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CITY OF MANCHESTER

REPORT

ON THE

HEALTH OF THE
CITY OF MANCHESTER

FOR 1957

BY THE

MEDICAL OFFICER OF HEALTH



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REPORT

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FOR 1952

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MY LORD MAYOR, ALDERMEN AND MEMBERS OF THE CITY COUNCIL,

I have pleasure in presenting my report on the health of the City for the year 1957.

Vital statistics for the year are tabulated on pages 17 to 32. These are summarized as follows:—

Population

The Registrar General estimates the civilian population for 1957 at 682,000, a decrease of 4,200 on 1956 and of 21,082 on the census population for 1951.

Marriages

The number of marriages registered during the year was 6,138 compared with 6,324 the previous year. The marriage rate was 18·00 as against 18·43.

Births

Registered live births numbered 12,424 (6,455 males, 5,969 females), giving a rate of 18·22 per 1,000 population compared with 17·44 in 1956, an increase of 0·78. The rate for England and Wales was 16·1, an increase of 0·4 on the previous year.

Of the 12,424 births, 11,407 (5,927 males, 5,480 females) were legitimate and 1,017 (528 males, 489 females) were illegitimate, the ratio of illegitimate to legitimate being 1 to 11. The percentage of illegitimate births was 8·19 which is an increase of 0·54 on 1956.

There were 331 stillbirths (171 males, 160 females) giving a rate of 25·95 per 1,000 total births which is 0·41 lower than the rate for 1956. The ratio of registered "still" to registered "live" births was 1 to 38. The rate for England and Wales was 22·4, a decrease of 0·6.

The percentage of total births in institutions was 59·84 compared with 63·01 in 1956.

Deaths

The number of deaths allocated by the Registrar General to the City during the year was 8,456 (4,285 males and 4,171 females), a ratio to the population of 1 in 81 or a death rate per 1,000 of the population of 12·40 as compared with 12·35 for 1956 and an average of 12·63 for the previous five years. The rate for England and Wales for 1957 was 11·5.

Deaths from all forms of tuberculosis numbered 109, the lowest ever recorded for the City. Respiratory tuberculosis accounted for 97 deaths and other forms of tuberculosis for 12 deaths compared with 101 and 13 respectively in 1956.

There were 1,507 deaths from all forms of cancer as against 1,531 for 1956, a decrease of 24. The percentage of deaths from cancer of persons over 65 years was 53·3 compared with 48·1 for 1956 and 51·6 for 1955.

Deaths from cancer of the lung and bronchus numbered 393 (334 males and 59 females), being 14 less than 1956 when there were 407 (341 males and 66 females) and 391 (328 males and 63 females) in 1955.

Infant mortality

Deaths of infants under one year of age registered during 1957 numbered 374. This was an increase of 16 on the figure for the previous year giving a rate of 30·10 per 1,000 live births, 0·18 higher than for 1956 and 1·73 higher than 1955, the lowest rate recorded in the City. The rate for England and Wales was 23·0.

The number of neo-natal deaths was 261, giving a rate of 21·01 per 1,000 live births as against 241 deaths and a rate of 20·14 in 1956; the increase in infant mortality in 1957 as compared with 1956 is in this group of deaths under four weeks of age.

Maternal mortality

There were 3 deaths from puerperal and post abortive sepsis during 1957 and 5 from other maternal causes giving a rate for all maternal deaths of 0·63 per 1,000 total births, compared with 0·24 for 1956, the lowest ever recorded in the City, and 0·75 for 1955 and with a rate of 0·47 for England and Wales for 1957.

Diphtheria

In the light of the proved efficacy of immunization any occurrence of diphtheria must be regarded as *prima facie* evidence of medical neglect. For more than four years now there has been no case of diphtheria in Manchester except one who had shortly before become resident in Manchester and had been inadequately immunized elsewhere.

Poliomyelitis

There were 15 cases of poliomyelitis in 1957 and one death. These figures are well below the average for the previous decade and are no doubt due mainly to the considerable natural immunity which is known to have been acquired by many children during the outbreak of poliomyelitis in the City in 1956. The level of this immunity will be enhanced by the progressively increasing artificial immunity which is being conferred by the present poliomyelitis vaccination measures.

Measles

1957 was a measles year—there were 11,896 notified cases, the highest figure reached since 1940. The epidemicity of measles tends to be biennial so that better things may be expected in 1958.

Whooping cough

The 1,051 cases notified in 1957 was the lowest number recorded since 1940. This improved position is no doubt accounted for mainly by whooping cough immunization. There have been very few deaths from whooping cough in recent years and this is due to the mitigation of the severity of the disease by antibiotic therapy and immunization. Manchester played a major part in establishing the efficacy of whooping cough immunization in this country—the seed was sown and the harvest is now being reaped here and elsewhere.

Infant Mortality

It is distressing to have to report again on the frustrating experience of an increased mortality in the City for the second year in succession whilst contemporaneously the corresponding rate for England and Wales has fallen and in 1957 reached an all time low at 23.0 per thousand live births.

The infant deaths in Manchester were as follows:—

	Number of Infant deaths	Infant death rate per 1,000 live births
1955	332	28.37
1956	358	29.92
1957	374	30.10

Had the trend of the Manchester rate followed the downward trend of the rate for England and Wales in recent years the Manchester rate for 1957 would have been not less than 27 per 1,000 live births; that is to say 3 per 1,000 less than in fact it is. Taking an average of 12,000 births per annum this means that 36 babies are dying in Manchester each year who ought not to die and who would not die if the steady downward progress of the rate in Manchester had not been interrupted. Most of the total of the 374 infant deaths were in the first four weeks of life and most of the increase of deaths were in this neo-natal group.

Many new born babies have but a tenuous hold on life—the weakest of them will die if conditions are poor.

There is a grave shortage of ante-natal and maternity beds. Attention was drawn last year to the unduly low percentage, namely 63, of total births in institutions. In 1957 the figure fell to 60 per cent.

Housing conditions in Manchester are notoriously bad. Slum clearance is limited by the slowness of provision of new houses which in turn is limited by the failure to provide the City with adequate land for sites for housing. At the present rate of rehousing it will take 40 years for existing Manchester slums to be cleared. Meanwhile many Manchester babies will die as a direct result of the poor conditions in these damp defective dwellings.

Mental Health Service

In accordance with the progressive policy of the Health Committee there has been a much needed steady expansion of this service. The staff of duly authorized officers has been increased from two to five and two additional appointments of psychiatric social workers have been sanctioned.

Building work at the new Blackley Occupation Centre has been completed—the first centre in Manchester specially designed for the care and training of mental defectives.

Housing

Manchester's housing needs are:—

(1) Replacement of unfit houses	62,000
(2) Houses required for natural growth of population to 1971 ..	10,000
(3) Houses required for families living in lodgings	9,000
(4) Houses required to replace temporary housing accommodation at present erected on public open spaces and land zoned for future open spaces, organized games, allotments, cemeteries, etc.	2,000
	<hr/>
	83,000

To meet the need of 83,000 houses the present rate of provision per annum of houses may be exemplified by the 1957 figures, namely 1,534 new Corporation houses and 360 privately built houses. *Res ipsa loquitur.*

It is again a great pleasure to record my grateful appreciation of the stimulation, support and encouragement of the Chairman and members of the Health Committee and of the loyal and devoted service of the staff of the Health Department.

I have the honour to be,

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

CHARLES METCALFE BROWN,

Medical Officer of Health.

HEALTH COMMITTEE

1957-58

CHAIRMAN—Councillor J. Conway

DEPUTY CHAIRMAN—Alderman R. E. Thomas, J.P.

THE LORD MAYOR—Alderman L. M. Lever, M.P.

Alderman Hannah Baldwin, J.P.	Councillor K. Collis
„ J. E. Burgess (Res'd Dec. 1957)	„ B. Conlan
(Died 11-1-58)	„ F. J. Dunn (Apptd. 5-2-58)
„ W. Chadwick, M.B., Ch.B.	„ A. Hooley (Apptd. 5-2-58)
„ Eveline Hill, J.P., M.P.	„ H. Jenkins
„ Mary Knight	„ B. Lawson
„ W. Onions, M.B.E., J.P., M.A.	„ T. Lomas
„ F. E. Tylecote, C.B.E., J.P.,	„ H. Pigott, M.B., Ch.B.
M.D., D.P.H., F.R.C.P.	„ W. Sharp
„ T. Walker, J.P.	„ Winifred Smith
Councillor Nellie Beer, O.B.E., J.P.	„ J. Taylor, M.B., Ch.B.
„ J. Bowes	„ Lily Thomas
„ P. Chadwick, J.P.	„ Mabel S. Whittaker,
(Died 2-12-57)	C.B.E., J.P.

SUB-COMMITTEES

The following sub-committees are appointed to carry out certain of the duties referred to the Health Committee; these are particularized below. With the exception of those of the Sanitary Defects Sub-committee, their proceedings are subject to approval by the Health Committee.

Sanitary

Sanitation and buildings; nuisance and offensive trades; common lodging-houses and houses let-in-lodgings; factories; workplaces and shops; provisions regarding food and drugs; poisons and pharmacy; public conveniences; the granting of certificates of disrepair and reports to owners under the Housing Repairs and Rents Act, 1954; the Rag Flock and Other Filling Materials Act, 1951; the Shops Act, 1950, and the Young Persons (Employment) Act, 1938; the abatement of smoke nuisances and atmospheric pollution; hairdressers registration; street traders and persons trading in food on open sites; and all questions relating to the management and administration of the Sanitary Services Division with the exception of those relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

Sanitary Defects

To this Sub-committee are delegated under Section 273 of the Public Health Act, 1936, the Health Committee's powers to deal with urgent cases of sanitary defects in premises and it is empowered to authorize the service of notices upon owners, occupiers or other persons responsible requiring them, within the period specified in the notices, to execute the works required and, in the event of the notices not being complied with, to instruct the Medical Officer of Health to carry out the work required and/or to instruct the Town Clerk to institute the necessary summary proceedings.

