1	4	3	8							2	3	5																					6	
Other Diseases of the Liver		1					5	1	1	8						2	1	3	5																					7	
Biliary Calculi							9	6	15								3	3	6	3																				11	
Other Diseases of the Gall Bladder and Ducts							4	3	7							1	2	3	1																					8	
Diseases of the Pancreas																																								5	
Peritonitis without stated cause	1						3	1	5							1		1																					4		
X.—NON-GENITAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.																																									
Acute Nephritis				1	5	3	5	2	16				1	3	2	3	1	10			1	2	1	1																6	
Chronic Nephritis				4	12	46	37	2	102					1	6	37	36	80			2	6	5	4																28	
Nephritis (not stated to be acute or chronic)				1	1	1	2	7						1	1	5	9	5			1	1																	13		
Other Diseases of the Kidney and Annexa																																								54	
Calculi of the Urinary Passages									1																														21		
Diseases of the Bladder						1	3	9	13							1	4	6	1																				1		
Diseases of the Urethra, Urinary Abscess, etc.							9	1	13								5	26	31			1			4	2	4	3			6	3			2	1	2		1		
Diseases of the Prostate							1		1																														60		
Diseases of other Male Genital Organs							1		1																														1		
Diseases of the Female Genital Organs						2	5	1	8							2	3	1	6																				7		
XI.—DISEASES OF PREGNANCY, CHILD-BIRTH AND THE PUERPERAL STATE.																																									
Post-abortive Sepsis					1				1								1																							1	
Abortion, not returned as Septic				1					1																														1		
Ectopic Gestation																																									
Hæmorrhage of Pregnancy																																									
Toxæmia of Pregnancy					4				4																														4		
Other Diseases and Accidents of Pregnancy					1				1																														1		
Hæmorrhage of Childbirth and the Puerperium					5				5							3		3	1																			4			
Infection during Childbirth and the Puerperium					1				1																														1		
Puerperal Tonsillitis																																								1	
Other Accidents of Childbirth																																									
XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE.																																									
Carbuncle, Boil																																									
Cellulitis, Acute Abscess				1			1	1	3								1	1																					1		
Other Diseases of the Skin and Annexa							2		2								2																						2		
XIII.—DISEASES OF THE BONES AND ORGANS OF LOCOMOTION.																																									
Acute Infective Osteomyelitis and Periostitis				1					1									1																					1		
Other Diseases of the Bones																																									
Diseases of the Joints				2	1	1	2	6									2	2																					5		
XIV.—CONGENITAL MALFORMATIONS.																																									
Congenital Malformations	54	2		2	1	1	2		62	29			2	1		1		33	2	1	2	2	2	2	2	1	3	1	1	4	1	2	3	2	1			3	1	30	45
XV.—DISEASES OF EARLY INFANCY.																																									
Congenital Debility	2								2									2																							
Premature Birth	146								146	84								84	2	1	3	7	10	5	5	5	2	2	3	4		2	6	7	6	9	5	5	67	113	
Injury at Birth	49								49	25								25	1	1	2	3	2	1	3	1	1				2		2	2	1	1		1	27	41	
Other Diseases peculiar to the First year of Life	31								31	13								13	1		1	1																	18	24	
XVI.—OLD AGE.																																									
Senile Dementia																																									
Old Age								42	42									53	53	3		1	6	2	1	1	2	3			8	4	4	5	3	5	2	1	2	12	1
XVII.—DEATHS FROM VIOLENCE.																																									
Suicide by Poison						4	3	4	11							4	3	4	11	1																				5	
Poisonous Gas																																									
Hanging or Strangulation			1						1									1	1																					1	
Drowning																																									
Firearms						1												1	1																					1	
Cutting and Piercing Instruments						1			1									1	1																				1		
Jumping from a High Place						1	1	1	3									1	3	2																			3		
On Railways																																									
Other means							1	1										1	2																				1		
Homicide by Cutting or Piercing Instruments																																									
Homicide by other or unspecified means						1	1	1	6									6																							





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

**CLIMATOLOGY.**—The following is a brief summary of the main features of the weather in 1946, as recorded on the instruments in Leazes Park.

The mean maximum and minimum temperatures were 56.6° F. and 41.6° F. respectively.

The rainfall for the year was 26.29 inches, .37 inches less than that of 1945 (26.66).

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

W.	on	18	days.
N.W.	on	143	„
N.E.	on	46	„
E.	on	10	„
S.E.	on	72	„
S.W.	on	72	„
S.	on	4	days.

#### Sunshine.

Sunshine records have been made available by the courtesy of Professors G. W. Todd and J. A. Hanley, of King's College. The observations are taken at Cockle Park Farm (fifteen miles north of the City, and in a rural area), and at the College itself. During the year 1,007 hours of sunshine were registered in the City, as compared with 1,401 at Cockle Park.

**WATER SUPPLY.**—The City is served by the Newcastle and Gateshead Water Company with a plentiful supply of pure upland surface water, collected from large catchment areas at Catcleugh, close to the Cheviots, and in lower Northumberland. It is stored in large impounding reservoirs at Catcleugh, Hallington, and Whittle Dene, and passes through filters at Whittle Dene and Throckley. It was found, however, that filtration did not secure the degree of freedom from bacteria which was desirable, and during the last few years it has been supplemented by chlorination, with marked improvement.

In the vast majority of cases the household taps are served directly from the mains without intervening cisterns. A separate trade supply is piped to some of the great riverside works from a point above the filters.

The bacteriological reports upon the water are given on page 77.



**SEWERAGE.**—There are 423 miles of sewers in the City discharging directly into the Tyne, which is tidal, at various points along the  $8\frac{1}{2}$  miles of river frontage.

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

There are 85,466 dry ashtubs and galvanised iron bins, 17 dry ashpits, and 40 conservancy system closets in the City. One school (in the area added in 1935) is served by “chemical” closets, there being no sewers available. With this exception, all the schools are served by the water-carriage system.

### ADOPTIVE AND LOCAL ACTS IN FORCE.

Adopted Acts. — Infectious Disease (Prevention) Act, 1890. Section 4.

Public Health Acts Amendment Act, 1890. — Part III. — Whole of; Part IV.—Whole of.

Public Health Acts Amendment Act, 1907.—Part II.—Sections 20, 22, 28, 29, 30, 31 and 33; Part IV.—Section 53.

Public Health Act, 1925.—Part II., Sections 15, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33 and 35.

Local Acts.—Newcastle-upon-Tyne Improvement Act, 1837.

” ” 1846.

” ” 1853.

” ” 1865.

” ” 1870.

” ” 1882.

” ” 1892.

Newcastle-upon-Tyne Tramways and Improvement Act, 1899.

Newcastle-upon-Tyne Corporation Act .. .. 1911.

Newcastle-upon-Tyne Corporation Act .. .. 1926.

Newcastle-upon-Tyne Corporation (General Powers) Act, 1935.



### Vital Statistics of Whole District during 1946 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NET DEATHS BELONGING TO THE DISTRICT.			
		Uncor- rected Number	Net.		Number	Rate.	of Non- resi- dents regis- tered in the District	of Resi- dents not reg- istered in the District	Under 1 Year. of Age.		At all Ages.	
			Number	Rate.					Number	Rate per 1,000 Nett Births.	Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1913	271,295	7,480	7,460	27.5	4,611	17.0	560	141	908	122	4,192	15.5
1914	271,523	7,564	7,538	27.8	5,069	18.7	546	138	1,029	137	4,660	17.2
1915	278,107	7,575	7,545	27.8	5,257	18.9	693	207	1,007	133	4,771	17.2
1916	278,107	7,332	7,248	26.2	4,875	17.5	680	232	899	123	4,427	15.9
1917	278,107	6,548	6,495	23.4	4,646	16.7	718	246	732	113	4,174	15.0
1918	278,107	6,555	6,468	23.3	5,380	19.3	872	308	692	107	4,816	17.3
1919	275,099	6,793	6,674	23.3	5,358	19.5	737	234	806	120	4,855	17.6
1920	286,061	8,433	8,070	28.0	4,609	16.1	779	195	817	101	4,025	14.0
1921	278,400	7,720	7,284	26.2	4,602	16.5	817	142	699	96	3,927	14.1
1922	281,600	7,432	6,987	24.8	4,698	16.7	831	145	646	92	4,012	14.2
1923	283,800	6,961	6,367	22.4	4,298	15.1	789	150	623	98	3,659	12.9
1924	285,900	7,029	6,335	22.2	4,607	16.1	929	172	632	100	3,850	13.5
1925	286,300	7,031	6,215	21.6	4,732	16.5	989	165	550	88	3,908	13.6
1926	284,700	6,728	6,007	21.0	4,460	15.7	979	161	530	88	3,642	12.8
1927	288,500	6,215	5,395	18.7	4,468	15.5	1,058	178	474	88	3,588	12.4
1928	281,500	6,360	5,429	19.2*	4,683	16.6	1,178	179	447	82	3,684	13.1
1929	283,400	6,120	5,126	18.1	5,040	17.8	1,313	172	438	85	3,899	13.8
1930	283,400	6,190	5,223	18.4	4,665	16.5	1,232	133	384	74	3,566	12.6
1931	283,600	6,058	5,056	17.8	4,911	17.3	1,251	145	467	92	3,805	13.4
1932	285,100	6,006	4,883	17.1	4,579	16.0	1,174	134	370	76	3,539	12.4
1933	286,500	5,770	4,712	16.4	4,695	16.4	1,182	127	359	76	3,640	12.7
1934	287,050	5,848	4,695	16.4	4,823	16.8	1,322	145	389	83	3,646	12.7
1935	292,700†	5,895	4,666	16.0	5,040	17.3	1,489	121	400	86	3,672	12.6
1936	290,400	5,709	4,537	15.6	5,148	17.4	1,421	151	408	90	3,878	13.1
1937	290,400	5,996	4,796	16.5	5,107	17.6	1,403	160	435	91	3,864	13.3
1938	291,300	6,101	4,678	16.1	4,866	16.7	1,413	168	307	66	3,621	12.4
1939	293,400	5,855	4,646	15.8	4,804	17.0	1,328	185	289	62	3,661	12.9‡
1940	255,900	5,501	4,519	17.6	4,727	18.5	1,181	187	284	64	3,733	14.6
1941	254,960	4,599	4,176	16.4	4,905	19.2	1,208	254	315	76	3,951	15.5
1942	254,100	4,686	4,289	16.9	4,398	17.3	1,140	222	255	59	3,480	13.7
1943	254,890	5,162	4,548	17.8	4,759	18.7	1,235	185	291	64	3,709	14.6
1944	262,920	6,799	5,359	20.4	4,585	17.4	1,298	221	270	50	3,508	13.3
1945	265,990	5,950	4,836	18.2	4,469	17.7	1,234	200	192	40	3,435	13.0
1946	283,740	8,219	6,079	21.4	4,569	16.1	1,242	188	249	41	3,515	12.4

\* Calculated on a population of 282,200.

† Rates calculated on a population of 291,025.

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



# CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE FOR 1946.

(REGISTRAR GENERAL'S RETURN).

CAUSES OF DEATH.	Sex	All Ages	0-	1-	5-	15-	45-	65-
All Causes	M. F.	1883 1644	136 113	24 20	27 21	185 175	589 396	922 919
1—Typhoid and para- typhoid fevers	M. F.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
2—Cerebro-spinal fever	M. F.	4 1	2 ..	1 ..	.. 1	.. ..	1 ..	.. ..
3—Scarlet fever	M. F.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
4—Whooping cough	M. F.	5 5	4 2	1 2	.. 1	.. ..	.. ..	.. ..
5—Diphtheria .....	M. F.	6 10	1 1	2 3	1 4	2 1	.. 1	.. ..
6—Tuberculosis of respiratory system	M. F.	129 92	.. ..	1 2	.. 2	61 70	62 13	5 5
7—Other forms of tuberculosis	M. F.	12 27	1 ..	4 1	5 7	2 17	.. 2	.. ..
8—Syphilitic diseases	M. F.	13 7	.. ..	.. ..	.. ..	3 4	5 2	5 1
9—Influenza	M. F.	12 12	.. ..	1 ..	.. ..	2 1	8 6	1 5
10—Measles	M. F.	1 1	1 ..	.. 1	.. ..	.. ..	.. ..	.. ..
11—Acute poliomyelitis and polioencephalitis	M. F.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
12—Acute infectious encephalitis	M. F.	2 3	.. ..	.. ..	.. ..	1 1	1 ..	.. 2
13—Cancer of buccal cavity and œsophagus(M) uterus (F)	M. F.	25 26	.. ..	.. ..	.. ..	.. 1	6 19	19 6
14—Cancer of stomach and duodenum	M. F.	65 46	.. ..	.. ..	.. ..	6 7	28 15	31 24
15—Cancer of breast	M. F.	.. 42	.. ..	.. ..	.. ..	.. 2	.. 28	.. 12
16—Cancer of all other sites	M. F.	212 137	.. ..	.. ..	.. ..	11 4	97 53	104 80
17—Diabetes	M. F.	9 16	.. ..	.. ..	.. ..	1 1	2 4	6 11
18—Intra-cranial vascular lesions	M. F.	222 226	.. ..	.. ..	.. ..	3 5	44 54	175 167

Causes of Death at different periods of life  
for 1946—*continued*.

CAUSES OF DEATH.	Sex	All Ages	0-	1-	5-	15-	45-	65-
19—Heart disease	M.	417	1	..	2	34	128	252
	F.	409	..	..	..1	19	73	316
20—Other diseases of the circulatory system	M.	110	..	..	..	1	24	85
	F.	73	..	..	..	..	12	61
21—Bronchitis	M.	151	6	1	..	6	61	77
	F.	83	8	..	..	3	20	52
22—Pneumonia	M.	87	17	2	2	3	20	43
	F.	68	11	4	..	4	12	37
23—Other respiratory diseases	M.	30	2	..	..	3	12	13
	F.	25	1	..	..	2	12	10
24—Ulcer of stomach or duodenum	M.	23	..	..	..	3	15	5
	F.	6	..	..	..	1	2	3
25—Diarrhœa (under 2 years)	M.	10	10	..	..	..	..	..
	F.	8	8	..	..	..	..	..
26—Appendicitis	M.	1	..	..	..	1	..	..
	F.	..	..	..	..	..	..	..
27—Other digestive diseases	M.	21	..	3	..	2	8	8
	F.	34	3	3	..	2	8	18
28—Nephritis	M.	50	..	..	1	7	23	19
	F.	55	..	..	..	9	20	26
29—Puerperal and post abortive sepsis	F.	1	..	..	..	1	..	..
30—Other maternal causes	F.	3	..	..	..	3	..	..
31—Premature birth	M.	44	44	..	..	..	..	..
	F.	33	33	..	..	..	..	..
32—Congenital malformations; birth injury; infantile disease	M.	45	39	..	4	1	1	..
	F.	34	34	..	..	..	..	..
33—Suicide	M.	11	..	..	1	4	2	4
	F.	9	..	..	..	3	4	2
34—Road traffic accidents	M.	20	..	1	5	4	5	5
	F.	3	..	..	1	..	1	1
35—Other violent causes	M.	40	7	3	3	10	13	4
	F.	28	8	2	1	5	3	9
36—All other causes	M.	106	1	4	3	14	23	61
	F.	121	4	2	3	9	32	71

Resident Population, 283,740.

DEATHS UNDER 1 YEAR.

	<i>Legitimate.</i>	<i>Illegitimate.</i>
M. ....	121	15
F. ....	102	11





**REPORTS OF THE  
SENIOR CHILD WELFARE MEDICAL OFFICER  
AND MATERNITY OFFICER**

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**II—THE MATERNITY  
AND CHILD WELFARE  
DEPARTMENTS**

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**INFANTILE MORTALITY, MATERNITY AND  
CHILD WELFARE, NURSING HOMES.**





## INFANTILE MORTALITY.

### SUMMARY OF BIRTHS AND DEATHS, 1946.

	LEGITIMATE.			ILLEGITIMATE.			Grand Total.
	M.	F.	Total.	M.	F.	Total.	
Total Births in the year	3,955	3,793	7,748	246	225	471	8,219
Net " " "	2,922	2,820	5,742	169	168	337	6,079
Net Deaths under 1 year	121	102	223	15	11	26	249
Death Rate per 1,000 births	40	36	39	89	65	77	41

### BIRTHS AND DEATHS SHOWING THE DISTRIBUTION.

WARD.	Births.	Deaths under 1 year of age.	Children under 1 year of age—Death rate per 1,000 births.
St. Nicholas' .....	213	14	66
Kenton .....	318	6	19
Scotswood .....	361	12	33
Stephenson .....	481	24	50
Armstrong .....	407	23	56
Elswick .....	306	10	33
Westgate .....	308	16	52
Arthur's Hill .....	265	12	45
Benwell .....	388	14	36
Fenham .....	225	6	27
Sandyford .....	313	11	35
Jesmond .....	228	5	22
Dene .....	171	2	12
Heaton .....	272	8	29
Byker .....	353	16	45
St. Lawrence .....	387	20	52
St. Anthony's .....	339	14	41
Walker .....	443	24	54
Walkergate .....	301	12	40
CITY .....	6,079	249	41

All births and deaths occurring in Public Institutions have been allotted to the Wards to which they properly belong.

† Registrar General's figures for calculation of Live Birth Rate and Infantile and Maternal Mortality.



## ANALYSIS OF INFANTILE MORTALITY.

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Death-rate of Infants under 1 year per 1,000 births . . . .	90	91	66	62	64	76	59	64	50	40	41
Death-rate of Infants under 3 months per 1,000 births . . .	58.4	54.0	45.1	44.8	40.4	48.3	40.3	41.1	35.8	27.9	30.9
Death-rate of Infants from Premature Birth, per 1,000 births . . . . .	23.4	19.4	15.8	17.2	14.6	20.9	16.5	13.8	11.9	11.6	13.8
Death-rate of Infants under 1 year per 1,000 births from Premature Birth, plus all Congenital Causes* . . . . .	42.5	35.7	33.8	35.4	31.4	36.9	32.2	31.4	27.3	21.3	23.9
Death-rate of Infants under 1 year per 1,000 births, from Diarrhœa and all other Digestive Diseases† . . . . .	22.2	19.0	12.2	7.8	4.5	7.5	7.5	8.6	6.9	3.9	3.8
Death-rate of Infants under 1 year per 1,000 births, from Infantile Atrophy, Debility and Marasmus . . . . .	5.7	1.9	3.2	2.0	1.6	1.4	0.2	0.6	0.7	0.2	0.3
Death-rate of Infants under 1 year per 1,000 births, from Measles . . . . .	1.3	0.4	1.1	0.2	1.3	0.5	0.7	0.0	0.0	0.2	0.3
Death-rate of Infants under 1 year per 1,000 births, from Whooping Cough . . . . .	0.9	2.9	0.4	1.1	0.7	3.1	0.9	1.5	0.9	0.6	1.0
Death-rate of Infants under 1 year per 1,000 births, from Respiratory Diseases . .	12.1	22.1	10.9	8.5	15.3	15.8	12.3	15.8	10.3	6.0	6.7
Death-rate of Infants under 1 year per 1,000 births, from Tuberculosis (all forms)	10.2	1.0	0.2	0.9	1.1	1.2	0.0	0.2	0.7	0.8	0.5

For particulars of deaths, as to causes, etc., see Table on page 20A.

\* "All Congenital Causes" includes Syphilis, Congenital Defects and Diseases of Early Infancy.

† "Diarrhœa and all other Digestive Diseases" includes Diarrhœa, Dysentery, Epidemic or Zymotic Enteritis, Rickets, Diseases of the Stomach, Enteritis, Obstruction of Intestine, Peritonitis and other Diseases of the Digestive System.

CAUSE OF DEATH.	AGE PERIODS.																				Deaths in Institutions in the City of "Residents" or "Non Residents."
	GROSS.										NET (after allowing for transfers).										
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total under 1 Year of Age.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total under 1 Year of Age.	
EPIDEMIC AND INFECTIOUS DISEASES.																					
Whooping Cough	..	..	..	1	1	4	3	1	1	2	..	..	..	..	1	2	2	1	1	1	
Dysentery	..	..	1	1	2	..	..	..	1	2	..	..	1	1	2	..	..	..	2	2	
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Fever of the Respiratory System	..	..	1	..	1	2	3	1	..	7	..	..	..	..	..	1	..	1	..	2	
" Central Nervous System	..	..	..	..	..	..	1	1	3	4	..	..	..	..	..	..	..	..	..	4	
" Peritoneum and Intestines	..	..	..	..	..	..	..	1	1	3	..	..	..	..	..	..	..	..	..	3	
Tuberculosis	..	..	..	..	..	..	1	1	1	3	..	..	..	..	..	..	1	..	1	3	
TUBERCULOSIS																					
Pyæmia	..	..	..	1	1	1	..	..	1	3	..	..	..	..	..	..	..	..	..	1	
Cancer of Brain and other parts of the Nervous System	..	..	..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	2	
of undetermined nature	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
RHEUMATISM, DISEASES OF NUTRITION AND OF ENDOCRINE GLANDS AND OTHER GENERAL DISEASES.																					
Diseases of the Adrenals	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	1	1	
Other General Diseases	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	1	..	
DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS.																					
Anæmias	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.																					
Diseases of the Medulla and Spinal Cord	..	..	..	..	..	2	..	1	3	..	..	..	..	..	..	1	..	1	2	2	
Paralysis and Deficiency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Convulsions	..	..	..	..	2	1	..	..	3	..	..	..	..	..	2	1	..	..	3	..	
Diseases of the Nervous System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diseases of the Organs of Vision	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diseases of the Ear and Mastoid Antrum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Lesions of vascular origin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
DISEASES OF THE CIRCULATORY SYSTEM.																					
Diseases of the valves and endocardium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diseases of the Circulatory System	..	..	..	..	..	2	..	..	2	..	..	..	..	..	..	1	..	..	1	2	
DISEASES OF THE RESPIRATORY SYSTEM.																					
Diseases of the Nasal Fossæ and Annexa	..	..	1	1	..	..	..	..	1	..	..	..	1	1	..	..	..	..	1	1	
Diseases of the Larynx	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	1	..	..	1	1	
Bronchitis	4	1	1	..	6	12	12	5	2	37	1	..	..	..	1	4	6	5	16	25	
Pneumonia	..	..	..	..	..	4	9	..	..	13	..	..	..	..	4	8	..	..	12	1	
Pneumonia (not otherwise defined)	1	1	1	..	3	5	2	..	3	13	1	..	1	..	2	3	2	..	7	9	
Edema, hæmorrhagic infarction and thrombosis of lungs	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	1	1	
Emphysema	..	..	..	..	..	1	1	..	..	2	..	..	..	..	1	..	..	..	1	2	
Other Diseases of the Respiratory System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Carried forward	5	2	4	4	15	34	42	9	14	114	2	..	2	3	7	20	24	8	2	78	



CAUSE OF DEATH.	AGE PERIODS.																				Deaths in Institutions in the City of "Residents" or "Non-Residents."
	Gross.										NET (after allowing for transfers).										
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total under 1 Year of Age.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total under 1 Year of Age.	
Brought forward .....	5	2	4	4	15	34	42	9	14	114	2	..	2	3	7	20	24	8	2	61	78
<b>DISEASES OF THE DIGESTIVE SYSTEM.</b>																					
Diseases of the Buccal Cavity, Pharynx, etc. ....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diarrhoea and Enteritis .....	..	..	..	..	..	15	10	5	1	31	..	..	..	..	..	11	4	4	1	20	21
Hernia, Intestinal Obstruction .....	1	..	1	..	2	..	4	2	2	10	..	..	..	..	..	1	..	..	1	2	9
Diseases of the Pancreas .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Other Diseases of the Stomach .....	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	1	..	..	1	1
Other Diseases of the Intestines .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Peritonitis, without stated cause .....	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
<b>NON-VENEREAL DISEASES OF GENITO-URINARY SYSTEM AND ANNEXA.</b>																					
Acute Nephritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>DISEASES OF THE SKIN AND CELLULAR TISSUE.</b>																					
Cellulitis, Acute Abscess .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of the Skin and Annexa .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>DISEASES OF THE BONES AND ORGANS OF MOVEMENT.</b>																					
Osteomyelitis and Periostitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>CONGENITAL MALFORMATIONS.</b>																					
Congenital Malformations .....	21	7	3	4	35	9	6	3	1	54	14	3	1	2	20	4	2	3	..	29	36
<b>DISEASES OF EARLY INFANCY.</b>																					
Congenital Debility .....	1	1	..	..	2	..	..	..	..	2	1	1	..	2	..	..	..	..	..	2	..
Premature Birth .....	131	5	3	7	146	..	..	..	..	146	76	5	1	2	84	..	..	..	..	84	113
Injury at Birth .....	44	5	..	..	49	..	..	..	..	49	22	1	..	..	23	..	..	..	..	23	41
Other Diseases peculiar to the First Year of Life ..	18	5	1	1	25	4	1	..	1	31	5	2	1	..	8	4	1	..	..	13	24
<b>DEATHS BY VIOLENCE.</b>																					
Accidental burns (conflagration excepted) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Accidental Mechanical Suffocation .....	2	..	..	1	3	4	2	..	..	9	2	..	..	1	3	4	2	..	..	9	..
Other and unspecified accidents .....	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	1	1	..	..
<b>Causes of Death Unstated or Ill-defined.</b>																					
Ill-defined causes .....	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	1	1
TOTAL .....	223	25	12	17	277	67	67	20	20	451	122	12	5	8	147	43	36	15	5	246	325



### **Report of the Senior Child Welfare Medical Officer.**

The first full year after the war has brought great hopes that the fall in infant and childhood mortality which was so remarkable a feature of the war years, will be continued. To be able, for the second year, to report an infantile mortality below that for England and Wales is no mean achievement in Newcastle upon Tyne. To be able to say the deaths in the first year are now less per 1,000 than the deaths in the first month 10 years ago gives some indication of what has been achieved in the City. But not only the infantile mortality shows this remarkable change, the death rates for children from 1-5 years were lower than ever before and contrast strikingly with those of 10 years ago.

The causes for these changes are multiple and complex and the part which has been played by each is difficult to measure because they are all mutually interdependent. Many are social, some are economic and others are the slowly increasing effect of the Child Health Services in the home and in hospital assisting and educating parents in the care of their children. Some causes can be mentioned; the undoubted effect of full employment and higher wages enabling parents to obtain available rations; the National Milk Scheme which has greatly increased the intake of milk into the families in most working class areas; the absence of severe epidemics and the assistance in treatment of severe infections obtained by use of Sulphonamides and Penicillin; the improvement in the standard of mothercraft which is generally evident; the fuller use of Child Welfare Services and the extension and greater co-operation of the various agencies which together are responsible for child care.

But none of these factors are irreversible and all must be safeguarded. Although we do report the lowest death rates recorded in the City these could still be further reduced, and in reporting mortality rates one must not lose sight of the morbidity and ill-health which are left behind by disease in infancy which harms but does not kill. We must be constantly collecting and assessing data, checking methods and always be willing to discard old methods for new whenever our data indicates improvements could be attained.



Most of the mortality and morbidity of infancy and the early years of life are caused by infection of various types ; the chief of which is respiratory affecting throat and chest. Infections of this type constitute the most important single problem which to-day faces those who are responsible for the care of children at all ages up to five years.

To study this problem is an urgent task but is it one in which the Child Health Services of Newcastle upon Tyne might be able to undertake. It would involve the co-operation of parents and family doctors, Child Welfare Services and Hospitals, and would require a special team of investigators : but it might be possible in this manner to collect basic data concerning the spread of infection in the home and the type of illness produced, which would help materially in reducing the danger to young children. This can only be done by taking medical research into the home, and it can also only be done well by obtaining full and willing co-operation of the parents—it could be done in Newcastle upon Tyne.

In 1946 everyone has worked with a will and the results have given encouragement to all in the Department : one of the most important factors in the good work of the Department is the very friendly and mutually helpful feeling which exists between the Midwives and the Health Visitors, one which, although fundamental is not universal—it should not pass unmentioned. It is invidious to single anyone from a team but it is fitting to thank all by thanking Miss G. B. Cameron, the Chief Health Visitor. May we hope that in 1947 we shall not rest content but by the encouragement of improvement in these last years be spurred to even keener and more critical work in the future.



TOTAL ATTENDANCES AT THE MATERNITY AND CHILD WELFARE CENTRES, 1946.

CENTRE.	Ante-Natal Sessions.		Post Natal.		New Children.			Individuals.			Attendances.			Medical Sessions.		Individuals.	
	Individ- uals.	Attend- ances.	Individ- uals.	Attend- ances.	Under 12 months.	Over 12 months.	Total.	Under 12 months.	Over 12 months.	Total.	Under 12 months.	Over 12 months.	Total.	Number.	Average Attend- ce.	Boys.	Girls.
Benton .....	..	..	..	..	106	12	118	165	115	280	1205	603	1808	50	36	139	141
Benwell .....	451	1724	1	1	215	25	240	297	263	560	1857	1068	2925	125	23	286	274
Byker .....	799	3107	5	6	308	52	360	401	398	799	2249	1309	3558	146	24	412	387
City .....	..	..	..	..	99	19	118	157	127	284	829	426	1255	48	26	145	139
Cowgate .....	..	..	..	..	128	14	142	177	137	314	1065	653	1718	48	36	151	163
Diana Street .....	444	1646	2	2	212	32	244	293	239	532	1862	982	2844	110	26	257	275
Elswick .....	637	2259	..	..	354	71	425	486	489	975	3031	2553	5584	151	37	484	491
Fawdon .....	29	92	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fenham .....	538	2050	..	..	320	32	352	493	326	819	4319	1686	6005	149	40	434	385
Heaton .....	579	2092	1	1	265	35	300	402	224	626	2830	1155	3985	97	41	314	312
Jesmond .....	..	..	..	..	144	30	174	206	149	355	1974	845	2819	63	45	184	171
Leazes .....	..	..	..	..	71	11	82	108	87	195	880	483	1363	52	26	91	104
Scotswood .....	412	1590	1	1	240	29	269	344	313	657	1895	1220	3115	100	31	328	329
Shieldfield .....	..	..	..	..	159	18	177	212	129	341	1604	1176	2780	49	57	188	153
St. Anthony .....	531	1935	1	1	374	49	423	525	426	951	3457	1878	5335	149	36	466	485
Walker .....	529	1354	..	..	180	13	193	223	86	309	1182	334	1516	51	30	158	151
Walkergate .....	..	..	..	..	167	23	190	242	198	440	1945	1081	3026	103	29	232	208
Wharnccliffe Street .....	475	1360	1	1	215	30	245	298	200	498	1732	1101	2833	149	19	290	208
Total 1946 .....	5424	19209	12	13	3555	495	4050	5029	3906	8935	33898	18451	52349	1631	32.1	4559	4376
Total 1945 .....	4219	14074	29	30	3060	464	3524	4867	3694	8561	34058	19512	53570	1628	32.9	4457	4104



## Deaths of Infants.

Infants.	1941	1942	1943	1944	1945	1946
Deaths of Infants during first week of life .....	105	101	98	102	96	122
Deaths of Infants aged 1 to 4 weeks .....	45	28	37	50	21	25
Deaths of Infants aged 1 to 12 months .....	162	129	154	122	73	99
Deaths from Prematurity.....	86	71	63	64	56	84
Deaths of Twins and Triplets.....	30	29	23	29	20	29
<b>Infantile Mortality Rate .....</b>	<b>76</b>	<b>59</b>	<b>64</b>	<b>50</b>	<b>40</b>	<b>41</b>

## Attendances at Maternity and Child Welfare Centres.

(CHILDREN ONLY).

YEAR.	No. of Attendances.	No. of Individuals.	Average Attendance per Individual.	Average Attendance at each Session.
1925 .....	45,476	5,744	7.9	43.6
1926 .....	50,697	6,467	7.8	46.2
1927 .....	46,672	6,522	7.1	42.4
1928 .....	53,960	6,532	8.3	49.3
1929 .....	52,460	6,574	7.9	48.2
1930 .....	67,626	7,776	8.7	44.2
1931 .....	83,561	8,927	9.4	43.1
1932 .....	100,658	9,251	10.9	51.5
1933 .....	99,103	8,955	11.1	50.9
1934 .....	107,717	8,872	12.1	54.6
1935 .....	104,174	8,952	11.6	52.2
1936 .....	104,954	8,794	11.9	50.9
1937 .....	119,527	9,777	12.2	54.9
1938 .....	137,404	10,577	13.0	61.3
1939 .....	111,355	10,367	10.2	62.7
1940 .....	83,787	9,463	8.9	56.1
1941 .....	60,228	7,897	7.6	37.6
1942 .....	53,910	8,217	6.5	32.8
1943 .....	55,910	8,201	6.8	35.0
1944 .....	57,805	9,254	6.2	35.4
1945 .....	53,570	8,561	6.3	32.9
1946 .....	52,349	8,935	5.9	32.1

## Toddlers.

As in previous years care and attention was bestowed on the children of toddling age, among whom health deteriorates rapidly unless it is closely watched. For more than twenty years special efforts have been made in Newcastle to encourage mothers to bring toddlers to the Centres. Of the 52,349 attendances at the Centres during 1946, 18,451 were made by children of 1—5 years of age.

## TODDLERS ATTENDING THE CENTRES.

Year.	Number of Children.
1933 .....	4,151
1934 .....	4,198
1935 .....	4,283
1936 .....	4,315
1937 .....	4,806
1938 .....	5,224
1939 .....	5,336
1940 .....	4,936
1941 .....	3,848
1942 .....	3,746
1943 .....	3,585
1944 .....	3,934
1945 .....	3,694
1946 .....	3,906

## Dried Milk.

During the year 7,091 lbs. of dried milk in cartons were given gratis, and vouchers for 4,125 were given for cost price milk, the latter being distributed by the chemists as formerly. 1.9 per cent. of the children and 10 nursing mothers attending the Centres were given free milk.

This is in addition to the National Milk Scheme.

There is also a distribution of Fruit Juice and Cod Liver Oil at the Welfare Centres, under the Control of the Food Office.

The following table shows the quantity of dried milk distributed each month during the year 1946 :—

MONTH.	FREE.	AT COST PRICE.
	Pkts.	lbs.
January .....	271	290
February .....	344	459
March .....	458	426
April .....	412	891
May .....	534	393
June .....	443	447
July .....	457	171
August .....	558	151
September .....	961	224
October .....	399	417
November .....	441	124
December .....	395	132
TOTAL .....	5,673 =7,091 lbs.	4,125

Children attending Centres .....	8,935	
Children given free milk .....	158	
Percentage .....	1.9	
Nursing mothers given milk .....	10	
Free milk given to children (lbs.) .....	7,066	} =7,091
Free milk given to expectant mothers (lbs.) .....	25	



### Work of the Health Visitors.

With the exception of the residential districts such as parts of Jesmond, every district in the City was visited regularly by members of the Health Visiting Staff.

For all purposes the Health Visiting Staff during the year 1946 made a grand total of 93,396 visits.

5,715 births were visited, and 23,617 re-visits were paid, an average of 4 re-visits per child. These gave a total of 29,332 visits to children under 1 year.

#### SUMMARY OF VISITS.

	Primary.	Subsequent.	Total.
Births .....	5,715	23,617	29,332
Measles .....	3,357	2,076	5,433
Pneumonia .....	433	454	887
Diarrhoea .....	7	2	9
Whooping Cough .....	1,064	966	2,030
Children over 1 year .....	....	....	40,384
Hospital Cases .....	....	....	138
Expectant Mothers .....	1,044	154	1,198
Special Visits.....	....	....	475
Visits re Adoptions.....	....	....	26
Visits to Boarded-out or Nursed-out Children .....	49	94	143
Unsuccessful Visits (Outs and Removals) .....	....	....	9,127
Orthopædic Work, including treatments .....	....	....	2,819
Tuberculosis Contacts .....	172	666	838
Home and Domestic Helps .....	....	....	364
Visits re Diphtheria Immunisation .	....	....	193
	11,841	28,029	93,396

### Infants on Visiting List.

Of 4,926 children under 1 year who were visited in 1946, 3,898 completed their first year and of the remainder :

229 died,  
621 left the City,  
136 could not be traced,  
42 were visited only once.

The following figures are therefore based on the 3,898 who completed the first year, *plus* the 229 who died, making in all a total of 4,127, and of that total 2,530, or 61.3 per cent., attended the Welfare Centres.

**Illnesses.**—Among the children visited 137, or 3.3 per cent., contracted measles ; 141, or 3.4 per cent., contracted whooping cough ; 89, or 2.1 per cent., contracted diarrhoea ; 375, or 9.1 per cent., contracted bronchitis or pneumonia.



Details as to the stated **Feeding** of the 4,127 children under supervision during the year are given in the following table. 96 died before feeding was established.

	FEEDING.					
	BREAST.		MIXED.		ARTIFICIAL.	
	No.	Per-centage.	No.	Per-centage.	No.	Per-centage.
At First Visit .....	3,037	75.4	344	8.5	650	16.1
At time of death of those of above Children who died in First Year .....	43	1.4	7	2.0	83	12.7
Surviving Children (3,898) at 9 months .....	85	2.2	742	19.0	3,071	78.8

Details as to children who should have attained the age of 5 years during 1946 :—

Well and attending school .....	2,798
Ill and not attending school .....	12
Left City or failed to trace .....	999
Died in 2nd year .....	23
Died in 3rd year .....	18
Died in 4th year .....	12
Died in 5th year .....	3
Total surviving whose whereabouts are known .....	2,810
Total deaths .....	56
Total reported upon .....	3,865

The addresses of 541 children who left the City were sent to the Medical Officers of Health for the districts to which they had gone.

### Health Talks.

A talk lasting about five minutes and dealing with an appropriate subject—such as digestive disorders among children in the spring and summer, and the respiratory diseases in the autumn and winter—was given by the Centre Health Visitor at every Centre. There is a complete syllabus of the subjects of these talks, and this is closely adhered to. It embraces everything conducive to maintaining good health in mothers and children and the talks are listened to with interest.

In addition to Health Talks, demonstrations were given showing Ministry of Information films, etc.



### Orthopædia.

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

New cases referred to the Orthopædic Department during the year .....	144
Children transferred on attaining the age of five years from the Maternity and Child Welfare Lists to that of Newcastle Education Authority .....	56
Attendances for examination or for re-examination by the Orthopædic Specialist .....	424
(Of these 122 were new patients—50 girls and 72 boys.)	
Patients' attendances for treatment were .....	2,289

#### Treatments given :—

Swedish Remedial Exercises .....	1,493
Massage .....	533
Electricity .....	1,090
Manipulations .....	591
Plasters .....	14
	—————
	3,721
Average number of children per month attending for treatment .....	50
Average number of children per month attending for periodic examination .....	148
Waiting list at 31st December, 1946.....	6

Of these :—

- 8 children did not attend after several notifications.
- 1 child was in Newcastle General Hospital.
- 1 child had left the district.

23 children were discharged as not requiring further treatment ("cured"). These included cases of :—

Peculiarity Gait .....	4
Flat Feet .....	9
Painful Feet .....	1
Varus Foot .....	1
Toe Deformity .....	1
Knock Knees .....	3
Bow Legs.....	3
Torticollis .....	1
Congenital Club Foot .....	1
No Orthopædic Disability found at date of attendance ..	3

These were referred as :

Pain in back .....	1
Peculiarity Gait .....	1
Deformity Toes .....	1
2 children were referred back to Maternity and Child Welfare Clinic (not Orthopædic).	
6 children left the district.	
2 children died.	
Parents unwilling or unable to continue attendance.....	65
(In some cases the mother was working).	
Children recommended for admission and admitted to W. J. Sanderson Orthopædic Hospital School .....	7
5 of these are being maintained by Newcastle Education Authority under the provision of the the Education Act, 1944.	
X-ray examination in 5 cases (8 films).	
Plaster Splints were made in 8 cases.	
Photographs taken in 4 cases (18 prints).	



Surgical Appliances and Special Boots as ordered at the Newcastle Education Committee's Orthopædic Department :—

Special Boots .....	81
Alterations to Boots .....	95
New Splints.....	39
Splint Repairs.....	11

**Classification of cases receiving treatment in the Department by the Orthopædic Staff as at 31st December, 1946.**

Flat Feet .....	14
Knock Knees and Flat Feet.....	1
Metatarsus Varus .....	1
Deformity Toes .....	6
Congenital Club Foot .....	8
Talipes Calcaneus .....	2
Knock Knees .....	8
Feeble Gait .....	3
Peculiarity Gait .....	4
Congenital Dislocation-Hip .....	1
Torticollis .....	1
Poliomyelitis .....	1

**Classification of Cases which have been examined during the year**

(A proportion of these cases have attended for treatment—the remainder under observation.)

Flat Feet .....	46
Knock Knees and Flat Feet.....	6
Metatarsus Varus .....	7
Deformity Toes .....	4
Congenital Club Foot .....	2
„ Talipes Calcaneus .....	2
„ Calcaneo Valgus .....	1
Knock Knees .....	42
Bow Legs.....	6
Deformity Leg Bones (Rachitic) .....	1
Torticollis .....	1
Hemiplegia .....	1
Spastic Paraplegia .....	1
Poliomyelitis .....	1
Peculiarity Gait .....	6
Feeble Gait .....	2
Painful Ankles .....	1
Birth Fracture Femur .....	1

**Dental, Aural and Nasal Treatment.**

Under the arrangements made with the Education Authority 221 nursing or expectant mothers and 210 children were referred for dental treatment. Of these 175 women and 161 children were treated.