Maternity and Child Welfare

Maternity and child welfare, including all the duties in the proposals of the City Council under the National Health Service Acts, relating to midwifery, health visiting, care of mothers and young children (excepting the portion relating to the management of Knowle House), home nursing, prevention of illness, care and after-care and home helps; the cleansing of persons infested with vermin; the control and management of day nurseries; and the administration of the Nursing Services Division with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

Health Centres

All matters relating to the planning, siting, erection and equipment of health centres, and to undertake, as and when they are erected, the control and management of health centres in the City with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

Mental Health

All matters arising out of the proposals of the City Council under the National Health Service Acts concerning mental health with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

Ambulance and Transport

All matters relating to the control and management of ambulances and ambulance stations, passenger cars and other vehicles and garages, with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

Residential Homes

All matters relating to the control and management of Dr. Garrett Memorial Home, Knowle House, Langho Colony, Ashton House and Walton House, with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants, and the purchase of bulk supplies.

Staff

All questions affecting the appointment of staff, salaries, wages and conditions of service of officers and servants in the employ of the Health Committee.

Supplies

The purchase of bulk supplies of articles required by Langho Colony, Dr. Garrett Memorial Home, Knowle House, Ashton House, Walton House and the day nurseries, and those required by the Children's, Education and Welfare Services Committees for use at residential institutions under their control.

Annual Estimates

This Sub-committee considers the whole of the draft annual estimates for the Health Committee, including all items of special works, and submits the recommendations to the Health Committee.

Inspection of Meat

All questions relating to the inspection of meat and all other questions arising therefrom with the exception of questions relating to the appointment of staff, salaries, wages and conditions of service of officers and servants.

HEALTH OFFICERS

(A) Medical

- C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law — — — — — Medical Officer of Health and Principal
School Medical Officer
- A. M. M. Grierson, O.B.E., M.D.,
D.P.H., F.R.S.E. Deputy Medical Officer of Health
- B. J. Griffiths, B.Sc., M.R.C.S.,
L.R.C.P., D.P.H. Senior Medical Officer—Administrative
- Alice I. Burke, M.B., Ch.B., D.P.H. — Senior Medical Officer—Nursing Services
- A. D. Lepine, M.R.C.S., L.R.C.P.,
D.P.H. Assistant Medical Officer—
Administrative and Clinical (from
4.12.57)
- W. Robinson, M.C., M.D., M.R.C.P. — Consultant Chest Physician—Part-time

(B) Other professional

- J. Graham, F.A.P.H.I., M.R.S.H. — Chief Public Health Inspector
- Alfred N. Leather, B.Sc., F.R.I.C. — Public Analyst
- David E. Orr, M.R.C.V.S. — Chief Veterinary Officer

(c) Lay

- C. A. Hay, M.B.E. — Chief Administrative Assistant—Nursing
Services Division
- C. W. Wilkinson — Chief Administrative Assistant—General
Services Division

**Number of staff employed in the Health Department
in December, 1957**
(part-time staff expressed as the whole-time equivalent)

Type of staff	Number employed
Administrative medical officers	5
Clinical medical officers	16
Analytical chemists and laboratory assistants	8
Veterinary officers	4
Nursing staffs:—	
Health visiting	126
Midwifery	59
Day nurseries	303
Residential homes	90
Other	5
	— 583
Physiotherapists	7
Teachers, children's wardens, etc.	5
Social workers	12
Occupation centre supervisors and assistants	19
Public health inspectors and trainee public health inspectors, etc.	79
Meat inspectors	9
Administrative and clerical staff	155
Handicraft instructors	4
Ambulance control room staff	14
Storekeepers and assistants	6
Supervisors—public conveniences service	2
Operational staff, manual workers, etc.:—	
Ambulance and transport service	177
Home helps	147
Public conveniences service	88
Domestic staff in residential homes	85
Domestic staff in day nurseries	76
Domestic staff in municipal hostels	63
Rodent operatives	22
Others	47
	— 705
Total	— 1,633

The following staffs were employed on an agency basis, and are not included above:—

- 93 district nurses employed by the Manchester District Nursing Institution.
- 8 district midwives employed by St. Mary's Hospital extern service.

Section I

General Services Division

GENERAL STATISTICS
METEOROLOGY
VITAL STATISTICS
REGISTRAR GENERAL'S ABSTRACT
INFECTIOUS DISEASES
FOOD POISONING
EPIDEMIOLOGY
GENERAL MEDICAL SERVICES
MENTAL HEALTH
HEALTH EDUCATION
AMBULANCE SERVICE
HOSPITAL CAR SERVICE
MUNICIPAL CAR POOL
DISINFECTION SERVICE
RESIDENTIAL HOMES:
 Langho Colony for sane epileptics
 Dr. Garrett Memorial Home for convalescent children
MUNICIPAL HOSTELS:
 Ashton House for women
 Walton House for men

GENERAL STATISTICS

Registrar General's estimated population mid-year, 1957

			Males 321,419						
			Females 360,581		.. ..				682,000
Census population, 1951	..		Males 331,355		.. ..				703,082
			Females 371,727		.. ..			
			Males	Females	Totals				
Live births	Legitimate	..	5,927	5,480	11,407				
	Illegitimate	..	528	489	1,017	.. ..			12,424
Live birth rate per 1,000 of population						.. ..			18.22
			Males	Females	Totals				
Still-births	Legitimate	..	154	140	294				
	Illegitimate	..	17	20	37	.. ..			331
Still-birth rate per 1,000 total births (live and still)						.. ..			25.95
Deaths			Males 4,285						
			Females 4,171			.. ..			8,456
Death rate per 1,000 of population			Males .. 13.33						
			Females 11.57			.. ..			12.40
Comparability factor					Births 0.96				
					Deaths 1.17				
Birth rate as adjusted by factor						.. ..			17.49
Death rate as adjusted by factor						.. ..			14.51
Excess of births over deaths..						.. ..			3,968
Percentage of mortality occurring in institutions						.. ..			45.41
Maternal mortality :—									
			Deaths.	Rate per 1,000 total births					
Sepsis of pregnancy and abortion			3	0.24					
Other maternal causes..	.. ..		5	0.39	.. ..				0.63
Deaths of infants under one year of age:—									
All infants	.. ..	374—rate per 1,000 live births			.. ..				30.10
Legitimate infants		337—rate per 1,000 legitimate live births			.. ..				29.54
Illegitimate infants		37—rate per 1,000 illegitimate live births			.. ..				36.38
Number of persons married per 1,000 of population..					.. ..				18.00
Area of the City in acres	.. ..				.. ..				27,255
Number of persons per acre	.. ..				.. ..				25

City of

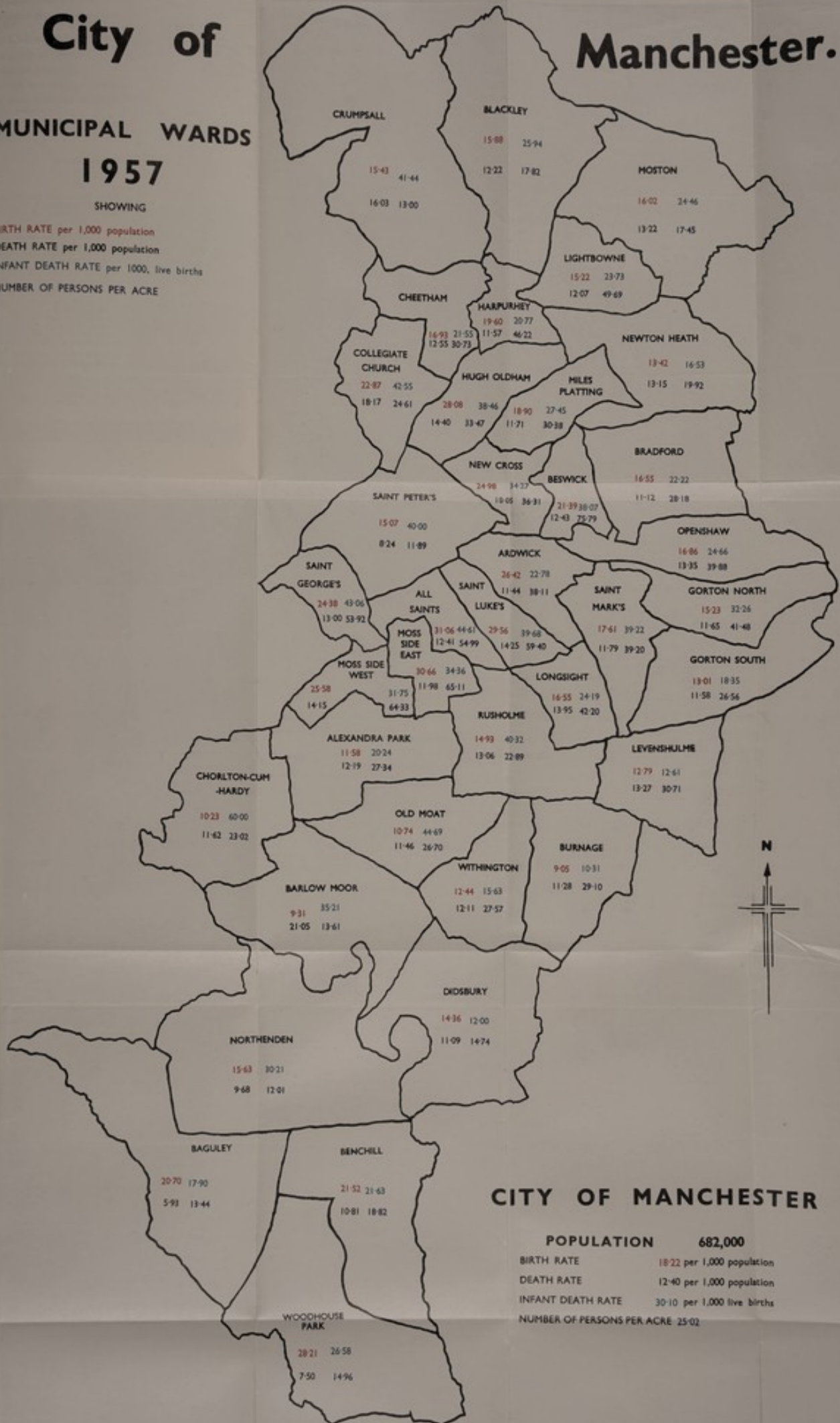
Manchester.