Dentures were supplied gratis, or at a modified cost, and fixed according to economic circumstances to 79 women, all of whom were either nursing or expectant mothers.

Similarly 111 children were sent for aural and nasal treatment, and of these 18 were treated and 52 resulted in operations.



### Diphtheria Immunisation.

During 1946 the immunisation of school children was amalgamated with the Health Committee's scheme, and eleven clinics are now operating for the immunisation of both infants and school children. General practitioners are also encouraged to carry out this work and charge the cost to the Health Committee.

The following immunisations were carried out during the year :—

Under 5 years.

At M. & C. W. & School Clinics .. .. .	2749	} 3421
By private doctors .. .. .	672	

Over 5 years.

At M. & C. W. & School Clinics .. .. .	649	} 840
By private doctors .. .. .	191	

Total .. 4,261

In addition 1,267 children were re-inoculated before or just after commencing school.

### Ultra-Violet Ray Therapy.

Those children who are brought to the Centres, and who are considered to be in need of artificial sunlight, are referred for such treatment to the Light Department of the Newcastle General Hospital, or to the Brinkburn Street Sun-Ray Clinic.

	Sun-Ray Clinic.	Newcastle General Hospital.	TOTAL.
Number of patients treated .....	65	87	152
Number of treatments given .....	743	384	1,127

### Sewing Classes.

A total number of 286 classes were held at 6 Centres. The number of attendances was 2,829, an average of 10 mothers at each class.

### Children's Acts, 1908-1933.

At the beginning of the year there were 70 nursed-out children in the City, and 65 at the close of the year. Of these 26 were with foster mothers and 39 were in Institutions.

## CHILDREN IN INSTITUTIONS.

The Teresa Nursery .....	—
Convent of La Sagesse .....	17
The Northern Counties Orphanage .....	—
Northern Counties Institution for the Deaf and Dumb .....	11
Nazareth Home .....	5
Dr. Barnado's Home .....	6
	<hr/>
	39
	<hr/>

All these children were regularly supervised and kept under observation. No death occurred in hospital during the year.

## ADOPTION OF CHILDREN (REGULATION) ACT, 1939.

(a) Number of Persons who gave notice under Section 7 (3)	25
(b) „ Children adopted „ „	24
(i) Number of such Children under supervision at end of year ..	13
(ii) Number of such Children who died in 1946 .....	Nil
(iii) Number of such Children Returned to parents .....	2

In addition the Durham and Northumberland Adoption Society notified us of the placing of 27 children for adoption in Newcastle.

## Nurseries Report for 1946.

At the beginning of 1946 Local Authorities were asked by the Ministry of Health to submit a scheme setting out the number of Nurseries which they proposed to retain after March 31st as Nurseries, the number which were to be taken over by the Local Education Authority as Nursery Schools and the number which were considered redundant and should be closed. After this date the Nurseries retained would cease to be a drain on the Exchequer and would become a liability of the Welfare Authority. After consideration of the numbers on the Nursery registers and waiting lists, it was decided that six Nurseries would be enough to meet the demands of the City. These were to be—Cresta, West Parade, Woodlands Crescent, Fenham, Renwick Street and St. Anthony's. Stockwell Green was to be closed altogether and Ashfield House, Gosforth Street and Byker Park were to be taken over by the Education Authority as Nursery Schools. The Ministry of Health approved the scheme and accordingly Stock-



well Green was closed on 22nd June. Ashfield House was closed temporarily on the 3rd August prior to re-opening as a Nursery School. The plans for transferring Gosforth Street and Byker Park never matured, however, and as the number of applicants for all Nurseries gradually increased again, these two Nurseries have been retained.

During the year the duty of inspection of the Nurseries as Training Schools has passed from the National Society of Children's Nurseries to the Ministries of Health and Education and the Nurseries are no longer affiliated to the National Society of Children's Nurseries. The students now take the Nursery Nurses' Certificate examination under the Royal Sanitary Institute. Under this new scheme of training the students receive a certain amount of further general education in a Modern Secondary School as well as their nursery lectures and practical training.

The children's attendances during the year have been satisfactory and compare favourably with those of 1945. In some cases the average attendances have increased and in one or two they have dropped slightly.

All the Nurseries suffered towards the end of the year with Measles epidemics, but as Measles was generally widespread throughout the City they could hardly be expected to escape. There were also small epidemics of Whooping Cough in two Nurseries but apart from that the Nurseries were comparatively free from infection.

The numbers at Armstrong Road Residential Nursery have kept up fairly well throughout the year and towards the end of the year it was decided that the Nursery should no longer cater for shift workers' children but should now accommodate only those children whose mothers have to be admitted to hospital for any reason and children who have no home at all.

In May, the last Nursery Nurses' Diploma examination under the National Society of Children's Nurseries was held. Fifteen of our students sat the examination of whom thirteen passed (one with distinction); one passed in the practical part only and one in the theoretical part only.

### War Time Day Nurseries—Returns for 1946.

Nursery.	Open- ing Date.	Total Capa- city.	Child- ren on Regi- ster.	Number of Attend- ances 0-2 years.	Number of Attend- ances 2-5 years.	Total Attend- ances.	Average Daily Attend- ance.
Ashfield House ... (closed 3/8/46)	26. 3.42	50	80	937	4644	5581	37
Cresta .....	20. 7.42	40	82	1954	5487	7441	27
Willow Avenue ...	28.10.42	50	95	1895	5848	8743	34
Renwick Street ...	5.11.42	50	90	2662	6288	8950	35
Stockwell Green .. (closed 22/6/46)	20.11.42	50	49	369	1853	2222	20
Woodland Crescent	14. 4.43	48	119	2362	4658	7020	27
West Parade .....	6.12.43	50	114	2458	6770	9228	35
Byker Park .....	13. 4.44	50	89	1693	5703	7396	29
Gosforth Street ...	27. 4.44	50	95	1971	5447	7418	24
St. Anthony's ....	19. 6.44	50	97	2462	6581	9043	35
Armstrong Road .. (War Workers only).	11. 9.44	36	18	886	1131	2017	6

### Assessments.

#### APPLICATIONS FOR DRIED MILK.

Social Groups.	Number Eligible.	Number Ineligible.	Total.
Working .....	8	12	20
In the Services .....	4	4	8
Miscellaneous Cases .....	31	9	40
Total .....	43	25	68

#### APPLICATIONS FOR REDUCTION OF MATERNITY FEES.

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working .....	24	10	10	44
In the Services .....	11	1	1	14
Miscellaneous Cases .....	23	19	52	94
Total .....	58	31	63	152



## APPLICATIONS FOR REDUCTION OF MEDICAL AID FEES.

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working .....	315	96	30	441
In the Services .....	52	78	5	135
Miscellaneous Cases .....	122	33	72	227
Total .....	489	207	107	803

## APPLICATIONS FOR THE SERVICES OF THE HOME HELPS.

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working .....	80	241	7	328
In the Services .....	6	36	2	44
Miscellaneous .....	61	1	14	76
Total .....	147	278	23	448

## APPLICATIONS FOR ORTHOPÆDIC APPLIANCES.

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working .....	16	6	2	24
In the Services .....	4	12	0	16
Miscellaneous .....	3	5	3	11
Total .....	23	23	5	51

## APPLICATIONS FOR DENTURES.

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working .....	20	29	4	53
In the Services .....	1	11	0	12
Miscellaneous .....	0	5	12	17
Total .....	21	45	16	82

## APPLICATIONS FOR THE SERVICES OF THE DOMESTIC HELP

Social Groups.	Assessed at Full Cost.	Assessed at Part Cost.	Free Cases.	TOTAL.
Working.....	9	23	2	34
In the Services .....	1	1	0	2
Miscellaneous .....	20	6	1	27
Total .....	30	30	3	63

N.B.—The Group of Miscellaneous Cases includes widows, persons in receipt of Out-Door Relief, the unemployed and blind persons.

## Social Statistics.

Total Number of cases advised or assisted :— 466.

The following forms of help were given :—

Clothing .....	93
Bedding .....	72
Furniture .....	8
Dentures .....	9
Convalescence .....	23
Fuel Difficulties .....	4
Financial .....	12
Confinement .....	21
Extra Nourishment .....	54
Housing .....	14
Domestic Troubles .....	4
Maternity Parcel .....	14
Clothing Coupons .....	3
Work Found .....	6
Fares .....	2
Medical Attention .....	2

Children were placed in the following ways :—

Adoption arranged .....	1
Institution .....	3
Day Nursery .....	16
Residential Nursery .....	24
Maternity Benefit obtained .....	2
Pension obtained .....	1

Advised *re* :—

Affiliation orders .....	3
Adoption .....	7

Enquiries received and reports sent to the following :—

Newcastle General Hospital .....	27
Royal Victoria Infirmary .....	1
Dental Hospital .....	5
Tuberculosis Dispensary .....	3
Fleming Memorial Hospital .....	2
Princess Mary Maternity Hospital .....	1



Cases were referred to the following agencies for advice and help :—

The Tyneside Council of Social Service.....	21
Soldiers, Sailors and Airmen's Families Association.....	24
The Second Church of Christ Scientist .....	5
Vickers-Armstrong Benevolent Fund .....	2
Swan Hunter's Benevolent Fund .....	1
Women's Voluntary Service .....	56
The Assistance Board .....	12
Military Authorities .....	3
Naval Authorities .....	3
Air Ministry .....	1
Approved Societies .....	3
Sanitary Inspector .....	2
Ministry of Pensions .....	2
Ministry of Education .....	1
Public Assistance Committee .....	47
Education Department .....	21
Food Office .....	54
Housing Department .....	20
Board of Trade .....	44
National Society for the Prevention of Cruelty to Children .....	5
Blind Society .....	1
Moral Welfare Workers .....	5
Police Court Missionary .....	3

### **Municipal Training Course for Health Visitors.**

The Sixteenth Training Course for Health Visitors commenced in October, 1945, and ended with the examination at the Medical School, King's College, in April, 1946. Of the 14 students enrolled, 12 qualified in April, 1946.

F. J. W. MILLER,

Senior Child Welfare Medical Officer.



## REPORT OF THE MATERNITY OFFICER—YEAR 1946.

## INTRODUCTION.

Most of the items detailed below are self-explanatory. It is gratifying to note such a low maternal mortality, but it must be remembered that the actual rate in the City depends on a very small number of deaths, and that the chance occurrence of two or three more deaths during the period covered would have grossly altered the death rate. It may be claimed that maternal mortality figures in general have fallen to the lowest figure which is consistent with the occurrence of pregnancy in persons in all states of health. Deaths will always occur, even with an ideal maternity service and the laws of average indicate that next year's death rate may rise just as much as last year's rate has fallen.

The increasing need for hospital confinement, because of poor housing conditions, is responsible for the fall, during the last two years, in the proportion of midwives deliveries among the total births; the actual amount of work being done by the district midwives has increased and has necessitated the engagement of more temporary midwives.

The still-birth rate is still too high, especially when one notes the suggestion that toxæmia of pregnancy and "ill-health of the mother" were responsible for 60 per cent. of the cases of still-birth.

Half the midwives cases needed the services of a doctor at some stage or other. A proportion such as this is largely due to an insistence, by the supervising staff, on the midwife summoning medical aid without hesitation on the slightest indication that all is not absolutely normal, but when half the cases need medical attention one is tempted to suggest that **all** confinements should take place under conditions where medical aid is present, even though the doctor only holds a "watching brief" over the case. If it were not for the fact that the majority of primiparæ and many multiparæ attend hospital in the hope of booking in there, and the potentially abnormal cases are thus sorted out at an early stage, the proportion of medical aid calls might rise even higher.

No deaths from puerperal pyrexia are recorded and in fact no district delivery was ever seriously ill from infection after child-birth. The number of admissions to hospital, after delivery, solely on account of infection is considerably lower than in previous years.



It must again be placed on record that ante-natal care is being given under totally unsuitable conditions. Whether or not a clinic is the ideal place for ante-natal care is debatable, but so long as clinics continue, and no matter what type of medical staff may attend them, good work cannot be done unless the attendances per session are very considerably reduced. Twenty cases per session is the maximum which can be adequately dealt with and sixteen would be a safer maximum.

### **Maternal Mortality.**

There was a gratifying fall in the maternal death rate, down to 0.64 per 1,000 births, which is the lowest figure ever recorded in this City.

### **Puerperal Pyrexia.**

There was a decrease in the number of notifications in Newcastle and a slight increase in extra-mural cases. Fewer cases were admitted to hospital.

### **Ophthalmia Neonatorum.**

There was a significant decrease in the incidence of this condition, and again gonorrhoea was not responsible for any cases reported from the domiciliary service.

### **Ante-Natal Clinics.**

Attendances during the year showed an increase of 1,205 over the previous year, presumably associated at least in part with the rise in the actual number of births during the year.

### **Transport of Midwives.**

There is still considerable difficulty in finding transport for midwives. Taxis are no more available than during the war time, the police, though helpful when they can be, are not supposed to deal with anything except transport of cases to hospital, and the remains of the A.R.P. service is not available at weekends. Were it not for the help provided by several midwives who own their own cars, some serious results might have occurred. An allowance of £40 per annum has been granted, commencing August 1st, 1946, payable to each midwife to whom permission to run a car has been granted.

### Work of Municipal Midwives.

104 midwives notified their intention to practice midwifery in the City :—

- 39 Permanent Municipal Midwives.
- 13 Temporary Municipal Midwives.
- 3 Private Midwives.
- 49 Employed in Institutions, permanent or temporary.

Attendances at Confinements.—The following table shows the work of the midwives in the City during 1946 and previous years :—

	1943.	1944.	1945.	1946.
Births attended, as Midwives .....	1,787	2,374	1,934	2,634
„ „ Maternity Nurses..	446	550	570	763
Total Net Births .....	2,233	2,924	2,504	3,397
Percentage of Net Births in City .....	64.8	65.6	60.8	57.0

### Maternity Service.

#### The Ante-Natal Centres.

*Attendance.*—During the year the Ante-Natal Centres were attended by 5,424 expectant mothers, this figure being an increase of 1,205 on the previous year. 12 women attended Post-Natal Clinics. The following table shows the attendances at the Ante-Natal and Post-Natal Clinics :—

CENTRE.	ANTE-NATAL.		POST-NATAL.	
	Attendances.	Individuals.	Attendances.	Individuals.
Benwell .....	1,724	451	1	1
Byker .....	3,107	799	6	5
Diana Street .....	1,646	444	2	2
Elswick .....	2,259	637	..	..
Fawdon .....	92	29	..	..
Fenham .....	2,050	538	..	..
Heaton .....	2,092	579	1	1
Scotswood .....	1,590	412	1	1
St. Anthony's .....	3,289	1060	1	1
Wharnccliffe St. ....	1,360	475	1	1
1946	19,209	5,424	13	12
1945	14,074	4,219	30	29



	<i>Midwifery Cases.</i>	<i>Maternity Cases.</i>
Municipal Midwives .....	2,505	662
Private Midwives .....	28	24
Institutions, Gables, Salvation Army, etc. .	101	77
	<u>2,634</u>	<u>763</u>

### Summary of Municipal Midwife's Work, 1946.

No. of Ante-Natal Visits.	No. of Clinic Visits.	No. of Deliveries.		No. of Nursings.
		As Mat. Nurse Doctor engaged.	As Midwife.	
12,510	1,383	662	2,505	47,756

### *Notices for medical aid sent by midwives :—*

#### FOR THE MOTHER.

##### *During Pregnancy—*

Ante-Partum Hæmorrhage ...	64
Abortions .....	21
Illness (Miscellaneous).....	49
Suspected toxæmia of pregnancy .....	28
	<u>162</u>

##### *During Labour—*

Uterine Inertia .....	} 212
Malpresentations .....	
Retained Placenta .....	23
Post-Partum Hæmorrhage ...	12
Ruptured Perineum .....	438
	<u>685</u>

#### *During Puerperium—*

Rise of Temperature.....	55
Undefined Illness of Mother ..	56
	<u>111</u>

#### FOR CHILD.

Prematurity .....	87
Discharging Eyes .....	144
Congenital Defects .....	22
Illness of Baby .....	75
Still-births .....	3
Rashes .....	23
	<u>354</u>

Total calls for mother and child 1332

In 50.5 per cent. of the midwife's cases the services of a doctor were requisitioned.

*Claims for fees from doctors in respect of calls from midwives :—*

	<i>Cases.</i>			
	1943.	1944.	1945.	1946.
For forceps delivery .....	42	49	39	121
For post partum hæmorrhage .....	15	22	17	17
For ante partum hæmorrhage .....	31	27	27	61
For illness of mother .....	113	144	113	170
For illness of child .....	78	97	77	118
For premature birth .....	25	39	31	65
For discharging eyes .....	57	84	90	119
Ruptured Perineum .....	198	361	313	375
Other .....	108	158	132	167
Specialists called in .....	6	14	10	9
Total cases .....	673	995	849	1222

**Consultants' Services.**

The services of obstetrical specialists were provided on nine occasions. The Midwifery Emergency Service was sent to four cases.

**Complications of Child-birth.**

(1) Puerperal Pyrexia.—161 cases were notified during the year. Details of these are given in the following table :—

	Total Cases Notified.	Newcastle Cases.	Extra Mural Cases.	TOTAL DEATHS.
Puerperal Pyrexia .....	161	65	96	Newcastle.. 0 Extra Mural 0 — Nil —

Of the Newcastle cases 35 occurred in Hospital, and 14 others were admitted to hospital, the remainder being nursed at home.

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

	<i>Puerperal Pyrexia.</i>
Doctors .....	1
Doctors and Midwives .....	3
Midwives .....	26
Princess Mary Maternity Hospital Staff .....	15
Newcastle General Hospital .....	15
Gables Maternity Home .....	4
Western Nursing Home .....	1
	—
	65
	—



## (2) Maternal Mortality.

5,964 women were confined in Newcastle, and 209 Newcastle residents had their confinements outside Newcastle. There were four maternal deaths, a mortality rate of 0.64 per thousand as compared with 2.21 for the previous year.

A revised classification has been adopted for these cases, but for comparative purposes, the deaths are also classified separately on the same plan as has previously been adopted for other years.

## Revised Classifications.

Abortions, including sepsis following abortions .....	1
Hæmorrhage and shock after confinement (including renal complications).....	3
Infection during and after confinement .....	—
Toxæmias of pregnancy, including pyelitis .....	—
Puerperal phlegmasia and embolism.....	—
Accidents of pregnancy and childbirth.....	—
Associated maternal deaths (heart disease, etc.).....	—
	<hr/> 4

Former Classification.	1946	1945	1944	1943	1942	1941	1940
Abortions (Septic) .....	..	5	1	3	1	1	..
Abortions (Not septic) .....	1	..	..	..	1	..	..
Accident of Pregnancy .....	..	..	2	3	..	1	..
Hæmorrhage and shock .....	3	1	3	2	3	6	1
Other Accidents of Childbirth.....	..	..	2	1	2	2	3
Infection during Childbirth and Puerperium ..	..	4	6	..	3	..	2
Toxæmia of Pregnancy .....	..	..	5	1	2	..	5
Puerperal Phlegmasia.....	..	..	..	..	..	..	..
Ectopic Gestation .....	..	1	..	1	..	..	..
Unspecified conditions of Puerperal State ..	..	..	..	..	..	..	..
TOTAL .....	4	11	19	12	12	11	11

Place of Death.	Total.	Incidence per 1,000 births.
Newcastle General Hospital .....	2	1.32
Private Houses .....	2	0.59

## (3) Ophthalmia Neonatorum.

The number of notified cases was nine and all these were City residents. Nine City cases were visited :—

Doctors and Midwives .....	3
Midwives .....	6
Princess Mary Maternity Hospital .....	..
Newcastle General Hospital .....	..
Nursing Homes.....	..
	<hr/> 9

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

1940	.....	6.4
1941	.....	4.4
1942	.....	6.5
1943	.....	6.4
1944	.....	5.2
1945	.....	3.1
1946	.....	1.5

### Births.

Total Births.—Of the 6,079 infants born alive in 1946 and belonging to Newcastle residents, 3,091 were boys and 2,988 were girls. Of the former 44 per 1,000 and of the latter 38 per 1,000 died during their first year.

44.1 per cent. of the births in families belonging to Newcastle occurred in institutions, as shown in the following table :—

Nursing Homes.....	325
Princess Mary Maternity Hospital .....	556
Gables Maternity Home .....	1,366
Newcastle General Hospital .....	225
Other outside hospitals .....	209
	<hr/>
	2,681
	<hr/>

*Illegitimate Births.*—337 illegitimate children were born to Newcastle residents during the year, and the death rate in this group of children was 77 per 1,000 as compared with 41 per 1,000 legitimate children.

Every effort is made to ensure that these children are brought regularly to the Welfare Centres.



*Notification of Births.*—Of the 8,219 live and 340 still-births (gross) which were registered in the City in 1946, 8,324 or 97.2 per cent. were notified as follows :—

<i>Notified by</i>	<i>Gross Living Births.</i>	<i>Gross Still Births.</i>
Medical Practitioners.....	319	3
Medical Practitioners and Midwives ...	758	18
Midwives .....	2,586	56
Princess Mary Maternity Hospital .....	2,450	170
Newcastle General Hospital .....	1,362	76
Gables Maternity Home .....	518	8
	<hr/> 7,993	<hr/> 331

*Still-births.*—Of the 2,505 births attended by the municipal midwives, 47 still-births occurred. In the 662 cases where municipal midwives attended in the capacity of maternity nurse, 14 still-births occurred.

Of the total notifications of 5,964 births received, 168 related to still-births, which gives a rate of 28.2 per 1,000 total births.

Still-births Registered (net) .....	167
Still-births Notified .....	168
Percentage Notified .....	100%
Still-births Visited .....	167

<i>Duration of Pregnancy.</i>	<i>No.</i>	<i>Percentage to Total.</i>
At or under 7 months .....	22	13.2
At 7-8 months .....	43	25.7
At full time .....	102	61.1
	<hr/> 167	

*Suggested Cause of Still-Births :—*

	<i>Cases.</i>
(a) Ill-health of the mother .....	27
(b) Foetal deformities and malpresentations and uterine inertia .....	39
(c) Premature delivery, ante-partum hæmorrhage, etc...	27
(d) Other causes, including toxæmia of pregnancy and accidents.....	74

## AUXILIARY SERVICES.

### Maternity Hospital.

A free bed in the Princess Mary Maternity Hospital was placed at the disposal of one woman. The necessary order was given by the Medical Officer at the Centre.

### Home Help Service.

The Staff of Home Helps, all of whom were employed on a more or less full time basis, numbered twenty-two and rendered service to 354 lying-in women. In 331 instances contributions towards the cost of the services were received from the families concerned; in the remaining cases the services were supplied gratis.

Great difficulty has been experienced in finding suitable women to act as Home Helps and as a result this very essential service has to be reserved for only the most urgent cases.

During the period of service, the Home Helps were supervised, and the reports were generally satisfactory.

### Domestic Help Service.

Seven domestic workers have been more or less permanently employed. These workers render service in homes where the housewives are unable, through illness, to carry out their normal duties. Such service was given in 56 homes.

LINTON SNAITH,

*Maternity Officer.*

### NURSING HOMES.

There are 10 Registered Nursing Homes in the City, 2 Maternity, 2 General and Maternity, 4 Medical and Surgical, and 2 Surgical. In addition there are 3 Nursing Homes which are exempt from registration.

During inspections of these Nursing Homes in accordance with the Public Health Act, 1936, Section 191, the ten Homes were found to be well equipped and efficiently supervised.

There has been a shortage of nursing staff during the latter years of the war, but the position appears to be generally easier at the present time. A similar dearth of domestic staff appears to have been experienced at the same time, but here again the shortage appears to be somewhat alleviated.



Home Help Service

The staff of Home Help, all of whom were experienced and trained in the use of the home help service, were assigned to the various districts of the city. The service was not free from the limitations of the home help service, but the service was not free from the limitations of the home help service.

It is true that the service was not free from the limitations of the home help service, but the service was not free from the limitations of the home help service.

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Domestic Help Service

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WOMEN'S HOME

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INCLUDING REPORTS OF THE  
MEDICAL SUPERINTENDENT OF THE  
INFECTIOUS DISEASES HOSPITAL  
AND THE BACTERIOLOGISTS

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## III—INFECTIOUS DISEASE

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FEVERS, FOOD POISONING,  
CITY HOSPITALS FOR INFECTIOUS DISEASES,  
DISINFECTION, BACTERIOLOGY



INCLUDING REPORTS OF THE  
MEDICAL SUPERINTENDENT OF THE  
INFECTIOUS DISEASES HOSPITAL  
AND THE BACTERIOLOGISTS

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### III—INFECTIOUS DISEASE

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DISINFECTION, BACTERIOLOGY  
CITY HOSPITALS FOR INFECTIOUS DISEASES  
FEVER, FOOD POISONING

DEATHS (CORRECTED) FROM NOTIFIABLE INFECTIOUS DISEASES  
AND NON-NOTIFIABLE ZYMOTIC DISEASES.

WARD.	Diphtheria.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Pneumonia.	Cerebro-spinal Fever.	Encephalitis Lethargica.	Polio-encephalitis.	Polio-myelitis.	Measles and Rubella.	Puerperal Fever.	Small-pox.	Whooping Cough.	Diarrhoea (under 2 years of age).	Dysentery.	Tuberculosis. All forms.
St. Nicholas'	..	..	..	..	11	..	..	..	..	..	..	..	1	..	..	11
Kenton .....	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	11
Scotswood .....	..	..	..	..	3	..	1	..	..	..	..	..	1	..	..	21
Stephenson .....	1	..	..	..	14	..	..	..	..	..	..	..	1	2	..	22
Armstrong .....	..	..	..	..	11	..	..	..	..	..	..	..	..	3	..	12
Elswick .....	1	..	..	..	7	..	..	..	..	..	..	..	..	..	..	15
Westgate .....	2	..	..	..	20	1	..	..	..	..	..	..	1	1	1	17
Arthur's Hill .....	..	..	..	..	11	..	1	..	..	..	..	..	..	..	..	18
Benwell .....	1	..	..	..	6	..	..	..	..	..	..	..	1	2	..	11
Fenham .....	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	9
Sandyford .....	1	..	..	..	4	..	..	..	..	..	..	..	..	1	..	8
Jesmond .....	1	..	..	..	10	..	1	..	..	..	..	..	1	..	..	8
Dene .....	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	11
Heaton .....	..	..	..	..	5	1	..	..	..	..	..	..	1	1	..	7
Byker .....	1	..	..	..	8	..	..	..	..	..	..	..	..	3	..	11
St. Lawrence .....	1	..	..	..	3	..	..	..	..	..	..	..	2	2	..	24
St. Anthony's .....	3	..	..	..	11	..	1	..	..	1	..	..	..	..	..	20
Walker .....	3	..	..	..	13	..	..	..	..	1	..	..	..	3	..	16
Walkergate .....	..	..	..	..	7	..	..	..	..	..	..	..	..	1	..	11
CITY .....	15	..	..	..	151	4	4	..	..	2	..	..	10	20	1	263

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







## WARD DISTRIBUTION OF INFECTIOUS DISEASES (NET).

WARD.		Diphtheria.	Erysipelas.	Enteric Fever.	Scarlet Fever.	Cerebro-Spinal Fever.	Pollomyelitis.	Acute Polio-encephalitis.	Encephalitis Lethargica.	Measles.	Rubella.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Smallpox.	Chickenspox.	Malaria.	Dysentery.	Whooping Cough.	Tuberculosis (all forms).	TOTAL.	
St. Nicholas'	4	4	4	..	12	2	1	..	..	168	9	2	..	22	3	..	32	..	..	3	14	25	298
Kenton	6	7	7	1	30	1	1	..	..	114	12	2	4	19	4	..	40	1	..	12	70	15	340
Scotswood	9	9	9	..	25	1	..	..	..	96	12	3	..	15	3	..	106	..	..	12	48	48	387
Stephenson	17	9	9	..	18	2	..	..	..	340	8	13	..	42	..	..	54	..	..	5	119	53	680
Armstrong	10	..	..	..	26	1	..	..	..	192	4	4	..	28	1	..	92	..	..	3	25	28	414
Elswick	6	6	6	..	19	1	..	..	..	189	10	2	..	18	1	..	106	..	..	7	71	39	475
*Westgate	11	6	6	1	21	..	..	..	..	190	8	2	..	29	1	..	45	..	..	2	81	49	446
†Arthur's Hill	10	6	6	..	13	4	..	..	..	156	4	1	1	25	1	..	75	..	..	19	96	29	440
Benwell	3	6	6	..	30	3	..	..	..	216	9	3	1	17	6	..	66	1	..	19	42	49	471
Fenham	2	4	4	1	25	..	..	..	..	74	8	1	..	8	6	..	77	..	..	5	74	47	332
Sandyford	4	2	2	..	17	1	1	..	..	205	8	7	..	23	2	..	43	..	..	1	30	19	363
§Jesmond	7	5	5	..	20	2	..	..	..	83	11	1	..	9	1	..	70	..	..	2	20	24	253
Dene	8	4	4	1	19	..	..	..	..	92	12	1	1	13	..	..	36	..	..	9	23	15	236
Heaton	7	5	5	..	31	..	1	..	..	170	16	3	..	19	3	..	99	..	..	8	51	29	442
Byker	15	5	5	..	12	..	..	..	..	322	17	6	1	32	2	..	55	..	..	1	34	42	544
St. Lawrence	16	10	10	..	29	2	..	..	..	266	10	..	1	41	2	..	179	2	..	10	77	42	687
St. Anthony's	17	6	6	..	20	..	..	..	..	256	10	7	..	33	3	..	96	1	..	5	63	44	561
Walker	27	7	7	1	21	..	..	..	..	292	17	4	..	49	1	..	98	2	..	15	64	61	659
†Walkergate	12	7	7	..	20	3	..	..	..	102	17	3	..	21	1	..	57	1	..	35	78	19	376
	191	108	5	408	22	3	..	..	..	3523	202	65	9	463	41	..	1426	8	173	1080	677	8404	

\* Includes Royal Victoria Infirmary.

† Elswick Grange and Newcastle General Hospital.

‡ City Hospital for Infectious Diseases, Walker Gate.

§ Fleming Memorial Hospital.



## HOUSEHOLDS AFFECTED WITH INFECTIOUS DISEASES

EXCLUSIVE OF TUBERCULOSIS MEASLES AND CHICKENPOX.

DISEASES.	HOUSEHOLDS WITH						Mili- tary or Naval Cases.	Insti- tutions. *	TOTAL CASES (Gross).	Cases. from outside of City.	Net Cases.
	1 Single Case.	2 Cases each.	3 Cases each.	4 Cases each.	5 Cases each.	6 Cases and over.					
Diphtheria (including Membranous Croup) ..	162	7	2	..	..	..	6	3	191	..	191
Erysipelas.....	107	..	..	..	..	..	1	..	108	..	108
Scarlet Fever .....	349	21	1	1	..	..	1	9	408	..	408
Enteric (or Typhoid Fever)	5	..	..	..	..	..	..	..	5	..	5
Cerebro-Spinal Fever ....	19	1	..	..	..	..	..	1	22	..	22
Polio-myelitis .....	3	..	..	..	..	..	..	..	3	..	3
Polio-encephalitis .....	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargica ..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Pyrexia .....	30	..	..	..	..	..	..	131	161	96	65
Ophthalmia Neonatorum ..	9	..	..	..	..	..	..	..	9	..	9
Pneumonia .....	492	4	1	..	..	..	1	..	504	..	504
Dysentery .....	92	20	2	..	..	..	1	34	173	..	173
Malaria .....	6	..	..	..	..	..	2	..	8	..	8
Whooping Cough.....	743	126	21	3	2	..	..	2	1082	2	1080
TOTAL .....	2017	179	27	4	2	..	12	180	2674	98	2576

\* See next page.

## INFECTIOUS DISEASES.

**Schools and Infectious Disease.**—It was not found necessary to close any school on account of infectious disease during the year.

## PUBLIC INSTITUTIONS AND INFECTIOUS DISEASE.

The following notifications were received during the year :—

INSTITUTIONS, &c.	Diphtheria.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Cerebro-Spinal Fever.	Measles and Rubella.	Puerperal Pyrexia.	Pneumonia.	Dysentery.	Malaria.	Ophthalmia Neonatorum.	Whooping Cough.	TOTAL.
Royal Victoria Infirmary.....	..	..	3	..	..	1	..	..	11	..	..	..	15
Fleming Memorial Hospital.....	..	..	4	..	..	..	..	..	3	..	..	2	9
Newcastle General Hospital .....	4	..	1	..	1	2	17	..	20	..	..	..	45
City Hospital for Infectious Diseases .....	..	..	..	..	..	1	..	..	..	..	..	..	1
Princess Mary Maternity Hospital .....	..	..	..	..	..	..	106	1	..	..	..	..	106
Military Barracks .....	1	..	1	..	..	..	..	..	..	..	..	..	3
Throat, Nose and Ear Hospital .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Eye Hospital .....	..	..	..	..	..	..	8	..	..	..	..	..	8
Nursing Homes .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Hostels, etc. ....	..	..	..	..	..	..	..	..	..	..	..	..	..
Hotels .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Deaf and Dumb Institution .....	..	..	..	..	..	1	..	..	..	..	..	..	1
Dr. Barnardo's Home .....	..	..	..	..	..	..	..	..	..	..	..	..	..
La Sagesse Convent .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Convent of Sacred Heart .....	..	..	..	..	..	..	..	..	..	..	..	..	..
War Time Day Nurseries.....	..	..	..	..	..	1	..	..	..	..	..	..	1
Blind School .....	..	..	1	..	..	..	..	..	..	..	..	..	1
St. Vincent's Home .....	..	..	..	..	..	2	..	..	..	..	..	..	2
St. Anne Convent .....	..	..	..	..	..	1	..	..	..	..	..	..	1
<b>TOTAL .....</b>	<b>5</b>	<b>..</b>	<b>10</b>	<b>..</b>	<b>1</b>	<b>9</b>	<b>131</b>	<b>1</b>	<b>34</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>193</b>

Does not include any cases belonging to the City which could properly be assigned to their homes.



### SCARLET FEVER.

Notifications of 408 cases were received during the year. There were no deaths.

### DIPHTHERIA.

191 cases were notified during the year, and 15 died, a case mortality of 7.8 per cent., as compared with 3.5 in 1945.

### MEASLES AND RUBELLA.

3,725 cases (including 202 of rubella) were notified, and there were 2 deaths (net), representing a death rate of 0.01 per 1,000 population, as compared with 0.01 in 1945, and a case mortality of 0.05 per cent. of notified cases (net).

The following table shows the deaths in the various wards, and at different age periods:—

WARD.	Under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	1 and under 2 years.	2 and under 3 years.	3 and under 4 years.	4 and under 5 years.	5 and under 10 years.	Over 10 years.	TOTALS
St. Nicholas' .....	..	..	..	..	..	..	..	..	..	..	..
Kenton .....	..	..	..	..	..	..	..	..	..	..	..
Scotswood .....	..	..	..	..	..	..	..	..	..	..	..
Stephenson .....	..	..	..	..	..	..	..	..	..	..	..
Armstrong .....	..	..	..	..	..	..	..	..	..	..	..
Elswick .....	..	..	..	..	..	..	..	..	..	..	..
Westgate .....	..	..	..	..	..	..	..	..	..	..	..
Arthur's Hill .....	..	..	..	..	..	..	..	..	..	..	..
Benwell .....	..	..	..	..	..	..	..	..	..	..	..
Fenham .....	..	..	..	..	..	..	..	..	..	..	..
Sandyford .....	..	..	..	..	..	..	..	..	..	..	..
Jesmond .....	..	..	..	..	..	..	..	..	..	..	..
Dene .....	..	..	..	..	..	..	..	..	..	..	..
Heaton .....	..	..	..	..	..	..	..	..	..	..	..
Byker .....	..	..	..	..	..	..	..	..	..	..	..
St. Lawrence .....	..	..	..	..	..	..	..	..	..	..	..
St. Anthony's .....	..	..	1	..	..	..	..	..	..	..	1
Walker .....	..	..	..	..	1	..	..	..	..	..	1
Walkergate .....	..	..	..	..	..	..	..	..	..	..	..
TOTAL .....	..	..	1	..	1	..	..	..	..	..	2

Each Health Visitor visited and re-visited selected cases occurring in her district. By this arrangement each case is seen immediately on receipt of the notification, and advice is given regarding the nursing and isolation of the patient. The cases are kept under supervision until they recover, and should subsequent cases occur in the family they are recorded.

### Measles Cases, including Rubella, notified during 1946.

Cases notified by Medical Practitioners .....	3,491
Cases found by Health Visitors .....	233
Cases notified by Parents and others .....	2
	<hr/>
	3,726 gross.
Less 1 case from outside the City :—	3,725 net.
	<hr/>

Of the total number of measles cases notified, 3,357 in 2,595 households (or 90.1 per cent.) were visited by the Health Visitors, and 2,076 re-visits were paid, a total of 5,433 visits.

Of the 369 unvisited cases, 360 were in better-class houses and 9 were in institutions. There were no deaths.

*Medical Attendance.*—In 97.1 per cent. of the cases visited a doctor was in attendance.

*Condition of Patient.*—In 95.8 per cent. of the cases visited the disease ran a normal course, but bronchitis, pneumonia or other complications developed in the remainder.

The following were the ages of visited children who were suffering from measles :—

Under 1 year .....	208
1-2 years .....	460
2-3 years .....	519
3-4 years .....	487
4-5 years .....	432
5-6 years .....	642
Over 6 years .....	609
	<hr/>
	3,357
	<hr/>

### FOOD POISONING.

10 cases of illness due to organisms of the food poisoning group were notified during the year.



### ENTERIC GROUP OF FEVERS.

During the year 1946, 9 cases of the enteric group of infections were notified. The distribution of these cases, according to the months in which they were notified, the type of infection (typhoid or paratyphoid), and their place of origin, is recorded in the following table :—

**Distribution of Enteric Group Infections for 1946.**

	EXTRA-MURAL.		NEWCASTLE.	
	Typhoid.	Para-typhoid B.	Typhoid.	Para-typhoid B.
January .....	..	..	..	..
February .....	..	..	..	..
March .....	..	..	..	..
April .....	..	..	..	..
May .....	..	..	..	..
June .....	..	..	..	..
July .....	..	..	..	..
August .....	1	1	..	3
September .....	..	2	..	1
October .....	..	..	..	..
November .....	..	..	..	1
December .....	..	..	..	..
Totals .....	1	3	..	5

### DIARRHŒA.

There were in all 25 deaths from the disease, equal to a death rate of 0.08 per 1,000 population, and this number included 20 deaths of children under two years of age.

## SMALLPOX.

No case of this disease occurred in the City during the year.

The following are the particulars of **Vaccination** during the last forty-one years :—

Year.	Births Registered	Successful Vaccinations	Unsuccessful Vaccinations	Exemption Certificates.		Deaths. Removals and Post-ponements
				Number.	Percentage to Total Births	
1906	7,721	6,733	28	92	1.2	..
1907	7,610	6,702	16	94	1.2	..
*1908-12	35,265	27,240	114	3,398	9.6	..
1913-17	34,296	21,251	33	7,144	20.8	..
1918-22	34,372	19,011	95	9,262	26.9	..
1923-27	31,290	19,658	30	5,542	17.7	..
1928	5,780	4,320	19	912	15.8	..
1929	5,638	3,555	33	1,092	19.4	..
†1930	†6,195	3,897	31	1,264	20.4	1,003
1931	6,059	3,754	39	1,343	22.2	923
1932	6,009	3,600	27	1,395	23.2	889
1933	5,770	3,479	18	1,377	23.9	809
1934	5,890	3,467	27	1,449	24.6	874
1935	5,899	3,474	32	1,401	23.7	901
1936	5,713	3,271	29	1,379	24.1	926
1937	6,010	3,377	26	1,495	24.9	1,013
1938	6,101	3,481	19	1,635	26.8	868
1939	5,855	3,210	13	1,461	24.9	1,100
1940	5,547	3,366	20	1,137	20.5	932
1941	4,602	2,890	21	881	19.1	735
1942	4,722	3,082	33	849	18.0	702
1943	5,182	3,303	31	1,060	20.4	745
1944	6,693	4,250	29	1,322	19.8	1,034
1945	5,987	3,894	31	1,192	19.9	811
1946	8,257	5,349	34	1,388	16.8	1,363

\* Vaccination Act, 1907, came into force.

† Walker District included.

‡ Supervision of Vaccination transferred from Guardians to Health Committee on 1st April, 1930.



**CHICKENPOX.**

1,426 cases were notified. There were no deaths.

**ERYSIPELAS.**

108 cases of this disease were notified and there were no deaths.

**PUERPERAL PYREXIA.**

65 cases were notified, and there were no deaths. Inquiries were made concerning all the notified cases.

**INFLUENZA AND PNEUMONIA.**

These diseases accounted for 175 deaths as against 135 last year.

Total deaths at age periods.

Under 5 years.	5-15.	15-25.	25-45.	45-65.	65 and over.	Total.
30	2	1	11	43	88	175

As will be seen from the above figures, 30, or 17.1 per cent., of the deaths occurred below the age of 5 years.

504 cases of pneumonia, including influenzal-pneumonia, were notified. For the ages and ward distribution, see pages 50 and 51.

Of that number 433, or 85.9 per cent., were visited by Health Visitors. It was found that 302, or 69.8 per cent., were primary pneumonia, 52, or 12.0 per cent., were cases of influenzal-pneumonia, and 79, or 18.2 per cent., were cases of pneumonia following other diseases.

*Ages.*—The ages of the 433 cases visited were as follows :—

Under 1 year .....	55
1-5 years .....	91
5-15 years .....	53
15-25 years .....	37
25-45 years .....	76
45-65 years .....	74
and over 65 years .....	47
	<hr/>
	433
	<hr/>

*Housing.*—13 cases occurred in 1 roomed dwellings, 81 cases occurred in 2 roomed dwellings, 136 cases occurred in 3 roomed dwellings, and 203 cases occurred in dwellings with more than 3 rooms

*Type of House.*—206 cases occurred in flats, 59 cases in tenements, and 168 in self-contained houses.

*Previous History.*—

There was a previous history of Measles	in 144 cases.
“ “ “ Whooping Cough	in 111 cases.
“ “ “ Influenza	in 74 cases.
“ “ “ Frequent winter Coughs and Colds	in 209 cases.
“ “ “ Pneumonia	in 61 cases.
“ “ “ Tuberculosis	in 6 cases.

*Hospital Treatment.*—68 cases of pneumonia were treated in the Infectious Diseases Hospital. The majority of these were from houses where there was over-crowding or other unsuitable home conditions. 6 of these patients died, giving a case mortality of 8.9 per cent.

*Deaths.*—41, or 9.5 per cent., of the visited cases of pneumonia died.

### ENCEPHALITIS LETHARGICA.

Four proved cases of encephalitis lethargica were admitted to the City Hospital during the year.

### ACUTE POLIOMYELITIS.

Nineteen proved cases of poliomyelitis were admitted to the City Hospital during the year.



### CEREBRO-SPINAL MENINGITIS.

During 1946 22 cases of cerebro-spinal fever occurring in Newcastle residents were notified.

There were 4 deaths among these 22 cases, equivalent to a case mortality rate of 18.2 per cent. The corresponding figures for 1945 and 1944 were 43.8 per cent. and 26.9 per cent.

### BACILLARY DYSENTERY.

Bacillary dysentery has been prevalent in the City since 1928.

The number of notifications in 1946 was 173, a marked decrease on the figure for 1945 which was 360. The figure for 1944 was 138.

There was one death.

The distribution of the organism according to type among the 173 City cases was as follows :—

Sonne Type	..	..	..	160
Flexner Type	..	..	..	9
Newcastle Type	..	..	..	1
Amœbic	..	..	..	3

**CITY HOSPITAL FOR INFECTIOUS DISEASES.****To the Medical Officer of Health.**

Sir,

I beg to submit the report of the City Hospital for Infectious Diseases for the year 1946.

There has been an alteration in the bed status of the hospital due to the new Cubicle Isolation Ward being put into commission in 1945 ; and the two old Isolation Blocks, condemned by the Ministry of Health as obsolete in 1934, have been closed. Whereas the number of beds available on the Fever Section was 232 there are now 224 beds and 48 cots. 60 of the beds are accommodated in two wooden huts which were erected as a temporary measure during the 1914 War on the site to the East of Benfield Road. This accommodation is not very satisfactory for nursing infectious diseases, and in fact has not been used for some time.

No new construction has taken place since 1939 when the proposed building envisaged in the Five Year Plan was interrupted by the war. It is now even more obvious that much is required in respect both of building and equipment to bring the hospital up to the required standards of a modern Isolation Hospital. The essentials may be briefly stated as follows :—

- (1) An addition of Cubicle Isolation accommodation at least up to the minimum standards laid down by the Ministry of Health. This could be achieved by the provision of two new wards.
- (2) New X-Ray, Dark Room and Waiting Room accommodation on the Sanatorium, together with new X-Ray apparatus and Dark Room equipment.
- (3) The completion of the modernisation of the sanitary annexes and equipment for both Fever and Sanatorium wards. This work was interrupted by the war and at least half remains to be done as an urgent necessity.
- (4) Replanning and extension of the Operating Theatre.
- (5) Provision of workshop and handicraft accommodation on the Sanatorium.

These items were included in the annual Estimates 1946-7 and have since been referred to the Ministry of Health for sanction.



The shortage of nursing staff continued to cause anxiety, and there was on the average a staff deficiency of 25 per cent for the number of occupied beds. In order to conserve staff as much as possible for essential purposes the opportunity was taken of limiting the admissions of scarlet fever patients. This is in accordance with the modern conception of the disease, which is only one manifestation of the streptococcal infections, and the failure of isolation to control the incidence of scarlet fever is well known. The present policy is to encourage the domiciliary nursing of scarlet fever and to admit to hospital only those cases which require special supervision and treatment or where the circumstances are such that home nursing is not practicable.

Wherever possible and if circumstances make it desirable, the mothers of children who are seriously ill or in whom the continuation of breast feeding is essential are encouraged to participate in the nursing of their children, and are accommodated in the wards. In most cases this has been successful due to the mutual tolerance of both nursing staff and parents.

The number of cases admitted to hospital during the year showed a reduction from 2,040 in 1945 to 1,452 in 1946. This lowered incidence of infectious diseases which has been general throughout the country, has been due in Newcastle mainly to a decrease in the number of cases of diphtheria, scarlet fever and dysentery. An increased number of complicated pertussis and measles cases were admitted and every endeavour is made when requested to provide accommodation for these cases, amongst which the death rates are so high. More should be done in this respect as soon as additional Cubicle Isolation accommodation becomes available.

Another, though minor reason for the drop in admissions has been the increasing tendency of the General Hospitals in the city to nurse cases of notifiable or infectious diseases in their own wards. This practice is becoming established particularly in regard to Children's Departments where the diseases most commonly retained have been meningococcal meningitis, poliomyelitis, non-specific infective gastroenteritis and the nervous complications of the common infectious diseases. It would seem that if these cases were transferred to the City Hospital for Infectious Diseases as in former times, more beds would be available in the General Children's wards where the waiting lists for admission so often exists.

CITY HOSPITAL FOR INFECTIOUS DISEASES,  
WALKER GATE.

63A

Diseases Admitted—1946.

1946.		PROVED TO BE :—																												
SENT IN AS		Number.	Scarlet Fever.	Diphtheria.	Diphtheria Carriers.	Enteric Group of Fevers.	Dysentery.	Measles.	Rubella.	Varicella.	Mumps.	Pertussis.	Epidemic Cerebro-Spinal Meningitis.	Other forms of Meningitis.	Poliomyelitis.	Encephalitis Lethargica.	Pneumonia.	Bronchitis.	Influenza.	Other Respiratory Diseases.	Erysipelas.	Skin and Septic Conditions.	Puerperal Pyrexia.	Tonsillitis.	Other Gastro-Intestinal Diseases.	Ophthalmia Neonatorum.	General Diseases.	Injuries.	Anthrax.	Unclassified.
Scarlet Fever .....	356	304	..	..	..	..	4	9	..	..	..	..	..	..	..	..	..	..	..	2	..	10	..	19	..	..	..	1	..	7
Diphtheria .....	322	3	195	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	74	10	..	..	..	..	..	38
Diphtheria Carriers .....	56	..	..	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Enteric Group of Fevers .....	22	..	..	..	9	..	..	..	..	..	..	1	1	..	..	..	1	..	..	1	..	1	..	1	4	..	..	..	..	3
Dysentery .....	116	..	..	..	1	81	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	26	..	..	..	..	6
Measles .....	86	..	..	..	..	..	75	1	..	..	..	..	..	..	..	..	4	..	..	1	..	2	..	1	..	..	..	..	..	2
Rubella .....	8	..	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Varicella .....	15	..	..	..	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Mumps .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Pertussis .....	81	..	..	..	..	..	1	..	..	..	..	72	1	..	..	1	2	1	..	..	..	..	..	..	..	..	..	..	..	1
Epidemic Cerebro-Spinal Meningitis .....	26	..	..	..	..	..	..	..	..	..	..	..	14	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	3
Other forms of Meningitis .....	73	..	1	..	..	..	1	1	..	..	..	19	18	2	1	9	..	1	..	..	..	..	..	1	4	..	..	..	..	8
Poliomyelitis .....	17	..	..	..	..	..	..	..	..	..	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
Encephalitis Lethargica .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Pneumonia .....	77	..	..	..	..	..	..	2	..	..	..	2	..	..	..	..	46	5	1	7	..	1	..	1	..	..	..	..	..	1
Bronchitis .....	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
Influenza .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	1	..	..	..	..	..	..	..	..	..	..
Other Respiratory Diseases .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	2	..	..	..	..	..	..	..	..	..	..
Erysipelas .....	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Skin and Septic Conditions .....	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	11	..	1	..	..	..	..	..	..	2
Puerperal Pyrexia .....	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..
Tonsillitis .....	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	17	..	..	..	..	..	..	..	8
Other Gastro-Intestinal Diseases .....	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	14	1	..	..	..	..	..	1
Ophthalmia Neonatorum .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	9	..	3	..	..	..	3
General Diseases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Injuries .....	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anthrax .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..
Unclassified .....	67	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	3	..	..	..	1	..	..	..	..	..	..	..	1	60
TOTALS .....	1,452	307	197	56	10	81	85	18	13	..	74	35	20	19	4	68	13	4	15	29	39	17	112	54	3	1	4	1	173	
* Includes 1 carrier.																														

\* Includes 1 carrier.





Visiting has been extended on the Fever and Sanatorium Pavilions to patients who are not seriously ill, and Fever patients may now receive visitors at least once a week. The usual precautions for ward visiting are enforced and so far no untoward consequence has resulted, nor have these privileges been abused but are greatly appreciated by the patients and their relatives.

It is with regret that I record the death of Mr. H. Phillips, the Steward, who gave many years of devoted service to the hospital. During the war additional burdens were placed upon him in connection with the A.R.P. services and these had a material effect in aggravating his failing health. His untimely death is a great loss to the City.

In spite of difficulties of obtaining adequate staff and essential equipment the work of the hospital has proceeded and a high standard has been maintained solely due to the continued loyal co-operation of all members of the Hospital staffs. In particular, I wish to acknowledge the help of my assistant, Dr. Charles Neubauer and of the new Steward, Mr. R. Richardson, who commenced his duties at a difficult time and has amply justified the responsibility and trust which has been placed in him.

Yours faithfully,

E. G. BREWIS,

*Medical Superintendent.*

*City Hospital for Infectious Diseases,*

*Newcastle upon Tyne, 6,*

*23rd June, 1947.*



# Admissions and Deaths, 1946.

1946.	ADMISSIONS.												DEATHS.												TOTALS.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Scarlet Fever	37	25	19	28	49	18	17	19	23	28	27	17	307	..	2	6	1	..	1	..	3	2	..	1	16
Diphtheria	25	26	30	19	19	11	13	15	10	12	12	5	197	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria Carriers	8	8	12	8	4	3	6	6	2	1	2	..	56	..	..	..	..	..	..	..	..	..	..	..	..
*Enteric Group of Fevers	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	17	28	16	9	4	2	..	..	2	1	1	1	81	..	..	..	..	..	..	..	..	..	..	..	..
Measles	1	1	1	..	2	3	3	4	9	25	22	14	85	..	..	..	..	..	..	..	..	..	1	1	..
Rubella	4	3	2	3	4	..	1	..	1	1	1	1	18	..	..	..	..	..	..	..	..	..	..	..	..
Varicella	..	1	..	2	2	3	2	..	1	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..
Mumps	..	..	..	..	..	..	..	..	..	..	..	..	74	..	..	..	..	2	1	2	..	..	..	2	8
Pertussis	8	7	6	5	7	5	9	7	5	5	5	5	..	1	..	..	..	2	1	..	..	..	..	..	..
Epidemic Cerebro-Spinal Meningitis	9	5	2	1	4	..	2	2	2	5	1	2	35	..	1	2	2	3	2	1	..	..	1	..	13
Other forms of Meningitis	1	3	3	1	2	4	3	1	..	..	2	..	20	..	..	..	..	..	..	..	..	1	..	..	..
Polio-myelitis	..	..	..	..	..	..	1	3	4	8	3	..	19	..	..	..	..	..	..	..	..	..	..	..	1
Encephalitis Lethargica	..	..	..	1	1	..	1	..	..	1	..	..	4	..	..	..	..	..	1	..	..	..	..	..	..
Pneumonia	10	5	2	6	7	8	3	2	2	4	2	17	68	1	1	1	..	..	1	..	..	..	2	..	..
Bronchitis	3	..	2	1	1	..	..	3	1	1	1	..	13	..	..	..	..	..	..	..	..	..	..	..	..
Influenza	1	2	..	..	..	..	1	1	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
Other Respiratory Diseases	2	1	3	2	1	1	..	1	..	1	1	2	15	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	1	3	4	6	2	2	3	2	1	3	..	2	29	..	..	..	..	..	..	..	..	..	..	..	..
Skin and Septic Conditions	1	5	2	3	2	5	4	6	4	1	1	5	39	..	..	..	1	..	..	..	..	..	..	1	..
Puerperal Pyrexia	1	2	1	1	2	1	3	1	1	1	3	..	17	..	..	..	..	..	..	..	..	..	..	..	..
Tonsillitis	14	11	7	12	14	5	6	5	9	12	11	6	112	..	..	..	..	..	..	..	..	..	..	..	..
Other Gastro-Intestinal Diseases	5	4	10	3	1	5	3	4	7	5	2	5	54	..	..	..	..	1	..	1	..	..	1	3	..
Ophthalmia Neonatorum	..	..	1	..	1	..	..	..	..	..	..	1	3	..	..	..	..	1	..	..	..	..	..	1	..
General Diseases	..	..	..	..	..	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Injuries	..	..	1	..	..	1	..	..	..	1	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..
Anthrax	..	15	18	10	11	10	14	22	9	14	14	18	173	..	..	3	2	..	..	..	..	..	2	7	..
Unclassified	18	15	18	10	11	10	14	22	9	14	14	18	173	..	..	..	..	..	..	..	..	..	2	7	..
TOTALS	166	155	142	121	140	88	95	109	92	131	112	101	1,452	1	5	12	4	3	7	4	3	3	1	9	57



## CITY HOSPITAL FOR INFECTIOUS DISEASES.

### Report of the Medical Superintendant.

#### ACCOMMODATION.

This is provided at the City Hospital for Infectious Diseases, Walker Gate, where there are 224 beds and 48 cots available for Fever patients and 106 beds for Tuberculosis patients. 172 beds are also maintained at the Moor Hospital in the event of smallpox occurring, but in the absence of that disease some of these beds are used for septic skin diseases and scabies patients.

By agreement with the West Northumberland Joint Hospital Board the Medical Superintendant is also Visiting Superintendant of the Lemington Isolation Hospital of 50 beds and an arrangement exists whereby the cases are inter-changeable between the two hospitals if extra accommodation is required.

#### ADMISSIONS.

There were 1,452 admissions during the year to the Infectious Diseases section of the hospital, the average daily number of patients being 79. 157 of the total admissions were Extra Mural patients.

#### STREPTOCOCCAL INFECTIONS.

**Scarlet Fever.**—There were 307 cases or 82 per cent of the total cases in the city admitted to hospital. The type of disease was of the prevailing mild variety and there were no deaths. 197 or 64 per cent of the cases were given antitoxin on admission.

Complications occurred in 50 cases or 16 per cent. These consisted of:—

Adenitis—20 cases, 4 of which developed abscesses ;

Rhinorrhoea—10 cases ;

Otorrhoea—11 cases ;

Carditis—2 cases ;

Broncho-pneumonia—2 cases ;

Albuminuria—3 cases ;

Cystitis—1 case ;

Erythema nodosum—1 case.

5 cases of Mastoiditis were admitted from outside authorities for operation but only two of these required mastoidectomy.

There were seven "return" cases, a percentage of 2.3, all of which arose from "infecting" cases.



**Erysipelas.**—Only 29 cases or 27 per cent, of the total notified infections were admitted. There were no deaths and the average duration of stay in hospital was 9.9 days.

**Puerperal Fever.**—17 cases were admitted and of these 6 were proven infections by hæmolytic streptococci. There were no deaths.

### DIPHTHERIA.

The total number of admissions was 197 cases and 56 carriers. There were 16 deaths and the mortality rate was 8.1 per cent. Tonsillectomy was performed in 10 cases which continued to harbour virulent organisms in the throat. The following Table indicates the clinical type of disease in the various age groups and the number of deaths :—

TYPES.	0-1	1-2	2-5	5-10	10-15	15-25	25-45	Over 45	Total.
Nasopharyngeal . . . . .	1(1)	2(1)	9(3)	20(5)	7	16(2)	9(1)	1	65(13)
Faucial . . . . .	..	3	11	39	14	30	16	4	117
Laryngeal . . . . .	2	1	3(1)	3	..	..	..	1(1)	10(2)
Nasal . . . . .	2(1)	..	3	..	..	..	..	..	5(1)
Other Forms . . . . .	..	..	..	..	..	..	..	..	..
TOTALS . . . . .	5(2)	6(1)	26(4)	62(5)	21	46(2)	25(1)	6(1)	197(16)

Figures in parentheses indicate deaths.

**General Practitioner Cases.**—Excluding cases admitted from other authorities or transferred from other hospitals in the city, there were 165 cases admitted direct from the home to the Hospital.

**Fatal and serious cases.**—There were 16 deaths among these 165 cases 7 of which died within 24 hours of admission, one being a laryngeal case which required tracheotomy shortly after admission. 20 cases developed serious complications of the circulatory and nervous systems and 12 cases, although remaining uncomplicated were severe on admission and received penicillin in addition to antitoxin as did also 10 of the fatal cases and 10 of the complicated cases.

**Immunised cases.**—54 of the 165 cases had been immunised, and of these, 28 were swabbed and 13 received antitoxin before admission. Two immunised cases died.



**Swabbing and Administration of Antitoxin prior to admission.**—93 cases were swabbed and 62 of these were positive before being sent to hospital. Antitoxin was given to 27 cases, of which 25 had been swabbed and 20 were positive prior to admission. Only one of the deaths and one of the serious cases had been given antitoxin but of the fatal and serious cases 23 had been swabbed outside and 7 were positive before admission.

**Day of admission.**—42 of these cases were admitted on or before the second day and 80 on or before the third day. Of the fatal and serious cases 1 was admitted on the first day, 14 on the second day, 9 on the third day, 8 on the fourth day, 9 on the fifth day and 7 on the sixth to eighth days.

These figures are admittedly very small but it appears to be significant that while more than half the total cases had been swabbed and just over one quarter had received antitoxin before admission, of the fatal or serious cases 23 had been swabbed, but only two had received antitoxin.

It may be that diphtheria is not easy to diagnose, which is suggested by the fact that only 197 of 322 notified cases were proven a percentage error of 39 per cent and of the proven cases 62 or 37 per cent had positive swabs before admission to hospital was requested. Immunisation does not appear to account for this difficulty entirely because the percentage of immunised and non-immunised cases which had been swabbed prior to admission was approximately the same.

It is suggested that increasing reliance is being placed on the swab rather than the clinical appearances for diagnosis, and that serum is not usually given unless a positive result is obtained.

### ALIMENTARY INFECTIONS.

**Enteric Fever.**—One case of Typhoid fever and 8 of Para-Typhoid B. infection were admitted to hospital, 4 of which were Extra-Mural cases. There were no deaths.

**Dysentery.**—81 cases were treated, of which 5 were Extra-Mural cases and admitted at the request of the local authority concerned. The infecting organism was Flexner in 8 cases; Sonne in 68; Entamoeba Histolytica in 3 and 2 were untyped. There were no deaths in the series. The age and sex incidence is given in the following table:—



AGES.	0-1	1-2	2-5	5-15	15-25	25-45	45 & up-wards	Total
Males .....	2	2	10	11	1	5	7	38
Females .....	2	6	9	8	..	8	10	43
Total .....	4	8	19	19	1	13	17	81

**Food Poisoning.**—4 cases, none of which were fatal, were admitted to Hospital.

### CEREBRO-SPINAL MENINGITIS.

35 cases of this disease were treated in hospital, 13 being Extra-Mural and of these, 2 infants developed Hydrocephalus and were transferred to the Neuro-Surgical Unit at the Newcastle General Hospital where they died following operation. One of these infants, aged 4 months, was a re-admission from 1945 and has not been included in the death rate which, for the series, was therefore 2.9. The age and sex distribution of the cases is shown in the following table :—

AGES.	0-1	1-2	2-5	5-15	15-25	25-45	45 & up-wards	Total
Males .....	..	1(1)	2	3	3	5	4	18(1)
Females .....	1	3	4	2	3	2	2	17
Total .....	1	4(1)	6	5	6	7	6	35(1)

Figures in parentheses indicate deaths.

In the treatment of this condition sulphathiazole is still the drug of choice, followed by sulphadiazine, and all cases received these drugs irrespective of other forms of treatment. In severe cases or those in which the character of the cerebro-spinal fluid or mental condition suggests a slow response to treatment, penicillin intrathecally and intramuscularly is also given. 12 cases received penicillin by both routes, 6 cases received intramuscular penicillin only and 5, intrathecal penicillin only.

### PNEUMONIA.

68 cases of pneumonia were admitted during the year, of which 6 were fatal, a mortality rate of 8.8 per cent, while 5 developed complications, one a peritonitis, one an empyema and three synpneumonic effusions. The deaths all occurred at the extremes of life ; 4 infants under the age of six months suffering from broncho-pneumonia died, three of these within 48 hours of admission. Of the two adults, one, a male of 50 years, died 12 hours after admission and the other, a male of 82 years, who was transferred from the chronic wards of the Newcastle General Hospital, suffered from myocardial degeneration and hypertension, Sonne dysentery and broncho-pneumonia. 5 cases of atypical pneumonia, presumably of virus origin, were included in the total cases. The following table gives the age and sex incidence :—

AGES.	0-1	1-2	2-5	5-15	15-25	25-45	45 & up-wards	Total
Males .....	7(3)	..	7	6	6	7	10(2)	43(5)
Females .....	4(1)	2	2	6	1	4	6	25(1)
Total .....	11(4)	2	9	12	7	11	16(2)	68(6)

Figures in parentheses indicate deaths.

### MEASLES.

85 cases of measles were treated during the year, of which 34 were admitted with broncho-pneumonia ; and one of these cases, an infant of ten months, died. One case developed encephalitis but recovered.

### WHOOPIING COUGH.

74 cases were admitted during the year and of these 8 died, a case mortality of 10.8 per cent. The cause of death in these cases was broncho-pneumonia 6 cases, convulsions 1 case and acute myocardial failure 1 case. 34 cases were admitted because of a complicating broncho-pneumonia, and of these 1 also developed encephalitis, but recovered.



### MIXED INFECTIONS.

14 patients or 1 per cent of those sent into hospital were found on, or shortly after admission, to be suffering from two distinct infectious diseases, as follows:—

Scarlet Fever with Pertussis .....	1
Scarlet Fever with Chicken Pox .....	6
Scarlet Fever with Measles .....	1
Scarlet Fever with Encephalitis .....	1
Measles with Chicken Pox .....	1
Pertussis with Sonne Dysentery .....	1
Pertussis with Measles.....	3
TOTAL.....	14

There were no deaths.

### CROSS INFECTIONS.

During the year 5 patients, or 0.2 per cent of the total admissions, contracted a second infection in the wards of the hospital. These were one case of pertussis and four cases of scarlet fever infected with chicken pox. There were no deaths.

### STAFF SICKNESS.

**Nursing Staff.**—100 members of the nursing staff were off duty owing to sickness for a total of 1,753 days.

2 nurses contracted Rubella; 12 suffered from tonsillitis; 2 from rheumatism and 2 sustained minor injuries. 2 nurses had appendicectomy performed and two nurses contracted tuberculosis.

The remaining cases consisted of minor types of illness, some of which were nursed in hospital and some at home.

**Domestic Staff.**—85 members of the domestic staff were off duty through sickness for a total of 1,519 days. 10 developed tonsillitis, 8 influenza, and 3 bronchitis. 4 suffered from skin and septic conditions, and 5 from minor accidents. The remainder suffered from minor ailments, the majority of which were nursed in their own homes.

During the year immunisation of the staff against scarlet fever, diphtheria and the enteric group of fevers has proceeded as formerly.

E. G. BREWIS,

*Medical Superintendent*

# BACTERIOLOGICAL EXAMINATIONS.

Joint Committee as to Bacteriological Services.

City Bacteriological Laboratory,

Newcastle General Hospital.

1st January to 31st December, 1946.

The following report of the bacteriological examinations carried out on behalf of the Joint Committee as to Bacteriological Services, at the City Bacteriological Laboratory, Newcastle General Hospital, is submitted.

The nature of the investigations and the results obtained are given under the various sections as follows :—

Nature of Specimen.	Total number examined.	Number found positive.	Percentage positive.
Swabs for <i>C. diphtheriæ</i> —			
(a) Suspected cases and contacts from City .....	2,781	109	3.91%
(b) Ditto from Newcastle Gen. Hospital .	829	18	2.17%
(c) Routine swabs from City Hospital for Infectious Diseases .....	896	..	..
TOTAL .....	4,506	..	..
Sputum for tubercle bacilli (microscopically)—			
(a) from practitioners .....	222	36	16.21%
(b) from miscellaneous sources .....	39	2	5.1 %
(c) from patients in City Hospital for Infectious Diseases .....	83	5	6.0 %
(d) From Newcastle General Hospital ..	954	65	6.81%
TOTAL .....	1,298	..	..
Swabs for hæmolytic streptococci—			
(a) from City Hos. for Infectious Diseases	757	210	27.87%
(b) from Newcastle General Hospital.....	983	152	15.46%
(c) from Tuberculosis Dispensary.....	28	1	3.54%
(d) from Gables Maternity Home.....	897	42	4.68%
(e) from other sources .....	516	162	31.39%
TOTAL .....	3,181	..	..



Between August and December the typing of *C. diphtheriæ* was undertaken on certain specimens by request.

The following is a summary of the results obtained :—

Gravis.	Inter- medius.	Mitis.	Atypical.	<i>C. Diphtheriæ</i> Not Isolated.	TOTAL.
21	2	5	3	13	44

#### VIRULENCE TESTS.

Virulence tests were undertaken by the Central Public Health Laboratory, King's College during the year.

17 cultures were submitted and the following results obtained :—

Virulent .....	14
Non-virulent .....	3
	—
	17
	—

The following specimens were also submitted to the Central Public Health Laboratory, King's College, for animal inoculation for the presence or absence of *B. tuberculosis*, and reports were received :—

CLASSIFICATION.	Newcastle General Hospital.	Miscell- aneous Sources	TOTAL.
Sputum .....	2	..	2
Pleural fluid .....	9	..	9
Pus from various sources .....	6	..	6
Urine .....	70	..	70
Gastric juice.....	4	..	4
Stomach washings.....	4	..	4
Total	95	..	95

#### AGGLUTINATION REACTIONS :—

(a) enteric group .....	98
(b) abortus-melitensis group .....	66

164

A total of 164 specimens of blood were examined involving 436 agglutination reactions :—

	City Hospital for Infectious Diseases		Newcastle General Hospital.		Other Sources.		TOTAL.	
Total number of specimens received.	52		79		33		164	
Organisms.	Posi- tive.	Nega- tive.	Posi- tive.	Nega- tive.	Posi- tive.	Nega- tive.	Posi- tive.	Nega- tive.
B. typhosus "H"	5	28	4	38	4	19	13	85
Do. "O"	1	14	1	12	2	4	4	30
B. para-typhosus B. "H"	9	23	7	35	8	15	24	73
Do. "O"	3	14	1	12	4	2	8	28
Salmonella group ...	..	..	..	12	..	..	..	12
B. dysenteriae Flexner V.	..	..	..	..	..	..	..	..
Newcastle, etc.	..	12	..	12	..	..	..	24
B. Proteus X19.XK.X2	..	3	..	..	..	..	..	3
Brucella abortus	..	19	1	36	..	10	1	65
Brucella melitensis	..	19	..	37	..	10	..	66
	18	132	14	194	18	60	50	386
	150		208		78		436	



### Enteric Fevers, Bacillary Dysentery and Food-poisoning.

Specimens were received and examined for organisms of the above-named groups. The following table gives the source of the specimens and a summary of the results obtained:—

Organisms isolated.	City Hospital, for Infectious Diseases	Newcastle General Hospital.	Health Dept.	Willow Avenue Nursery.	Cresta Nursery.	West Parade Nursery.	Woodland Crescent Nursery.	Gosforth Street Nursery.	St. Anthony's Nursery.	Kenwick Street Nursery.	Armstrong Road Nursery.	TOTAL.
B. typhosus (feces)	15	..	6	..	..	..	..	..	..	..	..	21
B. paratyphosus B. do.	27	..	3	..	..	..	..	..	..	..	..	30
B. paratyphosus C. do.	9	..	..	..	..	..	..	..	..	..	..	9
Salmonella not identified do.	..	..	4	..	..	..	..	..	..	..	..	4
Salmonella aertrycke do.	11	4	8	..	..	..	..	..	..	..	..	23
Salmonella dublin do.	..	2	..	..	..	..	..	..	..	..	..	2
Salmonella newport do.	..	..	1	..	..	..	..	..	..	..	..	1
Salmonella montevideo do.	12	..	..	..	..	..	..	..	..	..	..	12
B. dysenteriae do.	8	1	5	..	..	..	..	..	..	..	..	14
Flexner do.	55	63	166	2	1	..	7	..	..	..	10	304
Sonne do.	..	1	1	..	..	..	..	..	..	..	..	2
Newcastle do.	..	..	..	..	..	..	..	..	..	..	..	..
Amoebic dysentery (E. histolytica) do.	1	2	2	..	..	..	..	..	..	..	..	5
Total positive (feces) do. do. (urine)	138	73	196	2	1	..	7	..	..	..	10	427
Total negative (feces) (urine)	..	..	..	..	..	..	..	..	..	..	..	..
Total negative (feces) (urine)	488	829	523	4	5	2	52	4	4	3	63	1,977
Aggregate number of faeces and urines examined ....	648	903	723	6	6	2	59	4	4	3	73	2,431

**Cerebro-Spinal Fluids.**—A total of 300 specimens were received for examination as described below. Reports were returned and the following is a summary of the results obtained :—

CLASSIFICATION.	City Hospital for Infectious Diseases	Newcastle General Hospital.	Other Sources.	TOTAL.
Meningococcal meningitis .....	18	7	1	26
Tubercular meningitis .....	8	4	..	12
Pneumococcal meningitis .....	1	3	..	4
Hæmolytic streptococcal meningitis ..	1	1	..	2
Streptococcal meningitis .....	..	1	..	1
Streptococcus viridans meningitis ..	..	1	..	1
Meningitis with inconclusive indication of infecting organism .....	38	25	1	64
No definite evidence of meningitis ..	56	39	6	101
Cases undergoing treatment re-tested	60	28	1	89
<b>TOTAL .....</b>	<b>182</b>	<b>109</b>	<b>9</b>	<b>300</b>

#### MISCELLANEOUS EXAMINATIONS :—

These may be summarised as follows :—

CLASSIFICATION.	City Hospital for Infectious Diseases	Newcastle General Hospital.	Miscellaneous Hospitals, etc.	Newcastle Health Dept.	TOTAL.
Blood cultures for organisms .....	59	83	4	1	147
Pus, fluids and other material for bacteriological tests .....	135	1,760	144	80	2,119
Microscopical examination of smears from various sources (Vincent's angina), etc.	119	103	2	154	378
Urine for bacteriological examination .....	44	1,735	69	54	1,902
Grouping of hæmolytic streptococci .....	..	1	..	..	1
Swabs for B. anthracis .....	2	..	..	..	2
Preparation of autogenous vaccine .....	..	..	..	2	2
Sputum for cultural examination .....	3	112	..	1	116
Cough plates for examination .....	4	..	..	2	6
Sterility tests on samples of water from tank in D. Block, Newcastle General Hospital .....	..	19	..	..	19
Specimens for penicillin sensitivity .....	3	83	2	89	177
Blood for icterohæmorrhagiæ .....	..	1	..	..	1
Samples of ice cream for bacteriological examination .....	..	..	..	38	38
Veterinary Dept.— (Dates, etc.) .....	..	..	..	37	37
Instruments for sterility .....	..	10	..	..	10
	<b>369</b>	<b>3,907</b>	<b>221</b>	<b>458</b>	<b>4,955</b>



## MILK EXAMINATIONS :—

## Milk (Special Designations) Order, 1936.

During the year 1946 a total of 1,053 samples of milk were examined at this laboratory according to the technique prescribed in Mem. 139/Foods (January, 1937), and the following results were obtained :—

	(a) Methylene blue test.				(b) Bacillus coli test.				Pasteurised (methylene blue).			
	Total.	Satis- factory.	Unsatis- factory.	Percentage Unsatis- factory.	Total.	Satis- factory.	Unsatis- factory.	Percentage Unsatis- factory.	Total.	Satis- factory.	Unsatis- factory.	Percentage Unsatis- factory.
Tuberculin Tested or T.T. (Certified) ...	196	171	25	12.75%	196	176	20	10.2%	89	88	1	1.12%
Accredited .....	155	142	13	8.38%	155	134	21	13.54%				
Undesignated .....	505	376	129	25.54%	505	407	98	19.4%				
Heat-treated .....	37	31	6	16.21%								
Sterilised.....	71	71		....								

Tuberculin Tested or T.T. (Certified) .....	196
Accredited .....	155
Undesignated .....	505
Pasteurised .....	89
Heat-treated .....	37
Sterilised .....	71
<b>TOTAL .....</b>	<b>1,053</b>

The following table gives a complete summary of the various specimens received and examined during 1946 :—

CLASSIFICATION.	City Infectious Diseases Hospital.	Newcastle General Hospital.	Princess Mary Maternity Hospital.	The Gables Maternity Home.	Newcastle Health Dept. and Practi- tioners.	TOTAL.
Swabs for <i>C. diphtheriae</i> .....	896	829	9	..	2,744	4,506
„ from Tuberculosis Dispensary .....	..	..	..	..	28	
„ for hæmolytic streptococci .....	757	983	20	897	496	3,181
„ from Tuberculosis Dispensary .....	..	..	..	..	28	
Sputum for tubercle bacilli .....	83	954	4	..	222	1,298
„ from miscellaneous sources .....	..	..	..	..	35	
Detailed examination and typing of <i>C. diphtheriae</i> —						
Newcastle cases .....	44	..	..	..	..	44
Agglutination tests :—						
(a) Enteric group .....	32	42	..	..	23	98
(b) <i>Abortus-melitensis</i> .....	19	37	..	..	10	66
Fæces for the enteric-dysentery food-poisoning groups .....	626	902	..	..	719	2,404
„ from Willow Avenue Nursery .....	..	..	..	..	6	
„ from Cresta Nursery .....	..	..	..	..	6	
„ from West Parade Nursery .....	..	..	..	..	2	
„ from Woodland Crescent Nursery .....	..	..	..	..	59	
„ from Gosforth Street Nursery .....	..	..	..	..	4	
„ from St. Anthony's Nursery .....	..	..	..	..	4	
„ from Armstrong Road Nursery .....	..	..	..	..	73	177
„ from Renwick Street Nursery .....	..	..	..	..	3	
Specimens for penicillin sensitivity .....	3	83	1	..	90	27
Urine for the enteric group organisms .....	22	1	..	..	4	147
Blood cultures for organisms .....	59	83	4	..	1	300
Cerebro-spinal fluids .....	182	109	3	..	6	378
Smears for microscopical examination for Vincent's angina, etc. ....	119	103	2	..	154	2,116
Pus, fluids, etc., for organisms .....	135	1,757	143	1	80	1,902
Urine for bacteriological examination .....	44	1,735	69	..	54	235
Miscellaneous examinations not otherwise classified (page 75) .....	9	146	..	..	80	1,053
Milk examinations :—						
(a) Combined methylene blue-coli test .....	..	..	..	..	856	
(b) Pasteurised (methylene blue) .....	..	..	..	..	89	
(c) Heat-treated „ „ .....	..	..	..	..	37	401
(d) Sterilised „ „ .....	..	..	..	..	71	
Water examinations :—						
(a) for bacillus coli .....	..	..	..	..	367	401
(b) from the City Baths .....	..	..	..	..	30	
(c) for complete examination .....	..	..	..	..	4	
Specimens sent to Central Public Health Laboratory, King's College :—						
Virulence tests on <i>C. Diphtheriae</i> , ....	13	2	..	..	2	17
Material for the presence or absence of <i>B. tuberculosis</i> (page 78) .....	4	89	1	..	1	95
	3,048	7,855	256	898	6,388	18,445





## WATER EXAMINATIONS :—

- i. Weekly routine examination of samples of water gave the following results in a total of 367 examinations :—

Class I.	B. Coli not found in 100 ml.....	349
Class II.	„ found in 100 ml. but not in less ..	14
Class III.	„ „ 10 ml. „ ..	3
Class IV.	„ „ 1 ml. „ ..	1
		<hr/> 367 <hr/>

- ii. During the year the following samples of water were received for detailed examination and reports were submitted :—

Month.	Source.	No.
August .....	From wells on property at Brunton Bridge	4
Do. ....	From City Baths .....	6
September ...	ditto. ....	16
October .....	ditto. ....	8
		<hr/> 34 <hr/>



Summary of the various bacteriological specimens received and examined for the years 1944, 1945 and 1946 :—

Nature of Investigation.	1944.	1945.	1946.
Swabs for C. diphtheriae .....	5,610	8,067	4,506
Swabs for hæmolytic streptococci .....	3,826	3,426	3,181
Sputa for tubercle bacilli .....	1,363	1,166	1,298
Agglutination tests :—			
(a) Enteric group .....	80	114	98
(b) Abortus-melnuensis .....	31	46	66
Milk examinations :—			
Graded milk .....	389	353	351
Undesignated milk .....	712	507	505
Pasteurised milk .....	51	81	89
Heat-treated milk .....	..	19	37
Sterilised milk.....	..	57	71
Water examinations :—			
For bacillus coli .....	361	359	367
For complete examination .....	34	26	4
From the City Baths .....	18	24	30
Detailed examination and typing of C. diphtherie :			
Newcastle cases .....	154	128	44
Virulence tests on C. Diphtherie (per Central Public Health Lab., King's College) .....	11	12	17
Enteric fevers (i) fæces .....	411	392	641
(ii) urine .....	26	21	27
Dysentery and food-poisoning groups.....	1,687	3,417	1,763
Meningitis (various)—C.S. Fluid .....	293	324	300
Miscellaneous bacteriological exams. from various sources .....	706	1,240	1,048
From Newcastle General Hospital.....	2,533	2,824	3,907
Inoculation of material for B. tuberculosis (per Central Public Health Lab., King's College) ....	45	56	95
TOTAL .....	18,345	22,659	18,445

RICHARD NORTON,  
*Bacteriologist.*

*City Bacteriological Laboratory,  
Newcastle General Hospital,  
Westgate Road,  
Newcastle upon Tyne, 4.*

**The Central Public Health Laboratory, The Medical School,  
King's College, Newcastle upon Tyne, 2.**

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Specimens reported upon during the year ended 31st December,  
1946 :—

**ANIMAL INOCULATIONS—**

Milks for the presence of tubercle bacilli .....	388	
Pus      Do.      Do.      Do.      .....	1	
Miscellaneous, including Urine, Sputum, Fluids, etc., for the presence of tubercle bacilli .....	100	489
Diph-Typing-Virulence .....	17	17

**EXAMINATIONS—**

Other than animal inoculation .....	23	23
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**VENEREAL DISEASE—**

Blood for Wassermann reaction .....	36	
„ „ Flocculation test .....	1	
„ „ Gono-Complement Fixation test .....	1	
Microscopical for Gonococci .....	3	
C.S. Fluid for Wassermann reaction .....	5	
„ „ Goldsol test .....	1	
„ „ Cells, Globulin and Goldsol test ..	2	
	49	
<b>TOTAL .....</b>		<b>578</b>

S. H. WARREN,  
*Bacteriologist.*





REPORTS OF THE  
TUBERCULOSIS MEDICAL OFFICER,  
MEDICAL SUPERINTENDENT,  
BARRASFORD SANATORIUM  
AND  
MEDICAL DIRECTOR,  
MASS RADIOGRAPHY UNIT.

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**IV—TUBERCULOSIS**

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TUBERCULOSIS DISPENSARY.  
BARRASFORD SANATORIUM  
MASS RADIOGRAPHY.





TO THE MEDICAL OFFICER OF HEALTH.

CITY HOSPITAL FOR INFECTIOUS DISEASES,  
WALKER GATE,  
NEWCASTLE-ON-TYNE, 6.