MUNICIPAL WARDS

1957

SHOWING

BIRTH RATE per 1,000 population
 DEATH RATE per 1,000 population
 INFANT DEATH RATE per 1,000, live births
 NUMBER OF PERSONS PER ACRE



CITY OF MANCHESTER

POPULATION 682,000
BIRTH RATE 18.22 per 1,000 population
DEATH RATE 12.40 per 1,000 population
INFANT DEATH RATE 30.10 per 1,000 live births
NUMBER OF PERSONS PER ACRE 25.02

City of

11-67-23-02

MUNICIPAL WARDS

CHOSTON
WARD

1927

SHOWING

BIRTH RATE per 1,000 population

DEATH RATE per 1,000 population

INFANT DEATH RATE per 1,000 live births

NUMBER OF PERSONS PER ACRE

Number of occupied structurally separate dwellings at Census 1951	201,027
Number of persons per occupied structurally separate dwelling at Census 1951	3.50
Number of houses according to Rate Book (1st April, 1957) ..	211,559
Number of persons per house	3.22
Rateable value (1st April, 1956)	£10,275,259
Sum represented by a penny rate (estimated)	£39,700
Number of new houses erected during 1956 :	
By local authority	1,534
By other bodies or persons	476
	—————
	2,010

Manchester is the financial and transport centre for an area many times larger than itself; its advantages as a distributing centre have been widely recognized by business enterprises; the population within 10 miles of the City centre is approximately 2,250,000 and the total sum cleared through the Manchester Bankers' Clearing House, covering offices within half a mile of the Clearing House, was £497,000,000 in 1957. Although 34 miles from the open sea, Manchester has direct access to it by means of the Ship Canal and its world-wide trade makes it the third port in England. During 1956 the shipping using the Manchester Ship Canal amounted to 18,505,062 tons.

Nearly 170,000 persons are employed in the Engineering and Clothing trades in the City, which is an indication of its importance in the production of cotton, steel, coal, rubber and chemicals.

Manchester has its own airport which is the largest municipally-owned airport in the country. In 1957, 31,583 aircraft, 484,949 passengers and 9,635 short tons of freight were handled at the airport. Plans for developing the airport, including the erection of a new terminal building, a new control tower and work on an extension to the main runway, to allow larger aircraft to operate at greater weights, commenced in May, 1957.

Manchester has been called "The Cradle of the Public Library Movement" for the first lending and reference library under the Public Libraries Act of 1850 was established here in 1852. The Central Library, opened by King George V in 1934, is comprised of a comprehensive reference library, a central lending library, the Henry Watson Music Library, a commercial library, a technical library, a local history library and the Library Theatre. There is also the John Rylands Library, which has a famous collection of books and manuscripts.

Art interests in the City and neighbourhood are catered for by large and varied collections of paintings, drawings, sculpture and exhibits of the decorative arts at the City Art Gallery, the adjoining annexe and five branch art galleries.

METEOROLOGY

Extracts from readings taken at Manchester Airport, Ringway.

	Wet bulb	Dry bulb	Mean maximum temperature	Mean minimum temperature	Mean temperature	Total rainfall (inches)	Total number of wet days	Total hours of sunshine	Number of days on which fog was noted at 09.00 G.M.T.
January	39.9	41.9	46.0	37.5	41.7	1.45	12	34.10	1
February	38.4	40.4	46.7	35.7	41.2	1.89	16	79.80	2
March	45.5	48.6	54.8	43.2	49.0	2.79	17	97.65	1
April	43.4	47.4	55.3	40.2	47.7	0.29	7	142.29	—
May	46.1	51.0	59.4	42.8	51.1	1.45	9	184.14	—
June	52.9	59.4	69.6	48.9	59.3	1.48	10	285.60	—
July	56.7	60.1	66.9	54.6	60.7	4.42	21	116.25	—
August	55.4	58.9	66.0	53.1	59.5	3.51	17	124.00	—
September	50.9	53.9	59.5	48.7	54.1	6.21	21	88.50	—
October	48.6	50.9	56.9	45.4	51.1	2.91	15	82.88	2
November	41.2	43.4	47.9	39.6	43.7	1.35	9	42.30	2
December	38.6	40.5	44.6	36.2	40.4	2.70	14	48.98	2

VITAL STATISTICS

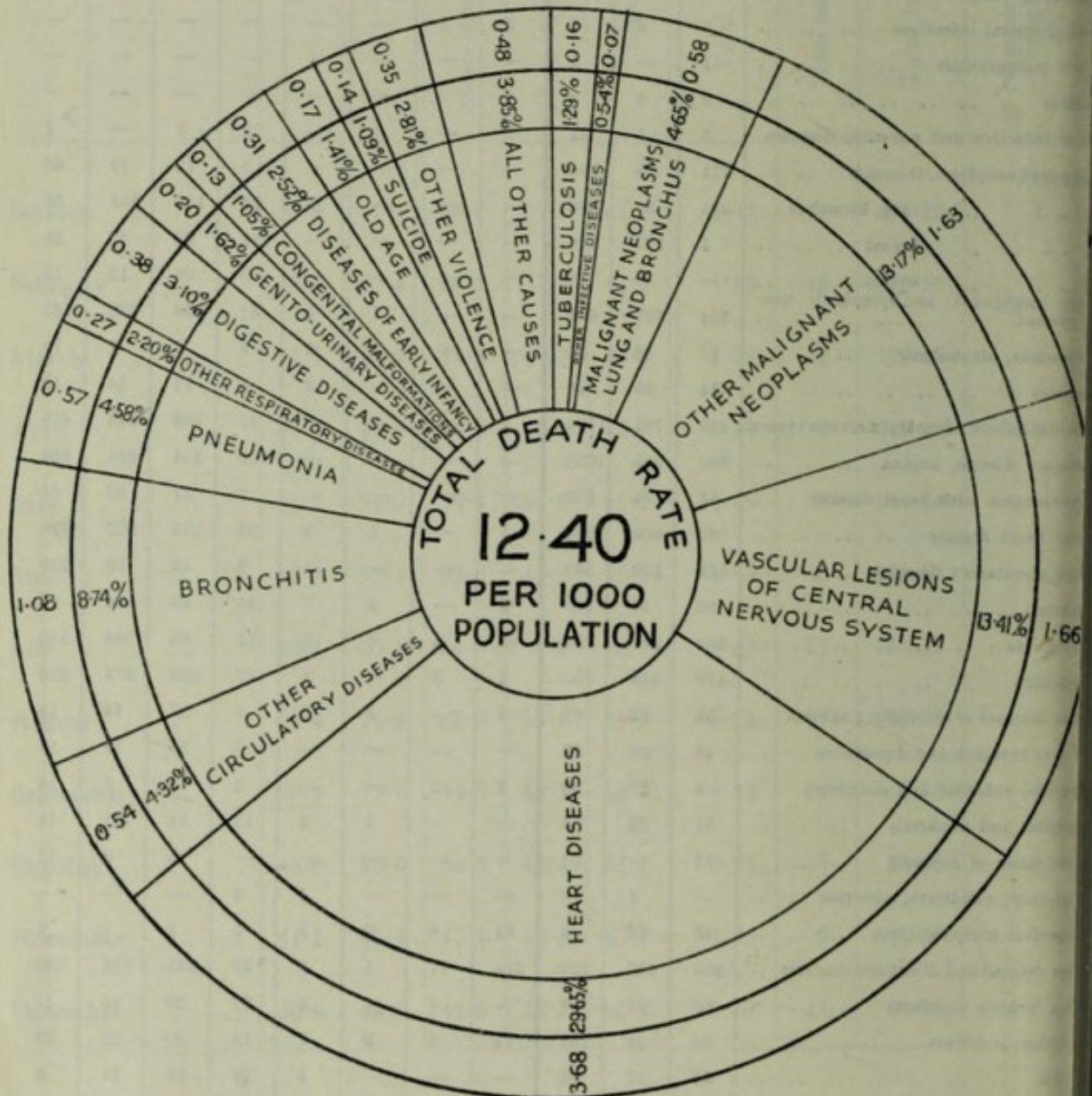
Causes of death

Registrar-General's Return
Manchester

CAUSES OF DEATH	AGES AT DEATH										
	Male	Female	All ages	0-	1-	5-	15-	25-	45-	65-	75-
Tuberculosis, respiratory	76	21	97	—	—	—	3	24	51	16	3
„ other	7	5	12	—	2	—	1	2	5	1	1
Phyllophagous disease	13	8	21	—	—	—	—	1	12	5	3
Diphtheria	—	—	—	—	—	—	—	—	—	—	—
Whooping cough	2	—	2	1	1	—	—	—	—	—	—
Meningococcal infections	2	3	5	3	2	—	—	—	—	—	—
Acute poliomyelitis	1	—	1	—	—	—	1	—	—	—	—
Scarlet fever	2	3	5	2	3	—	—	—	—	—	—
Other infective and parasitic diseases	5	7	12	1	—	1	—	2	7	—	1
Malignant neoplasm, stomach	121	95	216	—	—	—	—	5	72	79	60
„ „ lung, bronchus	334	59	393	—	—	—	2	26	195	137	33
„ „ breast	1	125	126	—	—	—	—	12	62	32	20
„ „ uterus	—	56	56	—	—	—	—	5	26	12	13
Other malignant and lymphatic neoplasms	354	327	681	—	—	1	4	41	238	232	165
Leukaemia, aleukaemia	17	18	35	—	—	1	3	3	8	7	13
Diabetes	14	35	49	—	—	—	2	3	11	14	19
Cerebrovascular lesions of central nervous system	433	701	1134	1	—	2	2	17	198	344	570
Coronary disease, angina	660	375	1035	—	—	—	—	36	354	381	264
Hypertension with heart disease ..	58	94	152	—	—	—	—	2	27	62	61
Other heart disease	520	800	1320	1	—	1	5	53	213	327	720
Other circulatory diseases	162	203	365	—	—	—	1	9	49	78	228
Influenza	60	59	119	2	—	5	7	16	45	26	18
Pneumonia	189	210	399	65	4	4	3	11	66	106	140
Bronchitis	470	249	739	1	3	—	1	17	228	253	236
Other diseases of respiratory system ..	35	32	67	1	—	1	1	9	27	14	14
Cancer of stomach and duodenum ..	46	26	72	—	—	—	—	5	26	16	25
Gastroenteritis, enteritis and diarrhoea ..	9	27	36	2	2	—	—	2	9	6	15
Nephritis and nephrosis	31	23	54	—	—	1	4	13	14	11	11
Hyperplasia of prostate	31	—	31	—	—	—	—	—	6	8	17
Pregnancy, childbirth, abortion .. .	—	8	8	—	—	—	4	4	—	—	—
Congenital malformations	48	41	89	64	6	2	3	5	7	1	1
Other defined and ill-defined diseases ..	355	440	795	215	11	1	6	37	132	131	262
Motor vehicle accidents	60	25	85	—	3	4	4	22	20	15	17
Other accidents	84	54	138	14	4	9	7	15	29	22	38
Suicide	55	37	92	—	—	—	3	28	44	11	6
Homicide and operations of war .. .	10	5	15	1	2	4	—	4	2	2	—
TOTALS ..	4285	4171	8456	374	43	37	67	429	2183	2349	2974

NOTE.—A table showing the mortality rates due to various causes, etc., from 1901 onwards appears at page 32A.

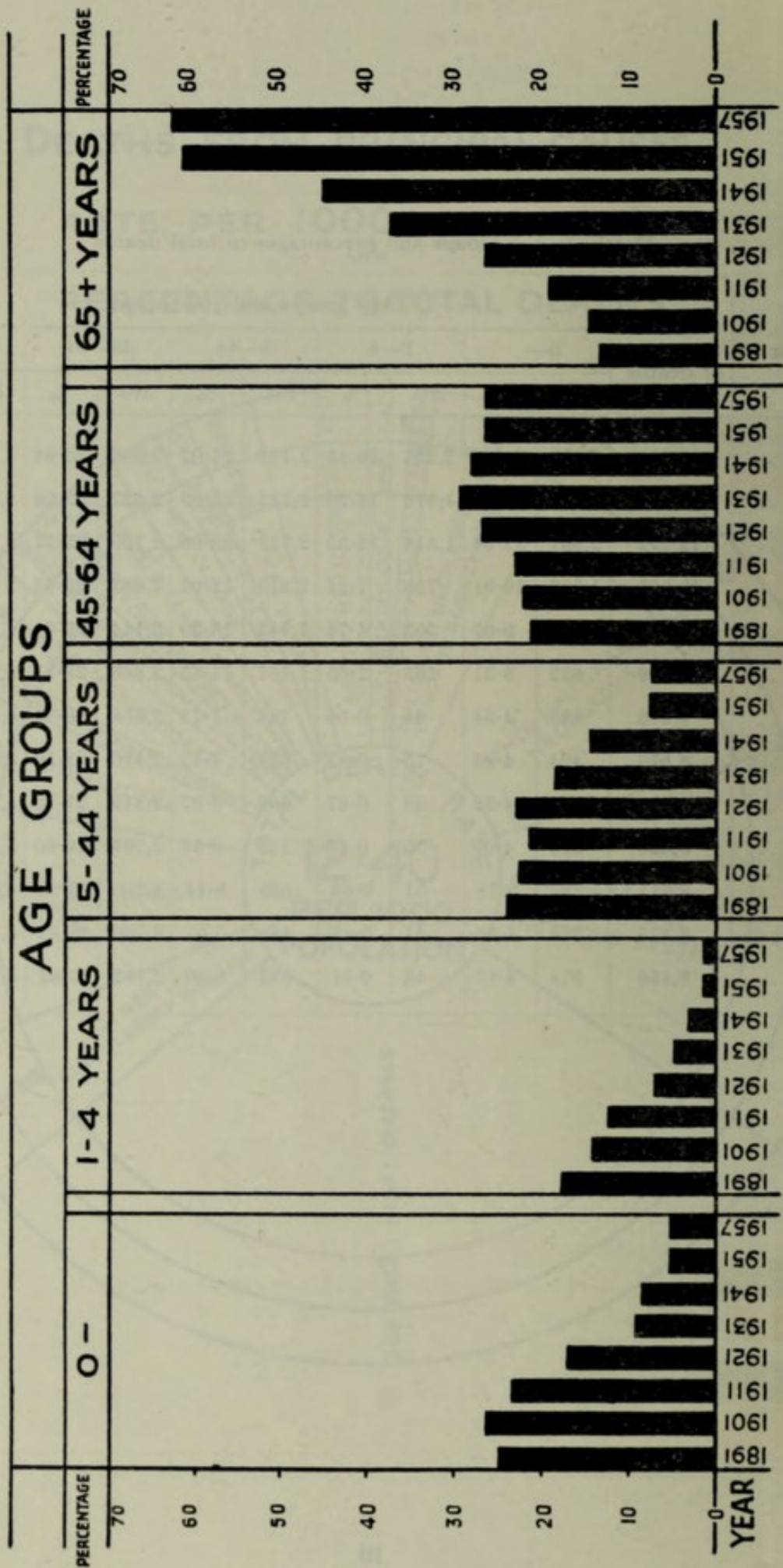
DEATHS FROM PRINCIPAL CAUSES
RATE PER 1000 POPULATION
AND
PERCENTAGE TO TOTAL DEATHS



Deaths in age groups and percentages to total deaths

Year	Total number of deaths	Age groups and percentages									
		0—		1—4		5—44		45—64		65—	
		No.	%	No.	%	No.	%	No.	%	No.	%
1891 ..	13,202	3,299	24.99	2,225	16.85	3,178	24.07	2,756	20.88	1,744	13.21
1901 ..	11,801	3,114	26.39	1,676	14.20	2,725	23.09	2,627	22.26	1,659	14.06
1911 ..	12,272	2,901	23.64	1,516	12.35	2,711	22.09	2,790	22.74	2,354	19.18
1921 ..	10,093	1,707	16.91	728	7.21	2,313	22.92	2,687	26.62	2,658	26.34
1931 ..	10,618	1,027	9.67	503	4.74	1,943	18.30	3,144	29.61	4,001	37.68
1941 ..	10,016	832	8.31	265	2.65	1,467	14.65	2,886	28.81	4,566	45.58
1951 ..	9,676	439	4.54	64	0.66	748	7.73	2,568	26.54	5,857	60.53
1952 ..	8,576	424	4.94	75	0.87	637	7.43	2,410	28.10	5,030	58.65
1953 ..	8,638	373	4.32	58	0.67	602	6.97	2,349	27.19	5,256	60.85
1954 ..	8,525	349	4.09	56	0.66	585	6.86	2,293	26.90	5,242	61.49
1955 ..	8,777	332	3.78	51	0.58	539	6.14	2,280	25.98	5,575	63.52
1956 ..	8,475	358	4.22	41	0.48	480	5.67	2,250	26.55	5,346	63.08
1957 ..	8,456	374	4.42	43	0.51	533	6.30	2,183	25.82	5,323	62.95