25th July, 1947

Dear Sir,

I beg to submit the Annual Report of the work of the Tuberculosis Services for the year 1946, during which time I was acting Tuberculosis Medical Officer. Under the circumstances, it is not possible for me to present a detailed report but some observations on the present shortcomings of the services may be permissible.

There has, for some years, been a steady increase in the work carried out at the Tuberculosis Dispensary and the sanatoria at Walker Gate and Barrasford and in 1946 this increase was maintained for cases and attendances at the Dispensary. This additional work has been carried out with considerable difficulty owing to the lack of suitable accommodation at the Dispensary. It is well known that a new Dispensary, envisaged before the War, is not now likely to materialise for some years, and the existing accommodation is totally unsuited to the requirements of a modern dispensary service. Waiting room, dressing room and consulting room facilities are very inadequate, particularly when the attendance may be 50 patients at one session. Similarly, accommodation for clerical and nursing staff and records, is quite insufficient and results in considerable overcrowding.

The medical staff, consisting as it does of a Senior Medical Officer and one Assistant Medical Officer, and the part time services of one consultant and the Medical Superintendent of Barrasford Sanatorium, is insufficient for the increasing number of patients and should be augmented by at least one Senior Assistant.

The nursing staff have found difficulty in carrying out the district work in addition to the increasing commitments at the Dispensary, especially as there have been three retirements among the staff and a considerable degree of staff sickness. Suitable recruits for this type of work have not been easy to obtain.

The number of hospital beds available for the treatment of all forms of Tuberculosis is approximately 250 and falls short of the optimum by about half. As a result of this, it has been necessary in some instances for patients to wait several weeks for admission to Barrasford Sanatorium and to the City Hospital; and also the



average length of stay in hospital has been reduced and the turnover of patients increased in an attempt to utilise the existing beds as fully as possible. In spite of this, many cases which should be admitted to hospital for investigation have of necessity to be kept under observation as outpatients of the Dispensary.

An obvious shortcoming in the provision of sanatorium treatment has been the lack of recreational and handicrafts facilities at the City Hospital which are non-existent except for the contribution of the British Red Cross in connection with Ex-Service patients. It is considered that a full time handicrafts organiser, together with suitable accommodation and material is urgently required. This could be linked up with the handicraft classes which are carried out at New Bridge Street twice a week for outpatients and which could be enlarged and extended.

The supervision of tuberculosis in children continues to be undertaken by Dr. F. J. W. Miller who carries out the work at a clinic held at the Newcastle General Hospital. This important branch of tuberculosis, so closely allied to pædiatrics, has been the means of revealing a considerable incidence of childhood tuberculosis. Much remains to be done in this respect to afford adequate hospital accommodation for these infected children, or the means of breaking contact with a tuberculosis parent by removing the child from the infected household to a "preventorium".

The task of providing adequate supervision and treatment for Tuberculosis patients has, in view of the above shortcomings, not been easy; and has only been possible due to the continued loyal support of all members of the staff. In particular, I would thank Dr. W. Minns, the Assistant Tuberculosis Medical Officer, Miss Gillender, the Chief Clerk and Miss Woll, the lady Almoner for their co-operation and support, without which it would not have been possible to carry on.

Yours faithfully,

E. G. BREWIS,

Medical Superintendent.



**Notifications.**—749 notifications were received during the year, but some were duplicates, so that the total number of new cases was 677, of whom 572 were certified to be suffering from pulmonary and 105 from non-pulmonary tuberculosis.

The details as regards sex and age are given in the accompanying table :—

SUMMARY OF NOTIFICATIONS DURING THE PERIOD, 1ST JANUARY TO  
31ST DECEMBER, 1946.

(THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.)

AGE PERIODS.	Primary Notifications.												Total Notifications (including Cases previously notified by other doctors).
	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.	TOTAL.	
monary—													
Males .....	2	16	14	15	35	58	51	43	40	27	7	308	329
Females .....	2	8	12	17	59	57	55	28	13	8	5	264	281
n-Pulmonary—													
Males .....	1	4	6	4	6	4	12	..	1	1	1	40	58
Females .....	..	5	12	8	14	6	13	4	2	1	..	65	81
TOTALS .....	5	33	44	44	114	125	131	75	56	37	13	677	749

As far as possible every notified case was visited by the nurses and urged to visit the Dispensary for examination and classification with a view to treatment.

Of the 677 cases notified, 538 attended the Dispensary and 110 others were visited in their homes by the Health Visitors in the course of the year. The names of the patients certified to have died from tuberculosis, but not previously notified, were entered in the notification register, so that if the 16 patients in this category, and 15 who died within one week of notification and were not known to the Dispensary be deducted, it will be seen that the Dispensary got into touch with nearly all of the known cases of tuberculosis. The only cases not known to the Dispensary were 29 who were living in institutions or refused to be visited.



A table has been prepared to illustrate these points and also to show the nature of the institutional treatment afforded to the cases notified during 1946. 449 of the 572 patients notified as suffering from pulmonary tuberculosis were treated in beds belonging to, or controlled by the City Council, and 67 out of a total of 105 patients notified as suffering from forms of tuberculosis other than pulmonary were treated in such beds.

The number of patients dying in the year of notification is also given, and it will be seen that 103 (equal to 15.2 per cent.) of all the new cases died in the same year as they were notified.

#### NOTIFICATIONS OF TUBERCULOSIS DURING 1946.

Part Affected.	Notifi- cations.	Attended Dispensary.	Visited by Nurse but not attended Dispensary.	Received Institutional Treatment.				Totals.	Died during the Year.
				Barras- ford Sana- torium.	Sanat- orium Pav. Walker Gate.	Stann- ington Sana- torium.	New- castle Gen. Hosp.		
Pulmonary—									
Male .....	308	252	40	71	145	12	..	228	36
Female .....	264	222	37	96	109	16	..	221	37
Non-Pulmonary—									
Male .....	40	23	12	..	..	1	21	22	9
Female .....	65	41	21	..	..	4	41	45	21
TOTALS .....	677	538	110	167	254	33	62	516	103

Cases re-admitted to the Sanatorium Pavilions, Walker Gate, and those transferred to Barrasford Sanatorium during the year are counted as only receiving treatment on one occasion.

During the year 227 cases (33.5 per cent. of the total) were notified by the Dispensary Medical Staff.

Practitioners were written to by the Medical Officer of Health when notification appeared to have been neglected.

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PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.  
NUMBER OF CASES OF TUBERCULOSIS REMAINING ON THE NOTIFICATION  
REGISTER AT THE END OF YEAR.

Year.	PULMONARY.			NON-PULMONARY.			Total Cases.
	Males.	Females.	Total.	Males.	Females.	Total.	
1931.....	767	501	1,268	298	251	549	1,817
1932.....	801	513	1,314	292	240	532	1,846
1933.....	795	531	1,326	294	270	564	1,890
1934.....	792	538	1,330	292	237	529	1,859
1935.....	799	569	1,368	283	236	519	1,887
1936.....	776	598	1,374	267	217	484	1,858
1937.....	811	630	1,441	272	214	486	1,927
1938.....	844	632	1,476	229	242	471	1,947
1939.....	822	648	1,470	234	257	491	1,961
1940.....	876	687	1,563	230	250	480	2,043
1941.....	950	710	1,660	251	250	501	2,161
1942.....	982	784	1,766	263	259	522	2,288
1943.....	1,059	844	1,903	264	262	526	2,429
1944.....	1,138	882	2,020	199	197	396	2,416
1945.....	1,252	928	2,180	224	214	438	2,618
1946.....	1,201	1,007	2,208	232	265	497	2,705

**Deaths.**—There were 263 deaths from tuberculosis of Newcastle-upon-Tyne residents, 227 pulmonary and 36 non-pulmonary, giving a death rate per 1,000 population—

	Number of Deaths.	Death Rate per 1,000 Population.
Pulmonary Tuberculosis .....	227	0.80
Non-Pulmonary .....	36	0.13
All forms of Tuberculosis .....	<u>263</u>	<u>0.93</u>

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

RETURN OF DEATHS FROM PULMONARY TUBERCULOSIS OCCURRING IN:—

	Deaths which occurred in these years.									
	1940	1941	1942	1943	1944	1945	1946.			
							M.	F.	Chn	Total
Persons not notified .....	14	14	12	13	11	8	9	1	..	10
„ notified under 1 mth. ....	39	26	26	40	24	37	10	11	2	23
„ between 1 and 3 „ .....	33	33	26	34	18	15	9	15	..	24
„ between 3 and 6 „ .....	19	23	24	23	17	16	13	9	2	24
Total under 6 months ....	105	96	88	110	70	76	41	36	4	81
Persons notified between—										
6 and 12 months ....	25	19	22	26	31	21	14	11	1	26
„ 12 and 18 „ .....	19	16	21	31	21	21	4	6	..	10
„ 18 and 24 „ .....	17	12	19	13	19	10	5	10	..	15
„ 2 and 3 years .....	17	24	12	23	25	25	21	10	..	31
„ over 3 years .....	60	73	56	67	53	67	43	21	..	64
TOTALS .....	243	240	218	270	219	220	128	94	5	227



**Family History.**—In 60 instances amongst the 211 cases of pulmonary tuberculosis known to the Dispensary who had died during the year, *i.e.*, in 27.1 per cent., there was a history that some near relation was suffering from, or had died of pulmonary tuberculosis. The figures were 14.5 per cent. for males and 12.6 per cent. for females.

**House Accommodation.**—The home conditions of the people are intimately associated with tuberculosis. The numbers of rooms in the dwellings occupied by the above 211 persons were as follows :—

Rooms in Dwelling.	1	2	3	4	More than 4	Insti- tutions.	Common Lodging Houses.	Not Known.	Total.
Deaths . . . . .	3	23	59	73	39	..	3	11	211

As regards the type of house occupied, 95 were flats, 18 tenements, 84 self-contained, 3 were common lodging houses, and in 11 cases the particulars were not known.

It is noteworthy that of the 211 patients suffering from pulmonary tuberculosis who attended the Dispensary and died in 1946, 185, or 83.7 per cent., had received institutional treatment, on one or more occasions. This is a high percentage and shows what a large proportion of the cases visiting the Dispensary avail themselves of the accommodation provided.

During the year, 740 contacts were X-rayed, and 70 were found to be suffering from tuberculosis.

#### WORK OF ALMONER—1946.

Total Number of Interviews . . . . .	3,600
New Patients seen . . . . .	770
Home Visits . . . . .	23
Patients Assisted . . . . .	934

## DETAILS OF ASSISTANCE GIVEN :—

Clothing .....	162
Convalescence .....	37
Extra Nourishment .....	101
Fares .....	9
Transport .....	5
Dentures and/or Dental Treatment .....	16
Instruments and Repairs .....	11
Spectacles .....	6
District Nurse .....	18
Arrangements made for children .....	22
Training for/or suitable work .....	169
Bed and/or Bedding .....	162
Nursing Comforts .....	34
Financial Assistance .....	13
Domestic Help .....	5
Legal Aid .....	4
Spinal Carriage .....	1
Housing Conditions .....	36
Pocket Money .....	4
Free Medical Treatment .....	14
Other Forms of Assistance .....	105
	<hr/>
	934

## AGENCIES ASSISTING :—

Voluntary Tuberculosis Care Council .....	270
Assistance Board .....	27
Public Assistance Committee .....	100
Ministry of Labour .....	166
Ministry of Pensions .....	16
British Legion .....	7
British Red Cross and/or Emergency Help Committee..	24
Tyneside Council of Social Service .....	21
Invalid Loan Society .....	15
Approved Societies .....	22
Soldiers, Sailors and Airmen's Family Association.....	13
Women's Voluntary Service .....	64
Merchant Seamen's Welfare Officer .....	7
Works' Welfare Officer .....	2
Army Welfare Officer .....	6
Poor Man's Lawyer .....	4
John Routledge Hunter Memorial Fund (Convalescence)	13
Other Agencies .....	157
	<hr/>
TOTAL.....	934

## MINISTRY OF HEALTH MEMO 266/T.

**Treatment Allowances.**—During the year, 420 patients were in receipt of Treatment allowances. 235 of these were new patients. The amount of money paid out was £11,561 17s. 3d.

44 Patients were transferred from Treatment allowances to the W. Scheme (Public Assistance Account) and £3,182 3s. 6d. was paid out through that scheme.



The work of the Voluntary Tuberculosis Care Council continued during the year. The following table sets out the chief forms of assistance given :—

	No. of Patients.
Clothing .....	126
Beds and Bedding .....	60
Milk .....	61
Food .....	13
Referred to Other Organisations .....	7
Dispensary Letters .....	4
Convalescence .....	4
Invalid Comforts .....	5
Fares .....	3
Dentures .....	1
Surgical Aids .....	2
Doctor's Account .....	1
Removal .....	1
Re-Decoration .....	1
Pocket Money .....	1
Miscellaneous .....	3
	<hr/> 293 <hr/>

The Annual Report can be obtained from the Honorary Secretary, Newcastle-upon-Tyne Tuberculosis Care Council, 91, New Bridge Street, Newcastle-upon-Tyne, 1

The table inserted gives details of the year's work of the Dispensary. (86A).

### INSTITUTIONAL TREATMENT.

**Sanatorium Pavilions, City Hospital, Walker Gate.**—475 patients were admitted (268 males and 207 females).

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

PATIENTS WHO RECEIVED TREATMENT IN THE SANATORIUM PAVILIONS, WALKER GATE, DURING THE YEAR 1946.

		Sex	In Institution on 1st January, 1946.	Admitted during the Year.	Discharged during the Year.	Died in Institution during the Year.	In Institution on 31st Dec., 1946.
Number of Patients.	Adults ....	M.	29	148	116	32	29
	Do. ....	F.	20	152	130	21	21
	Children ...	M.	..	3	3	..	..
	Do. ...	F.	..	1	1	..	..
Observation Cases.	Adults ....	M.	31	114	99	15	31
	Do. ....	F.	15	52	38	10	19
	Children ...	M.	..	3	2	..	1
	Do. ...	F.	1	2	2	..	1
TOTALS ..		..	96	475	391	78	102

Included in the above table are 8 extra mural cases admitted and 9 discharged.

Of the 166 patients discharged or died who had been under observation 58 were found to be suffering from tuberculosis. The total number of days of those who received treatment was 35,338 giving an average length of stay as 75 days.

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

	Males.	Females.	Total.
Improved .....	150	117	267
Without Improvement .....	71	53	124
Died in Hospital .....	46	32	78
TOTALS .....	267	192	469

Many of those discharged “ improved ” were fit for light work ; 26 were transferred to Barrasford Sanatorium and 3 to Stannington Sanatorium. 39 patients were sent to the Shotley Bridge Hospital for surgical treatment.

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

**X-ray Examinations.**—During the year 5,314 thoracic films were taken. These included 4,417 Dispensary patients, 256 inmates of the Sanatorium Pavilions, 152 patients from the City Hospital for Infectious Diseases, 207 in connection with artificial pneumo-thorax treatment, 225 nurses and maids belonging to the staff of the Hospital and 57 Nursery nurses. In addition, 6,100 routine screen examinations were made, 4,900 in connection with artificial pneumothorax refills, and 1,200 to patients in hospital.

**Artificial Pneumothorax.**—There were 65 initial inductions of artificial pneumothorax and 4,500 refills performed at the Sanatorium Pavilions, City Hospital, Walker Gate, during the year.



### NEWCASTLE GENERAL HOSPITAL.

94 patients were admitted (41 males and 53 females). Details are given in the following table :—

PATIENTS WHO RECEIVED TREATMENT IN NEWCASTLE GENERAL HOSPITAL DURING THE YEAR 1946.

	Sex	Institution on 1st Jan., 1946.	Admitted.	Discharged.	Died in Institution.	In Institution on 31st Dec., 1946.
Pulmonary .. Adults	M.	..	..	..	..	..
Do. .. Do.	F.	..	..	..	..	..
Non-Pulmonary Do.	M.	1	26	20	3	4
Do. .. Do.	F.	..	34	27	5	2
Do. .. Children	M.	..	15	10	5	..
Do. .. Do.	F.	1	19	13	7	..
TOTALS .....		2	94	70	20	6

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

	Males.	Females.	Children.	Totals.
Improved .....	15	26	16	57
Without Improvement .....	5	1	7	13
Died in Hospital .....	3	5	12	20
TOTALS .....	23	32	35	90

The total number of days of those who received treatment was 2,487, giving an average length of stay of 28 days.

### STANNINGTON CHILDREN'S SANATORIUM.

48 beds were maintained at this Institution for the treatment of Newcastle upon Tyne patients. These were kept fully occupied throughout the year and 44 children completed treatment. The details are shown in the following tables :—

CHILDREN WHO RECEIVED TREATMENT IN STANNINGTON SANATORIUM  
DURING THE YEAR 1946.

	In Sanatorium on 1st Jan., 1946.	Admitted.	Dis- charged.	In Sanatorium on 31st Dec., 1946.
Pulmonary Males .....	19	21	16	24
Do. Females .....	15	25	14	26
Non-Pulmonary Males .....	7	3	5	5
Do. Females .....	7	5	9	3
TOTALS .....	48	54	44	58

The total number of days of those who received treatment was 19,841, giving an average length of stay of 450 days.

In every case except 5 benefit accrued to the patient, as is shown in the following returns :—

	Males.	Females.	Total.
Disease quiescent .....	4	7	11
Improved .....	14	14	28
Without Improvement .....	2	2	4
Died .....	1	..	1
TOTALS .....	21	23	44

### SHERIFF HILL ISOLATION HOSPITAL.

By arrangement with the Health Department of Gateshead, a ward in Sheriff Hill Isolation Hospital became available in September, 1942, for the treatment of both Gateshead and Newcastle patients suffering from non-pulmonary tuberculosis.

20 patients were admitted and 20 discharged during 1946.

No action was taken under the Public Health Act of 1936 with regard to the compulsory removal of patients to hospital or patients handling milk.

Yours faithfully,

E. G. BREWIS,

*Acting Tuberculosis Medical Officer.*

*Tuberculosis Dispensary,*

*91, New Bridge Street,*

*Newcastle upon Tyne, 1,*

*24th October, 1947.*



## BARRASFORD SANATORIUM.

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### Report of the Medical Superintendent.

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TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to submit a report on the work at Barrasford Sanatorium during the year 1946.

**General.**—The number of beds available remained at 95. Gateshead Corporation retained their 5 beds for male cases, and the West Hartlepool Corporation their 3, also for males. The total of 95 beds was nominal only from July, when a fire, due to an accidental cause, made untenable 5 bedrooms on the top floor of the main building, used by female cases. Although at one time it appeared that the fire would spread, and the National Fire Service team was summoned from Hexham, actually, effective work by the Sanatorium male staff controlled it. The value of routine fire drill, at least in an isolated institution like this, was demonstrated without doubt.

During the year pressure on the beds for females continued, and since July this was not helped by the withdrawal of the 5 beds resulting from the fire.

Staffing problems continued, and towards the end of the year had assumed proportions that seemed to threaten the continued working of the institution. However, in December 1946, 9 female displaced persons, (3 Latvians and 6 Estonians), commenced duty as domestic workers. They were introduced under a Ministry of Labour and National Service Scheme. They settled down unobtrusively and effectively to their work, and have continued to do so. There is little doubt that, without their help, Barrasford would have been compelled to close down, in whole or part.

During the year a considerable number of books, representing all tastes of literature, was given to the Sanatorium by the British Red Cross Society who also arranged for the services of a librarian who visits weekly and moves amongst the patients with a view to supplying books to individual needs. The Sanatorium is much indebted to the Red Cross for this service.



Gifts of foodstuffs from the Dominions have been received during the year. They have arrived from Perth, Western Australia ; Nairobi, Kenya ; Johannesburg, South Africa ; Melbourne, Victoria ; Canadian Red Cross ; Sydney, Australia ; Cape Town, South Africa and Lone Cove, New South Wales. The presents of varying commodities were all very much appreciated, and have been acknowledged with thanks, as was a gift of sweets at Christmas from the Women's Voluntary Services, Gosforth.

**X-Ray Plant.**—446 films of the chest were completed during the year, and the interpretations recorded in the patients' notes. In the same period, 1197 examinations by radioscopy were made in connection with the lung collapse work. The much increased number of films used is maintained, owing to the large number of cases admitted for the investigation of limited disease disclosed by X-Ray examination outside.

During the year, 15 cases were admitted following examination by the Mass Radiography Unit in Newcastle. 5 had very limited disease without evidence of activity ; 3 had slightly more extensive but quiescent disease, whilst the remaining 7 cases had active trouble, including 3 with tubercle bacilli in the sputum.

**Dental Clinic.**—The dental work has proceeded on the usual lines. The work is in the hands of Mr. G. Hutchinson, L.D.S., who attends a clinic each fortnight. The primary purpose of the service is to clean up the state of the mouth, where dental sepsis or gum disease is likely to affect the general health, and to relieve or forestall pain.

During the year the following work was completed :—

Extractions .....	155
Fillings .....	49
Scalings and Cleanings .....	47
Dressings .....	38
Examinations .....	7
Attentions to Dentures .....	—
Gingivectomies .....	1
Excision of Dental Cyst .....	1

**Occupational Therapy.**—Shortage of materials has again been the great difficulty in this phase of the Sanatorium activities, but the work has been continued with no falling off in attendances, though the scope of the work has been curtailed, as leather was the only material available with any degree of regularity, and only in relatively small amounts.



Handicrafts are under the charge of a whole time Instructor (Mr. J. A. Caughey). The total attendances were 4,218.

Men patients were employed in general work on the estate under the care of the joiner (Mr. M. Trueman) whilst others assisted the gardener (Mr. J. Henderson) in the general maintenance of the grounds when the conditions were suitable.

**Admissions.**—The total number of cases admitted to the Sanatorium during the year was 255, 4 more than in the previous year. The number of Newcastle admissions was 225 as against 217 in 1945. Gateshead Corporation had 19, and West Hartlepool 11 cases.

Of the 255 admitted cases, 36 had been in the Sanatorium previously as follows :—

1 of the re-admitted cases was first admitted in 1938.					
1	“	“	“	“	“ 1940.
3	“	“	were	“	“ 1941.
3	“	“	“	“	“ 1942.
2	“	“	“	“	“ 1943.
8	“	“	“	“	“ 1944.
10	“	“	“	“	“ 1945.
3	“	“	“	“	“ 1946.
1 case had been admitted twice previously, in 1933 and 1943.					
1	“	“	“	“	“ 1942 and 1943.
1	“	“	“	“	“ 1942 and 1944.
1	“	“	thrice	“	“ 1939, 1941 and 1944.
1	“	“	“	“	“ 1943, 1944 and 1945.

Of these 36 cases, 26 had had at some time or other, tubercle bacilli demonstrated in the sputum, and in 10 cases tubercle bacilli had never been seen.

## ADMISSIONS TO THE SANATORIUM DURING 1946.

Authority.	Male.	Female.	Total.
Newcastle Corporation .....	107	118	225
Gateshead Corporation .....	19	..	19
West Hartlepool Corporation .....	11	..	11
	137	118	255
During 1945 .....	139	113	251
During 1944 .....	176	115	291
During 1943 .....	168	105	273
During 1942 .....	149	80	229
During 1941 .....	149	75	224
During 1940 .....	146	74	220
During 1939 .....	126	79	205
During 1938 .....	141	76	217
During 1937 .....	145	79	224
During 1936 .....	130	62	192
During 1935 .....	123	72	195
During 1934 .....	104	54	158
During 1933 .....	108	51	159
During 1932 .....	114	54	168
During 1931 .....	125	60	185
During 1930 .....	121	65	186
During 1929 .....	124	54	178

3 cases were each admitted twice during the year, and are counted as 6 admissions

NOTE.—Figures relating to the years 1921-1928 are given in the report for 1932.

**Discharges.**—There were 264 discharges during 1946, as compared with 267 in 1945. There were no deaths in the Sanatorium during 1946.



## DISCHARGES FROM THE SANATORIUM DURING 1946.

Authority.	Male.	Female.	Total.
Newcastle Corporation.....	114	120	234
Gateshead Corporation.....	18	..	18
West Hartlepool Corporation.....	11	1	12
	143	121	264
During 1945 .....	156	111	267
During 1944 .....	173	111	284
During 1943 .....	157	104	261
During 1942 .....	165	78	243
During 1941 .....	151	78	229
During 1940 .....	144	73	217
During 1939 .....	113	77	190
During 1938 .....	152	77	229
During 1937 .....	145	71	216
During 1936 .....	124	66	190
During 1935 .....	137	68	205
During 1934 .....	97	47	144
During 1933 .....	108	57	165
During 1932 .....	111	60	171
During 1931 .....	124	60	184
During 1930 .....	131	59	190
During 1929 .....	115	54	169

3 cases were each discharged twice during the year, and are counted as 6 discharges  
 NOTE.—Figures relating to the years 1921 to 1928 are given in the report of 1932.

## SUMMARY OF MOVEMENTS OF PATIENTS DURING 1946.

	In residence night of Dec. 31st, 1945.	Admitted during 1946.	Discharged during 1946.	In residence night of Dec. 31st, 1946.
Newcastle Corporation .....	67	225	234	58
Gateshead Corporation .....	4	19	18	5
West Hartlepool Corporation ..	4	11	12	3
	75	255	264	66

### Details in Connection with Discharged Cases.

The particulars of patients and results of their treatment which are set out later, are based on the completed cases discharged. Of these 264, 21 exhibited no definite signs or symptoms of clinical tuberculosis, and were discharged as soon as this fact was established, and are excluded from the particulars and results of treatment which follow. The details (c to f) are, therefore, based on the 243 cases of definite tuberculosis.

#### (a) Length of stay—

The average duration of treatment of all cases was 116 days.  
Excluding the 21 non-tuberculous cases, 120 days.  
The 225 Newcastle cases alone averaged 113 days.  
The longest stay was 280 days, the shortest 1 day.

#### (b) Beds occupied and patient days—

Average number of beds occupied, 82. 41 by males, and 41 by females.  
Total number of patient days was 30,041. 15,107 male, and 14,933 female.

Below is given an analysis of the average number of beds occupied, and the number of patient days.

Authority.	Average Beds occupied daily.	Patient Days.
Newcastle Corporation .....	73.83	26,951
Gateshead Corporation.....	4.89	1,787
West Hartlepool Corporation .....	3.02	1,103

#### (c) Age—

Years.	Male.	Female.	Total.
16-20 .....	18	28	46
20-25 .....	29	35	64
25-30 .....	13	17	30
30-35 .....	10	10	20
35-40 .....	13	10	23
40-45 .....	22	9	31
45-50 .....	14	3	17
50-55 .....	5	1	6
55-60 .....	4	1	5
60-65 .....	1	..	1
TOTAL .....	129	114	243



## (d) Social Status—

	Male.	Female.	Total.
Single .....	54	66	120
Married .....	72	43	115
Widowers .....	3	..	3
Widows .....	..	5	5
<b>TOTAL</b> .....	<b>129</b>	<b>114</b>	<b>243</b>

## (e) Occupations of 129 Male Patients—

Engineering and Metal Workers .....	17
Labourers .....	16
Clerks .....	8
Motor Drivers and Mechanics .....	8
Electricians .....	6
Railway Workers (outside) .....	6
Electrical Engineers .....	4
Boot and Shoe Repairers .....	3
Warehousemen and Porters .....	3
Cinema Projectionists .....	3
Miners .....	2
Joiners .....	2
Crane Drivers .....	2
Bus Conductors .....	2
Post Office Engineers .....	2
Butchers .....	2
Royal Naval Officers .....	2

and one each of the following :—machinist, hotel manager, painter, hospital porter, packer, caretaker, draughtsman, milk roundsman, waiter, steel erector, munition worker, messenger, press cleaner, shunter, lighting superintendent, lift operator, factory worker, tram driver, press operator, farm worker, plasterer, male nurse, radio dealer, errand boy, builder, commercial traveller, trolley bus driver, machine grinder, milk cleaner, electrical instrument maker, musician, store-keeper, merchant seaman, patternmaker, truck man, printer, gas meter inspector, furnaceman, salt maker, boiler coverer, ship broker. Total, 129.

## (f) Occupations of 114 Female Patients—

Housewives .....	36
Clerks and Typists .....	19
Shop Assistants .....	8
Factory Workers .....	6
Machinists .....	4
Waitresses .....	4
Laundry Workers .....	3
Housework at home .....	3
Packers .....	3
Women's Land Army .....	3
Telephonists .....	3
Dressmakers and Cutters .....	2
Schoolgirls .....	2

and one each of the following :—domestic servant, nurse, laboratory worker, school teacher, usherette, bottle sorter, student, storekeeper, metal worker, despatcher, post office worker, typewriter cleaner, pager (printing), upholstress, bakeress, office cleaner, bus conductress, tobacco stripper. Total, 114.

**Diagnosis.**

The diagnosis of pulmonary tuberculosis was confirmed bacteriologically either before admission or during residence in 114 cases (74 males and 40 females). 78 patients (41 males and 37 females) were apparently without tubercle bacilli in the sputum, and 51 patients (14 males and 37 females) said they had no expectoration ; making 129 cases of tuberculosis in whose sputa tubercle bacilli had never been demonstrated. The clinical findings in all sputum negative cases can be divided as follows :—

Not suffering from clinical tuberculosis .....	21
Definite pleural tuberculosis without evidence of lung tuberculosis .....	36
Definite physical signs or X-ray evidence of lung tuberculosis without demonstrable bacilli .....	93

In the cases of the 93 patients in the last group, the radiographs all showed appearances suggesting the presence of deposit in the pulmonary situation for which tuberculosis shows a predilection. 284 sputum examinations were made in connection with these 93 cases, and as 34 had no sputum, the average examinations in those that had was 5 each. 1,001 sputum examinations were made at the Sanatorium during the year; of these 309 were positive, and 692 were negative. 973 complete examinations of the chest were made during the year, together with routine examinations of the larynx and urine on admission of the patient, and subsequently when necessary.



During the year 21 cases were discharged as not suffering from tuberculosis, and the diagnoses in these cases were as follows:—

Non-tuberculous lung infiltration.....	9
No pathological condition detected.....	5
Chronic lung sepsis .....	4
Chronic bronchitis .....	1
Healed lung tuberculosis.....	1
Bronchiectasis.....	1

These non-tuberculous cases were sent in for observation for the purpose of making a diagnosis.

The period of observation for the purpose of diagnosis is set out below:—

	Under 1 week.		1 to 2 weeks.		2 to 4 weeks.		More than 4 weeks.	
	M.	F.	M.	F.	M.	F.	M.	F.
Tuberculous .....	..	..	..	..	..	..	..	..
Non-tuberculous ...	2	..	1	..	..	1	11	6

Lipiodol was employed in one case only, and the bronchogram showed the characteristic appearances of bronchiectasis.

### Treatment.

There has been no departure from the plan of treatment in use in the past. Rest and diet are regarded as the outstanding essentials, followed by exercise and fresh air. The range of the bodily temperature gives important information. Unless there is some other cause, a raised temperature in pulmonary tuberculosis is almost always an expression of active disease, and bed rest is imperative until it has been reduced.

177 of the 243 definite cases of tuberculosis were found to have normal temperatures during the whole of their residence, whilst 66 patients were feverish at some time or other of their treatment in the Sanatorium.

Afebrile throughout Treatment.	Febrile on Admission, Afebrile on Discharge.	Febrile Intermittently.	Febrile throughout Treatment.	Afebrile on Admission, Febrile on Discharge.
177	47	4	13	2

86 of the discharged cases were considered suitable for treatment by lung collapse, but in 15 of them changes in the chest in the course of the disease, prevented treatment from being carried out.

Of the 71 cases treated by lung collapse, 34 were right-sided, 34 left, and 3 were bilateral.

The results at the time of discharge, were as follows :—

T.B. + Improved and losing bacilli.	T.B. + Improved but not losing bacilli.	No improvement and abandoned.	T.B. Negative throughout; Improved.
28	11	21	11

4 cases had an artificial pneumothorax induced before admission. 3 of them were T.B. + before admission, of which 2 were T.B. negative on discharge.

Since 1922, 952 cases have been treated by lung collapse at Barrasford, exclusive of those where it was commenced before admission, which number 172 ; 1,124 in all.

Division of adhesions holding the lung was done in 12 cases in connection with the lung collapse cases.

Two cases were treated by crushing of the phrenic nerve, and two by thoracoplasty.

### Results of Treatment.

Most of the cases discharged were improved in general health, having normal temperatures, increased weight and feeling and looking in normal health. In cases with tubercle bacilli in the sputum, however, the only real sign of material progress is the abolition of sputum, or the absence of bacilli, after repeated search, from any sputum that remains.

Of the 114 patients with tubercle bacilli present in the sputum, 40 appeared to lose their bacilli—28 of the 71 lung collapse cases, and 12 of the 43 not treated by lung collapse.

The number of estimations of the Erythrocyte Sedimentation Rate during the year was 626.



The following are the weight records of the 243 definite cases, and the 21 non-tuberculous cases.

		Gained up to 7 lbs.	Gained 7 to 14 lbs.	Gained over 14 lbs.	Remained station- ary.	Lost up to 7 lbs.	Lost over 7 lbs.	Not weighed on dis- charge.	TOTAL
243 definite cases.	Gained weight ..	78	98	39	..	..	..	..	215
	Lost weight ....	..	..	..	..	21	3	..	24
	Stationary .....	..	..	..	3	..	..	..	3
	Not weighed on discharge ....	..	..	..	..	..	..	1	1
	Total .....	78	98	39	3	21	3	1	243
21 non- tuber- culous cases.	Gained weight ..	8	9	2	..	..	..	..	19
	Lost weight ....	..	..	..	..	2	..	..	2
	Stationary .....	..	..	..	..	..	..	..	..
	Not weighed on discharge ....	..	..	..	..	..	..	..	..
	Total .....	8	9	2	..	2	..	..	21

Under the classification of cases introduced by the Ministry of Health, patients suffering from pulmonary tuberculosis are divided into :—

Class T.B. Minus, or those cases in which tubercle bacilli have never been demonstrated in the sputum, and

Class T.B. Plus, viz., cases in which tubercle bacilli have at any time been found.

The latter class is further divided into three groups :—

Group 1.—Cases with slight constitutional disturbance, if any, and in which the obvious physical signs are of limited extent.

Group 3.—Cases with profound systemic disturbance or constitutional deterioration, with impairment of function, and with little or no prospect of recovery.

Group 2.—All cases which cannot be placed in Groups 1 or 3.

To indicate results of treatment, the following terms are laid down :—

“Quiescent.”—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease, except such as are compatible with a completely healed lesion, and in which the sputum, if present, is free from tubercle bacilli.

“Arrested.”—In pulmonary cases the term should be applied only to cases which have been “quiescent” for a period of at least 2 years.

"Improved."—Cases short of "quiescent," in which the general health is fair and the symptoms of tuberculosis have materially diminished.

"No Material Improvement."—All other who are alive.

When considered in these terms, the results of treatment of the 243 cases of lung or pleural tuberculosis can be set out as follows :—

T.B. Minus.			
	M.	F.	Total.
Quiescent .....	24	32	56
Improved .....	24	39	63
No Material Improvement.....	7	3	10

T.B. Plus.			
	M.	F.	Total.
G.1 { Quiescent .....	..	..	..
Improved .....	1	1	2
No Material Improvement.....	..	..	..
G.2 { Quiescent .....	..	1	1
Improved .....	34	23	57
No Material Improvement.....	9	4	13
G.3 { Quiescent .....	..	..	..
Improved .....	12	7	19
No Material Improvement.....	18	4	22

The number of T.B. minus cases which improved to the stage of quiescence is largely made up of the cases of pleural tuberculosis which had no evidence of disease in the lung itself, and the minimal cases.

I have been greatly helped by the whole of the staff, but am particularly indebted to the Matron and the Nursing Staff who, with Miss Turner, in the office, have never failed to overcome the difficulties of a trying year's work.

Yours faithfully,

CECIL G. R. GOODWIN,

*Medical Superintendent.*

*Barrasford Sanatorium,*

*Hexham,*

*Northumberland,*

*May 15th, 1947.*



# MASS RADIOGRAPHY UNIT

## Annual Report, 1946.

I beg to submit a very brief report on the work of the Mass Radiography Unit during 1946.

Nearly half the year was spent in Newcastle—during the remainder of the time the unit visited Sunderland, Middlesbrough, Darlington and South Shields; the moves and times the Unit operated in each of these centres is shown in the following table:

TOWN.	FROM.	TO.	NO. OF WEEKS.
Sunderland . . . . .	1st January, 1946	28th January, 1946	4
Newcastle . . . . .	29th January, 1946	5th July, 1946	22
Middlesbrough . . . . .	8th July, 1946	6th Sept., 1946	9
Darlington . . . . .	9th Sept., 1946	1st Nov., 1946	8
South Shields . . . . .	4th Nov., 1946	13th Dec., 1946	6
Newcastle . . . . .	16th Dec., 1946	31st Dec., 1946	2

Volunteers were obtained from a great variety of factories, etc. including workers in steelworks, blast furnaces, foundries and shipyards, and more sessions open to the general public were held.

As in previous years all the business arrangements and propaganda in Newcastle were in the hands of Mr. R. Dobbin. In the other towns these activities were undertaken by the Medical Officers of Health and their staffs, and extra clerical assistance was usually given.

The number of miniature films, *i.e.* of volunteers, was much the same as in the previous years but the proportion of "recalls" was rather lower due to the larger proportion of schoolchildren examined.

In the subsequent table some details of the numbers of miniature and large films and the number referred to the Dispensaries are given:—

TOWN.	MINIATURES.		LARGE FILMS.		DISPENSARY.	
	Male.	Female.	Male.	Female.	Male.	Female.
Sunderland . . . . .	1,864	1,314	120	32	13	7
Newcastle . . . . .	6,752	4,992	230	255	68	53
Middlesbrough . . . . .	3,597	1,516	152	39	34	10
Darlington . . . . .	4,663	1,782	249	82	55	21
South Shields . . . . .	3,142	2,890	206	171	49	53
TOTALS . . . . .	20,018	12,494	957	579	219	144

In the subsequent notes, where figures are given, the corresponding figures for 1945 will be inserted in brackets for comparative purposes.

The total number of volunteers was 32,512 (32,349) and of these 6,841 (2,457) were schoolchildren. 1,536 (1,714) were asked to return for a large film, *i.e.* 4.7 per cent. (5.6 per cent.) and of these 358 (396) or 1.1 per cent, (1.2 per cent.) of this total were regarded as tuberculous or so suspicious as to require further investigation, and the report to their own doctor included a recommendation that they should be referred to the local Tuberculosis Dispensary.



Owing to the fact that many of the volunteers resided outside the area in which they worked and were examined, it is impossible to give exact figures for each Dispensary area, but reports received from the Tuberculosis Officers show that at least 246 (305) of the 358 (396) did attend a Dispensary and after further clinical investigation 81 (121) were considered to be suffering from clinical tuberculosis.

In 43 (106) instances the lesions were regarded as healed or inactive and 151 (78) individuals were under observation at the end of the year.

Of the 81 (121) persons finally diagnosed as suffering from active disease 63 (95) had either been admitted to institutions or were awaiting admission at the end of the year and 30 of these had had tubercle bacilli found in their sputum.

As in previous years the percentage of workers volunteering in the various factories varied very considerably and the need for more continuous and intensive propaganda is emphasised.

The Unit has continued to do good work but its value is to some extent limited by its lack of mobility and hence it is not a practical proposition for it to visit the smaller factories which in many cases are not so hygienically planned as the larger works and lack the welfare facilities which the latter are able to afford.

Further experience confirms the opinion previously expressed that each Mass Radiography Department should have a business manager to arrange removals and be responsible for propaganda, etc. and two X-ray Units, one "static" and the other "mobile" housed in a suitable van capable of visiting small groups of volunteers and outside areas.

The large number of small factories and works employing few hands in this region emphasises the necessity for such a unit which would be able to visit many more factories, workshops, mines, quarries, etc. in the course of our work and thus take Mass Radiography to those places where more disease is likely to be found. Tyneside, with its relatively high death rate from tuberculosis, would seem an eminently suitable district for the experimental use of such a unit.

In conclusion, I would like to pay tribute to the valuable support and assistance I have received from Miss Anderson and the other members of the team who have achieved a good year's work in spite of many difficulties and hardships.

Yours faithfully,

W. H. DICKINSON,

Medical Director.