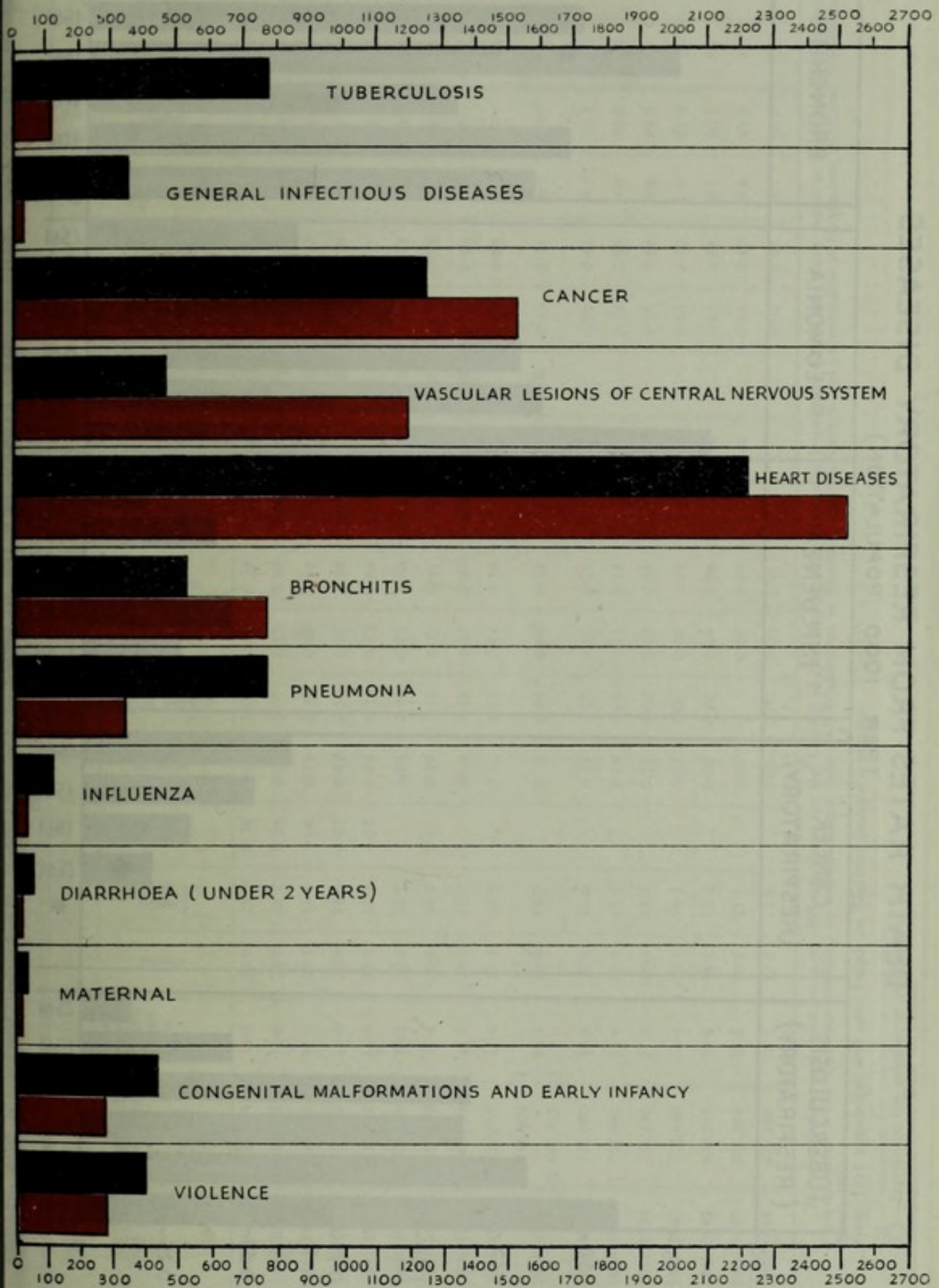
PERCENTAGES OF DEATHS IN VARIOUS AGE GROUPS TO TOTAL DEATHS 1891 - 1957



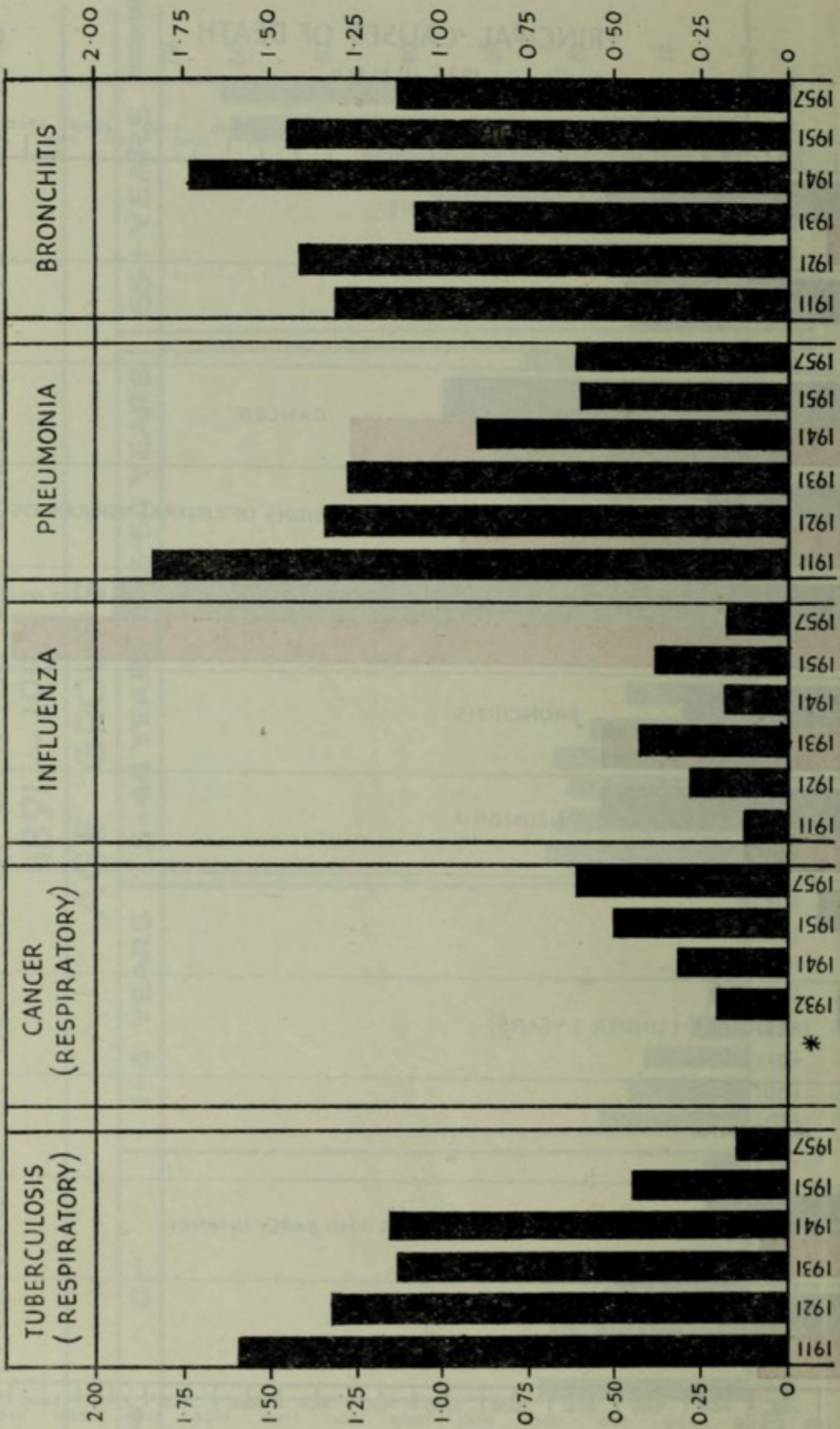
PRINCIPAL CAUSES OF DEATH

1936 IN BLACK

1957 IN RED



DEATH RATES FROM RESPIRATORY DISEASES (PER 1000 POPULATION)



*

NO FIGURES ARE AVAILABLE PRIOR TO 1932 FOR CANCER (RESPIRATORY)

causes, and (c) infant mortality; also the percentages to total deaths of inquest cases and deaths in public institutions; in quinquennial periods.

Year	Estimated population (Mean)	Marriage rate per 1,000 persons living	Rates per 1,000 persons living												Percentage to total deaths			Year
			Births	Deaths (all causes)	Smallpox	Measles	Scarlet fever	Diphtheria	Whooping cough	Typhus fever	Typhoid and paratyphoid fever	Simple continued fever	Diphtheria 4 weeks to 2 years	Violence	Inquest cases	Deaths in public institutions	Infant mortality	
1871-1875	477,344	24.6	38.9	28.3	0.26	0.64	1.08	0.08	0.78	0.14	0.43	0.21	1.95	0.94	7.2	13.4	198	1871-1875
1876-1880	509,802	18.6	38.7	26.2	0.24	0.53	1.07	0.13	0.84	0.08	0.29	0.11	1.26	0.89	7.5	14.3	172	1876-1880
1881-1885	542,746	17.9	35.1	23.6	0.04	0.71	0.48	0.10	0.68	0.05	0.20	0.03	0.99	0.72	7.0	15.9	175	1881-1885
1886-1890	575,630	16.6	33.4	24.6	0.02	0.83	0.50	0.32	0.54	0.02	0.30	0.01	1.08	0.78	6.9	17.7	183	1886-1890
1891-1895	517,801	16.9	33.2	23.6	0.03	0.62	0.26	0.27	0.64	0.00	0.24	0.01	1.19	0.77	7.1	19.2	186	1891-1895
1896-1900	539,599	18.2	32.5	22.7	..	0.89	0.20	0.13	0.53	0.00	0.18	0.01	1.69	0.73	7.1	20.2	192	1896-1900
1901-1905	554,355	17.4	30.9	20.1	0.01	0.55	0.19	0.22	0.41	0.00	0.13	0.00	1.15	0.72	7.1	24.4	173	1901-1905
1906-1910	660,049	17.0	28.1	17.7	..	0.54	0.16	0.17	0.37	0.00	0.10	0.00	0.76	0.68	7.4	27.3	147	1906-1910
1911-1915	720,565	17.9	25.3	16.5	..	0.51	0.12	0.14	0.26	..	0.06	..	0.83	0.66	7.4	29.2	133	1911-1915
1916-1920	B 746,909 D 699,325	18.4	19.9	15.7	..	0.28	0.04	0.08	0.24	..	0.02	0.00	0.33	0.55	6.3	29.7	105	1916-1920
1921-1925	751,080	16.8	20.6	13.9	..	0.25	0.07	0.10	0.21	..	0.01	..	0.31	0.45	5.7	37.4	96	1921-1925
1926-1930	752,840	16.6	17.5	13.9	..	0.18	0.02	0.11	0.14	..	0.01	..	0.29	0.50	4.8	42.8	88	1926-1930
1931-1935	759,180	17.1	15.3	13.4	..	0.11	0.02	0.10	0.08	..	0.00	..	0.15	0.54	4.8	48.3	77	1931-1935
1936-1940	712,660	21.4	15.2	14.3	..	0.07	0.00	0.09	0.04	..	0.00	..	0.10	0.70	4.9	52.0	71	1936-1940
1941-1945	608,256	20.9	18.1	15.0	..	0.02	0.00	0.04	0.06	..	0.00	..	0.15	0.68	5.1	50.7	64	1941-1945
1946-1950	690,264	20.2	20.1	13.1	..	0.01	..	0.00	0.04	..	0.00	..	0.16	0.40	3.6	45.3	48	1946-1950
1951-1955	699,660	18.3	17.3	12.6	..	0.00	0.00	0.00	0.01	..	..	..	0.02	0.43	3.7	46.0	31	1951-1955

The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken as approximately representing "Manchester." The City was extended to include Moss Side and Withington in November, 1904, Gorton and Levenshulme in November, 1909, and Wythenshawe in April, 1931.

From 1911 population and rates based on Registrar-General's returns.

(B)—Population for calculating birth-rates.

(D)—Population for calculating death-rates.

..—Signifies there were no deaths.

Quinquennial rates of mortality from certain causes of death.

YEAR	RATES PER 1,000 PERSONS LIVING									RATES PER 1,000 BIRTHS*	
	Malignant neoplasms	Tuberculosis of respiratory system	Other forms of tuberculosis	Diseases of nervous system	Diseases of heart and circulatory system	Diseases of respiratory system	Diseases of digestive system	Nephritis and nephrosis	Puerperal and post abortive sepsis	Other puerperal	
1881-1885	0.50	2.42	0.92	3.28	1.37	5.41	1.23	..	3.03	1.99	
1886-1890	0.64	2.24	0.95	3.09	1.73	5.76	1.23	..	3.22	2.13	
1891-1895	0.62	2.09	0.97	1.74	2.53	5.56	1.07	..	2.75	3.42	
1896-1900	0.73	2.04	0.82	1.32	2.54	5.03	1.04	..	1.55	1.51	
1901-1905	0.80	1.91	0.71	1.17	1.74	4.24	1.87	0.41	1.21	1.76	
1906-1910	0.88	1.66	0.59	0.95	1.72	3.77	1.42	0.44	1.28	1.49	
1911-1915	1.04	1.67	0.47	0.79	1.24	3.62	1.44	0.46	1.42	2.56	
1916-1920	1.21	1.61	0.41	0.54	1.21	3.41	0.84	0.41	1.70	2.14	
1921-1925	1.36	1.27	0.30	0.51	1.39	3.11	0.74	0.34	1.83	2.10	
1926-1930	1.50	1.19	0.21	0.48	1.81	2.65	0.75	0.36	2.14	2.63	
1931-1935	1.67	1.02	0.16	0.41	2.50	1.97	0.55	0.37	* 1.59	* 2.20	
1936-1940	1.81	0.93	0.14	0.38	3.10	2.07	0.53	0.37	1.11	2.40	
1941-1945	2.10	0.93	0.14	† 1.62	3.10	2.39	0.65	0.37	0.71	1.30	
1946-1950	1.99	0.64	0.08	1.53	3.20	1.99	0.57	0.26	0.30	0.80	
1951-1955	2.20	0.31	0.03	1.77	4.20	1.95	0.42	0.11	0.18	0.60	

* Maternal mortality rates until 1930 were based on per 1,000 live births. From 1931 onwards these rates were calculated on per 1,000 live and stillbirths.

† Diseases of nervous system includes cerebral hæmorrhage from 1941. From 1911 rates are based on Registrar General's returns.

WARDS	Estimated population	Area in acres	Persons per acre	Live births		Deaths		Natural rate of increase	Deaths under 1 year per 1,000 live births	
				Total	Rate per 1,000 pop.	Total	Rate per 1,000 pop.			
										Total	Rate per 1,000 pop.
CITY OF MANCHESTER ..	682000	27255	25.02	12424	18.22	8456	12.40	+	5.82	30.10
Alexandra Park ..	21324	780	27.34	247	11.58	260	12.19	-	0.61	20.24
All Saints ..	17323	315	54.99	538	31.06	215	12.41	+	18.65	44.61
Ardwick ..	16615	436	38.11	439	26.42	190	11.44	+	14.98	22.78
Baguley ..	18889	1405	13.44	391	20.70	112	5.93	+	14.77	17.90
Barlow Moor ..	15246	1120	13.61	142	9.31	321	21.05	-	11.74	35.21
Benchill ..	19333	1027	18.82	416	21.52	209	10.81	+	10.71	21.63
Beswick ..	18418	243	75.79	394	21.39	229	12.43	+	8.96	38.07
Blackley ..	21850	1226	17.82	347	15.88	267	12.22	+	3.66	25.94
Bradford ..	21756	772	28.18	360	16.55	242	11.12	+	5.43	22.22
Burnage ..	21447	737	29.10	194	9.05	242	11.28	+	2.23	10.31
Cheetham ..	13707	446	30.73	232	16.93	172	12.55	-	4.38	21.55
Chorlton-cum-Hardy ..	19543	849	23.02	200	10.23	227	11.62	-	1.39	60.00
Collegiate Church ..	12329	501	24.61	282	22.87	224	18.17	+	4.70	42.55
Crumpsall ..	23457	1805	13.00	362	15.43	376	16.03	-	0.60	41.44
Didsbury ..	17409	1181	14.74	250	14.36	193	11.09	+	3.27	12.00
Gorton North ..	22397	540	41.48	341	15.23	261	11.65	+	3.58	32.26
Gorton South ..	16758	631	26.56	218	13.01	194	11.57	+	1.43	18.35
Harpurhey ..	17193	372	46.22	337	19.60	199	11.57	+	8.03	20.77
Hugh Oldham ..	16667	498	33.47	468	28.08	240	14.40	+	13.68	38.46
Levenshulme ..	18609	606	30.71	238	12.79	247	13.27	-	0.48	12.61
Lightbowne ..	19381	390	49.69	295	15.22	234	12.07	+	3.15	23.73
Longsight ..	14982	355	42.20	248	16.55	209	13.95	+	2.60	24.19
Miles Platting ..	13489	444	30.38	255	18.90	158	11.71	+	7.19	27.45
Moss Side East ..	18035	277	65.11	553	30.66	216	11.98	+	18.68	34.36
Moss Side West ..	17240	268	64.33	441	25.58	244	14.15	+	11.43	31.75
Moston ..	20418	1170	17.45	327	16.02	270	13.22	+	2.80	24.46
New Cross ..	12852	354	36.31	321	24.98	232	18.05	+	6.93	34.27
Newton Heath ..	18027	905	19.92	242	13.42	237	13.15	+	0.27	16.53
Northenden ..	21177	1763	12.01	331	15.63	205	9.68	+	5.95	30.21
Old Moat ..	16662	624	26.70	179	10.74	191	11.46	-	0.72	44.69
Openshaw ..	21655	543	39.88	365	16.86	289	13.35	+	3.51	24.66
Rusholme ..	16615	726	22.89	248	14.93	217	13.06	+	1.87	40.32
St. George's ..	17148	318	53.92	418	24.38	223	13.00	+	11.38	43.06
St. Luke's ..	17048	287	59.40	504	29.56	243	14.25	+	15.31	39.68
St. Mark's ..	20268	517	39.20	357	17.61	239	11.79	+	5.82	39.22
St. Peter's ..	9952	837	11.89	150	15.07	82	8.24	+	6.83	40.00
Withington ..	15439	560	27.57	192	12.44	187	12.11	+	0.33	15.63
Woodhouse Park ..	21342	1427	14.96	602	28.21	160	7.50	+	20.71	26.58

Causes of death in infancy and childhood
(Registrar-General's abridged list)
(figures compiled in the Health Department)

CAUSE OF DEATH	Under 1 year					1 to 5 years					Total under 5 Years	
	Under 1 year					1 to 5 years						
	Under 4 weeks	4 weeks to 3 months	3-6 months	6-12 months	Total	1-2 years	2-3 years	3-4 years	4-5 years	Total		
Tuberculosis, respiratory												
meninges and central nervous system												
intestine, peritoneum and mesenteric glands												
other												
Syphilitic diseases												
Diphtheria												
Scarlet fever												
Whooping cough												
Measles		1		2	1	1	1			1	2	2
Acute poliomyelitis												
Meningococcal infections		1		1	3				1	2	5	5
Acute infectious encephalitis												
Dysentery												
Food poisoning												
Meningitis (not tubercular)		1		1	3	1				1	4	4
Other diseases of nervous system				1	2	2	1			1	7	7
Influenza					1	1	1			1	3	3
Pneumonia, broncho				7	50	1	1			1	54	54
lobar												
other		2		1	3						3	3
Bronchitis					1						1	1
Other respiratory diseases					1						1	1
Diarrhoea (4 weeks-2 years)					2						2	2
Other diseases of digestive system		2		1	7	1				1	3	3
Congenital malformations		38		2	64	1	2			3	10	10
Birth injury, with immaturity		19		4	19	5	1			6	25	25
" " without immaturity		25			30						30	30
Atelectasis, with immaturity		18			18						18	18
" " without immaturity		3			3						3	3
Pneumonia of newborn with immaturity		9			9						9	9
" " without immaturity												
Diarrhoea of newborn with immaturity												
" " without immaturity		4			4						4	4
Other infections of newborn with immaturity		3			3						3	3
" " without immaturity		8			8						8	8
Haemolytic disease of newborn with immaturity		1		1	2						2	2
" " without immaturity		86			86						86	86
Other "diseases of early infancy with immaturity												
" " without immaturity		9		1	13	1				2	8	11
Immaturity, unqualified		3		1	7	1				1	4	4
Suffocation (overlain)		261		38	374	17	11			9	43	417
Other violence												
Other causes												
All causes												

Deaths in wards for various diseases and death rates per 1,000 of the population
(figures compiled in the Health Department)