REPORTS OF THE  
MEDICAL SUPERINTENDENT  
NEWCASTLE GENERAL HOSPITAL  
MEDICAL SUPERINTENDENT  
SHOTLEY BRIDGE EMERGENCY HOSPITAL  
CLINICAL MEDICAL OFFICER  
JOINT COMMITTEE'S CLINIC  
MEDICAL OFFICER IN CHARGE  
SPECIAL SKIN CLINIC

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## V—GENERAL DISEASES HOME AND HOSPITAL

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DOMICILIARY MEDICAL SERVICES  
NEWCASTLE GENERAL HOSPITAL  
SHOTLEY BRIDGE EMERGENCY HOSPITAL  
JOINT COMMITTEE'S CLINIC  
SPECIAL SKIN CLINIC



REPORT OF THE  
MEDICAL SUPERINTENDENT  
NEWCASTLE GENERAL HOSPITAL  
MEDICAL SUPERINTENDENT  
SHORTLY BEFORE EMERGENCY HOSPITAL  
CLINICAL MEDICAL OFFICE  
JOINT COMMITTEE CLINIC  
SPECIAL SKIN CLINIC  
SPECIAL SKIN CLINIC

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## V-GENERAL DISEASES HOME AND HOSPITAL

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HOSPITAL MEDICAL SERVICE  
NEWCASTLE GENERAL HOSPITAL  
SHORTLY BEFORE EMERGENCY HOSPITAL  
JOINT COMMITTEE CLINIC  
SPECIAL SKIN CLINIC

### DOMICILIARY MEDICAL SERVICES.

This work was originally carried on by District Medical Officers, each of whom was in charge of a specified district in the City, and gave both medical attendance and medicines. These officers were remunerated by the payment of a salary and bonus.

By resolution of the City Council dated 20th September, 1933, an "open choice" method for the provision of Domiciliary Medical Services was introduced into six of the Medical Relief Districts as from 8th November, 1933.

In each of the years 1934, 1936 and 1942 a further district was included in the scheme, and the nine districts are now designated the Joint Medical Relief District.

There remains therefore only one medical relief district in which the old method of operation still continues.

Domiciliary Medical Services in the Joint Medical Relief District are given by a panel of medical practitioners who have contracted with the City Council to provide the required services. Medicines, etc., for patients in the area of the Joint Medical Relief District are supplied from two municipal dispensaries which have been established at the Newcastle General Hospital and the Newcastle Dispensary, New Bridge Street.

The following table gives particulars of the work carried out during 1946 of the remaining District Medical Officer whose area is not included in the Joint Medical Relief District.

District Medical Officer.	Number of Cases Treated.	Attend- ances by the M.O. at the Homes of the Patients.	Attend- ances by the Patients at the M.O.'s Surgery.
Dr. T. J. Ryan .....	630	1,410	960



# NEWCASTLE GENERAL HOSPITAL.

TO THE MEDICAL OFFICER OF HEALTH.

DEAR SIR,

I have pleasure in submitting my annual report on the year's work for 1946 in Newcastle General Hospital.

The number of patients treated was 13,937, which is an increase of 1,401 over the previous year.

The Service Cases declined very considerably and on an average no more than 5 or 6 service cases were in hospital at one time. The number of E.M.S. patients was 340, which is a decrease of 1,211 on the previous year.

751 Full Fee Patients were admitted, a decrease of 104 over the previous year.

396 cases were admitted to the Private Patients Section during the year, an increase of 24 over the previous year.

The total number of operations performed was 7,069, an increase of 927, partly caused by the opening of an Emergency Operating Theatre to deal with minor surgical cases and relieve the Main Theatres of this work.

The following is a summary of the conditions for which 172 sick nurses were treated during the year:—

Colds, Sore Throats and similar minor ailments . . . . .	49
Skin conditions and minor septic conditions . . . . .	24
Orthopædic conditions . . . . .	5
Gynæcological . . . . .	5
Dental . . . . .	6
Minor Accidents . . . . .	7
Operations . . . . .	6
Burns . . . . .	2
Catarrhal Jaundice . . . . .	4
Investigations—General . . . . .	36
Diphtheria . . . . .	2
Diarrhoea and Vomiting . . . . .	13
Migraine . . . . .	3
Anæmia . . . . .	3
Pulmonary T.B. . . . .	1
Malignant Breast with secondaries . . . . .	1
Gastric Ulcer . . . . .	1
Glandular Fever . . . . .	1
Hysteria . . . . .	1
Rheumatism . . . . .	2

I have to report, with regret, the deaths of three members of the staff, Sister Connolly, Mr. Bambrough (Mortuary Attendant) and Mr. Dowling (Porter).



The number of prescriptions dispensed for Domiciliary Medical Service patients was 19,923, an increase of 9,857 on the previous year.

The number of Dispensary Attendances of Diabetic Patients was 1,388, a reduction of 335 on last year.

A new Out-Patient Department was constructed in J.D. Ward and was opened in May, 1946. In this department Out-patient Clinics are held by surgeons and physicians attending the hospital. The total number of attendances during the year was 47,504.

An Ante-Natal Out-patient department, dealing entirely with ante-natal cases was constructed in half of the Accident & Admissions building in July, 1946, and clinics were commenced as from that date.

The Blood Bank supplied 1,240 pints of blood during the year for use in the Hospital, an increase of 495 pints over the previous year, and an increase of 1,140 pints compared with 1940, the year in which the Hospital Blood Bank was instituted. During the year 19 collections of blood from donors were carried out by the Hospital Collecting Team—14 at the hospital and 5 at various other centres. The total number of Donors bled at these collections was 2,202 (as compared with 2,609 in the previous year).

The Mental Observation Wards under the care of Dr. G. P. Harlan admitted 308 patients—details of these are given in the accompanying report.

The X-Ray Department had another very busy year, 32,501 films being taken.

Radiotherm Department—Only 12 patients were treated—the majority of the cases were referred for treatment by Dr. Macfarlane of the Joint Committee's Clinic.

An endeavour has been made during the year to improve the clerical work in the hospital. Various additional clerks have been engaged, but in order to provide a satisfactory service of record keeping and letter writing, further additions to the clerical staff will be needed in the future.

One of the big problems in the hospital to which there appears to be no immediate solution is the storage of records and no space or rooms are available for this purpose.

Further details of the various sections and special departments of the hospital are also given in the accompanying reports.

I wish to thank the senior members of the Hospital Staff, Medical, Nursing and Clerical, for the assistance given during the year.

GEORGE HURRELL,

*Medical Superintendent.*

*4th September, 1947.*



ADMISSIONS AND DISCHARGES, ETC., FOR THE YEAR  
ENDED 31ST DECEMBER, 1946.

Admissions .....	13,991
Discharges .....	13,937
Males .....	4,179
Females .....	6,363
Children .....	3,395
	<u>13,937</u>

AGE GROUPS, 1946.

	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Under 1 year.....	337	222	559
1—1-11 months .....	133	78	211
2—2-11 months .....	79	68	147
3—4-11 months .....	121	88	209
5—15 .....	471	346	817
15—25 .....	505	1,160	1,665
25—45 .....	1,351	3,182	4,533
45—65 .....	1,417	1,366	2,783
Over 65 years .....	960	675	1,635
Babies born in hospital .....	678	700	1,378
	<u>6,052</u>	<u>7,885</u>	<u>13,937</u>

OPERATIONS

FOR YEAR ENDED 31ST DECEMBER, 1946.

Abdominal.....	1,258
Gynæcological and Obstetrical .....	1,243
Thoracic .....	6
Orthopædic .....	666
Genito-Urinary .....	1,093
Throat, Nose, Ear and Eye .....	202
Blood Vessels .....	135
Rectum .....	94
Brain and Special Cases .....	833
Skin and Subcutaneous Tissues .....	997
Examinations and Aspirations .....	218
Teeth—General and Local .....	274
Radium .....	3
Breast .....	36
Bullet and Gun-shot Wounds .....	1
Gastroscopy.....	10
	<u>7,069</u>
Major Operations .....	3,204
Minor Operations .....	3,591
Teeth .....	274
	<u>7,069</u>

## TRANSFERS FROM OTHER HOSPITALS, HOMES, AND AUTHORITIES.

YEAR ENDED 31ST DECEMBER, 1946.

CHARGEABLE CASES—	<i>Admissions.</i>	<i>Discharges.</i>	<i>Deaths.</i>
Blyth District Council .....	1	1	—
Carlisle P.H.C. ....	10	11	2
Cheshire P.A.C. ....	1	1	—
Cumberland County P.H.C. ....	14	10	—
Darlington P.H.C. ....	15	13	—
Darlington Memorial Hospital ....	5	5	—
Durham P.A.C. ....	11	11	—
Durham P.H.C. ....	305	236	38
Ellison Hall Infirmary .....	1	1	—
Gateshead P.H.C. ....	56	44	5
Gateshead P.A.C. ....	2	2	—
Gosforth U.D.C. ....	1	1	—
Ingham Infirmary .....	10	7	1
London County Council .....	1	1	—
Middlesbrough P.H.C. ....	25	14	—
Middlesbrough Education Committee	3	3	—
Middlesbrough General Hospital ..	3	2	—
Northumberland P.H.C. ....	348	259	37
Northumberland Maternity & Child Welfare .....	1	1	—
North Riding P.H.C. ....	25	12	2
Newburn U.D.C. P.H.D. ....	3	3	—
Preston Hospital, North Shields ...	1	—	—
Prudhoe Hall Colony .....	1	2	—
South Shields P.H.C. ....	20	18	—
Sunderland P.H.C. ....	6	5	—
Tynemouth P.H.C. ....	3	1	—
Tynemouth Borough Council ....	6	3	—
Tynemouth P.A.C. ....	20	16	3
West Riding P.H.C. ....	3	1	2
Wallsend Maternity & Child Welfare .....	1	1	—
Wallsend P.H.C. ....	1	2	—
Wallsend U.D.C. ....	2	3	—
West Hartlepool P.H.C. ....	11	7	1
West Hartlepool P.A.C. ....	3	2	—
Royal Victoria Infirmary Transfers	52	—	—
WHITTON TOWER, ROTHBURY .....	63	73	
PAYING PATIENTS ADMITTED TO ORDINARY WARDS .....	751		
TOTAL NUMBER OF DEATHS .....			1,102
NUMBER OF INQUESTS HELD .....			59



## PRIVATE PATIENT'S SECTION.

1ST JANUARY TO 31ST DECEMBER, 1946.

TOTAL NUMBER OF ADMISSIONS ..... 396

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
(1) C 1-2	110	230	340
(2) A 3	5	9	14
(3) B 3-4	8	8	16
(4) C 3-4	1	7	8
(5) D. Block	15	-	15
(6) Quarantine	3	-	3
	142	254	396

Newcastle Residents .....	206
Non-Newcastle Residents .....	190
Under £420 per annum .....	252
Over £420 per annum .....	144
Average length of stay in hospital .....	16 days.
Amount received for maintenance .....	£4,657 1 3
Amount received for Medical Services ..	£4,076 10 0
	<u>£8,733 11 3</u>

# CLASSIFIED LIST OF DISEASES TREATED. 1946.

## INFECTIOUS DISEASES.

*Male. Female. Children.*

1. Measles (includes Rubella).....	..	1	..
2. Whooping Cough.....	..	..	4
3. Diphtheria .....	1	3	3
4. Scarlet Fever .....	..	..	..
5. Erysipelas.....	..	..	2
6. Influenza .....	8	9	1
7. Cerebro-spinal Fever .....	4	2	12
8. Enteric Fever .....	..	..	..
9. Dysentery.....	5	4	5
10. Non-specific gastro-enteritis .....	5	6	57

## TUBERCULOSIS.

11. Tuberculosis of respiratory system .....	30	26	41
12. " " peritoneum and intestines ....	2	9	2
13. " " osseous system .....	9	9	4
14. " " genito-urinary system .....	19	5	3
15. " " nervous system .....	2	3	15
16. Other forms of tuberculosis—glands, etc. ....	3	7	23

## NEW GROWTHS.

17. Malignant disease of alimentary system .....	143	80	..
18. " " respiratory system .....	42	13	..
19. " " female genital organs ....	..	50	..
20. " " male genito urinary and female urinary system .....	101	12	2
21. Other forms of malignant disease, <i>e.g.</i> , breast, glands, bones, secondary deposits of un- determined primary focus.....	58	84	..
22. Primary brain tumours .....	56	48	12
23. Simple tumours .....	75	53	12

## METABOLIC DISORDERS.

24. Diabetes .....	20	66	6
25. Other endocrine diseases .....	12	30	4
26. Vitamin deficiencies .....	4	1	..

## RHEUMATISM.

27. Acute articular rheumatic fever .....	6	5	13
28. Acute rheumatic carditis .....	1	3	6
29. Chorea.....	1	1	12
30. Chronic rheumatic heart disease.....	25	62	2
31. Chronic myalgia and neuritis .....	9	12	..
32. Chronic joint manifestations, includes rheu- matoid arthritis, osteo-arthritis, etc. ....	15	33	..



## CIRCULATORY SYSTEM.

	<i>Male.</i>	<i>Female.</i>	<i>Children.</i>
33. Chronic heart disease (other than rheumatic) ..	55	38	..
34. Coronary Artery disease, includes angina pectoris .....	41	23	..
35. Hypertension with or without myocarditis or arterio sclerosis .....	82	65	1
36. Cerebral vascular accidents (other than due to nephritis) .....	87	88	5
37. Other disorders of the heart—Arrhythmias congenital malformation, etc. ....	13	5	2
38. Arterial affections (other than 34 and 35) includes aneurysm .....	49	22	1
39. Venous affections, includes varicocoele .....	41	54	..
40. Hæmorrhoids .....	48	28	..

## BLOOD SYSTEM.

41. Hæmorrhagic conditions .....	2	8	7
42. Pernicious anæmia .....	7	16	..
43. Iron deficiency anæmias, includes secondary anæmias .....	6	19	3
44. Hæmolytic anæmias .....	8	7	4
45. Leukæmias .....	4	8	1

## RESPIRATORY SYSTEM.

46. Bronchitis, asthmas and emphysema .....	67	50	42
47. Pneumonia .....	105	67	101
48. Empyema .....	6	2	8
49. Bronchiectasis .....	6	8	5
50. Other lung conditions .....	20	15	20

## ALIMENTARY SYSTEM.

51. Peptic ulcer and sequelæ .....	272	87	4
52. Colitis, ulcerative and mucous, cœliac disease ..	5	9	1
53. Appendicitis .....	91	124	60
54. Hernia .....	126	58	36
55. Intussusception, volvulus and obstruction .....	10	5	14
56. Cirrhosis, liver atrophy, catarrhal jaundice ....	15	7	7
57. Biliary conditions .....	17	83	1
58. Pancreatic diseases .....	1	2	..
59. Peritonitis of unspecified origin .....	..	1	..
60. Other conditions .....	44	68	45

## GENITO-URINARY SYSTEM.

61. Nephritis—all forms .....	25	23	5
62. Urinary calculi .....	20	12	1
63. Pyelitis, pyelonephritis, cystitis .....	30	50	14
64. Enlarged prostate .....	293	..	..
65. Stricture and sequelæ .....	25	..	..
66. Other conditions, phimosis, hydrocele, hæmaturia of unknown origin .....	85	17	25

## NERVOUS SYSTEM.

67. Locomotor ataxia, G.P.I. and other specifics ..	25	11	..
68. Epilepsy .....	55	27	31
69. Psychoses, suicides, functional nervous disorders, etc. ....	161	201	14
70. Cord and nerve lesions, post encephalitis, myopathies .....	221	144	17



## TEETH.

*Male. Female. Children.*

71. Dental Cases .....	17	55	21
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## BONE AND JOINT CONDITIONS.

72. Acute arthritis and osteomyelitis .....	19	10	17
73. Other bone and joint affections .....	10	7	3
74. Orthopædic deformities, cartilage affections, etc. ....	32	31	5
75. Accidents—fractures .....	124	128	91
76. Accidents—Lacerations and general injuries ...	111	59	103
77. Accidents—Dislocations.....	7	8	7
78. Accidents—Burns .....	9	8	38

## CHILDBIRTH AND ASSOCIATED CONDITIONS.

79. Normal childbirth .....	..	1,340	1,219
80. Toxæmias .....	..	87	..
81. Accidents (including threatened abortion) .....	..	242	..
82. Abortion and miscarriage .....	..	269	..
83. Puerperal Sepsis .....	..	..	..
84. Gynæcological conditions.....	..	885	2

## CONDITIONS OF THE NEW BORN.

85. Congenital malformations (including lips and palates), etc. ....	..	..	91
86. Birth injury and prematurity .....	..	..	197
87. Neonatal sepsis .....	..	..	9
88. Pyloric stenosis .....	..	..	77
89. Feeding difficulties and dyspepsias .....	..	..	52

## SEPTIC CONDITIONS.

90. Abscess and cellulitis, lymphadenitis and lymph- angitis, etc. ....	183	209	168
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## SKIN CONDITIONS.

91. Dermatoses, including impetigo, scabies, etc. ..	25	12	59
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## THROAT, NOSE AND EAR CONDITIONS.

92. Enlarged tonsils and adenoids .....	9	9	50
93. Nasal sinus affections .....	14	17	8
94. Middle ear and mastoid conditions .....	10	16	37
95. Tonsillitis, catarrhal colds and faucial inflamma- tions, laryngitis, etc. ....	21	38	30

## EYE CONDITIONS.

96. Injury and foreign body .....	..	..	..
97. Conjunctival and Corneal inflammations .....	..	1	3
98. Cataract .....	..	..	..
99. Accessory structures—Strabismus .....	..	..	..
100. Other eye conditions .....	1	2	1

## VENEREAL DISEASE.

101. Gonorrhœa .....	23	8	1
102. Syphilis .....	220	134	8
103. Other conditions .....	13	1	1

## UNCLASSIFIED.

104. Senility .....	23	32	..
105. For investigation, undiagnosed and not in- cluded in previous groups .....	484	666	318
106. Highfield children .....	..	..	63



## PHYSIOTHERAPY DEPARTMENT.

No. of Patients .....	1,197
No. of New Out-Patients .....	757
No. of Out-Patients attended .....	10,859
Massage .....	1,537
Exercises .....	7,752
Electricity .....	11,691
Total No. of Treatments .....	20,979

## MATERNITY DEPARTMENT.

*October, November & December.*

No. of Patients .....	469
No. of Treatments .....	1,939

## SUNLIGHT DEPARTMENT.

No. of Patients .....	110
No. of Treatments .....	1,051
Maternity and Child Welfare .....	37
No. of M. & C.W. Treatments .....	314
Total No. of Patients treated in N.G.H. ....	1,813
Total No. of Treatments given .....	23,283

## BYKER SUN-RAY CLINIC.

No. of Patients .....	263
No. of Treatments .....	3,771
No. of Maternity and Child Welfare Patients .....	66
No. of Treatments .....	745
Total No. of Patients .....	329
Total No. of Treatments .....	4,516
No. of Patients treated at Byker Sun-Ray Clinic, Maternity Department and Physiotherapy Department of N.G.H. ....	2,142
No. of Treatments given at Byker Sun-Ray Clinic, Maternity Department and Physiotherapy Department of N.G.H. ....	27,799

## DEEP X-RAY THERAPY DEPARTMENT.

YEAR ENDED DECEMBER 31ST, 1946—

In-Patients .....	<i>M.</i>	376	}	1,499
	<i>F.</i>	303		
Out-Patients .....	<i>M.</i>	292		
	<i>F.</i>	528		
NEW PATIENTS—				
Out-Patients .....	<i>M.</i>	35	}	198
	<i>F.</i>	49		
In-Patients .....	<i>M.</i>	13		
	<i>F.</i>	101		
AREAS TREATED .....				4,597

C. L. J. THURGAR,

*Director of the North of England Cancer Organisation.*

## RADIOLOGICAL DEPARTMENT.

Record of Radiological examinations during 1946 as compared with 1945.

(1) ABDOMEN—	1945	1946		
Straight examinations .....	279	218		
Cholecystography .....	125	147		
Barium Meals .....	587	754		
Barium enema .....	149	173		
	———	1,140	———	1,292
(2) BONES—				
Bones of extremities .....	3,583	3,859		
Spine and Sacro-iliac Joints .....	754	899		
Pelvis .....	48	246		
Myelography .....	13	13		
	———	4,398	———	5,017
(3) CHEST—				
General examinations .....	3,610	4,193		
Tomography .....	69	42		
Bronchography .....	2	2		
	———	3,681	———	4,237
(4) HEAD—				
Skull—General .....	1,046	1,250		
Sinuses and Mastoids .....	83	118		
Ventriculography .....	43	63		
Encephalography .....	113	169		
Angiography .....	2	5		
	———	1,287	———	1,605
(5) GENITO-URINARY—				
Kidneys, Ureters and Bladder ...	533	561		
Pyelography—Intravenous .....	342	378		
Pyelography—Retrograde .....	54	77		
Cystography .....	—	4		
	———	929	———	1,020
(6) OBSTETRICS AND GYNÆCOLOGY—				
Obstetrical examinations .....	109	263		
Salpingography .....	24	71		
	———	133	———	334

### NUMBER OF PATIENTS X-RAYED.

Hospital Patients .....	1945	11,568	1946	12,729
T.B. Dispensary and Child Welfare	1945	2,214	1946	4,035
TOTALS .....	1945	13,782	1946	16,764

TOTAL NUMBER OF FILMS USED DURING THE YEAR ..... 32,501



### THE TYPE OF CASES EXAMINED.

The work of the Radiodiagnostic Department in the Newcastle General Hospital is of a type which makes it difficult to compare with hospitals of similar size, or whether the figures for patients examined seem comparable.

The work falls fairly clearly into six main sections. The number of cases examined for injuries to the Extremities amounted to 3,859 which is less than 25 per cent. of the total number of cases examined during the year 1946. There is, therefore, a very high proportion of the heavier and more specialised examinations than in many similar hospitals. This is particularly the case with regard to the Head and Genito-urinary sections.

Cases referred for examination of the chest were 8,272, and of these, 4,035 came from the Tuberculosis Dispensary or Child Welfare Clinics.

### THE EFFECT OF THE TYPE OF WORK.

With a high proportion of heavier and specialised technical work more time is required by the radiographic technician per case. Each room and set of apparatus is occupied longer per patient than in many hospitals of a size similar to the General Hospital.

### RECOMMENDATIONS—TECHNICAL STAFF, RADIOGRAPHERS.

To meet the position set up by the type and amount of work, provide a 24-hour daily cover for emergency radiography, and to meet the recommendations that technicians shall have a 35-hour week it will be necessary to re-consider the establishment.

### ACCOMMODATION.

Unless it is intended to make other provisions for the examination of the growing number of cases referred from the Tuberculosis Dispensary it will be necessary to increase the accommodation for waiting and provide at least 12 cubicles. The Darkroom requires extension, re-organisation and re-equipment. The Victor 200ma unit should be housed in a larger room. An additional radiographic unit and a suitable room are required. Adequate accommodation is urgently needed for the Radiologists' diagnostic and consulting rooms, and commonroom cloakroom for the radiographers.

The Radiodiagnostic Department exists to provide a technical and diagnostic service for all the other departments in the hospital, and for this reason it is felt that there is a fair claim to priority in any building programme.

S. WHATELY DAVIDSON,

*Consultant Radiologist.*

## NEURO-SURGICAL UNIT.

Total Admissions for year .....	1,002
Deaths .....	94
	<i>i.e 9.4%</i>
Operations .....	
Major .....	410
Minor .....	437
	<hr/> 847

## TUMOURS AND DISEASES OF THE BRAIN.

1. Tumours (verified)—		
Mixed Gliomas .....	90	
Pituitary .....	8	
Meningiomas .....	6	
Acoustic Neuromas .....	1	
Tuberculomas .....	3	
	<hr/>	108
Tumours (unverified) .....		22
2. Essential Hypertension .....		5
3. Abscess .....		18
4. Aneurysm—		
Carotid .....	1	
Cirsoid .....	2	
Subarachnoid hæmorrhage due to rupture of Aneurysm .....	4	
	<hr/>	7
5. Encephalitis .....		11
6. Degenerative Encephalopathy .....		7
7. Thrombosis .....		6
8. Epilepsy .....		60
9. Cortical Atrophy, with Epilepsy .....		20
10. Post-Traumatic Epilepsy .....		9
11. Migraine .....		12
12. Meningitis .....		11
13. Hydrocephalus .....		1
14. Psychoses .....		33
15. Hysteria .....		11
16. Optic Nerve Lesions .....		12
17. Headaches (various) .....		3
18. Mental Deficiency .....		2



## INJURIES OF THE BRAIN AND OF THE SKULL.

1. Penetrating Wounds of the Brain (Gunshot) .....	2
2. Fractures of the Skull—	
With Concussion .....	72
With Subarachnoid Hæmorrhage .....	6
	<hr/>
	78
3. Concussion—	
Closed Injury .....	36
With laceration of Scalp .....	6
With Subarachnoid Hæmorrhage .....	3
	<hr/>
	45
4. Lacerations of Scalp and/or Face .....	7
5. Foreign Bodies in Skull and Scalp .....	2
6. Massive Hæmorrhages—	
Extra-dural .....	6
Sub-dural .....	11
Intra-cerebral .....	2
	<hr/>
	19
7. Skull Defects .....	21
8. Post-Concussional Syndrome .....	7
9. Traumatic Paralyses .....	10

## TUMOURS, DISEASES AND INJURIES OF THE SPINAL CORD.

1. Tumours .....	7
2. Meningo-Myelitis .....	13
3. Disseminated Sclerosis .....	13
4. Meningocele .....	3
5. Fractures of Spine .....	6
6. Osteoarthritis .....	6
7. Fibrositis .....	6
8. Spondylitis .....	4
9. Spondylolisthesis .....	5
10. Degenerative Lesions of Cord .....	2
11. Hæmatomyelia .....	1
12. Gunshot Wound of Spine .....	1

## TUMOURS AND DISEASES OF SKULL AND/OR SCALP.

1. Osteomyelitis .....	3
2. Skull Tumours .....	4
3. Scalp Tumours .....	2
Exophthalmos .....	16
Menieres Disease .....	9
Mobile Spasm .....	6
Orbital Lesions .....	3

## LESIONS OF PERIPHERAL NERVES.

1. Trigeminal Neuralgia .....	37
2. Sciatica .....	163
3. Neuritis due to Carcinoma of Cervix .....	15
4. Neuritis due to Carcinoma (various) .....	58
5. Neuritis (various) .....	9
6. Brachial Plexus Injury or Lesions .....	4
7. Thrombo-Angiitis Obliterans .....	2
8. Burger's Disease .....	3
9. Raynaud's Disease .....	5
Pituitary Dysfunction .....	3
Muscular Dystrophy .....	4
Unclassified .....	40

TOTAL .....	<hr/> 1,002
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G. F. ROWBOTHAM,  
*Surgeon-in-charge,*  
*Department of Neurosurgery.*

## DENTAL DEPARTMENT.

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### CLINICAL PATIENTS—

Inspections .....	861
Teeth extracted under G.A. ....	1,277
Do.      Do.      L.A. ....	98
Number of Patients X-Rayed .....	88
Number of Films .....	262
Zinc Oxide Dressings.....	26
Fillings .....	22
Scalings .....	4

### MINOR ORAL SURGERY—

Surgical Extractions .....	34
Surgical Curettage .....	5
Surgical Excisions .....	1
Treatment for Osteomyelitis .....	2
Do.      Do. Vincent's Infection .....	2
Removal of Radicular Cysts .....	7
Alveolarectomy .....	4
External Incision of Abscess .....	5
Fragment of Bone removed .....	1
Internal Incision in Buccal Sulcus .....	1
Removal of necrosed Alveolus .....	1
Excision of Tooth Flap .....	1
Biopsy .....	1
Removal of Granuloma .....	2
Chromic Acid Treatment .....	4
Silver Nitrate Treatment .....	3
Muco-Membranous Stomatitis .....	6
Bismuth Stomatitis .....	1
Gingivitis .....	2
Acute Purpura Hæmorrhagica .....	1

### FRACTURES OF MANDIBLE—

External Rubber Splint applied .....	3
Interdental Wiring .....	3
Accrylic Splints .....	1

G. HUTCHINSON,  
*Dental Surgeon.*



### EMERGENCY HOSPITAL SCHEME.

During the year 340 patients were admitted who came under the Emergency Medical Service Scheme. 354 patients were discharged and 9 died.

#### SUMMARY OF CASES—YEAR 1946.

	In Hosp. 1/1/46.	Admit.	Dis.	Died.	In Hosp. 31/12/46.	No. of Days.
Service Patients . . . . .	17	266	266	8	9	6,532
Members of Civil Def. Org. injured on duty	..	1	1	..	..	40
Wives and children of Attested Service Men	3	50	53	..	..	797
Civilian transfers under under Form 116 ...	..	1	1	..	..	15
Transferred War Workers & Trainees.	..	..	..	..	..	..
Officers and Men of Merchant Navy ...	4	11	15	..	..	261
Foreign Seamen . . . . .	2	5	7	..	..	187
Fract. Cases and other injuries among indus- trial workers . . . . .	2	5	6	1	..	181
Continuation of neces- sary treatment of Service Cases when invalided . . . . .	2	..	2	..	..	11
Ministry of Pensions Cases . . . . .	..	1	1	..	..	26
Evacuees and Home- less . . . . .	2	..	2	..	..	366
	32	340	354	9	9	8,416

Includes Danes 1, Dutch 1, Palestine 1, French 7, Polish 4, Italians 3 German 5.

The average daily number of E.M.S. patients in hospital during the year was 23·06.

The average stay of E.M.S. patients in hospital during the year was 23·2 days. 42 Services cases were transferred to 15 institutions. These are included in the above table, equal to 11·9 per cent of the discharges.

85 Services patients were transferred from 31 institutions to this hospital and are included in the Service admissions, equal to 25 per cent. of the admissions.



## DEPARTMENT OF OBSTETRICS AND GYNÆCOLOGY.

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This was the first full year of the enlarged Maternity Department following the closure of Gilsland in November, 1945, but the rise in the birth-rate did not actually coincide with the beginning of 1946, and the full effects of the combination of the closure of Gilsland and the increased birth-rate are not evident in the year's figures. During the first three months the number of admissions and deliveries did not show a very considerable increase on the closing months of 1945, but in the latter part of the year the pressure on the Department became very heavy indeed and has continued to be heavy.

Overcrowding of the midwifery beds is almost constant, and it has been necessary to discharge most cases at a considerably earlier date than is desirable. Emergency admissions whose home circumstances were adequate and who were delivered without difficulty have often been sent home the following day and even occasionally on the same day, and it is likely that this unsatisfactory procedure will be necessary for some time.

There was a considerable increase in the number of ante-natal attendances and it is desirable that the number of sessions should be even further increased, as adequate antenatal care is not as yet given to all our booked cases. This aspect of the Maternity Department has been dealt with in a separate report to the Medical Officer of Health on Ante-natal services in general.

It was fortunate that it became possible to take over the former Out-patient Department as an ante-natal clinic and without this development the work of the Department could not have been carried out. It was possible in 1946 to start the experiment of a special clinic for primigravidæ, and successive groups of patients are now going through this special clinic, receiving the attention of the Massage Department for ante-natal exercises, having lectures and demonstrations on various aspects of pregnancy and being followed up especially carefully during the post-natal period.

The services of the Massage Department have been sought to an increasing extent both for maternity cases and for the post-operative care of cases; this ancillary service is a most important one and should be extended.



The work of the Gynæcological Department did not show any significant changes during the year. There has been a continued increase in the number of cases referred for infertility and the clinic originally intended for "Minor Gynæcological Ailments" is now very largely an infertility clinic and might well be designated such. The available time for operating lists is totally inadequate, and the two lists carried out each week are overcrowded and the standard of operative work inevitably suffers. It is essential that as soon as possible there should be improved theatre accommodation in the hospital, preferably a separate gynæcological theatre.

The great increase in the amount of midwifery and the continuing pressure of gynæcological work could not have been met without increases in medical staff and during the year a second Registrar was acquired under the Demobilised Officers Scheme from the University. A second "establishment" post of House Surgeon was also created, so that for the greater part of the year the staff of the Department consisted of four whole-time medical officers, one part-time Registrar and the Senior Gynæcologist and Obstetrician.

The Part 2 Pupil Midwives Training Scheme was transferred to the General Hospital from Gilsland in December, 1945, and the acquisition of pupil midwives has to some extent solved the very serious problem of nursing shortage in the Maternity Department, but it has brought with it another problem in the shape of shortage of staff accommodation. The success in their examinations of the pupils who have been trained here is sufficient testimony to the excellent work of the midwifery teacher, Miss Mansell, and the Central Midwives Board are most anxious that an increased number of pupils should be dealt with each year. This increase is impossible, however, until more accommodation is available for the nursing staff.

During war-time there was, of course, no possibility of making use of the enormous amount of clinical material available for study and the publication of papers, but a start has been made and papers to be published in 1947 include one on Tubal Occlusion, based entirely upon cases dealt with in the General Hospital, and others on Myocardial Degeneration in Toxæmia of Pregnancy (in conjunction with the Cardiovascular Department) and on Habitual Abortions. Other investigations are pending into general aspects of heart disease in pregnancy, plastic repair operations for pelvic floor defects, and the merits of X-ray castration for menorrhagia.



A short statement outlining the work done by the staff of the Department is appended, but a full analysis is not possible until the completion of the card index system for the year.

#### GYNÆCOLOGICAL DEPARTMENT.

Total admissions . . . . .	1,177	Emergency . . . . .	348
		Routine . . . . .	829
OPERATIONS :—			
<i>A. Vaginal Operations</i>			
1. Dilatation and curettage . . . . .			202
2. Cautery to cervix . . . . .			72
3. Sterility investigations . . . . .			171
4. Removal of R.P.C. . . . .			198
5. Pelvic Floor repair . . . . .			157
6. Vaginal hysterectomy . . . . .			22
7. Repair of vesico vaginal fistula . . . . .			5
8. Removal of Bartholin's cyst . . . . .			13
9. Correction of Retroversion . . . . .			23
10. Removal of vaginal cyst . . . . .			3
11. Hymenotomy . . . . .			3
12. Excision of carcinoma of vulva . . . . .			3
13. Insertion of radium for carcinoma of cervix . . . . .			2
<i>B. Abdominal Operations</i>			
1. Supra vaginal hysterectomy . . . . .			81
2. Total hysterectomy . . . . .			15
3. Myomectomy . . . . .			12
4. Hysterotomy . . . . .			9
5. Salpingo-oophorectomy . . . . .			40
6. Salpingostomy . . . . .			5
7. Gilliam's operation . . . . .			19
8. Sterilisation . . . . .			3
9. Fascial suspension of urethra . . . . .			2
10. Ectopic pregnancy . . . . .			11
11. Laparotomy . . . . .			22
12. Pre-sacral neurectomy . . . . .			2
<i>C. Other Operations</i>			
1. Pulmonary embolectomy (unsuccessful) . . . . .			1
2. Incision of breast abscess . . . . .			9
<i>D. Small Unclassified Operations</i>			
			58
TOTAL . . . . .			<u>1,173</u>



## MATERNITY DEPARTMENT :

Total admissions .....	1,694
Total confinements .....	1,430
Twins .....	30
Forceps .....	134
Perforations, etc. ....	4
Breech deliveries (Vaginal) .....	50
Cæsarean Sections .....	144
Eclampsia .....	7
Heart Disease .....	9
Antepartum Hæmorrhage .....	36
Manual removal of placenta .....	13
Postpartum Hæmorrhage .....	14
Stillbirths .....	83
Neonatal deaths .....	49
Born before admission .....	19
Hysterectomy .....	3
Maternal deaths .....	3
Ante-natal attendances—New .....	2,681
Return .....	5,858
TOTAL .....	<u>8,539</u>
Post-natal attendances—TOTAL .....	<u>980</u>

LINTON SNAITH,

*Obstetrician and Gynæcologist*

## REPORT OF THE CHILDREN'S DEPARTMENT.

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During the year ended 31st December, 1946, 1,476 infants and children were admitted to the Children's Department, Newcastle General Hospital. In addition, 173 children were admitted direct to Whitton Tower Convalescent Home, and 6 infants to Wellburn Nursery. Of the admissions, 493 were of infants under the age of twelve months. There were 65 deaths.

A table is appended showing the main groups of illness and injury for which patients were admitted. It will be seen that the acute infective illnesses form the largest single group, and that of these, the acute respiratory infections, notably pneumonia, are the most common. Septic infections—abscesses, cellulitis, etc.—form another frequent cause of admission.

The number of cases of tuberculosis gives no real indication of the importance of this illness in the hospital economy as, owing to their long stay in hospital, these patients occupy a number of beds out of proportion to the number of admissions. The average duration of stay of these children was 60 days, and it can readily be shown that over the year approximately one bed in seven in the Department was occupied by a tuberculous child. Apart from the question of accommodation involved, this proportion calls for consideration of the special needs of "long-stay" children. There are, in addition to the tuberculous children, others whose illness demands a stay of many weeks or even months in hospital. Such children are in great need of the mental stimulus of education, and of a home-like atmosphere, which can not prevail in a general ward. If therefore, the policy of admission to the Children's Department of long-stay cases is to be pursued, it is essential that special facilities, especially educational, be provided.

The number of cases of congenital pyloric stenosis may give a false impression of the frequency of this condition. At present, there is a special arrangement whereby the Children's Department admits all infants with congenital pyloric stenosis seen at the Royal Victoria Infirmary, so that a high proportion of these infants comes from outside Newcastle.



The number of healthy infants admitted requires comment. These infants are admitted for reasons such as desertion, illness or imprisonment of the parents, and because they cannot be admitted elsewhere. The number of 54 given in the table does not give a true estimate of the full extent of the problem, as a number of children classified as suffering from various minor ailments were, in fact, admitted not because of these ailments, but for reasons such as those just quoted. Not only does the admission of healthy infants aggravate the pressing shortage of beds and cots, but it is dangerous from the point of view of the infants themselves. It is not unknown for a healthy infant to succumb to an infection acquired in hospital. It is to be hoped that some other accommodation for these infants will soon be found.

It is worthy of consideration that a third of all patients admitted were infants under the age of twelve months. The stringency of the precautions needed to prevent cross-infection in this age period, together with the amount of nursing time required for feeding and changing infants, require a much greater staff to patient ratio than in the care of older children and adults. The high proportion of infants admitted has, therefore, increased considerably the difficulties arising from nursing shortage. In addition there has at times been overcrowding, compelled by the shortage of accommodation, two of the wards in the Department still being used for adults. The combination of overcrowding, high percentage of infants and nursing shortage has on several occasions led to serious cross-infection.

When the Babies' Hospital temporarily closed, this department endeavoured to undertake its work of treatment of young infants with their mothers, and during the year 1946 there were 140 mothers admitted with their babies. As no provision for nursing mothers had been made when the department was planned, this accommodation had to be improvised. Four single rooms were set aside for the purpose, and other rooms in addition had to be used from time to time. This accommodation is far from ideal in its situation in the ward, and in the absence of suitable furniture and fittings, but the improvisation has been well worth while, and has aroused great interest in visiting *Pediatricians*. The procedure of admitting a mother to live with and nurse her own baby in hospital, the value of which has been proved for many years at the Babies' Hospital, is one in which Newcastle has given a lead to the rest of the country. During 1946 the Children's Department was the chief centre in the Northern Region



to which mothers could be admitted with their infants. Future policy will decide to what extent this will continue, but, whatever decisions be reached, it is essential that the Department should be able to admit a mother with her child whenever this is deemed advisable. It is therefore important that an attempt should be made to improve the conditions for such nursing mothers.

Since the opening of the Department in 1938 it has been a policy that there should be no separation of wards as "medical" and "surgical" and that all patients should be under the general care of the Pediatric Staff. This is a policy which is almost revolutionary in British Hospital practice, but one which has proved eminently practicable, and one which is likely to be followed by other hospitals. It is a policy which enables the maximum of care to be given to every child, and which prevents any possible neglect from division of responsibility. Its success depends in no small measure on the attitude of the Surgical Staff, and it is a pleasure here to record the wholehearted co-operation of the surgeons to the Hospital, which has ensured the happy atmosphere and smooth working of the Department.

Throughout the year the department has worked in close liaison with the Children's Department of the Royal Victoria Infirmary, and with the Child Health Department of the University, and this has brought nothing but benefit to the children treated. Teaching, both under-graduate and post-graduate, and research have been undertaken in co-operation with the other department. Such teaching and research act as a stimulus to all members of the Staff, and there is little doubt that the high standard of the Resident Staff has been due largely to this liaison.

This report would be incomplete without a reference to the Nursing Staff, especially the Ward Sisters, who have worked untiringly, loyally and successfully in the face of great difficulties.

J. C. SPENCE,

*Physician-in-Charge, Children's Department.*



## CHILDREN'S DEPARTMENT.

## ACUTE INFECTIVE ILLNESSES—

Specific Infective Fevers .....	11	
Acute Alimentary Infections .....	67	
Acute Respiratory Infections .....	153	
Acute Nervous Infections .....	20	
Abscess, Cellulitis, etc. ....	133	
Other Acute Infections .....	32	
	—	416

## TUBERCULOSIS—

Pulmonary .....	37	
Non-Pulmonary .....	34	
	—	71

RHEUMATISM ..... 19

VENEREAL DISEASE ..... 4

## INJURIES—

Burns and Scalds .....	34	
Fractures .....	46	
Head Injuries .....	25	
Lacerations and General Injuries .....	60	
	—	165

## EMERGENCY GENERAL SURGERY—

Appendicitis .....	40	
Congenital Pyloric Stenosis .....	77	
Other Abdominal Surgery .....	14	
	—	131

## PLANNED GENERAL SURGERY—

Hernia .....	30	
Other Abdominal Surgery .....	17	
	—	47

## SPECIAL SURGERY—

Chest Surgery (empyema, etc.) .....	10	
Neurosurgery .....	7	
Throat, Nose & Ear Surgery .....	94	
Genito-urinary Surgery .....	14	
Plastic Surgery (Hare lip, etc.) .....	48	
Gynæcology .....	1	
Bone and Joint Disease .....	23	
	—	197

SKIN DISEASE ..... 58

EYE DISEASE ..... 2

INFANT FEEDING DISORDERS ..... 52

DENTAL CONDITIONS ..... 15

PREMATURITY ..... 20

MISCELLANEOUS MEDICAL CONDITIONS ..... 225

HEALTHY ..... 54

TOTAL ..... 1,476

## DEPARTMENT OF PATHOLOGY.

The following specimens were examined in the Department during the year :—

## Blood :—

Bleeding time .....	3	
Calcium .....	12	
Cell counts, Hb., etc. ....	2,336	
Chlorides .....	5	
Coagulation rate .....	4	
Complement .....	15	
Fragility curves .....	3	
Paul-Bunnell Tests .....	19	
Potassium .....	1	
Proteins .....	67	
Prothrombin .....	149	
Sugar .....	588	
Sulphonamides .....	2	
Urea .....	1,132	
Van den Bergh Tests .....	63	
	<hr/>	4,399

## Cerebro-spinal Fluid :—

Routine .....	869	
Lange curves .....	306	
	<hr/>	1,175

## Fæces :—

Bile .....	11	
Occult Blood .....	1,081	
Parasites .....	24	
	<hr/>	1,116

Miscellaneous .....	27	
Pleural fluids .....	101	
Seminal fluids .....	137	
Test meals .....	360	
Urea-clearance tests .....	83	

## Urine :—

Diastase .....	2	
Routine .....	3,204	
Sulphonamides .....	1	
Urea concentration .....	6	
Hippuric acid .....	3	
	<hr/>	3,216

TOTAL..... 

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 10,624

Reports issued in conjunction with other Laboratories :—

Biochemical .....	228	
Histological .....	1,424	
Wassermanns, etc. ....	1,583	
	<hr/>	3,235



## DEPARTMENT OF SURGICAL UROLOGY.

Admissions and surgical operations of both major and minor procedures maintain the rise of previous years.

On comparing 1945 with 1946, it was found that this was an average figure of 17 per cent.

This is singular in the fact that the Department was deprived of the services of Mr. J. Swinney, who obtained a Rockefeller Travelling Scholarship in Surgery, necessitating six months absence in the United States at various medical and surgical centres.

The Department was indebted, however to Mr. G. Wilson, R.S.O., for his very able assistance in Mr. J. Swinney's absence.

Mr. W. E. M. Wardill wishes to thank the staff and the ancillary departments of the hospital for their help and co-operation in maintaining this increase and achieving a further reduction in the surgical mortality.

Total Admissions .....	610	increase of 12%.
Endoscopic Prostatectomies.....	315	„ 15%.
Major Operations .....	665	„ 12%.
Out-patients .....	843	„ 25%.
O.P.'s Operations .....	242	
Deaths .....	16	} of Endoscopic Prostatectomies.
Mortality percentage .....	4.7	
Average age at death .....	71.1	

W. E. M. WARDILL.

*Genito-Urinary Surgeon,  
Surgical Urology Department.*

# DIABETIC CLINIC.

The work of this clinic continues to increase.

During 1946, 242 patients attended of whom 41 were males and 201 females. Three women under insulin treatment became pregnant but unfortunately a still birth occurred in two of the cases and the third did not continue attendance.

Two cases of diabetes with pre-existing pulmonary tuberculosis were seen.

Other endocrine diseases associated with diabetes were :—myxedema, acromegaly, thyrotoxicosis and exophthalmic ophthalmoplegia ; one case of each. A clinic patient was treated successfully for lobar pneumonia.

Insulin treatment was given in 214 cases. 83 received soluble insulin, 125 protamine zinc or globin insulin, and 7 a combination of soluble and protamine zinc insulin. The following table gives the figures at a glance.

No. of Cases in 1946.		Cases receiving Insulin.*			Cases on Diet alone.
Males.	Females.	Soluble.	Protamine Zinc.	Both.	
41	201	83	124	7	28

Total—242.

\* One case on Globin Insulin.

W. G. A. SWAN,  
*Physician-in-Charge,*  
*Diabetic Clinic.*



### RADIOTHERM DEPARTMENT.

12 patients received fever therapy during the year 1946. The majority of the cases were referred for treatment by Dr. Macfarlane of the Joint Committees' Clinic.

Clinical details regarding the types of cases and the treatment are shown in the following table :—

<i>Diagnosis.</i>	<i>No. of patients.</i>	<i>No. of treatments.</i>
G.P.I. ....	4	22
Tabes Dorsalis ....	3	13
Gonococcal Arthritis ....	5	7
	—	—
	12	42
	—	—

In the treatment of neurosyphilis, at each session the temperature had been maintained for five hours at a level of 104°F. In the treatment of gonococcal infection the temperature had been maintained for eight hours at a level of 106 - 106.6°F.

The patients were carefully selected for treatment and no untoward reactions or complications have occurred as a direct result of the treatment.

PAUL SZEKELY,  
*Medical Registrar.*

## CARDIOVASCULAR DEPARTMENT.

The work of this Department continues to expand and develop in spite of the handicap of very inadequate accommodation. There is an increasing demand on the services of the Department by other clinics and departments not only in the Hospital but also from outside. In particular mention may be made of the special arrangements for seeing school children referred by the City Education Department and also for cases from the Joint Committee's Clinic, details of which will be found below.

These and other demands on the Department will inevitably increase and it seems more than likely that developments in the new regional health scheme will throw additional burdens on the facilities now available for the investigation and treatment of cardiovascular disease. Improved and extended accommodation for this work seems to be needed urgently and at an early date.

**Electrocardiography.** 971 electrocardiograms were taken during the year as compared with 812 last year. Increasing use is being made of multiple chest leads in the diagnosis of myocardial disease and in the analysis of abnormal heart rhythms. There is now a very large collection of electrocardiograms dating back to 1935. The tracings have been indexed from the beginning and it is possible to select large numbers of examples of all the more common conditions and also a number of rarities of special interest.

**Schoolchildren's Heart Clinic.** Arrangements have been made with the City Education Department for the periodical examination of school children with known or suspected heart disease. This is a most valuable opportunity for the study of congenital heart disease and of early rheumatic heart lesions. It is also sometimes possible to dispel suspicion of heart disease by thorough clinical, electrocardiographic and radioscopic examination and thus to avoid the unnecessary imposition of restrictions on certain children. It is hoped that this field of work may be much enlarged in the future.

**Joint Committee's Clinic.** By arrangement with Dr. Macfarlane a fixed number of cases from the Joint Committee's Clinic are seen weekly so that cardiovascular disease can be excluded or else that known cases of cardiovascular syphilis can be assessed and their



progress observed. It has been found that a considerable number of cases suspected of cardiovascular syphilis are in fact suffering from some other form of heart disease but on the other hand, it is not infrequently possible to observe very early stages of aortitis to form some opinion of the results of treatment. In addition all cases selected for artificial pyrexial treatment receive a thorough cardiovascular overhaul before being submitted to this form of therapy.

**Hypertension.** The surgical treatment of high blood pressure is receiving more and more attention both from the profession and the public and the latter are now well aware that this common disease may be amenable to operation. The selection of suitable cases seems to be eminently the duty of a cardiovascular department for many studies need to be made before deciding that a patient is likely to benefit from the various operations now in vogue.

A start has been made in co-operation with the Department of Neurological Surgery and during the past year four cases have been submitted for sympathectomy. It is as yet much too early to attempt to assess the results of this procedure and a large series of cases will be needed before a firm opinion can be formed.

**Surgical Treatment of Congenital Heart Disease.** This is a comparatively new departure of the greatest interest to both physicians and surgeons. It is now possible to cure some congenital malformations of the heart and great vessels and to palliate others by means of surgery.

So far only cases of patent ductus arteriosus have been passed through the Department before surgical treatment. Four cases have been seen and three have so far been operated upon in the Department of Thoracic Surgery with complete success. One of these cases had a superimposed infective endocarditis and without operation would have inevitably died. She is now restored to perfect health. In the other two cases no infection was present but there were other indications that operation was necessary.

It is hoped that in the future this fruitful field of collaboration may be extended much further.

**Department of Obstetrics.** By arrangement with Mr. Snaith pregnant women with known or suspected heart disease are referred to the Department by the Ante-natal Clinics. Patients with heart disease are then followed up to the end of pregnancy and thereafter.

This material comprises chiefly cases of rheumatic heart disease but there were also a few patients suffering from congenital heart disease. Cardiovascular investigations have also been carried out in a number of patients suffering from toxæmia of pregnancy and definite changes in the heart were found in some of them.

**Intermittent Venous Occlusion.** This is a method of applying intermittent pressure to a limb so as to cause engorgement of the veins in cases where the arterial blood supply is deficient. The apparatus is a simple one and is operated from a domestic tap. It was installed in 1940 and has been used on a large number of cases of threatened gangrene and other conditions due to defective arterial blood supply to the legs. It has been extremely successful and has on several occasions produced remarkable improvement in limbs that appeared to be heading for amputation.

W. E. HUME,

*Physician-in-Charge,*

*Cardiovascular Department.*



# ALMONER'S DEPARTMENT REPORT, 1946.

New patients interviewed .....	6,480
Ante Natal patients interviewed .....	2,649
Total interviews (not A.N.C.) .....	8,039
Cases on Social Register .....	638
Home Visits .....	136

## ANALYSIS OF SERVICES.

### A—NON-MATERIAL ASSISTANCE.

<i>Service.</i>	<i>Number of Cases.</i>
Escort provided .....	9
District Nurse .....	11
Medical Attendance at Home ..	2
Plans for Confinement .....	24
Discharge arranged .....	15
Domestic Help .....	11
Foster Mothers .....	7
Nurseries .....	12
Lodgings found .....	5
Cleaning Room .....	1
Furniture removal .....	1
Drawing Lessons .....	1
Lip-reading Lessons .....	1
Club .....	1
Removal from Home .....	1
Change of Employment .....	2
Adoption .....	1
Baptism .....	1
Vocational Training .....	1
Exchange of House .....	1
Regular Visitor arranged .....	1

### B—MATERIAL ASSISTANCE.

<i>Service.</i>	<i>Number of Cases.</i>
Convalescence .....	33
Clothing .....	27
Transport .....	20
Fares .....	13
Nourishment .....	6
Grants for Cancer Cases .....	13
Pocket Money .....	1
Bedding .....	7
Furniture .....	3
Instruments .....	153
Loan of Instrument .....	7
Dressings .....	1
Extra Clothing Coupons obtained .....	2

### C—CASES PASSED ON TO OTHER

<i>Agency.</i>	<i>Number of Cases.</i>
Moral Welfare Worker .....	61
Labour Exchange .....	32
Institutions (M.O.P.) .....	2

## AGENCIES ASSISTING OR CO-OPERATING.

### STATUTORY.

<i>Agency.</i>	<i>Number of Cases.</i>
Public Assistance Committee ..	8
Maternity and Child Welfare ..	12
Ministry of Pensions .....	2
Prevention of Blindness Scheme	1
Education Department .....	7
Ministry of Labour .....	1
Unemployment Assistance Board .....	1
Housing Department .....	4
Approved Societies .....	32
National Health Insurance ...	2
Home for Incurables .....	1

### VOLUNTARY.

<i>Agency.</i>	<i>Number of Cases.</i>
Red Cross Society .....	1
Red Cross Hospital Car Service	10
Emergency Help Committee ..	3
S.S.A.F.A. ....	7
Regimental Funds .....	7
British Legion .....	11
Tyneside Council of Soc. Service	23
N.S.P.C.C. ....	5
Home Teaching Society for the Blind .....	3
Deaf and Dumb Mission .....	2
Voluntary Tuberculosis Care Council .....	2
National Soc. for Cancer Relief	7
Old People's Welfare .....	3
Discharged Prisoners' Aid ...	1
Boy Scouts .....	1
Invalid Loan Society .....	2
Women's Voluntary Service ..	11
Police Court Mission .....	1
Local Clergy .....	3
Society of St. Vincent de Paul	2
Little Sisters of the Poor .....	5
Dental Hospital .....	3
Arnison Surgical Aid Society ..	3
Hunter Memorial Fund .....	3
Dr. Barnado's .....	1
Works Funds .....	15
Employers .....	4
Private Donors .....	5



The work of the Department has been handicapped due to understaffing. The position was improved in November, when the Shotley Bridge Department was closed and the Almoner from Shotley Bridge became full time assistant at the Newcastle General Hospital.

JULIET E. S. BROWN,  
*Lady Almoner.*

### MENTAL WARDS.

During the year 308 patients were admitted to the Mental Wards, a reduction of 29 on the previous year, of these 130 were males and 178 females.

Of the patients treated 31.53 per cent. of the men and 62.92 per cent. of the women were transferred to the Mental Hospital. This is the highest proportion of women I have had to send to the Mental Hospital. I have included 22 Voluntary and five temporary patients.

The number of such patients is steadily growing, and is likely to continue to increase. Whenever possible certification is avoided.

1947 may be the last during which the Observation Wards are conducted on the present lines, as the new Health Act appears to contemplate various changes. I still feel, however, that these wards have fulfilled a very useful function, and the service which they have rendered to the public will certainly be missed.

GEORGE P. HARLAN,  
*Physician-in-Charge, Mental Wards.*

### V.D. STATISTICS

#### WITH REFERENCE TO NEWCASTLE UPON TYNE, 1946.

6,291 patients, representing 27,635 attendances, were treated at the Joint Committee's Clinic and of 3,754 patients who reported for the first time, 45 per cent were found to have venereal infection. The number of new registrations shows a 20 per cent increase compared with 1945 and a 33 per cent increase over the average figures for the previous 8 years. The incidence of syphilis to gonorrhoea was 2:1 in males and approximately 1:1 in females. Compared with 1938, female contagious (transmissible) syphilis was found to be 10 times more frequent in 1946, while the corresponding male figure showed over a corresponding period an increase roughly half that for females.

Laboratory examinations performed during the year amounted to 22,190, of which 12,169 were serological investigations.



**Defence Regulation 33B**—19 females of whom six were each named by two separate men, were sought and of 10 eventually located, six who reported for examination were found to be suffering from venereal infection. One highly promiscuous female was successfully prosecuted (3 months imprisonment) as a result of refusing to attend for treatment.

**Ante-natal Wassermann scheme**—Approximately 95 per cent of all pregnant women were subjected to Wassermann examination and 0.8 per cent were found to have syphilis. Practically all these women reported for further investigation and treatment and it is interesting to note that no syphilitic offspring was born where these women co-operated and received appropriate anti-syphilitic treatment.

146 demobilised Service men who were suffering from venereal infection and who should have reported at this Department, only did so after repeated efforts made by the Male Social Worker. 33 per cent were suffering from syphilis and 50 per cent of the remainder had gonorrhoea. It is gratifying to note that the majority eventually co-operated and not a few have been discharged cured.

**Medico-social Unit**—The duties of a V.D. department include those of locating the sources of infection and persuading such individuals to attend for examination and treatment where necessary. This aspect of the problem known as Contact-tracing, is as important as persuading defaulters from treatment to re-attend. The medico-social unit rendering this valuable service is essential to a V.D. scheme functioning effectively.

Of 395 "contacts" sought, 72 per cent were found, a corresponding percentage were examined and 48 per cent were proved to be infected. 70 per cent of 617 defaulters (from treatment) responded favourably to efforts made by the medico-social personnel. To produce so satisfactory results, 2,476 domiciliary visits were necessary and 70 per cent of these proved ineffective inasmuch as the social worker failed to see the patient at her home.

**Penicillin in the treatment of V.D.**—This drug still retains remarkable curative powers in the minds of laymen and while its value in the treatment of gonorrhoea is clearly established, many years must elapse before its real worth can be accurately assessed in the treatment of syphilis. We do know that to treat the contagious stage

of the latter disease with penicillin alone is folly since the disease is prone to relapse. Rapid clinical improvement in the treatment of gonorrhoea when penicillin is given, has undoubtedly increased the tendency on the part of such patients to default, thereby adding more work to an already over-burdened medico-social department.

It must be emphasised that the advent of penicillin has reduced the risk of acquiring venereal infection in the minds of promiscuous individuals who no longer regard gonorrhoea as a serious disease. For example a female attending our clinic has had 14 attacks of venereal infection in the past few years and not a few females in their "teens" have already had venereal infections three or four times.

In our opinion penicillin has promoted a wave of promiscuity amongst those members of the community whose morals were always open to question. Such individuals are totally unaffected by Government propaganda as to the dangers of venereal disease and we are satisfied that "Paper" propaganda is entirely ineffective amongst this section of the community. Only as a result of sustained propaganda of a personal nature can we hope to reduce the incidence of venereal infection.

W. V. MACFARLANE, *Director.*

*Joint Committee's Clinic.*



**SHOTLEY BRIDGE HOSPITAL.**

TO THE MEDICAL OFFICER OF HEALTH,  
City and County of Newcastle upon Tyne.

SIR,

I beg to submit the annual report for the year ended the 31st December, 1946.

As in the previous years it will take the form of a brief commentary on the work of the Hospital, as set out in the attached returns.

You will recall that during the year the Health Committee decided to restrict the number of admissions owing to the difficulty in obtaining Nursing Staff. It was then agreed that we should cater for not more than 200 patients, until such time as the position improved. This has resulted in our total number of admissions dropping to half that for the preceding year. There was also a very great decrease in the number of Service cases admitted, as one might have expected on the termination of hostilities. Nevertheless, I am glad to be able to record that every department of the Hospital can present returns showing a creditable volume of work efficiently carried out during the year.

Comparing figures with those of the preceding year, a rough analysis of these returns will show that:—

1. Admissions total 2,526, as against 4,038 in 1945. Of this number only one in seven were Service patients.
2. The number of operations performed over the year was 2,823, as against 2,581 for 1945.
3. The Facio-Maxillary and Thoracic departments both show an increase in the number of patients admitted for treatment.
4. The Radiotherapy department record a small decrease in the number of patients treated.
5. The volume of work in the Pathological Laboratory, X-Ray and Physiotherapy Departments is well up to that of the preceding year.

Turning to individual sections of the Hospital, we have the following departments for review ;

1. General, Medical and Surgical
2. Facio-Maxillary
3. Thoracic
4. Radiotherapy
5. Pathological Laboratory

and the ancillary services supplied by the Physiotherapy, X-Ray and Pharmaceutical departments.

I may note here that the Psychiatric Department was closed early in the year.

#### GENERAL, MEDICAL AND SURGICAL SECTION.

As in previous years, the cases admitted to this unit fell under two headings, namely Service patients sent to us from their units, and Civilian patients transferred to us from other Hospitals, by arrangement with the Ministry of Health.

A perusal of the attached figures will indicate the several conditions, both Medical and Surgical for which these patients were treated. On the whole, I may say that these tended to be of a minor nature and as such were not very instructive for our Junior Medical Staff. In this connection I would repeat what I have stated before, namely that with increased Nursing Staff and less restrictions on the admission of civilian patients, facilities exist at Shotley Bridge for the treatment of general, medical and surgical conditions on a greatly increased scale. This would prove a two-fold advantage in that it would provide more attractive work for our Medical and Nursing Staff, who are not always keen to take appointments in hospitals with special centres only ; while on the other hand it would do something to relieve the pressure on the beds of the City Hospitals.

#### FACIO-MAXILLARY DEPARTMENT.

This centre shows an increase in the number of patients admitted 315 as against 278 during the previous year. This figure of 315 is made up of 263 civilian as against 52 service cases. Most of the cases treated in the plastic Centre were suffering from the sequela of burns, or of such diseases as lupus or rodent ulcers. In the Children's Section we had the usual cases for repair of congenital deformities.



The waiting list of prospective civilian patients, who seek admission to the plastic section of this unit, particularly women and children, is very large. If an attempt were to be made to deal with these patients, many more beds and staff would be required. At present, the plastic section is limited to 34 beds.

The other section of this department is concerned with the treatment of fractures of the facial bones, mainly those of the jaw. Its wants are amply covered by the 20 beds at its disposal.

#### THORACIC UNIT.

This Department is credited with 873 admissions as against 805 during the previous year. The majority were civilians, and were admitted for inflammatory or neoplastic conditions of the chest. The average stay in hospital varies from one month to one year giving an average of about three months. While the Department has 120 beds, there is always a long waiting list, and many cases are admitted in the order of urgency.

Here again, more beds and staff are required if all those seeking admission are to be dealt with. Furthermore, if the conditions of treatment are to be improved, much fewer patients ought to be housed in each ward than is at present the case; and as many of the patients are ambulant, adequate day room accommodation for adults, and schooling facilities for the children are points that should be borne in mind in providing for the future of this clinic.

#### RADIOTHERAPY DEPARTMENT.

The number admitted to this Centre was 706 as against 745 during the preceding year. Of this number only 10 were service patients.

This clinic has a complement of 34 beds. Its available accommodation is always fully taken up, and as expected, it will need further space to meet future requirements. In addition, if the work of the department is to be unhampered, some arrangement must soon be made to place adequate operating theatre facilities at its disposal.

It is a busy, but smooth working and self contained clinic, with an average stay in hospital of three weeks. The results from the treatment it affords to its own patients, and to those cases of malignancy from other wards, are in many cases highly gratifying. It is



now equipped with two deep and one superficial therapy plant, and has the services of a physicist and three radiographers.

#### PATHOLOGICAL LABORATORY.

This is an area laboratory serving the interests not only of Shotley Bridge, but of several other hospitals. The number of specimens examined was 21,353 - approximately the same as that of the preceding year.

With the exception of some specimens sent to the Royal College of Medicine, Edinburgh, and W. R. bloods which are examined at King's College, the laboratory covers the customary range of pathological work - bacteriology, biochemistry, hæmotology and histology. It is in addition the centre of a blood bank, established for our own use and that of the affiliated hospitals.

So far the arrangements seem satisfactory, whereby this area laboratory undertakes to carry out work for other hospitals and gives them whatever advice and assistance they need.

#### MEDICAL STAFF.

Junior Medical Staff were not in such short supply as in former years, yet such as were available were more eager to take service in the city hospitals. Young men of the house surgeon grade are more attracted to those hospitals where they can acquire a good grounding in the diagnosis and treatment of general, medical and surgical diseases. A hospital such as Shotley Bridge, situated in the country, that has only special centres mixed up with such clinically unattractive fare as a succession of herniæ and varicose veins, is not likely to interest the newly qualified; an attitude of mind which I appreciate and with which I sympathise.

This point of view, however, is one which I think ought to be borne in mind in the general set-up and arrangement of hospitals housing special centres in the future.

#### NURSING STAFF.

During the year our staff dropped from 170 to 130, and like similar non-training hospitals our beds are largely unoccupied owing to shortage of nurses. Of the 130 some 80 are auxiliaries or ex-auxiliaries promoted to assistant nurses; 20 are probationers from the Newcastle General Hospital, and the balance are Sisters, Staff Nurses, and 7 administrative staff.



That so much of the routine work in our wards is carried out by the unqualified nurse, is one more reminder, if such were needed that our whole conception of the nurse and her training requires reconsideration. Nursing of the sick can well be carried out by those with much shorter and less academic training than that now given to the State Registered Nurse.

I feel that hospitals like Shotley Bridge will continue to suffer from gross shortage of staff until we have a training school of our own, to which local probationers are recruited. These girls and young men being local, will not hanker after a city life which goes with our present training schools. A shorter course of training for nurses, more practical and less theoretical and one which leads to a recognised qualification, should be instituted.

There should, of course, be better salaries for the junior nurse, who at present compares unfavourably in this respect with the domestic worker in our wards.

Finally if nurses are to be attracted to Shotley Bridge, adequate accommodation for their housing must be provided.

— In concluding this short report, I am conscious of the fact that I have omitted from any detailed comment such important sections of the hospital personnel as the clerical staff, the laundry, power house, farm and other outdoor employees. Suffice it to say that all worked well and contributed each in their own essential way to the successful running of the institution during the period under review.

Perusing the attached returns, I am sure, Sir, you will agree that there is here presented a record of a very creditable year's work. That it was so smoothly and efficiently executed, I am indebted to all grades of staff, but to none more than to our medical and nursing personnel. Without their loyal co-operation, administration could neither be efficient nor easy. They all gave of their best and I am grateful to them.

To Matron and the Clerk and Steward, I would like to record my special thanks. As in former years I have relied upon them more than upon others for the working out of the more intimate details of administration. They have given me every help, and I here acknowledge my indebtedness to them both.

G. F. DUGGAN,  
Medical Superintendent.  
Shotley Bridge Hospital.

## ADMISSIONS, DISCHARGES AND DEATHS

for Year ended 31st December, 1946.

ADMISSIONS—	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Civilian Cases .....	1,35	736	2,088
Service „ .....	426	12	438
TOTALS .....	1,778	748	2,526

DISCHARGES—			
Civilian Cases .....	1,289	717	2,006
Service „ .....	569	13	582
TOTALS .....	1,858	730	2,588

DEATHS—			
Civilian Cases .....	89	28	117
Service „ .....	4	..	4
TOTALS .....	93	28	121

CLASSIFIED LIST OF DISEASES  
TREATED.

## RESPIRATORY DISEASES.

	<i>Service.</i>	<i>Civilian.</i>	<i>Total.</i>
Bronchitis .....	5	20	25
Asthma .....	..	5	5
Pleurisy .....	..	..	..
Bronchiectasis .....	10	145	155
Empyema .....	5	77	82
Broncho-pneumonia .....	..	2	2
Lobar Pneumonia .....	3	6	9
Neoplastic (Simple and Malignant)	3	208	211
Others .....	14	180	194
TOTAL .....	40	643	683

## DIGESTIVE DISEASES.

Gastric Ulcer .....	..	7	7
Duodenal Ulcer .....	6	45	51
Gastritis .....	1	1	2
Dyspepsia .....	..	..	..
Gastro-enteritis .....	2	..	2
Cirrhosis of Liver .....	..	..	..
Jaundice .....	2	..	2
Others .....	18	58	76
TOTAL .....	29	111	140

## TUBERCULOSIS.

Pulmonary .....	23	155	178
Non-Pulmonary .....	4	7	11
TOTAL .....	27	162	189



### DISEASES OF EXCRETORY SYSTEM.

	<i>Service.</i>	<i>Civilian</i>	<i>Total.</i>
Acute Nephritis .....	..	..	..
Chronic Nephritis .....	..	1	1
Pyelitis.....	2	..	2
Cystitis.....	1	..	1
Others .....	15	16	31
TOTAL.....	18	17	35

### ENDOCRINE DISEASES.

Goitre .....	..	..	..
Diabetes Mellitus .....	1	..	1
Others .....	1	..	1
TOTAL.....	2	..	2

### RHEUMATIC DISEASES.

Acute Rheumatic Fever .....	..	..	..
Chronic Rheumatism .....	1	..	1
Rheumatoid Arthritis .....	..	..	..
Lumbago and Fibrositis .....	..	1	1
Sciatica .....	..	..	..
Arthritis.....	3	..	3
TOTAL.....	4	1	5

### NERVOUS DISEASES.

Vascular Diseases of Nervous System .....	..	..	..
Syphilitic Diseases of Nervous System .....	..	..	..
Disseminated Sclerosis .....	1	..	1
Epilepsy.....	..	..	..
Paralysis Agitans .....	..	..	..
Neuritis and Neuralgia .....	..	..	..
Others .....	3	2	5
TOTAL.....	4	2	6

PSYCHIATRIC DEPARTMENT .....	53	16	69
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### DISEASES OF CARDIOVASCULAR SYSTEM.

Rheumatic Heart Disease .....	1	..	1
Syphilitic Heart Disease .....	..	..	..
Hypertension .....	..	5	5
Angina Pectoris .....	..	2	2
Coronary Thrombosis .....	..	2	2
Arterio-sclerosis .....	..	..	..
Senility .....	..	3	3
Others .....	2	7	9
TOTAL.....	3	19	22

	<i>Service.</i>	<i>Civilian.</i>	<i>Total.</i>
<b>MINOR AILMENTS.</b>			
Pharyngitis .....	..	..	..
Laryngitis .....	..	..	..
Coryza .....	..	..	..
Influenza .....	5	..	5
Tonsillitis.....	6	..	6
TOTAL.....	11	..	11
<b>SKIN DISEASES .....</b>			
	9	1	10
<b>BLOOD DISEASES.</b>			
Pernicious Anæmia .....	2	..	2
Others .....	1	4	5
TOTAL.....	3	4	7
<b>INFECTIOUS DISEASES.</b>			
Measles.....	..	..	..
Diphtheria .....	..	..	..
Scarlet Fever .....	..	..	..
Malaria .....	6	1	7
Amœbic Dysentery .....	11	..	11
Others .....	1	3	4
TOTAL.....	18	4	22
<b>SURGICAL CASES.</b>			
FRACTURES (exclusive of Jaw Fract.)			
Simple .....	2	4	6
Compound .....	..	..	..
TOTAL.....	2	4	6
FACIO-MAXILLARY CASES.....	52	263	315
UROGENITAL DISEASES .....	15	7	22
HERNIAE .....	26	71	97
APPENDICITIS .....	13	9	22
ABSCESS, CELLULITIS, ETC. ....	7	5	12
HÆMORRHOIDS, VARICOSE VEINS AND VARICOCELE .....	30	48	78
BONE AND JOINT CONDITIONS, OTHER THAN FRACTURES ..	16	15	31
OTHERS.....	48	43	91
RADIOTHERAPY DEPARTMENT ..	10	696	706



## REPORT FIGURES FOR THE YEAR ENDED DECEMBER, 1946.

## X-RAY DEPARTMENT.

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No. of Patients .....	7,569
No. of Barium Meals .....	219
No. of Jaws .....	242
No. of Chests .....	5,954
No. of Films used in 1946.....	13,114

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## OPERATIONS PERFORMED.

Facio-maxillary Cases .....	288
Skin and Subcutaneous Tissues .....	70
Orthopædic .....	11
Abdominal.....	184
Genito-Urinary .....	18
Blood Vessels .....	73
Ear, Nose and Throat .....	24
Amputations .....	9
Thoracic.....	1,589
Others .....	557
<b>TOTAL.....</b>	<b>2,823</b>

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## PHYSIOTHERAPY DEPARTMENT.

No. of Patients treated .....	873
Treatments—	
Artificial Sunlight .....	815
Electrical .....	3,768
Massage .....	8,354
Breathing and Remedial Exercises .....	26,520
<b>TOTAL.....</b>	<b>39,457</b>

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## PATHOLOGICAL LABORATORY.

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Vaccines.....	5
Casoni .....	10
Sputum .....	5,383
Urine Routine.....	1,085
Occult Blood .....	459
Test Meal.....	259
Blood Chemistry .....	790
Kidney Function Test .....	362
Liver Function Test .....	52
Cerebro-Spinal Fluid .....	97
Worms .....	862
Post Mortem .....	72
Histology .....	671
Sterility .....	3
Autoclave .....	..
Blood Count .....	3,071
Blood Sedimentation Rate .....	1,866
Cross Group .....	400
Agglutination .....	34
Blood Culture .....	168
Sputum Culture .....	231
Pleural Fluid.....	1,608
Nose and Throat Swabs .....	1,492
Wound Swabs .....	818
Faeces for Culture .....	393
Urine for Culture .....	251
Penicillin Sensitivity .....	897
Faecal Fat Estimation .....	14
TOTAL.....	<u>21,353</u>



## REPORT ON SPECIAL SKIN CLINIC

The Special Skin Clinic at 37, Churchill Street, was opened in September, 1942, to provide free treatment for persons of all ages suffering from Scabies. In addition a disinfestation centre was opened for verminous persons.

Latterly the clinic has become more popular with the chronic skin disease sufferers and many diseases such as Psoriasis, occupational dermatitis and Impetigo are seen and either treated or referred to the Skin Department at the Royal Victoria Infirmary.

Patients are seen by the Medical Officer in charge and afterwards treated by one of the staff—4 female assistants and 2 male attendants. In addition the family contacts, especially of school children, are visited at their homes, by one of the female assistants and advised to attend for treatment. The co-operation of families is normally excellent.

Hospital treatment at the Moor Hospital is offered to septic cases of scabies or in cases where home conditions are unsatisfactory. The experiment of admitting healthy mothers into hospital with their children to assist in their supervision while patients has been used with great success.

During 1946, the total number of cases attending for treatment showed a very slight decrease, comparative figures for 1943, 1944, 1945 and 1946 being as follows :—

	<i>Total Cases Treated.</i>	<i>First Treatments given.</i>
1943 .....	11,232	4,907
1944 .....	11,798	5,239
1945 .....	10,105	4,428
1946 .....	10,030	3,964

These figures demonstrate a decrease among first treatments of over 10 per cent. of the 1945 figure, while the total treatments given fell by 0.75 per cent., showing a greater response by contacts of cases to the necessity for preventive treatment.

The number of verminous persons attending for cleansing and disinfection was 159. This shows a decrease of 44 per cent. of the 1945 figure. Comparative figures are :—

1943 .....	163
1944 .....	166
1945 .....	285
1946 .....	159

The extensive use of D.D.T. powder at the Skin Clinic and in the Common Lodging Houses of the City has been the most probable cause of this welcome decrease in the number of verminous persons. It should be possible by a more intensive campaign in the Common Lodging Houses to lower this number even further.

W. MINNS,  
*Medical Officer in Charge*



The number of persons who attended the meeting was 100. The first of the day was held at the 100th Street, New York City.

The second of the day was held at the 100th Street, New York City. The third of the day was held at the 100th Street, New York City.

The fourth of the day was held at the 100th Street, New York City. The fifth of the day was held at the 100th Street, New York City.

The sixth of the day was held at the 100th Street, New York City. The seventh of the day was held at the 100th Street, New York City.

The eighth of the day was held at the 100th Street, New York City. The ninth of the day was held at the 100th Street, New York City.

The tenth of the day was held at the 100th Street, New York City. The eleventh of the day was held at the 100th Street, New York City.

The twelfth of the day was held at the 100th Street, New York City. The thirteenth of the day was held at the 100th Street, New York City.

The fourteenth of the day was held at the 100th Street, New York City. The fifteenth of the day was held at the 100th Street, New York City.

REPORT OF THE  
CHIEF SANITARY INSPECTOR

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**VI—FOOD AND DRUGS  
NUISANCES, HOUSING,  
FACTORIES, Etc.**

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VI—FOOD AND DRUGS  
NUISANCES, HOUSING,  
FACTORIES, ETC.

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**ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR FOR  
THE YEAR 1946.**

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I have pleasure in submitting the following report upon the work carried out by my section of the Department during the year 1946. The position with regard to the availability of building materials and labour has been somewhat worse than during the preceding year, and as a substantial demand on these commodities is occasioned so as to satisfy the requirements of notices, this worsened position has entailed an amount of inspectorial time to be expended that in normal times would be prohibitive and unpardonable to justify the results, yet without such an effort much ground would have been lost in the maintenance of sanitary conditions. Whilst in every way progress in the improvement of these conditions is ever to the forefront, in these days of licensing of materials and rigid control it is more than ordinarily difficult to make little, if any, real progress.

Matters of housing are of some concern. Accumulations of war years' neglect of disrepair press very heavily indeed upon the occupiers of a large number of dwelling-houses, and in particular the conditions under which over 1,000 families living in houses which were condemned as being totally unfit for human habitation in 1938 and 1939 are deplorable. Priority of attention is of necessity given to this sphere of the work, but it is a formidable task and cannot be overcome with the means at present available.

The degree of overcrowding of dwelling-houses is to-day unknown. The 1936 Overcrowding Survey revealed 10·7 per cent. of our population to be living under overcrowded conditions. Since then many changes have taken place in households, and it is estimated that this evil is now more rampant than in 1936, and it is hoped that next year it will be possible to undertake a re-survey to ascertain the position.



**Squatters.**—In August, 21 families took possession of 19 huts in Walker. These premises, in charge of a caretaker, had been vacated some months previously by military forces. In September, three empty Civil Defence huts in Kenton were unauthorisedly occupied by three families. These 24 families comprised 66 persons (46 adults and 20 children). All the huts were in disrepair, amenities were practically nil, and generally the huts were unfit for habitation. This illegal possession was subsequently accepted by the Ministry concerned, who approved the expenditure of a limited sum to remedy the disrepair and to provide amenities. In addition to this work, the tenants themselves have done much to improve their conditions, but withal, the huts, as dwelling-houses, are indeed bad ones.

### **FOOD SUPPLIES.**

Supervision of the food supply to the City has been well maintained, not only in respect of premises whereon foodstuffs are manufactured, stored and sold, but also as to its sampling to ascertain quality and wholesomeness. In regard to quality, whilst the percentage of non-genuine samples is much above that of last year, it is largely accounted for by 59 deficient milk samples, in respect of which, after "appeal to cow" samples had been made, it was found that 56 were genuine milk. In other words, the cows were giving a sub-standard milk. As to the other samples, the analytical results reveal nothing to cause any apprehension. In respect of the bacteriological examination of milk samples, far too many fail to pass the prescribed tests, thus indicating a disregard of hygienic methods of production and distribution.

### **FOOD AND DRUGS ACT, 1938.\***

#### **ADULTERATION.**

**Total Samples.**—During the year 1,084 samples were procured and submitted to the Public Analyst, this being 63 above the total number taken during the preceding year. The sampling rate per 1,000 population is 3·8, and exceeds by 0·8 the rate recommended by the Ministry of Agriculture and Fisheries.

**Informal Samples.**—This method of sampling has again afforded a useful guide as to the quality of the food and drugs sold in the City. Formal samples, however, must be taken in the event of a non-genuine informal sample being obtained, so that, if necessary, legal proceedings may be instituted. In all, 551, or 50·83 per cent. of the total samples have been so taken, and of this number 268 were of milk.

## Samples taken for Analysis during the Year 1946.

ARTICLE.	No. of Samples obtained.			Result of Analysis.		Action Taken.			REMARKS.
	Formal.	Informal.	Total.	Genuine.	Not Genuine.	Prosecutions.	Convictions.	Cases Dismissed.	
Milk .....	503	268	771	712	59	1	1	1	Producer fined. In the remaining cases the producers were cautioned and in three instances (42 samples) the facts were reported to the Adviser in Dairy Bacteriology.
Bacon .....	..	9	9	9	..	..	..	..	
Baked Beans .....	..	2	2	2	..	..	..	..	
Baking Powder .....	..	1	1	1	..	..	..	..	
Bicarbonate of Soda .....	..	3	3	3	..	..	..	..	
Butter .....	..	10	10	10	..	..	..	..	
Biscuits .....	..	7	7	7	..	..	..	..	
Cheese .....	..	9	9	9	..	..	..	..	
Cocoa .....	..	5	5	5	..	..	..	..	
Coffee .....	..	2	2	2	..	..	..	..	
Condensed Milk .....	..	8	8	8	..	..	..	..	
Custard Powder .....	..	1	1	1	..	..	..	..	
Dried Fruits .....	..	6	6	6	..	..	..	..	
Dried Milk .....	..	1	1	1	..	..	..	..	
Essences (Flavouring) .....	..	7	7	7	..	..	..	..	
Fish (Tinned) .....	..	6	6	6	..	..	..	..	
Flour (including Mixtures) .....	..	10	10	10	..	..	..	..	
Fruit (Tinned) .....	..	1	1	1	..	..	..	..	
Gelatine .....	..	6	6	6	..	..	..	..	
Gherkins .....	..	1	1	1	..	..	..	..	
Golden Raising Powder .....	..	1	1	1	..	..	..	..	
Golden Syrup .....	..	1	1	1	..	..	..	..	
Gravy Powder .....	..	2	2	2	..	..	..	..	
Herbs .....	..	5	5	4	1	..	..	..	Informal sample of sage—unable to take formal sample. Samples contained saccharine. Reported to Food Control Committee.
Ice Cream .....	3	27	30	24	6	..	..	..	
Jams .....	1	9	10	10	..	..	..	..	
Marmalade .....	..	2	2	2	..	..	..	..	
Junket Powder .....	..	1	1	1	..	..	..	..	
Lard .....	..	10	10	10	..	..	..	..	
Macaroni .....	..	1	1	1	..	..	..	..	
Margarine .....	..	9	9	9	..	..	..	..	
Marmite and Beef Extracts .....	..	2	2	2	..	..	..	..	
Mustard, Pepper and Vinegar .....	..	6	6	6	..	..	..	..	
Ox Tongue and Corned Meats .....	..	3	3	3	..	..	..	..	
Oats .....	..	1	1	1	..	..	..	..	
Pastes (Meat and Fish) .....	..	3	3	3	..	..	..	..	
Peas .....	..	2	2	2	..	..	..	..	
.. (Split) .....	..	2	2	2	..	..	..	..	
.. (Tinned) .....	..	3	3	3	..	..	..	..	
Barley .....	1	2	3	3	..	..	..	..	
Beans .....	..	2	2	2	..	..	..	..	
Pickles and Sauces .....	..	6	6	6	..	..	..	..	
Rice (Ground) .....	..	1	1	1	..	..	..	..	
Semolina .....	..	2	2	2	..	..	..	..	
Cornflour .....	..	2	2	2	..	..	..	..	
Arrowroot .....	..	1	1	1	..	..	..	..	
Salt .....	..	1	1	1	..	..	..	..	
Sausage .....	9	..	9	4	5	1	1	..	One sample contained excess sulphur dioxide—Vendor fined. Four were deficient in meat content—Reported to Food Control Committee.
Soups .....	..	4	4	4	..	..	..	..	
Spices .....	..	7	7	7	..	..	..	..	
Suet .....	1	..	1	1	..	..	..	..	
Sugar .....	..	10	10	10	..	..	..	..	
Salad Cream .....	..	1	1	1	..	..	..	..	
Tea .....	..	7	7	7	..	..	..	..	
Vegetables (Tinned) .....	..	1	1	1	..	..	..	..	
<i>Household Drugs:—</i>									
Boracic Acid Powder .....	..	3	3	3	..	..	..	..	
Camphorated Oil .....	..	4	4	4	..	..	..	..	
Castor Oil .....	..	3	3	3	..	..	..	..	
Chemical Food .....	..	2	2	2	..	..	..	..	
Composition Essence .....	..	1	1	1	..	..	..	..	
Cream of Tartar .....	..	1	1	1	..	..	..	..	
Crushed Linseed .....	..	1	1	1	..	..	..	..	
Epsom Salts .....	..	5	5	5	..	..	..	..	
Glauber's Salts .....	..	4	4	4	..	..	..	..	
Glycerine .....	..	3	3	3	..	..	..	..	
Gregory Powder .....	1	4	5	3	2	1	..	1	Dismissed on payment of costs
Iodine .....	..	3	3	3	..	..	..	..	
Licorice Powder .....	..	3	3	3	..	..	..	..	
Liquid Paraffin .....	..	1	1	1	..	..	..	..	
Ointments .....	3	6	9	6	3	..	..	..	3 samples of Zinc Ointment—vendors cautioned.
Paregoric .....	..	2	2	2	..	..	..	..	
Senna (Confection of) .....	..	1	1	1	..	..	..	..	
Syrup of Figs .....	..	1	1	1	..	..	..	..	
Syrup of Squills .....	..	1	1	1	..	..	..	..	
Tartaric Acid .....	..	2	2	2	..	..	..	..	
Wines (Alcoholic) .....	2	..	2	2	..	..	..	..	
.. (Tonic) .....	3	..	3	3	..	..	..	..	
Spirits—Gin .....	2	..	2	1	1	..	..	..	Summons withdrawn.
.. Rum .....	1	..	1	1	..	..	..	..	
.. Whiskey .....	2	..	2	2	..	..	..	..	
"Slymgo" .....	1	..	1	..	1	..	..	..	Reported to Ministry of Health—Product withdrawn from sale.
TOTALS .....	533	551	1,084	1,006	78	4	2	2	





**Samples Not Genuine.**—The number of these samples was 78, representing 7·2 per cent. of the total samples. This compares very unfavourably with that of last year, which was 4·9 per cent. Of these deficient samples, 59 were of milk and 18 of other articles. Details of these samples and the result of four prosecutions are set out in the schedule. (See Page 162A.)