WARDS	ESTIMATED POPULATION	WHOOPING COUGH		DIPHTHERIA		MEASLES		TUBERCULOSIS ALL FORMS		SYPHILITIC DISEASES		DISEASE OF CIRCULATORY SYSTEM		*MALIGNANT NEOPLASMS		PNEUMONIA		BRONCHITIS		DIABETIC SYSTEM		GENITO URINARY SYSTEM		ALL CAUSES	
		Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
CITY OF MANCHESTER..	682000	2	—	—	—	5	0·01	109	0·16	21	0·03	2572	4·21	1503	2·20	389	0·57	739	1·08	232	0·38	133	0·20	8456	12·40
Alexandra Park	21324	—	—	—	—	—	—	2	0·09	1	0·05	90	4·22	50	2·31	8	0·38	15	0·70	10	0·47	7	0·33	260	12·10
All Saints	17323	—	—	—	—	—	—	4	0·23	—	—	61	3·52	39	2·25	14	0·81	23	1·33	5	0·29	1	0·06	213	12·41
Ardwick	16615	—	—	—	—	—	—	2	0·12	—	—	54	3·25	33	1·99	18	1·08	19	1·14	5	0·30	1	0·06	190	11·44
Baguley	18889	—	—	—	—	—	—	2	0·11	—	—	30	1·59	29	1·54	1	0·05	10	0·53	3	0·16	2	0·11	112	5·93
† Barlow Moor	15246	—	—	—	—	—	—	1	0·07	—	—	124	8·13	34	2·23	25	1·64	20	1·31	6	0·39	6	0·39	321	21·05
Benchill	19333	—	—	—	—	—	—	5	0·26	—	—	69	3·57	42	2·17	6	0·31	15	0·78	9	0·47	1	0·05	209	10·81
Beswick	18418	—	—	—	—	—	—	3	0·16	—	—	76	4·13	33	1·79	15	0·81	19	1·03	8	0·43	2	0·11	229	12·43
Blackley	21850	—	—	—	—	—	—	6	0·27	1	0·05	85	3·89	53	2·43	12	0·55	28	1·28	5	0·23	2	0·09	267	12·22
Bradford	21756	—	—	—	—	—	—	3	0·14	—	—	72	3·31	52	2·39	10	0·46	28	1·29	8	0·37	2	0·09	242	11·12
Burnage	24447	—	—	—	—	—	—	2	0·09	—	—	82	3·82	47	2·19	10	0·47	14	0·65	7	0·33	6	0·28	242	11·28
Cheetham	13707	—	—	—	—	—	—	3	0·22	2	0·15	66	4·82	36	2·03	7	0·31	11	0·80	9	0·66	3	0·22	172	12·35
Chorlton-cum-Hardy	19543	—	—	—	—	1	0·05	1	0·05	1	0·05	82	4·20	40	2·05	10	0·51	15	0·77	5	0·25	2	0·10	227	11·62
Collegiate Church	12329	1	0·08	—	—	1	0·08	3	0·24	—	—	86	6·98	27	2·19	17	1·38	14	1·14	8	0·65	6	0·49	224	18·17
† Crumpsall	23457	—	—	—	—	—	—	4	0·17	3	0·13	152	6·48	61	2·60	22	0·94	12	0·51	21	0·90	8	0·34	376	16·03
Didgbury	17409	—	—	—	—	—	—	1	0·06	—	—	76	4·37	30	1·72	10	0·57	9	0·52	1	0·06	7	0·40	193	11·09
Gorton North	22597	—	—	—	—	1	0·04	6	0·27	1	0·04	102	4·55	40	1·79	5	0·22	21	0·94	8	0·36	4	0·18	201	11·65
Gorton South	16758	—	—	—	—	—	—	6	0·36	—	—	75	4·48	38	2·27	8	0·48	13	0·78	10	0·60	5	0·30	194	11·58
Harpurhey	17193	—	—	—	—	—	—	3	0·17	—	—	68	3·96	32	1·86	9	0·52	26	1·51	7	0·41	—	—	199	11·57
Hugh Oldham	16667	—	—	—	—	—	—	4	0·24	1	0·06	67	4·02	42	2·52	13	0·78	27	1·62	7	0·42	3	0·18	240	14·40
Levenshulme	18609	—	—	—	—	—	—	3	0·16	—	—	81	4·35	36	1·93	6	0·32	23	1·24	9	0·48	3	0·16	247	13·27
Lightbourne	19381	—	—	—	—	1	0·05	2	0·10	—	—	79	4·08	45	2·32	6	0·31	27	1·39	11	0·57	1	0·05	234	12·07
Longsight	14982	—	—	—	—	—	—	3	0·20	—	—	69	4·61	46	3·07	7	0·47	22	1·47	8	0·53	5	0·33	209	13·95
Miles Platting	13489	—	—	—	—	—	—	2	0·15	—	—	55	4·08	26	1·93	3	0·22	17	1·26	7	0·52	3	0·22	158	11·71
Moss Side East	18035	—	—	—	—	—	—	2	0·11	1	0·06	83	4·60	40	2·22	9	0·50	19	1·03	3	0·17	—	—	216	11·98
Moss Side West	17240	—	—	—	—	—	—	2	0·12	1	0·06	88	5·10	35	2·03	17	0·99	21	1·22	7	0·41	8	0·46	244	14·15
Moston	20418	—	—	—	—	—	—	3	0·15	—	—	90	4·41	63	3·69	7	0·34	22	1·08	4	0·20	3	0·15	270	13·22
New Cross	12852	—	—	—	—	—	—	8	0·62	1	0·08	75	5·84	38	2·96	13	1·01	31	2·41	5	0·39	2	0·16	232	18·05
Newton Heath	18927	—	—	—	—	—	—	3	0·17	1	0·06	84	4·66	42	2·33	9	0·50	25	1·39	3	0·17	5	0·28	237	13·15
Northenden	21177	—	—	—	—	1	0·05	4	0·19	2	0·09	65	3·07	46	2·17	10	0·47	15	0·71	9	0·42	4	0·19	203	9·68
Old Moat	16662	—	—	—	—	—	—	1	0·06	—	—	64	3·84	36	2·16	10	0·60	28	1·68	5	0·30	3	0·18	191	11·46
Openshaw	21655	—	—	—	—	—	—	3	0·14	—	—	89	4·11	64	2·96	12	0·55	24	1·11	7	0·32	5	0·23	289	13·35
Rusholme	16613	—	—	—	—	—	—	—	—	—	—	78	4·69	36	2·17	7	0·42	17	1·02	7	0·42	3	0·18	217	13·06
St. George's	17148	—	—	—	—	—	—	3	0·17	—	—	69	4·02	30	1·75	16	0·93	26	1·52	4	0·23	5	0·29	223	13·00
St. Luke's	17048	—	—	—	—	—	—	3	0·18	—	—	69	4·05	43	2·52	11	0·65	23	1·35	8	0·47	4	0·23	243	14·25
St. Mark's	20268	—	—	—	—	—	—	3	0·15	2	0·10	77	3·80	41	2·02	8	0·39	24	1·18	9	0·44	3	0·15	239	11·79
St. Peter's	9952	—	—	—	—	—	—	—	—	—	—	26	2·61	11	1·11	10	1·00	13	1·31	1	0·10	—	—	82	8·24
Withington	15439	—	—	—	—	—	—	—	—	3	0·19	64	4·15	38	2·46	4	0·26	12	0·78	9	0·58	6	0·39	187	12·11
Woodhouse Park	21342	1	0·05	—	—	—	—	3	0·14	—	—	50	2·34	29	1·36	4	0·19	11	0·52	4	0·19	2	0·09	160	7·50

Note.—* Includes neoplasms of lymphatic and haematopoietic tissues.

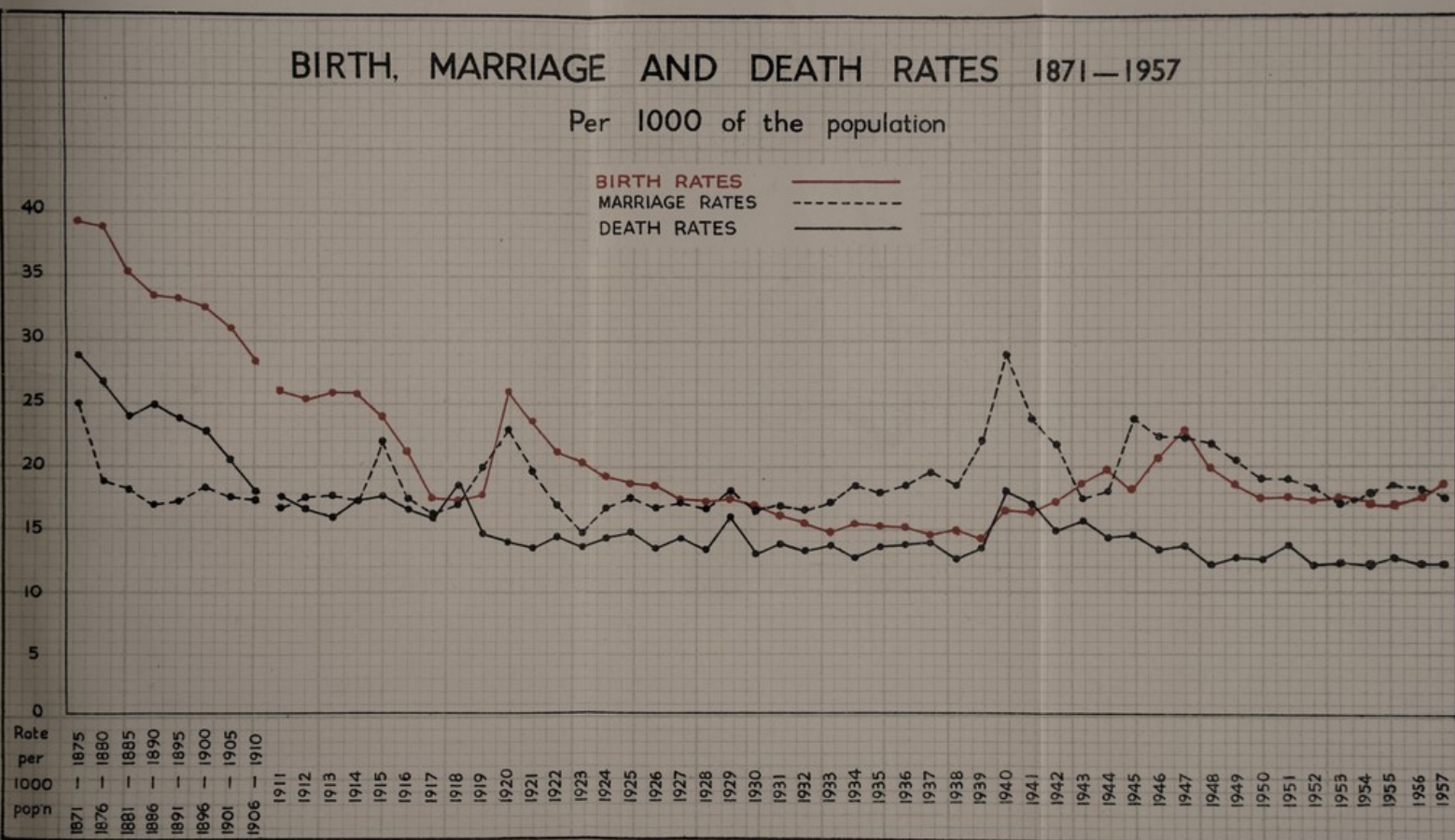
† Deaths in Barlow Moor and Crumpsall wards include the following numbers in non-transferable institutions — Barlow Moor 187
Crumpsall 133