**Milk Samples.**—The major number of samples taken were of milk. 771 were procured (71·13 per cent. of the total samples), of which 59 were certified to be below the minimal limit fixed by the Sale of Milk Regulations, 1939, viz., 8·5 per cent. non-fatty solids and 3·0 per cent. milk fat. Deficiencies in non-fatty solids were found in 10 samples, deficiencies in milk fat in 35, and deficiencies in both were detected in the remaining 14 samples. With regard to the 59 deficient samples, 56 were from milk produced on four premises in Northumberland and one in Cumberland. In respect of the Northumberland milk, 76 samples were procured, either when on sale in the City, in course of delivery, at the point of collection or “Appeal to Cow,” and of these 52 were found to be deficient—10 in non-fatty solids, 33 as to milk fat, and 9 in both. The deficiencies ranged in non-fatty solids from 7·6 per cent. to 0·2 per cent. and in milk fat from 23·3 per cent. to 3·0 per cent. Samples, 6 in number, were taken in course of delivery, at the point of collection, and “Appeal to Cow” in the instance of the Cumberland milk. 4 of these were deficient (“Appeal to Cow” genuine), all in non-fatty solids and milk fat. The deficiencies ranged in non-fatty solids from 44·2 per cent. to 32·2 per cent. and in milk fat from 32·3 per cent. to 12·6 per cent. The samples of Northumberland milk, though bad in quality, were all genuine, as it was ascertained that the cows were delivering milk below standard. As to the other milk, it was found to have been “watered” after production. For this offence the offender was summoned and fined. The following table sets out the average composition of all the milk samples.

**Composition (Average) of all Milk Samples.**

Designation.	No. of Samples.	Composition (average).	
		Milk Fat.	Non-fatty Solids.
T.T. (Cert.) .....	52	4·27	9·02
T.T. ....	112	3·49	8·86
Accredited .....	30	3·55	8·70
Pasteurised .....	304	3·40	8·76
Heat Treated .....	40	3·61	8·71
Sterilised .....	123	3·64	8·74
Undesignated .....	110	3·56	8·67
	..	3·55%	8·77%



**“Appeal to Cow.”**—The premises of 5 producers were visited and there a milking operations supervised. 27 samples were taken and submitted to the Public Analyst, who certified 9 to be genuine and 18 below standard. Subsequently, advice was tendered to one producer as to improvements in his milking arrangements, which brought about a balanced milk above the minimal standard. At three other premises the services of the Adviser in Dairy Bacteriology were secured with a view to improvement in the quality of the milk. At the remaining premises a defective milk cooler was found to be diverting its cooling liquid into the milk, which caused the producer to be summonsed and fined. The composition of these samples is as follows:—

**Composition of “Appeal to Cow” Samples.**

Sample No.	Milk Fat %	Milk Solids other than Milk Fat %	Deficiency Percentage	
			Milk Fat	Milk Solids other than Milk Fat
1	3.74	8.26	—	2.8
2	4.95	8.23	—	3.1
3	2.70	8.35	10.0	1.7
4	3.00	8.24	—	3.0
5	2.30	8.43	23.3	0.8
6	2.62	8.19	12.6	3.6
7	2.91	8.36	3.0	1.6
8	3.25	8.57	—	—
9	3.20	8.66	—	—
10	3.00	8.52	—	—
11	2.55	8.73	15.0	—
12	2.40	8.70	20.0	—
13	2.35	8.69	21.6	—
14	2.40	8.72	20.0	—
15	2.60	8.76	13.3	—
16	2.65	8.77	11.6	—
17	2.70	8.76	10.0	—
18	2.75	8.79	8.3	—
19	2.70	8.76	10.0	—
20	2.85	8.81	5.0	—
21	3.70	8.53	—	—
22	3.60	8.54	—	—
23	2.54	8.85	15.3	—
24	3.20	8.86	—	—
25	3.30	9.00	—	—
26	3.50	9.09	—	—
27	3.80	9.05	—	—

## BACTERIOLOGICAL EXAMINATION OF MILK.

Samples of all milks sold in the City are taken regularly and submitted to bacteriological examination. In all, 1,054 samples were procured, the results being as follows :—

Designation.	No. taken.	Satisfactory.	Unsatisfactory.			%
			Meth. Blue.	B. Coli.	Meth. Blue and B. Coli	
T.T. (Cert.) . . . . .	61	59	1	1	—	3.28
T.T. . . . .	135	106	12	5	12	21.48
Accredited . . . . .	157	129	7	15	6	17.83
Undesignated . . . . .	504	342	68	34	60	32.14
Total . . . . .	857	636	88	55	78	25.78
Pasteurised . . . . .	89	88	1	Phosphatase Test.		1.12
Heat Treated . . . . .	37	29	7	—		21.62
Sterilised . . . . .	71	71	—	—		—
Total . . . . .	197	188	8	1		4.57

## TUBERCULOUS MILK.

384 samples were submitted to the Bacteriologist who subsequently reported 8 of them to be positive. These samples were of milk produced on four premises in the County of Northumberland, one in the County of Cumberland, and two premises within the City. In each instance the appropriate action was taken in the matter. The following table sets out the grades of milk sampled and the results of the examination.

Designation.	No. Taken.	Negative.	Positive.	Percentage.
T.T. (Cert.) . . . . .	10	10	—	—
T.T. . . . .	59	59	—	—
Accredited . . . . .	63	59	4	6.35
Undesignated . . . . .	234	230	4	1.71
Pasteurised . . . . .	8	8	—	—
Heat Treated . . . . .	4	4	—	—
Sterilised . . . . .	6	6	—	—
Total . . . . .	384	376	8	2.09



The table following sets out the percentage of milk samples found to contain tubercle bacilli during the past 27 years :—

Year.	Percentage of Samples found Tuberculous.
1920 .....	6.3
1921 .....	5.5
1922 .....	7.0
1923 .....	4.5
1924 .....	3.2
1925 .....	8.0
1926 .....	4.0
1927 .....	3.7
1928 .....	3.7
1929 .....	8.7
1930 .....	4.2
1931 .....	3.7
1932 .....	1.8
1933 .....	2.0
1934 .....	2.6
1935 .....	3.4
1936 .....	2.7
1937 .....	4.3
1938 .....	3.8
1939 .....	5.2
1940 .....	5.7
1941 .....	2.3
1942 .....	5.0
1943 .....	3.0
1944 .....	3.1
1945 .....	0.8
1946 .....	2.1

**Milk Churns.**—The condition of milk churns on return from retailers in the City to producers, wholesalers, etc., is strictly supervised, and during the year three only of the 18,163 churns examined at the railway stations, on road vehicles and at dairy premises, were found to be in an unsatisfactory condition. In each instance, upon the instructions of the Health Committee, the offenders were cautioned.

**The Milk and Dairies Order, 1926, Article 6, and the Food and Drugs Act, 1938, Section 22.**

Four applications were received for registration as retail purveyors of milk and one as dairyman. All were granted. Inspection of all premises dealing in milk is carried out as a routine measure, and during the year, apart from minor offences, the condition of the premises

generally have been found to be satisfactory. The total number of premises registered are :—

Producers of Milk (Wholesale) .....	1
Producers and Retailers .....	14
Shops (Sale of Dairy or the like commodities)....	54
Shops (General) .....	378
Total .....	<u>447</u>

### Milk (Special Designations) Order, 1936.

The number of licences granted during the year is in accordance with the following table :—

	Grade of Milk.			Total.
	Tuberculin Tested.	Accred-ited.	Pasteur-ised.	
Pasteuriser-bottler-dealers .....	—	—	1	1
Producer-bottler-retailers .....	1	6	—	7
Bottler-retailers .....	9	1	—	10
Retailers .....	10	—	—	10
Supplementary Licences (Retailers)	—	—	1	1
Total .....	20	7	2	29

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

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

**Artificial Cream.**—No action has been taken in respect of the sale of artificial cream for human consumption as it is prohibited under war-time regulations. Two only retail shops remain on the register.

### Ice Cream—Newcastle Corporation (General Powers) Act, 1935, Section 4.

Premises used for the manufacture, storage and/or sale of ice cream together with the person occupying such premises or vending ice cream, are registered under the above Act. During the year, 10 applications for registration were received and all granted. Careful and constant supervision is exercised over these premises and the persons engaged therein, so as to maintain hygienic conditions. The number of such premises on the register is 159.



**Butter and Margarine Warehouses, etc.**—These premises are registered under Section 34 of the Food and Drugs Act, 1938, and during the year one application for registration of a Butter Blending Factory was received. Improvements to the premises were suggested to the applicant, who carried out the work required, and the application was granted.

Inspections, 50 in all, were carried out of these premises and conditions therein found to be satisfactory.

19 samples of butter and margarine were taken and certified to be genuine. Packages, wrappings, etc., containing margarine were examined on premises and found to be in compliance with requirements. Registered premises comprise 2 Butter Factories and 15 Margarine Warehouses.

**Preservatives in Food.**—Of the total samples (1,084) submitted to the Public Analyst 9 were found to contain preservatives. The samples were sausages, and whilst 8 contained Sulphur Dioxide within the limit allowed under the Public Health (Preservatives in Food) Regulations, 1925-1940, one was found to contain it in excess. The vendor was prosecuted and fined for the offence. Samples of sausages were also submitted to the Public Analyst for analysis as to their meat content, and in four instances the meat content was found to be below the prescribed percentage. Details of the deficiencies were submitted to the Food Control Committee, prosecutions were ordered by them, and the offenders were fined.

**Bakehouses.**—The number of registered bakehouses in the City total 187. Of these, 5 are certified "basement bakehouses." Certification of these latter premises is in quinquennial periods, and inspection as to whether re-certification is to be granted or otherwise is due in 1948. Generally throughout the year, despite difficulties in the renewal of utensils, overalls, etc., reasonably satisfactory conditions have been maintained.

No. of Factory Bakehouses (Mechanical) .....	75
(Non-mechanical) ..	80
No. of Domestic Bakehouses .....	32
Total .....	187

**Restaurant Kitchens** (including Hotels, Cafes, Snack Bars, Refreshment Rooms, works' and other premises' canteens). The conditions under which foodstuffs are handled, stored and prepared are daily

under supervision, together with the amenities provided for the staff and patrons. During the year sanitary conditions have been maintained, not without difficulty. There is noted an increasing number of patrons frequenting these premises, where, in some instances, there is not available adequate staff, equipment, nor amenities. The number and types of these premises are :—

Hotel Kitchens .....	30
Cafes and Restaurants .....	89
Snack Bars .....	7
Refreshment Rooms .....	1
Canteens .....	33
British Restaurants .....	4
Total .....	164

**Fried Fish Shops.**—The number of these shops in the City total 149, and under a local Act it is a scheduled "Offensive Trade." Comments as to this trade are set out under Offensive Trades on page 179.

**Offences other than Adulteration.**—14 offences were reported to the Health Committee who resolved in each instance that the offenders be cautioned.

#### OFFENCES OTHER THAN ADULTERATION.

Offence.	No. of Cases.	Action Taken.
MILK (SPECIAL DESIGNATIONS) ORDER, 1936; THIRD SCHEDULE, PART 1A (6)— Contraventions of conditions of licence..	6	Offenders cautioned.
MILK & DAIRIES ORDER, 1926— <i>Article 31 (2)</i> — Bottles of milk opened and portions sold therefrom.....	1	Offender cautioned.
<i>Article 32</i> — Failure to use all practicable means for preventing milk from being contaminated by dust, dirt, rain-water or otherwise .....	2	Offenders cautioned.
<i>Article 28</i> — Churns not properly cleansed before being returned .....	4	Offenders cautioned.
NEWCASTLE UPON TYNE CORPORATION (GENERAL POWERS) ACT, 1935. <i>Section 4</i> — Failure to keep an ice cream container in a clean and wholesome condition .....	1	Offender cautioned.
TOTAL .....	14	



## WATER SUPPLY.

The supply of water is furnished to the City by the Newcastle and Gateshead Water Company. The main supply is pure upland surface water obtained from large catchment areas at Catcleugh (close to the Cheviots) and in lower Northumberland. Secondary supply is from the River Tyne at Barrasford and Wylam. Reservoirs are situated at Catcleugh, Colt Crag, Hallington and Whittle Dene. Filtering stations are situated at Whittle Dene and Throckley, 11 and 5 miles respectively west of the City. To all intents and purposes the household taps in the City are fed direct off the rising main, whilst the great riverside works are catered for, in trade purposes, by a separate main.

**Bacteriological Examination.**—The domestic supply is sampled weekly from supply taps on premises within the City and also at Throckley Water Works and two other control stations outside of and west of the City. Throughout the year 367 samples have been taken, whose classification is as follows :—

Class I (B. Coli not found in 100ml.) . . . . .	349
Class II (B. Coli found in 100ml. but not in less) . . . . .	14
Class III (B. Coli found in 10ml. but not in less) . . . . .	3
Class IV (B. Coli found in 1ml. but not in less).. . . . .	1

**Chemical Analysis.**—4 samples are taken monthly, from the domestic supply, from different points within the City. It is not liable to have a plumbo-solvent action, and in each instance the Public Analyst certifies that the water is of satisfactory organic purity, its microscopical characteristics are good, it is clear and bright, and is suitable for a public supply. The average analysis of the chemical samples is shown below :—

	Parts per 100,000.
Total solids dried at 180° C. . . . .	18.00
Chlorine as chlorides . . . . .	1.098
Free ammonia . . . . .	0.012
Albuminoid ammonia . . . . .	0.009
Nitrogen as nitrates . . . . .	0.094
Oxygen absorbed (4 hours at 80°F.) . . . . .	0.260
Total hardness . . . . .	11.60
Permanent hardness . . . . .	3.40
Temporary hardness . . . . .	8.20
Lead and copper . . . . .	Nil
Iron . . . . .	Nil
pH value . . . . .	7.0

**Public Baths.**—Samples of the plunge bath waters are submitted periodically for examination. Results of these examinations are set out on page 77. In addition, during the season the bath waters are tested (Chloroscope) weekly to ensure sterility of the water being maintained.

## NUISANCES.

The number of nuisances reported upon and dealt with was just under 30 per cent. higher than that of the previous year's total, viz., 14,403, as against 11,151. None of the complaints were of an unusual character but rather, in the main, reflected the neglect of repair of premises during the preceding years.

**Notices Served.**—The Informal Notices served in respect of all matters increased 31 per cent. and Statutory Notices 180 per cent., whilst other letters showed a decrease of 164 per cent. The actual numbers are :—

Number of notices served :—

Informal .....	4,958	
Statutory .....	1,840	
		6,798
No. of "summons" letters sent .....	186	
*No. of other letters sent .....	464	
No. of circular letters sent .....	369	
Total .....	7,817	

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

**Legal Proceedings.**—The number of Statutory Notices served upon instruction of the Health Committee totalled 1,840, and during the year legal proceedings were ordered in respect of 753. By the end of the year 457 of these latter notices had been complied with, and in many cases work was in progress. In the remaining instances works had been ordered by the owners but materials were not available.



SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE  
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, ETC.

Nature of Complaint.	No. of Cases.	Work done without summonses being applied for.
<b>PUBLIC HEALTH ACT, 1936.</b>		
Drains defective .....	9	6
Soil and/or vent pipes defective .....	6	3
Roofs and/or spouting defective .....	166	106
W.C.'s defective, without sufficient flush, etc. ....	71	42
Rooms inadequately ventilated (sash cords, etc.) ..	71	46
Inadequate sanitary accommodation.....	—	—
Dampness in rooms, etc. ....	68	44
Smoke emission into rooms .....	15	10
Sink wastes defective, untrapped, etc. ....	26	16
No water supply .....	9	7
Yard pavement defective .....	7	6
Accumulations of refuse.....	9	4
Dustbins—lack of, or defective .....	48	29
Structural defects (including plasterwork, fireplaces, windows, floors, thresh, etc.)....	193	117
<b>GENERAL POWERS ACT, 1935.</b>		
No larder accommodation .....	5	4
<b>TENEMENT BYE-LAWS.</b>		
Structural defects .....	15	7
Inadequate ventilation.....	5	1
Roofs and/or eaves-spouting defective .....	2	—
Passages and walls in dirty condition .....	4	—
Dustbins—lack of, defective or insufficient ...	2	—
No food storage accommodation .....	6	2
Water supply and sinks not conveniently accessible .....	4	1
Inadequate accommodation for washing of clothes.....	4	1
Inadequate artificial lighting .....	4	2
Inadequate cooking accommodation .....	2	1
<b>FOOD AND DRUGS ACT, 1936, SECTION 13.</b>		
No intervening ventilated space to w.c.....	1	1
Inadequate ventilation.....	1	1
<b>TOTALS .....</b>	<b>753</b>	<b>457</b>

**Pail Closets, Privies, etc.**—There still remain in the City a number of pail-closets, privies, etc. These are situated on the outskirts, in the semi-rural areas. Structurally they are in a sound condition, and owing to the absence of convenient sewerage facilities they must remain. The conversion of these to water-closets will be enforced immediately sewers are available.

### NEWCASTLE CORPORATION (GENERAL POWERS) ACT, 1935.

The Medical Officer of Health and the Sanitary Inspector are empowered under the above Act to deal, on a 24-hours' notice, with defective and/or choked drains, conveniences, soil-pipes and waste-pipes from baths, sinks, etc. On default of an owner, the works required are carried out by the Health Committee and the costs recovered from the owner or occupier of the premises, as the case may be. In all, these very useful powers have been invoked in the service of 616 notices, and in 103 instances the specified works were carried out when default was made, at a total cost to the defaulters of £411. 16s. 2d. The works carried out in default were as follows :—

Choked drains cleared .....	62
W.C. basins renewed .....	22
Sink waste-pipes repaired .....	11
Defective drains renewed .....	1
Defective w.c.'s repaired .....	6
Water supply provided .....	1
Total .....	<u>103</u>

**Smoke Abatement.**—The position in respect of the abatement of smoke nuisances has been most difficult. Whilst it cannot be gainsaid that carelessness in stoking boiler fires, forcing of plant, and other matters leading to excess emission of black smoke, has occurred, the fact remains that the grade of fuel supplied by the Ministry of Fuel and Power to the users of boiler plants has not been suitable in every instance. Bye-laws are in operation which allow 3 minutes' emission of black smoke per 30 minutes, any emission in excess being an offence and a nuisance. Whenever this permissible amount is exceeded, and also in cases where a heavy emission of "medium" smoke is observed, the cause is enquired into and advice given, wherever possible, to remedy the fault.



During the year 288 observations were made of 70 factory and other chimneys, and 12 informal notices were served.

The following table gives details of smoke inspections :—

No. of chimneys watched	No. of observations made.	No. of chimneys from which black smoke issued in such quantity as to be a nuisance.	No. of times when smoke issued so as to be a nuisance.	No. of notices served (Informal).
70	288	7	12	12

**Atmospheric Pollution.**—Four gauges are in use to detect atmospheric pollution. One is situated on the Town Moor in open surroundings, whilst the other three are in densely populated areas. The Town Moor gauge is approximately  $2\frac{1}{2}$  miles North of the river, whilst the other three are situated approximately 1 mile,  $\frac{1}{2}$  mile and  $\frac{1}{6}$  mile North of the river. The deposits on the gauges are as set out in the following tables :—

ATMOSPHERIC POLLUTION.—NEWCASTLE RECORDS, 1946.  
TOWN MOOR GAUGE.

MONTH.	RAIN (Millimetres).	TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible.	Ash.			Sulphate as S.O. <sub>4</sub>	Chlorine as Cl.	Lime as Ca.
January . . . .	26.4	0.27	2.63	2.96	2.96	8.82	1.18	0.13	0.40
February . . .	6.8	0.47	2.09	2.93	1.38	6.87	0.51	0.17	0.17
March . . . . .	36.3	0.24	3.23	4.14	5.02	12.63	1.75	0.27	0.64
April . . . . .	33.0	0.47	3.50	6.20	3.54	13.71	0.91	0.24	0.44
May . . . . .	46.2	0.57	5.83	3.30	3.54	13.24	1.18	0.34	0.54
June . . . . .	62.7	0.61	3.20	4.14	3.84	11.79	1.31	0.44	0.67
July . . . . .	105.7	0.13	4.25	6.97	3.77	15.12	1.99	0.37	1.11
August . . . .	85.9	0.30	2.36	4.78	6.57	14.01	2.36	0.47	0.51
September . .	89.2	0.27	3.67	4.52	3.20	11.66	1.48	0.30	0.94
October . . . .	26.4	0.34	1.55	2.49	3.77	8.15	1.21	0.57	0.30
November . . .	99.1	0.57	1.48	2.53	8.59	13.17	1.45	1.79	0.61
December . . .	56.1	0.30	4.25	6.43	4.58	15.56	1.89	0.61	0.67
Total, 12 months . . . .	673.8	4.54	38.04	51.39	50.76	144.73	17.22	5.70	6.80
Average per month . .	56.15	0.38	3.17	4.28	4.23	12.61	1.43	0.49	0.57

## WESTGATE CEMETERY GAUGE.

MONTH.	RAIN (Millimetres).	TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O <sub>4</sub> .	Chlorine as Cl.	Lime as Ca.
January . . . .	33.4	0.54	6.94	9.02	3.57	20.07	1.80	0.17	0.65
February . . .	8.5	0.58	1.53	3.95	2.14	8.20	0.82	0.24	0.24
March . . . . .	33.4	0.71	4.94	7.76	6.30	19.71	2.38	0.17	0.82
April . . . . .	33.4	0.48	3.67	9.80	4.25	18.20	1.39	0.24	0.71
May . . . . .	50.1	0.65	3.33	7.49	4.87	16.34	1.67	0.37	0.88
June . . . . .	43.4	0.41	4.19	7.62	3.10	15.32	1.36	0.31	0.58
July . . . . .	96.9	0.10	4.49	8.13	4.42	17.14	2.25	0.51	1.02
August . . . .	83.5	0.37	3.54	6.94	4.25	15.10	1.74	0.61	0.61
September . .	86.8	0.58	5.89	10.55	5.75	22.77	2.59	0.48	1.29
October . . . .	22.7	0.20	3.06	5.62	4.15	13.03	1.53	0.41	0.54
November . . .	100.2	0.58	5.04	5.65	7.15	18.42	1.91	0.92	1.50
December . . .	53.4	0.34	3.95	7.83	5.99	18.11	2.69	0.38	0.71
Total, 12 months . . . .	645.7	5.54	50.57	90.36	55.94	202.41	22.13	4.81	9.55
Average per month . .	53.8	0.46	4.21	7.53	4.66	16.87	1.84	0.40	0.80



## WELBECK RESERVOIR GAUGE.

MONTH.	RAIN (Millimetres).	TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O <sub>4</sub> .	Chlorine as Cl.	Lime as Ca.
January . . . .	20.1	0.55	3.32	5.71	6.98	16.56	2.40	0.34	0.68
February . . .	4.6	0.48	1.78	2.60	2.09	6.95	0.38	0.34	0.27
March . . . . .	15.8	0.44	3.05	4.62	8.04	16.15	2.46	0.41	0.72
April . . . . .	30.2	0.58	2.80	7.43	7.39	18.20	2.77	0.27	0.55
May . . . . .	36.9	0.31	3.90	6.37	8.86	19.44	2.88	0.41	0.79
June . . . . .	33.6	0.38	4.21	5.88	4.79	15.26	1.99	0.41	0.51
July . . . . .	83.9	0.07	4.75	6.78	5.13	16.73	2.81	0.44	1.03
August . . . .	60.4	0.44	1.81	4.42	7.08	13.75	2.40	0.65	0.55
September . .	73.9	0.21	2.46	6.30	9.41	18.38	2.64	1.06	0.79
October . . . .	14.2	0.30	1.37	3.29	6.12	11.08	1.81	0.41	0.55
November . . .	67.1	0.17	3.11	4.21	7.53	15.02	2.81	1.10	0.62
December . . .	53.7	0.55	2.12	5.47	9.58	17.72	3.83	0.79	0.65
Total, 12 months . . . .	494.4	4.48	34.68	63.08	83.00	185.24	29.18	6.63	7.71
Average per month . .	41.2	0.37	2.89	5.25	6.92	15.44	2.43	0.55	0.64

## CITY ROAD GAUGE.

MONTH.	RAIN (Millimetres).	TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O <sub>4</sub> .	Chlorine as Cl.	Lime as Ca.
January . . . .	31.1	0.57	8.51	13.11	7.30	29.49	2.81	0.22	0.42
February . . .	10.4	0.30	2.79	5.05	2.59	10.73	1.43	0.09	0.23
March . . . . .	38.9	0.71	10.67	15.20	10.91	37.49	4.56	0.35	1.05
April . . . . .	32.4	0.39	7.50	14.74	7.60	30.23	3.13	0.18	0.97
May . . . . .	37.6	0.57	11.57	20.46	9.20	41.80	4.34	0.41	0.73
June . . . . .	37.6	0.49	6.11	12.11	5.94	24.65	3.38	0.14	0.90
July . . . . .	77.8	0.45	8.03	14.66	6.74	29.88	4.41	0.56	1.17
August . . . .	81.1	0.55	6.78	11.57	7.85	26.75	4.59	0.29	1.10
September . . .	42.8	0.26	5.75	9.82	5.23	21.06	1.98	0.31	0.71
October . . . .	19.5	0.50	13.45	16.97	6.54	37.46	2.90	0.35	0.55
November . . .	84.3	0.53	7.53	9.52	12.47	30.05	4.06	1.22	1.01
December . . .	46.7	0.55	7.61	10.82	12.61	31.59	4.11	0.42	0.70
Total, 12 months . . . .	540.2	5.87	96.30	154.03	93.98	351.18	41.70	4.54	9.54
Average per month . .	45.02	0.49	8.02	12.84	7.83	29.26	3.48	0.38	0.79



## TOTAL IN FOUR GAUGES IN THE CITY, 1946.

	RAIN (Millimetres).	TONS OF DEPOSIT PER SQUARE MILE PER MONTH.							
		Insoluble Matter.			Soluble Matter.	TOTAL SOLIDS.	Included in Soluble Matter.		
		Tar.	Other Combustible	Ash.			Sulphate as S.O <sub>4</sub> .	Chlorine as Cl.	Lime as Ca.
Total 12 months . . .	2,354.15	20.43	219.59	358.86	283.68	883.56	110.23	21.68	33.60
Average per month.	196.18	1.70	18.30	29.90	23.64	73.63	9.19	1.81	2.80
Average per gauge, 12 months.	588.54	5.10	54.90	89.71	70.92	220.89	27.56	5.42	8.40
Average per gauge, per month.	49.04	0.42	4.58	7.48	5.91	18.41	2.29	0.45	0.70

**Sunshine over the City.**—Returns of sunshine are recorded at King's College in the City, and comparison is made with similar records compiled by King's College at Cockle Park, near Morpeth (approximately 15 miles North of the City). The following table shows the hours of sunshine recorded :—

Month.	King's College. Sunshine (hours).	Cockle Park Sunshine (hours).
January .....	0.62	41.9
February .....	69.36	108.3
March .....	73.05	105.1
April .....	123.42	170.1
May .....	163.55	197.4
June .....	163.73	208.4
July .....	133.40	161.2
August .....	127.36	142.5
September .....	76.90	107.9
October .....	39.48	58.7
November .....	15.51	35.3
December .....	20.90	65.3
Total for year .....	1,007.28	1,401.1
Average per month .....	83.94	116.76

**Rainfall.**—The rainfall recorded over the City amounted to 26.075 inches, an average of 2.173 inches per month.

**Offensive Trades.**—In addition to the offensive trades set out under the Public Health Act, 1936, the trade of Fish Fryer is scheduled as such under a local Act. In the 12 months under report, 6 applications were received to establish offensive trades, and reports thereon were presented to the Health Committee. 5 were in respect of the trade of Fish Fryer, and one as to the trade of Blood Boiler. Three of the fish-frying applications were refused on account of the premises being unsuitable for this purpose, whilst the remainder were granted.

Throughout the year inspections (1,170) of these trade premises have been carried out systematically, many offences were detected and dealt with, but offences of a serious character were absent. Generally the businesses have been carried out in a satisfactory manner.

The great majority of these premises are fish fryers (fish and chip shops), whose hours of business (apart from two hours at mid-day) are during the evenings. Inspection of these premises during evening



hours is also carried out. The number and types of offensive trades on the register is :—

Fish fryers .....	149
Rag and bone dealers .....	9
Tripe boilers .....	5
Gut scrapers .....	5
Dealers in hides and skins .....	4
Bone boilers .....	2
Fat melter .....	1
Fat extractor .....	1
Glue makers .....	2
Size maker.....	1
Soap boiler .....	1
Blood boilers.....	2
Total .....	<hr/> 182 <hr/>

**Places of Public Entertainment : Theatres, Cinemas, etc.**—Particular attention is paid to all places of public entertainment as to the suitability and sufficiency of sanitary accommodation, washing facilities for patrons and staff, ventilation, heating, lighting, cleanliness, etc. Progress in many works of improvement has not been all that was desired during the year, owing to the war's aftermath.

In regard to premises where application is made to the Licensing Magistrates for a licence for music and/or dancing, a Certificate of Sanitation from the Sanitary Authority must be produced in support of the application. Three such applications were received and refused, as the premises were not up to standard.

The number of premises in respect of which Certificates of Sanitation have previously been issued is 179, comprising 4 theatres and music halls, 45 cinemas, and 130 dancing and concert halls, billiard rooms and cafes.

The number of inspections (day and evening) of all these premises carried out during the year was 436, and sanitary conditions were found to be reasonably satisfactory. The ventilation arrangements in the theatres and cinemas are tested periodically with the "Kata" Thermometer. During these tests atmospheric conditions were found to be unsatisfactory in 14 instances. The attention of the management was immediately directed to these adverse conditions and improvement promptly followed.

## Summary of Nuisances, etc., found and dealt with.

Water-closets—		
Conversion of waste-water closets to wash-down .. ..	2	
Accommodation insufficient—additional conveniences ordered ..	4	
Defects in structure and/or apparatus .. ..	1,273	
Without adequate water supply .. ..	166	
Want of cleansing (notices served on tenants) .. ..	33	
Pail closets—		
Structural defects .. ..	1	
Drains—		
Obstructed .. ..	466	
Defective : (to repair or construct new drains) .. ..	160	
Relaid without notice to Local Authority .. ..	—	
Soil-pipes, vent shafts, etc., defective or choked .. ..	69	
Sinks, waste-pipes, etc.—Want of or defective, choked, untrapped etc. .. ..	590	
Dampness : (Defective Roofs, spouting and other causes) ..	2,738	
Dustbins—Defective or insufficient (a) for houses .. ..	1,281	
(b) for business premises .. ..	4	
Water supply—		
Want of (other than in tenements, see below) .. ..	412	
Unwholesome (from wells) .. ..	—	
Cisterns dirty, defective, etc. .. ..	12	
Smoke—		
Emitted from factory and other chimneys in excess of limit prescribed by Byelaw .. ..	12	
Emitted into rooms (from defective fireplaces, obstructed flues, etc.) .. ..	136	
Lighting of rooms, staircases, etc., insufficient (other than in tenements, see below) .. ..	12	
Ventilation inadequate (floor spaces, sash-cords, etc.) .. ..	798	
Pavements of yards, passages, etc.—Want of or defective ..	153	
Structural defects—Internal and external (plaster, floors, stairs, walls, fireplaces, chimneys, doors, etc.) .. ..	3,966	
Inadequate accommodation (in houses other than tenements—see below) for		
(a) Washing of clothes .. ..	225	
(b) Storage of food .. ..	98	
(c) Cooking of food .. ..	4	
Rooms dirty and/or verminous .. ..	87	
Bedding in dirty condition .. ..	7	
Yards, passages, stairs, etc., dirty .. ..	147	
Animals, pigeons and fowls improperly kept .. ..	14	
Refuse—Offensive accumulation .. ..	145	
Builders' debris .. ..	12	
Piggeries—Unsuitable, defective, etc. .. ..	1	
Stables—Unsuitable, defective, etc. .. ..	21	
Ashpits to remove, etc. .. ..	2	
Manure—Accumulations of .. ..	13	
Manure-pits, want of or defective .. ..	13	
Tenements—Sanitary accommodation insufficient .. ..	—	
Inadequate accommodation for		
(a) Washing of clothes .. ..	24	
(b) Storage of food .. ..	69	
(c) Preparation and cooking of food .. ..	19	
Water supply and sinks not adequate, not conveniently accessible, etc. .. ..	37	
Lighting of common staircases inadequate		
Natural 3 } .. ..	36	
Artificial 33 } .. ..		
Lighting of rooms inadequate .. ..	3	





### Summary of Inspections Made during the year.

Inspections from complaints received out-doors and nuisances discovered in the districts .. .. .	1119
Inspections from complaints received at Health Department ..	9874
Visits to ascertain whether notices have been complied with ..	12688
Supervisions of works in progress .. .. .	3651
<i>Housing Acts</i> —Inspections as to—	
(a) disrepair .. .. .	1846
(b) overcrowding .. .. .	119
(c) other matters .. .. .	1638
<i>Tenement Bye-laws</i> —Inspections—	
of (a) holdings .. .. .	7542
(b) common yards and courts .. .. .	5218
as to (c) limewashing .. .. .	261
Contraventions found—	
(a) Owners .. .. .	422
(b) Occupiers .. .. .	179
<i>Shops Act, 1934</i> —Inspections of—	
(a) Public Houses, etc. .. .. .	775
(b) Other premises .. .. .	803
<i>Food and Drugs Act, 1938</i> —	
(a) Bakehouses (Mechanical) .. .. .	406
" (Non-mechanical) .. .. .	413
(b) Dairies and Cowsheds .. .. .	659
(c) Premises of Retail Purveyors of Milk .. .. .	1138
(d) Ice Creameries .. .. .	394
(e) Margarine Warehouses .. .. .	43
(f) General Dealers (Food) .. .. .	2054
Offensive Trades—	
Fried Fish Shops, 1006 ; Blood Boilers, 29 ; Bone Boilers, 15 ; Fat Extractors, 14 ; Fat Melters, 8 ; Glue Makers, 7 ; Size Makers, 6 ; Gut Scrapers, 16 ; Rag and Bone Dealers, 8 ; Soap Boilers, — ; Tripe Boilers, 46 ; Dealers in Hides and Skins, 12 .. ..	1170
General Inspections—	
(a) After Infectious Diseases .. .. .	648
(b) of Cinemas, etc. (Day) .. .. .	376
(Night) .. .. .	60
(c) Schools .. .. .	202
(d) Public Conveniences .. .. .	636
(e) Piggeries .. .. .	124
(f) Air Raid Shelters—Domestic (78) ; Public (16) .. ..	94
(g) Offices .. .. .	143
(h) Military Billets .. .. .	32
(i) Static Water Tanks .. .. .	42
<i>Miscellaneous Visits</i> .. .. .	2180

### HOUSING.

#### The Housing Act, 1936.

The total number of inspections carried out during the year was 3,603.

**Sections 11 and 12.**—The condemnation of individual dwelling-houses totally unfit for human habitation, and the closure of such underground dwelling-rooms or parts of premises used as dwelling-rooms is, under advice by circular from the Ministry of Health, only



undertaken when other measures are impracticable. 5 dwelling-houses became in this condition and were dealt with by the Health Committee, and subsequently the City Council sealed Demolition Orders in respect of each one.

**Section 51.**—This section affords the owner of a working-class dwelling the opportunity of submitting to the Local Authority proposals for the improvement of a house (other than decoration or repair).

As and when the proposals are agreed and the works satisfactorily completed, a certificate is issuable to the owner, covering a period of from five to ten years, exempting the dwelling-house from any action under "slum clearance" as an unfit house.

One application was received under this section during the year and a certificate was subsequently granted.

**Section 57—Abatement of Overcrowding.**—The Housing Department of the City Corporation re-housed 482 families (2,400 persons living under overcrowded conditions) into houses suitable for the needs of each family.

**Applications for Council Houses.**—267 applications, based on various grounds, were received in the department during the year, and after due investigation a recommendation was submitted to the Housing Department in 231 cases.

**Section 62.**—Under this section the "permitted number," i.e., the number of persons who may normally sleep in a dwelling-house without causing illegal overcrowding, is issuable by the Health Committee. During the year 194 such numbers were supplied to applicants after inspection and measurement of the rooms. This information, together with other information as to the name and address of the Medical Officer of Health and of the landlord, must be inscribed in rent books and similar documents. In far too many instances, upon inspection of rent books, this prescribed information was found to be absent. Cautions were therefore sent to all of the delinquents.

**Tenemented Houses.**—During the year 14 new tenemented houses, with 51 separate holdings therein, were found, and compliance with

the Bye-law requirements secured. The number of such houses on the register at the end of the year was 1,402, with holdings therein as follows :—

One-roomed holdings .....	980
Two-roomed holdings .....	2,440
Three-roomed holdings .....	485
Four-roomed holdings .....	55
Five-roomed holdings .....	7
Total .....	<u>3,967</u>

Inspections carried out of these houses numbered 7,542.

**Common Lodging Houses.**—The business of “ Keeper of a Common Lodging House ” has been a declining one in the City for a number of years. This year, however, no changes have occurred and at the end of the year the number of houses on the register was four, with total accommodation for 121 lodgers. During the year, the highest number of lodgers occupying beds on a night was 105, the lowest 100, and the average per night being 102. Accommodation therefore was at all times adequate to meet the demands.

Strict supervision is exercised over these houses and sanitary conditions enforced. Lodgers, when found to be verminous, are cleansed at the Cleansing Station, and their beds, bedding and rooms disinfested.

The type of house and accommodation available as at the end of the year is set out in the following summary.

Description of lodgers.	Number of			Accommodation.			Total.
	Houses	Single Beds.	Double Beds.	Married couples.	Single		
					Women	Men.	
Married couples and single women ..	—	—	—	—	—	—	—
Women only .....	1	18	—	—	18	—	18
Men only .....	3	103	—	—	—	103	103
TOTAL .....	4	121	—	—	18	103	121





## DISINFESTATION.

### Eradication of Bed Bugs, etc.

**Re-housing.**—The number of new or "to let" Council Houses that became available was insufficient to warrant the re-opening of the Disinfestation Station where, in pre-war years, the goods and chattels belonging to occupiers of condemned dwelling-houses were disinfested with Hydrogen Cyanide gas. In lieu, whenever the incoming tenant of a new or "to let" Council House lived in a verminous or query verminous house, his furniture and effects, and also the rooms, were sprayed with a liquid insecticide, whilst soft goods (mattresses, etc.) were steam disinfected.

**Council and Private Houses.**—When houses are found to be verminous then, in accordance with the infestation, wood mouldings, skirtings, wall-papers, etc., are removed and the house and contents treated with a liquid insecticide. Steam disinfection is resorted to, where necessary, when dealing with mattresses and the like.

The City Architect's Department carry out the work on houses on Council Estates, and before woodwork is replaced it is coated on its back side with creosote or other preservative. In all instances thorough cleaning of the rooms is insisted upon after treatment, and, where necessary, a secondary application of insecticide is given. Insecticides in use are Zaldecide and Gammexane, in liquid, fume and powder form. Other insecticides are also in use on occasions. Re-infestation after treatment of rooms and contents has been an odd occurrence.

**Persons.**—Aged persons, generally found to be living alone in one room, when found to be verminous, are cleansed at the Skin Clinic, Churchill Street, and whilst they are away their rooms and the contents are disinfested. Much sympathy, tact and tolerance is required when dealing with these old people, who afterwards appreciate the resultant comfort.

## FACTORIES ACT, 1937.

Factories, manual and non-manual, come within the jurisdiction of the Health Committee. In the latter group powers are, in some ways, restricted by law. Overcrowding, ventilation, heating, water supply, washing facilities, sanitary accommodation, food storage, handling, preparation, and a host of other matters of a hygienic nature call for supervision, and during the year 5,080 inspections were carried out.



**Outworkers.**—A list of outworkers (carrying out work on behalf of a factory in their own homes) must be submitted to the Local Authority by occupiers of factories twice per year, in February and August. 10 such lists were so received, and 178 inspections were carried out on outworkers' premises.

H.M. Inspector of Factories notifies the Local Authority of any matters which come under his jurisdiction and which have come to his notice. 28 such notices were received as to insanitary conditions. These all received attention and the action taken was reported to H.M. Inspector as required by the Act.

### Administration of the Factories Act, 1937.

#### Home Office Tables.

##### 1.—INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH. INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

PREMISES.  (1)	NUMBER OF		
	Inspec- tions. (2)	Written Notices. (3)	Occupiers Prosecuted (4)
Factories with mechanical power .....	3,080	213	—
Factories without mechanical power.....	1,992	109	—
Other Premises under the Act (including works of building and engineering construction but not including out- workers' premises) .....	8	2	—
TOTAL .....	5,080	324	—

## 2.—DEFECTS FOUND.

PARTICULARS.  (1)	NUMBER OF DEFECTS.			Number of defects in respect of which Prosecutions were instituted. (5)
	Found. (2)	Re-medied. (3)	Referred to H.M. In-spector. (4)	
Want of cleanliness (S.1) .....	168	178	..	None.
Overcrowding (S.2) .....	5	21	..	
Unreasonable temperature (S.3) .....	2	2	..	
Inadequate ventilation (S.4) .....	19	12	..	
Ineffective drainage of floors (S.6) .....	6	2	..	
Sanitary {insufficient .....	68	54	..	
Conven- {unsuitable or defective ..	48	50	..	
iences (S.7) {not separate for sexes....	7	13	..	
Other offences .....	81	52	..	
(Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)				
TOTAL .....	404	384	..	..

OUTWORK IN UNWHOLESOME PREMISES.  
(FACTORIES ACT, 1937 ; SECTION 111.)

NATURE OF WORK. (1)	Instances. (2)	Notices served. (3)	Prosecutions. (4)
As per Home Office List .....	None.	None.	None.

**Workplaces.**—Workplaces, wherein is carried out all manner of business and trades, are dealt with under the Public Health Act, 1936, and other Acts. Of these premises 1,097 inspections were made and the following defects found and dealt with :—

Want of cleanliness .....	77
Want of ventilation .....	8
Sanitary accommodation insufficient or defective .....	24
Other nuisances .....	67
Total .....	176



## LIST OF TRADES.

Group.	TRADES.	NUMBER OF	
		FACTORIES (Factories Act, 1937).	WORKPLACES (Public Health Act. 1936).
1	Athletic Outfitters (comprises: the making and repairing of bats, rackets, guns, cycles, billiard tables, golf clubs, etc.) .....	26	..
2	Bakehouses .....	155	..
3	Food (comprises: bacon-curing, rolling and smoking, packing of vegetables, fruits, canned goods, ice cream, fish-curing and smoking, sauce and pickles, tripe-boiling, jam making, sugar boilers, egg-sorters, wholesale fish dealers, sausage makers, potato stores, etc.) .....	262	160
4	Laundries .....	30	..
5	Metal workers (comprises: blacksmiths, whitesmiths, coppersmiths, locksmiths, tin-smiths, brass-finishers; motor, electrical and general engineers, wireworkers, sheet metal workers, car-breakers, plumbers, engravers, millwrights, etc.) .....	525	..
6	Restaurant kitchens (including hotels, cafes, dining rooms, snack bars, works canteens, and community food supply centres) .....	..	164
7	Wood workers (comprises: saw mills, joiners, cabinet-makers, wood carvers, picture framers, undertakers; boat builders and repairers, ladder makers, coopers, toy makers, boxmakers, etc.) .....	299	..
8	Wearing apparel (comprises: dressmakers, milliners, costumiers, mantle and gown makers, underclothing, bed linen, furriers, shirt makers, tailors, etc.) .....	269	..
9	Workers in leather (comprises: bootmakers and repairers, bookbinders, bag and trunk makers, belt makers, harness and saddlery, etc.) .....	172	..
10	Watchmaking and jewellery (comprises: watchmakers, opticians, instrument makers, etc.) .....	56	..
11	Miscellaneous trades (comprises: transport workers, hide and skin dealers, hay and corn dealers, marine stores, scrap metal works, timber yards, grease and oil stores, bottle washers, photographers, painters and decorators, bouquet and wreath makers, soap boilers, wholesale chemists, cosmetic makers and packers, etc.) .....	518	213
	TOTAL .....	2,312	537



### **Council and other Schools.**

Systematic inspections, numbering 202, were made on schools in the City. Defects of a minor nature were found and promptly remedied on verbal request to the Education Authority.

### **Shops Act, 1934 ; Section 10.**

Persons employed in or about the business of a shop are catered for under Section 10 in respect of ventilation, temperature, sanitary accommodation, lighting, washing facilities and accommodation for the taking of meals. In other matters the premises are dealt with under the provisions of other Acts.

Inspections totalling 1,578 were made, when 723 contraventions were found and dealt with. Details of these inspections are embodied in the "Summary of Inspections" table on page 186.

### **Rag Flock Acts, 1911, 1928.**

No rag flock is manufactured in the City. It is used however in the 36 premises in the City where the trade of upholsterers or bedding makers is carried on. The object of the Acts is to ensure that rag flock be used in a clean state, and to this end a cleanliness standard is laid down. 8 samples of rag flock were purchased and after analysis by the Public Analyst 7 were certified to conform to the standard of cleanliness, whilst the other one failed to reach the standard. The firm from whom this sample was procured returned the whole consignment of rag flock (sample taken just after delivery of the rag flock and unused by them) to the makers. The Authority having jurisdiction over the area in which the maker's premises were situated was notified of the deficient sample, and action taken by them resulted in the makers of the rag flock being summonsed and fined. No action was taken against the vendors of the sample.

Premises where rag flock is used are also inspected under the Factories Act, 1937, and during the year a total of 125 visits were made.

### **Fertilisers and Feeding Stuffs Acts.**

Factories, warehouses and retail shops where fertilisers and feeding stuffs are made, stored or sold, are visited to ascertain whether the requirements of the Act are being observed. In addition, these premises are supervised under powers of other Acts. 26 supervisory visits were made and 17 samples (mostly informal) of fertilisers were



obtained. Two were certified by the Agricultural Analyst to be deficient in certain of their constituents and not to be in conformity with the statutory statement given at the time of purchase of the sample. Action in respect of deficient samples may only be taken when authorised by the Ministry of Agriculture and Fisheries and, in consequence, details of the deficient samples were reported to them.

### **Agricultural Produce (Grading and Marking) Acts, 1928, 1931.**

Premises wherein eggs are kept in cold or chemical storage are registrable under these Acts. 4 such premises are on the register and inspections (included under food premises) were made regularly throughout the year.

### **Pharmacy and Poisons Acts, 1933, 1941.**

#### **LISTED SELLERS OF PART II POISONS.**

Registration of premises and persons selling poisons scheduled under the above Acts is obligatory, and, in particular, much care is exercised over the registration of food premises, whose sale of poisons is generally confined to the sale of disinfectants. 143 premises are registered and the nature of the business is set out in the summary following :—

Grocery, Provision and General Dealers .....	90
Hairdressers .....	10
Druggists .....	12
Hardwaremen, etc. ....	12
Seed and Agricultural Merchants .....	13
Chemical Disinfectant Manufacturers .....	3
Electrical Supplier .....	1
Manufacturing Chemist .....	1
Veterinary Medicine Vendor.....	1

153 visits (apart from other inspections of these premises) were made when the provisions of the Acts and Rules were found to be complied with. Verbal cautions, 6 in all, were given in respect of slight offences.

### **Exhumations.**

Three exhumations and re-interments, authorised by Home Office licence, were carried out under the supervision of the Department during the year. The operations were carried out in the early morning in a reverent and sanitary manner and with due regard to the conditions set out in the licence.

### Staff Changes.

Inspector E. Banks (Lieutenant, Royal Navy) and Inspector L. H. Smalley (Sergeant, Royal Air Force) were demobilised after  $4\frac{1}{2}$  years' and  $6\frac{1}{2}$  years' service, respectively, with H.M. Forces, and resumed duty at the beginning of the year. Inspector C. W. Sandilands (Lieutenant, Royal Navy) was demobilised after three years' service and resumed duty in May, 1946.

Inspectors L. Oliver, W. G. Tweddle and N. G. Mayne resigned their appointments on the 19th February, 31st May and 31st July, respectively, to take up appointments as Sanitary Inspectors to other Local Authorities.

Mr. W. Combey was appointed Deputy Chief Sanitary Inspector on the 1st May, to replace Chief Assistant Inspector L. W. Johnson, who retired on pension in December, 1945, after 34 years' service in the Department.

### Conclusion.

The statistical tables may give much information to an inquiring mind but do not in any way reveal the amount of tact, commonsense keenness and determination which is required of the Inspectorial Staff in these difficult days, and to them, individually and as a team, for these qualities and for their loyalty, I would express my sincerest thanks. In no lesser degree the Clerical Staff of my section have so worked, and are fully worthy of commendation.

I am,

Your obedient servant,

W. GRAY,

CHIEF SANITARY INSPECTOR.



The Commission  
The Commission was organized in 1901 to study the  
problems of the American people and to report to the  
President and Congress. It was composed of a number of  
leading men of the country, and its work has been  
of great value to the government.

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INCLUDING REPORTS OF  
DISEASES OF ANIMALS AND  
INSPECTION OF MEAT AND OTHER FOODS.

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**VII—VETERINARY OFFICER.**

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ANIMALS SLAUGHTERED, CARCASSES CONDEMNED,  
RATS AND MICE DESTROYED.



INVESTIGATION OF MEAT AND OTHER FOODS  
DISEASES OF ANIMALS AND  
INCLUDING REPORTS OF

---

VII—VETERINARY OFFICER.

---

ANIMALS SLAUGHTERED, CARCASSES CONDEMNED,  
BUTT AND WIDE DESTROYED.

**REPORT OF THE  
VETERINARY OFFICER, INSPECTOR OF MEAT, Etc.**

**To the Medical Officer of Health.**

I have pleasure in submitting the following report which includes the work of inspection under the Public Health Acts during the year, 1946.

**Tuberculosis.**

During the year, seven bovine animals were dealt with under the Tuberculosis Order, 1938. Animals coming within the terms of the Order are those likely to be disseminating tubercle bacilli actively, either by coughing up of infective material, by infective fæces, or by excreting tubercle bacilli in the milk. The Order is not intended, nor is it likely, to lower the general incidence of tuberculosis in the food animals (see page 201) and it is a public health measure purely directed towards avoidance of contamination of milk with tubercle bacilli. The danger to humans in consuming milk containing bovine tubercle bacilli is fully recognised amongst public health workers, and it has been rightly stressed that in the present state of tuberculosis in our dairy herds the most practical procedure is the enforcement of universal pasteurisation. This, however, will serve in no way to diminish the number of dairy cows excreting tubercle bacilli in the milk, and regard must be paid to the efforts of such countries as the United States and Denmark, where tuberculosis in dairy herds has for all practical purposes been eradicated. It is interesting to record that in the United States human tuberculosis caused by the bovine tubercle bacillus is now so rare that many of the younger practitioners have never seen a case.

Of the seven animals dealt with, all were cows housed within City cowsheds and supplying milk within the City; one of these was found to be suffering from tuberculosis of the udder, while the remaining six animals were found to be suffering from chronic cough and showing clinical signs of the disease.

Tuberculosis in cattle is the commonest and most important affection encountered in post-mortem inspection in the City slaughterhouses, and no less than 87 per cent. of bovine carcasses found totally unfit for food during the year were condemned for this disease.

**The Milk and Dairies Order, 1926.**

Within the City there are 11 cowkeepers, registered as occupying 15 premises, and on the registered premises there is a total of 23 cowsheds in which are housed 527 milch cows.



Of these registered premises, one houses an Attested herd, whilst seven are licensed for the production of Accredited Milk.

During the year, 145 visits were made for the purpose of inspecting the animals, buildings, conditions as to cleanliness, etc.

DISEASED COWS FOUND IN REGISTERED PREMISES WITHIN THE CITY.

Year.	No. of Cow-keepers.	No. of Registered Premises.	No. of Registered Cowsheds.	No. of Milch Cows in City.	No. of Diseased Cows.				
					Tuberculosis.		Other Diseases.		Destroyed under the Tuberculosis Orders, 1925 and 1938.
					Of Udder.	Other than Udder.	Udder.	Other than Udder.	
1927	18	18	29	334	2	4	2	3	6
1928	19	19	31	308	3	1	1	3	4
1929	19	19	30	258	4	1	1	2	4
1930	17	17	28	251	2	3	1	4	4
1931	16	16	27	243	4	7	1	3	9
1932	16	16	27	246	4	2	7	3	6
1933	16	16	27	243	1	..	5	4	1
1934	14	14	22	223	3	2	6	4	5
1935	23	23	38	504	3	3	3	2	6
1936	22	22	35	515	5	1	1	3	6
1937	19	20	31	477	2	2	3	3	4
1938	18	21	31	489	3	2	2	1	4
1939	18	21	30	521	..	..	2	2	..
1940	15	17	26	468	4	..	3	..	4
1941	14	18	29	553	3	3	1	..	6
1942	14	18	29	554	4	5	1	4	8
1943	14	18	29	588	3	5	..	..	8
1944	13	17	28	708	6	12	..	..	18
1945	12	16	26	674	4	4	..	..	8
1946	11	15	23	527	1	6	..	..	7

### Anthrax.

Though no case of anthrax had been reported in the City since 1940, one case occurred during 1946 in a dressed carcase of beef consigned to a City slaughterhouse from the County of Northumberland. The carcase arrived in the form of four quarters, together with the offals, and suspicion was aroused when the great enlargement of the spleen was observed. Examination of suitable material from the carcase showed that the animal had either been suffering from anthrax when slaughtered, or had died of the disease and been bled and eviscerated immediately afterwards; the carcase and all the viscera were therefore destroyed by burning in accordance with the Anthrax Order.

No further cases occurred in the City nor were any humans affected, but it is of interest to record that the owner of the cattle wagon which brought the infected carcase to the City failed subsequently to cleanse and disinfect his wagon, and as a result other animals carried in the wagon became infected and died of the disease.

Within Great Britain as a whole the number of cases of anthrax has fallen from 699 in 1939 to 95 in 1946, and though this decline is satisfactory it is related to the diminution in supplies of imported feeding cake, which may become contaminated on board ship. It is therefore anticipated that there will be some increase in the incidence of the disease when normal supplies of imported feeding stuffs again become available.

### LIVESTOCK EXHIBITED WITHIN THE NEWCASTLE CATTLE MARKET.

The cattle market, which ceased to function as such since the 15th January, 1940, has again operated throughout the year as a Collecting Centre. The number of animals passing through the Centre during the year was 29,049, including 6,565 cattle, 437 calves, 18,485 sheep, and 3,562 swine, and an ante-mortem inspection of these was carried out prior to the animals being graded and allocated to the Government Slaughterhouses.



## INSPECTION OF MEAT AND OTHER FOODS.

### Animals Slaughtered within the City.

The procedure by which all animals intended for human consumption are purchased and slaughtered through the Ministry of Food has continued since 1940.

Compared with the previous year the total number of animals slaughtered for human consumption within the City shows an increase, for though the number of cattle slaughtered has altered little, the number of calves slaughtered has almost doubled. Practically all of these calves are classified as "bobby calves", i.e., they are animals aged one day to one week and, being male animals of dairy breed, are unlikely to prove economical if reared to a more mature age. This increase in the number of calves slaughtered bears a direct relationship to the Government policy of encouraging milk production, with a resultant increase in the number of dairy cows in the country's herds. The number of sheep slaughtered also shows an increase compared with the previous year, and this may be attributed to the fact that after the war an increase in the acreage of permanent grass was permitted, thus allowing more sheep generally to be grazed. The number of pigs slaughtered in the City during the year is the lowest ever recorded, for the prices obtaining for these animals induces the feeder to rear them to bacon size, and pigs of bacon type are usually consigned to a Cumberland bacon factory and are therefore not slaughtered within the City. The slaughter of horses for human consumption within the City still continues and shows no diminution in numbers. The prejudice against the flesh of these animals is largely an æsthetic one and it must in all fairness be recorded that, with the possible exception of sheep, the percentage of horses found tuberculous on post-mortem inspections is the lowest in any of the food animals.

ANIMALS SLAUGHTERED ON LICENSED PREMISES WITHIN THE CITY.

	YEAR.				
	1946	1945	1944	1943	1942
Cattle .....	29,237	31,808	31,954	29,814	29,974
Calves .....	14,147	7,185	5,609	5,131	3,742
Sheep .....	130,617	115,077	125,410	137,971	170,330
Pigs .....	1,156	2,326	1,175	1,429	1,391
Horses .....	2,639	2,235	2,165	1,986	1,115
Total Animals .	177,796	158,631	166,313	176,331	206,552



## Animals found Tuberculous on Routine Slaughterhouse Inspection

Tuberculosis continues to be the main cause for condemnation of beef carcasses and parts, and the losses due to the disease in the form of impairment of condition of affected animals, diminution of milk yield and condemnation of tuberculous carcasses are undoubtedly of great magnitude. Condemnations in Britain in home produced beef alone are stated to result in an annual loss of £700,000, while condemnations due to tuberculosis in pigs account for a further loss of £77,000. Little can be done locally to obviate or diminish this loss, and the development in Britain of a tuberculosis eradication scheme would appear to be the only method of lowering the incidence of the disease and the amount of meat condemned.

The percentage of animals found tuberculous on post-mortem inspection shows a slight increase in the case of bullocks and heifers, a slight diminution in the case of bulls, but a somewhat marked increase in the case of cows, the latter fact being attributed to the number of old cows and "culls", i.e., unthrifty animals, sent to the City slaughterhouses. It will be noticed that tuberculosis was not found in any of the 2,639 horses slaughtered and the disease in these animals is certainly rare, but it may be helpful to others engaged on inspectorial work to point out that the disease in these animals may be frequently unrecognised, for tuberculous lesions in horses bear little or no resemblance to the accepted picture of tuberculosis as seen in other animals. The disease in horses takes the form of large tumour-like foci, especially in lungs, liver and spleen, these lesions possessing a glistening bacon-like appearance and showing no tendency to undergo degenerative changes.

The following figures show the percentage of animals found tuberculous on routine post-mortem inspection in City slaughterhouses during 1946.

	<i>Animals Slaughtered.</i>	<i>Percentage found Tuberculous.</i>
Bullocks .....	12,208	15·83
Heifers .....	12,488	14·71
Cows .....	4,226	59·77
Bulls .....	315	17·14
Sheep .....	130,617	..
Calves .....	14,147	0·38
Pigs .....	1,150	5·44



CARCASSES TOTALLY CONDEMNED.						
TUBERCULOSIS.						
Cows	Heifers	Bulls	Bullocks	Calves	Sheep	Pigs
380	54	3	27	55	..	9
OTHER CONDITIONS						
30	13	3	8	137	216	10
CARCASSES PARTIALLY CONDEMNED.						
TUBERCULOSIS						
Cows	Heifers	Bulls	Bullocks	Calves	Sheep	Pigs
2,146	1,784	51	1,906	..	..	54
OTHER CONDITIONS						
1,755	2,363	35	2,533	12	840	92

CARCASSES OF BEEF CONDEMNED WITHIN THE CITY DURING THE  
PAST TWENTY YEARS.

Total Condemned.		Numbers condemned on account of Tuberculosis.	Percentage Tuberculous.
Year.	Carcases.	Carcases.	Per cent.
1927	123	107	86.99
1928	115	109	94.78
1929	124	118	95.16
1930	147	124	84.35
1931	117	94	80.34
1932	135	120	88.89
1933	128	116	90.62
1934	186	158	84.94
1935	182	159	87.35
1936	255	241	94.51
1937	231	208	90.04
1938	263	205	77.94
1939	278	237	85.25
1940	460	413	89.78
1941	450	400	88.88
1942	413	369	89.34
1943	494	413	83.60
1944	416	352	84.61
1945	415	380	91.56
1946	418	364	87.08

### **The Judgment of Tuberculous Carcasses.**

The judgment in relation to the fitness of tuberculous carcasses for human food resolves itself into whether the disease may be classed as localised, in which case only the affected parts may be condemned, or whether there is evidence that the disease has become generalised throughout the body, with the result that tubercle bacilli are likely to be present in the muscular tissue and the carcass must be totally condemned. The code of judgment in such carcasses is enumerated in Memo. 62/Foods of the Ministry of Health, and though at times difficult to interpret except by officers of considerable experience, it forms on the whole a workmanlike and practical guide for judgment of the disease in both cattle and pigs.

Codes of judgment in other countries, with the exception of Germany, are based on somewhat similar lines to those obtaining in Britain, but recent work carried out by Nieberle and his co-workers in Germany has resulted in a complete revision of German meat inspection law. These authorities point out that many of the carcasses in which disease is generalised and which were previously regarded as dangerous are in fact harmless, and the flesh of such animals can therefore be released for food after condemnation of the locally affected parts. The Veterinary Officer, who has had the opportunity of studying these recent researches, is of the opinion that urgent consideration should be given by the appropriate powers, in this case the Ministry of Health, to the significance of this work, for it could have the effect of saving much meat which, under the present system of judgment, is totally condemned.

### **Public Health (Meat) Regulations, 1924.**

Visits numbering 6,767 were made to meat and provision shops, restaurants, stalls, vehicles, etc., in the enforcement of the Regulations. Offences found during these visits are chiefly those of meat conveyed in dirty vehicles, and of butcher's shops not kept in a cleanly condition.

### **Imported Foodstuffs.**

During the year regular routine visits were made to the Quayside. Four vessels carrying meat foodstuffs arrived from Canada and Denmark, compared with four arrivals from Canada during the previous year. The following were included in the cargoes, a percentage of which was examined :—

**SALTED PORK :—**306 casks.



BACON :—82,516 sides, 4,735 bales and 930 boxes.

Imported meat arriving by rail and road within the City is subjected to supervision and inspection within the cold storage depots and wholesale meat shops.

NUMBER OF VISITS AND INSPECTIONS OF PREMISES DURING THE YEAR 1946.

Slaughterhouses.	Central Markets.			Meat Shops.		Fish Shops.		Provision Shops.		Fruit Shops.		Wharves and Vessels.	Cold Stores.	Stalls, Carts, &c.	Food Preparing Factories.	Goods Stations.	Restaurants.
	Meat and Provisions.	Fruit and Vegetables.	Fish.	Wholesale.	Retail.	Wholesale.	Retail.										
1,683	600	419	429	897	882	97	11	844	919	449	55	137	118	708	110	68	43

**TOTAL WEIGHT OF MEAT AND OTHER FOODSTUFFS CONDEMNED.**

The total weight of meat and other foodstuffs condemned during the year was 397 tons 12 cwt. 3 qrs. 7 lbs., comprising :—

	tons	cwts.	qrs.	lbs.
Beef, Mutton, Veal and Pork	146	17	3	26
Offals, Fish and Provisions..	142	1	2	15
Fruit and Vegetables .....	108	13	..	22
	397	12	3	7

The following figures show the total weights of carcasses and offals, provisions, etc. (excluding fruit and vegetables) condemned since 1931. For comparison these figures are given at intervals of five years and they show how greatly the work of the department has increased :—

	tons	cwts.	qrs.	lbs.
1931 .....	70	10	..	..
1936 .....	102	10	3	17
1941 .....	313	15	1	4
1946 .....	288	19	2	13

**Condemnation Certificates.**

Certificates granted in respect of carcasses, offals, provisions, etc., condemned during the year 1946 numbered 4,575.

### MICROSCOPICAL EXAMINATIONS

During the year, 9 microscopical examinations were carried out in connection with cases under investigation. Material examined comprised specimens of milk and blood, one sample of milk proving negative for tuberculosis, while 7 samples of blood were found negative and one positive for anthrax bacilli.

### SLAUGHTERHOUSES.

As stated in previous annual reports, the Ministry of Food, on behalf of the Crown, is occupier of four private slaughterhouses within the City and it is therefore not necessary for these premises to be licensed. Four slaughterhouses, however, are licensed within the City for the slaughtering of horses, 2 at the cattle Market, 1 at Byker Hill and 1 at Boyd Street, Stepney.





THE UNIVERSITY OF CHICAGO

Name		Address		City		State		Country	
Mr. J. H. Smith		123 Main St.		Chicago		Ill.		U.S.A.	
Mrs. A. B. Jones		456 Oak St.		New York		N.Y.		U.S.A.	
Dr. C. D. Brown		789 Elm St.		Boston		Mass.		U.S.A.	
Prof. E. F. Green		101 Pine St.		Philadelphia		Pa.		U.S.A.	
Mr. G. H. White		202 Cedar St.		San Francisco		Calif.		U.S.A.	
Mrs. I. J. Black		303 Birch St.		Los Angeles		Calif.		U.S.A.	
Dr. K. L. Gray		404 Spruce St.		Seattle		Wash.		U.S.A.	
Prof. M. N. Hall		505 Ash St.		Portland		Maine		U.S.A.	
Mr. O. P. King		606 Hickory St.		Denver		Colo.		U.S.A.	
Mrs. Q. R. Lee		707 Walnut St.		St. Louis		Mo.		U.S.A.	
Dr. S. T. Young		808 Chestnut St.		Kansas City		Mo.		U.S.A.	
Prof. U. V. Adams		909 Elm St.		Chicago		Ill.		U.S.A.	
Mr. W. X. Baker		1010 Main St.		New York		N.Y.		U.S.A.	
Mrs. Y. Z. Clark		1111 Oak St.		Boston		Mass.		U.S.A.	
Dr. A. B. Evans		1212 Elm St.		Philadelphia		Pa.		U.S.A.	
Prof. C. D. Foster		1313 Pine St.		San Francisco		Calif.		U.S.A.	
Mr. E. F. Gibson		1414 Cedar St.		Los Angeles		Calif.		U.S.A.	
Mrs. G. H. Harris		1515 Birch St.		Seattle		Wash.		U.S.A.	
Dr. I. J. King		1616 Spruce St.		Portland		Maine		U.S.A.	
Prof. K. L. Lee		1717 Ash St.		Denver		Colo.		U.S.A.	
Mr. M. N. Miller		1818 Hickory St.		St. Louis		Mo.		U.S.A.	
Mrs. O. P. Nelson		1919 Walnut St.		Kansas City		Mo.		U.S.A.	
Dr. Q. R. Owen		2020 Chestnut St.		Chicago		Ill.		U.S.A.	
Prof. S. T. Parker		2121 Elm St.		New York		N.Y.		U.S.A.	
Mr. U. V. Quinn		2222 Oak St.		Boston		Mass.		U.S.A.	
Mrs. W. X. Roberts		2323 Elm St.		Philadelphia		Pa.		U.S.A.	
Dr. Y. Z. Scott		2424 Pine St.		San Francisco		Calif.		U.S.A.	
Prof. A. B. Taylor		2525 Cedar St.		Los Angeles		Calif.		U.S.A.	
Mr. C. D. Walker		2626 Birch St.		Seattle		Wash.		U.S.A.	
Mrs. E. F. Young		2727 Spruce St.		Portland		Maine		U.S.A.	
Dr. G. H. Allen		2828 Ash St.		Denver		Colo.		U.S.A.	
Prof. I. J. Wright		2929 Hickory St.		St. Louis		Mo.		U.S.A.	
Mr. K. L. Green		3030 Walnut St.		Kansas City		Mo.		U.S.A.	
Mrs. M. N. Brown		3131 Chestnut St.		Chicago		Ill.		U.S.A.	
Dr. O. P. White		3232 Elm St.		New York		N.Y.		U.S.A.	
Prof. Q. R. Black		3333 Oak St.		Boston		Mass.		U.S.A.	
Mr. S. T. Gray		3434 Elm St.		Philadelphia		Pa.		U.S.A.	
Mrs. U. V. Hall		3535 Pine St.		San Francisco		Calif.		U.S.A.	
Dr. W. X. King		3636 Cedar St.		Los Angeles		Calif.		U.S.A.	
Prof. Y. Z. Lee		3737 Birch St.		Seattle		Wash.		U.S.A.	
Mr. A. B. Miller		3838 Spruce St.		Portland		Maine		U.S.A.	
Mrs. C. D. Young		3939 Ash St.		Denver		Colo.		U.S.A.	
Dr. E. F. Green		4040 Hickory St.		St. Louis		Mo.		U.S.A.	
Prof. G. H. White		4141 Walnut St.		Kansas City		Mo.		U.S.A.	
Mr. I. J. Black		4242 Chestnut St.		Chicago		Ill.		U.S.A.	
Mrs. K. L. Brown		4343 Elm St.		New York		N.Y.		U.S.A.	
Dr. M. N. Gray		4444 Oak St.		Boston		Mass.		U.S.A.	
Prof. O. P. Hall		4545 Elm St.		Philadelphia		Pa.		U.S.A.	
Mr. Q. R. King		4646 Pine St.		San Francisco		Calif.		U.S.A.	
Mrs. S. T. Lee		4747 Cedar St.		Los Angeles		Calif.		U.S.A.	
Dr. U. V. Miller		4848 Birch St.		Seattle		Wash.		U.S.A.	
Prof. W. X. Young		4949 Spruce St.		Portland		Maine		U.S.A.	
Mr. Y. Z. Green		5050 Ash St.		Denver		Colo.		U.S.A.	
Mrs. A. B. White		5151 Hickory St.		St. Louis		Mo.		U.S.A.	
Dr. C. D. Black		5252 Walnut St.		Kansas City		Mo.		U.S.A.	
Prof. E. F. Brown		5353 Chestnut St.		Chicago		Ill.		U.S.A.	
Mr. G. H. Gray		5454 Elm St.		New York		N.Y.		U.S.A.	
Mrs. I. J. Hall		5555 Oak St.		Boston		Mass.		U.S.A.	
Dr. K. L. King		5656 Elm St.		Philadelphia		Pa.		U.S.A.	
Prof. M. N. Lee		5757 Pine St.		San Francisco		Calif.		U.S.A.	
Mr. O. P. Miller		5858 Cedar St.		Los Angeles		Calif.		U.S.A.	
Mrs. Q. R. Young		5959 Birch St.		Seattle		Wash.		U.S.A.	
Dr. S. T. Green		6060 Spruce St.		Portland		Maine		U.S.A.	
Prof. U. V. White		6161 Ash St.		Denver		Colo.		U.S.A.	
Mr. W. X. Black		6262 Hickory St.		St. Louis		Mo.		U.S.A.	
Mrs. Y. Z. Brown		6363 Walnut St.		Kansas City		Mo.		U.S.A.	
Dr. A. B. Gray		6464 Chestnut St.		Chicago		Ill.		U.S.A.	
Prof. C. D. Hall		6565 Elm St.		New York		N.Y.		U.S.A.	
Mr. E. F. King		6666 Oak St.		Boston		Mass.		U.S.A.	
Mrs. G. H. Lee		6767 Elm St.		Philadelphia		Pa.		U.S.A.	
Dr. I. J. Miller		6868 Pine St.		San Francisco		Calif.		U.S.A.	
Prof. K. L. Young		6969 Cedar St.		Los Angeles		Calif.		U.S.A.	
Mr. M. N. Green		7070 Birch St.		Seattle		Wash.		U.S.A.	
Mrs. O. P. White		7171 Spruce St.		Portland		Maine		U.S.A.	
Dr. Q. R. Black		7272 Ash St.		Denver		Colo.		U.S.A.	
Prof. S. T. Brown		7373 Hickory St.		St. Louis		Mo.		U.S.A.	
Mr. U. V. Gray		7474 Walnut St.		Kansas City		Mo.		U.S.A.	
Mrs. W. X. Hall		7575 Chestnut St.		Chicago		Ill.		U.S.A.	
Dr. Y. Z. King		7676 Elm St.		New York		N.Y.		U.S.A.	
Prof. A. B. Lee		7777 Oak St.		Boston		Mass.		U.S.A.	
Mr. C. D. Miller		7878 Elm St.		Philadelphia		Pa.		U.S.A.	
Mrs. E. F. Young		7979 Pine St.		San Francisco		Calif.		U.S.A.	
Dr. G. H. Green		8080 Cedar St.		Los Angeles		Calif.		U.S.A.	
Prof. I. J. White		8181 Birch St.		Seattle		Wash.		U.S.A.	
Mr. K. L. Black		8282 Spruce St.		Portland		Maine		U.S.A.	
Mrs. M. N. Brown		8383 Ash St.		Denver		Colo.		U.S.A.	
Dr. O. P. Gray		8484 Hickory St.		St. Louis		Mo.		U.S.A.	
Prof. Q. R. Hall		8585 Walnut St.		Kansas City		Mo.		U.S.A.	



## TOTAL CARCASSES, &amp;C., DESTROYED AS BEING UNFIT FOR

	Carcasses, &c.				Lungs.			Hearts.			Kidneys	
	Beef.	Veal.	Mutton.	Pork.	Sets Ox.	Sets Sheep.	Sets Pig.	Ox.	Sheep.	Pig.	Ox.	Pig.
tuberculosis .....	364½ + 8,884 lbs.	55	..	9	4690	..	4	275	..	4	..	..
anthrax .....	1	..	..	..	..	..	..	..	..	..	..	..
phne's Disease .....	2	..	..	..	..	..	..	..	..	..	..	..
ecrosis .....	5 lbs.	..	..	..	..	..	..	..	..	..	..	..
bacterial Necrosis .....	..	..	..	..	1	..	..	..	..	..	..	..
ctinobacillosis .....	..	..	..	..	1	..	..	..	..	..	..	..
tyrexia .....	2	4	2	2	..	..	..	..	..	..	..	..
tyamia .....	..	6	2	3	..	..	..	..	..	..	..	..
ericarditis .....	..	..	..	..	..	..	..	32	15	7	..	..
ephritis .....	..	..	..	..	..	..	..	..	..	..	3	..
ydronephrosis .....	..	..	..	..	..	..	..	..	..	..	4	..
septic Conditions .....	29+ 390 lbs.	14	12+ 272 lbs.	2+ 49 lbs.	12	6	..	..	6	1	3	..
angrene .....	..	..	1	1	..	..	..	..	..	..	..	..
undice .....	..	8	..	..	..	..	..	..	..	..	..	..
ymphatic Leukæmia ..	..	1	..	..	..	..	..	..	..	..	..	..
uscular Fibrosis .....	29 lbs.	..	..	..	..	..	..	..	..	..	..	..
neumonia .....	..	..	..	..	5	4	17	..	..	..	..	..
eurisy .....	45 lbs.	..	29 lbs.	7 lbs.	114	12	11	..	..	..	..	..
eritonitis .....	92 lbs.	..	35 lbs.	6 lbs.	..	..	..	..	..	..	..	..
eurisy and Peritonitis ..	1	..	2	1	..	..	4	..	..	..	..	..
astitis .....	..	..	..	..	..	..	..	..	..	..	..	..
rrhosis .....	..	..	..	..	..	..	..	..	..	..	..	..
avernous Angioma .....	..	..	..	..	..	..	..	..	..	..	..	..
edema and/or Emaciation .....	14	10	184	1	..	..	..	..	..	..	..	..
parasites (Distomatosis, Cysts, &c.) .....	..	..	..	..	1243	61	..	..	..	..	..	..
aperfect Bleeding, Congestion, &c. ....	3	2	10	..	..	..	..	..	..	10	..	1
elanosis .....	..	2	..	..	1	..	..	..	..	..	..	..
amaturity .....	..	87	..	..	..	..	..	..	..	..	..	..
bnormal Odour and Taste .....	2	..	..	..	..	..	..	..	..	..	..	..
raumatism .....	2,466 lbs.	3+ 4 lbs.	1+ 138 lbs.	192 lbs.	..	..	..	..	..	..	..	..
rthritis .....	24 lbs.	..	122 lbs.	17 lbs.	..	..	..	..	..	..	..	..
ecomposition .....	3,200 lbs.	..	2+ 568 lbs.	60 lbs.	..	..	..	..	..	..	..	..
nmarketable (including animals from centres of infection of scheduled disease) .....	..	..	..	..	..	..	..	..	..	..	..	..
ontaminated .....	..	..	..	..	4	5	..	..	..	..	..	..





### **Licensed Slaughtermen.**

Under the Slaughter of Animals Act, 1933, 34 slaughtermen's licenses were granted during the year, making a total of 84 licensed slaughtermen within the City. All applications for these licences are submitted to, and approved by, the Health Committee.

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### **RATS AND MICE (DESTRUCTION) ACT, 1919, AND INFESTATION ORDER, 1943.**

Throughout the year the department has again co-operated with the Ministry of Food in the administration of the Infestation Order, 1943, in so far as it relates to rats and mice, and when it is considered that, according to official figures, rats and mice together are either destroying or contaminating 2,000,000 tons of food yearly in Great Britain, the importance of the measures directed towards their destruction will be self evident.

For the purpose of carrying out an organised treatment of premises within the City, block by block, the staff of Rodent Operators was increased in the latter half of the year under report from two to ten.

During the year, 3,200 visits were made to premises in respect of 440 reports of the presence of rats received, and 890 premises, including others than those complained of, were inspected and dealt with. Inspection of these 890 premises, detailed on page 211, showed that rats were found infesting 599, the remaining 291 being found free from evidence of infestation. Third Party Control Work (i.e. baiting, &c.) was carried out on 541 premises, 28,987 pre-baits and 6,155 poisoned baits being laid, resulting in an estimated kill of 11,221 rats.

Advice regarding baits, traps, &c., is given free, but where rodent-destruction is carried out by the department a charge is made, this being credited to the Ministry of Food who refund to the local authority the costs of administration under the Act and Order. Where necessary, the testing of drains is carried out in conjunction with an inspector of the Health Department, and structural repairs are enforced by the service of a Notice, if required, on the occupier of the premises.

## RATS AND MICE (DESTRUCTION) ACT, 1919, AND INFESTATION ORDER, 1943.

Reports received .....	440
Number of premises inspected and dealt with in connection with the above .....	890
Number of premises where evidence of the presence of rats was found .....	599
Number of visits made .....	3,200

## KIND OF PREMISES DEALT WITH.

Air Raid Shelters .....	2
Allotments .....	10
Back Lane .....	1
Brewery .....	1
Builder's Yard .....	1
Cafes .....	43
Cat and Dog Shelters .....	2
Cinemas .....	5
Clinics .....	2
Club .....	1
Convents .....	3
Corporation Tips .....	3
Day Nursery .....	1
Dwellings .....	310
Factories .....	85
Food Depots .....	4
Garages .....	17
Marine Stores .....	2
Mission Hall .....	1
Offices .....	25
Public Houses .....	38
Residential Hotels .....	6
Schools .....	2
Shipyards .....	1
Shops (Food) .....	53
Shops (other than Food) .....	174
Skin Yard .....	1
Stables .....	5
Theatre .....	1
Warehouses .....	85
Wharves .....	5
	<hr/>
	890

Number of premises requiring 3rd Party Control Work (i.e., baiting, &c.) .....	541
Number of unpoisoned baits laid .....	28,987
Number of poisoned baits laid .....	6,155
Estimated number of rats killed .....	11,221

HORACE THORNTON,

*Veterinary Officer.**Town Hall,**Newcastle upon Tyne,**11th November, 1947.*



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