Date	Description	Debit	Credit	Balance	
				Debit	Credit
1951-01-01	Balance			100.00	
1951-01-15	John Doe	50.00		50.00	
1951-02-01	John Doe		25.00	50.00	25.00
1951-02-15	John Doe	25.00		25.00	
1951-03-01	John Doe		50.00	25.00	75.00
1951-03-15	John Doe	75.00		50.00	
1951-04-01	John Doe		50.00	50.00	100.00
1951-04-15	John Doe	100.00		50.00	
1951-05-01	John Doe		50.00	50.00	100.00
1951-05-15	John Doe	100.00		50.00	
1951-06-01	John Doe		50.00	50.00	100.00
1951-06-15	John Doe	100.00		50.00	
1951-07-01	John Doe		50.00	50.00	100.00
1951-07-15	John Doe	100.00		50.00	
1951-08-01	John Doe		50.00	50.00	100.00
1951-08-15	John Doe	100.00		50.00	
1951-09-01	John Doe		50.00	50.00	100.00
1951-09-15	John Doe	100.00		50.00	
1951-10-01	John Doe		50.00	50.00	100.00
1951-10-15	John Doe	100.00		50.00	
1951-11-01	John Doe		50.00	50.00	100.00
1951-11-15	John Doe	100.00		50.00	
1951-12-01	John Doe		50.00	50.00	100.00
1951-12-15	John Doe	100.00		50.00	
1952-01-01	John Doe		50.00	50.00	100.00

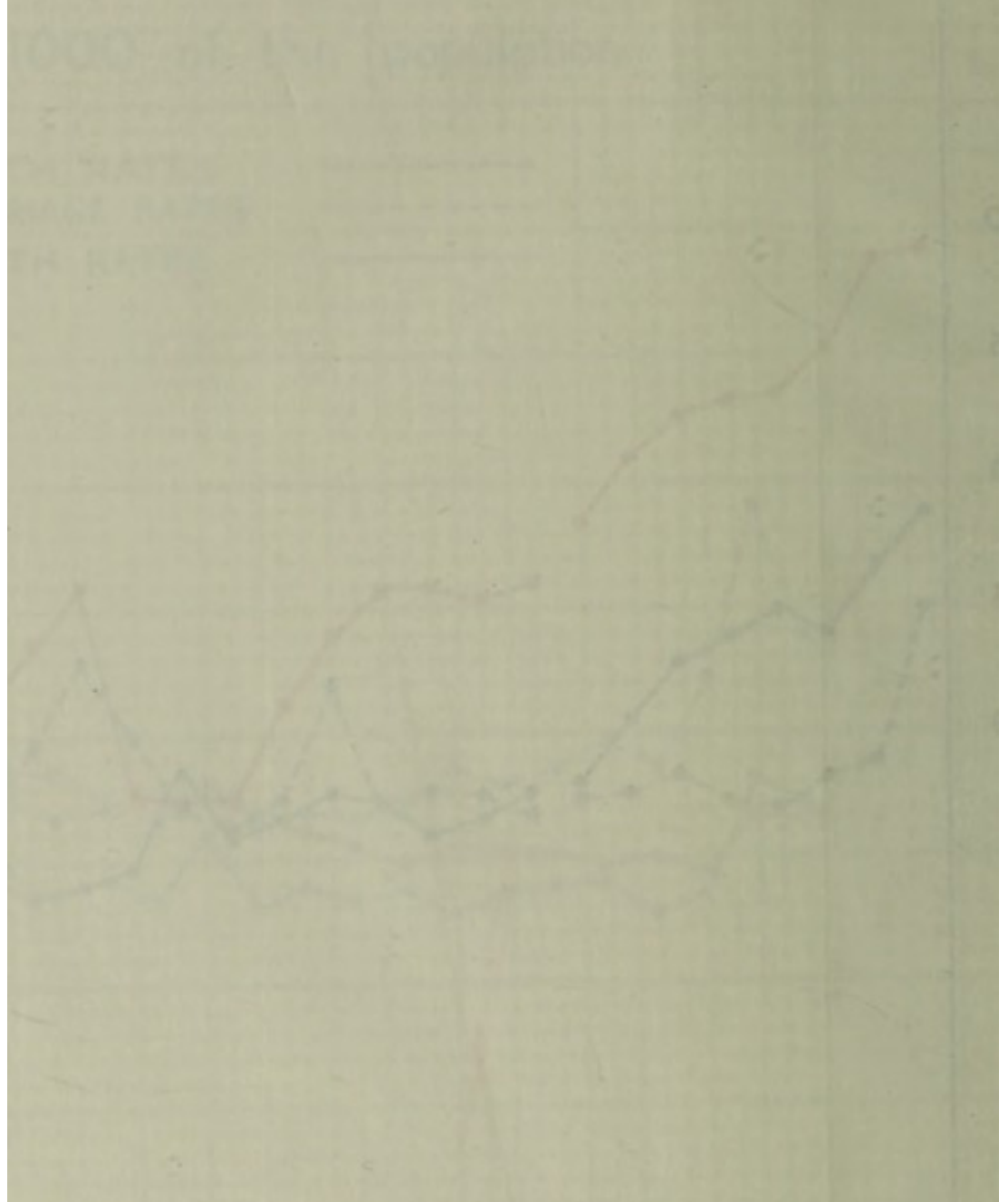
BIRTH, MARRIAGE AND DEATH RATES 1871-1957

Per 1000 of the population

BIRTH RATES ———
 MARRIAGE RATES - - - -
 DEATH RATES ———



SITTA BIRTA BOMARRI



Year	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
1980	100	150	200	250	300	350
1981	120	180	230	280	330	380
1982	140	200	250	300	350	400
1983	160	220	270	320	370	420
1984	180	240	290	340	390	440
1985	200	260	310	360	410	460
1986	220	280	330	380	430	480
1987	240	300	350	400	450	500
1988	260	320	370	420	470	520
1989	280	340	390	440	490	540
1990	300	360	410	460	510	560

DEATH RATE 1871-1957

Per 1000 of the population



MANCHESTER

ENGLAND and WALES

Rate per 1000 pop'n

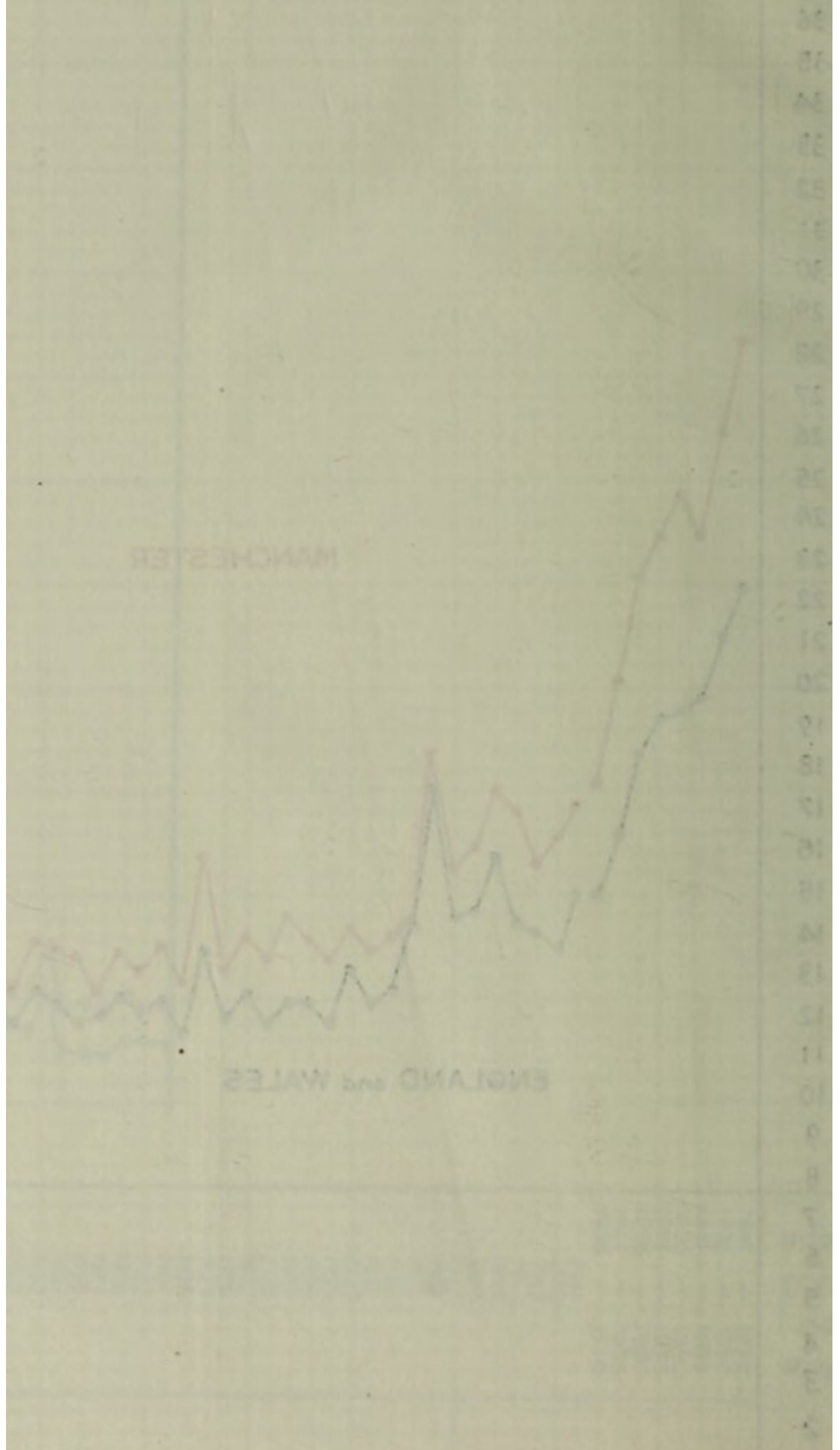
1875 1880 1885 1890 1900 1905 1910

1871 1876 1881 1886 1891 1896 1901 1906

1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957

DEATH RATE 1871

Per 1000 of the population

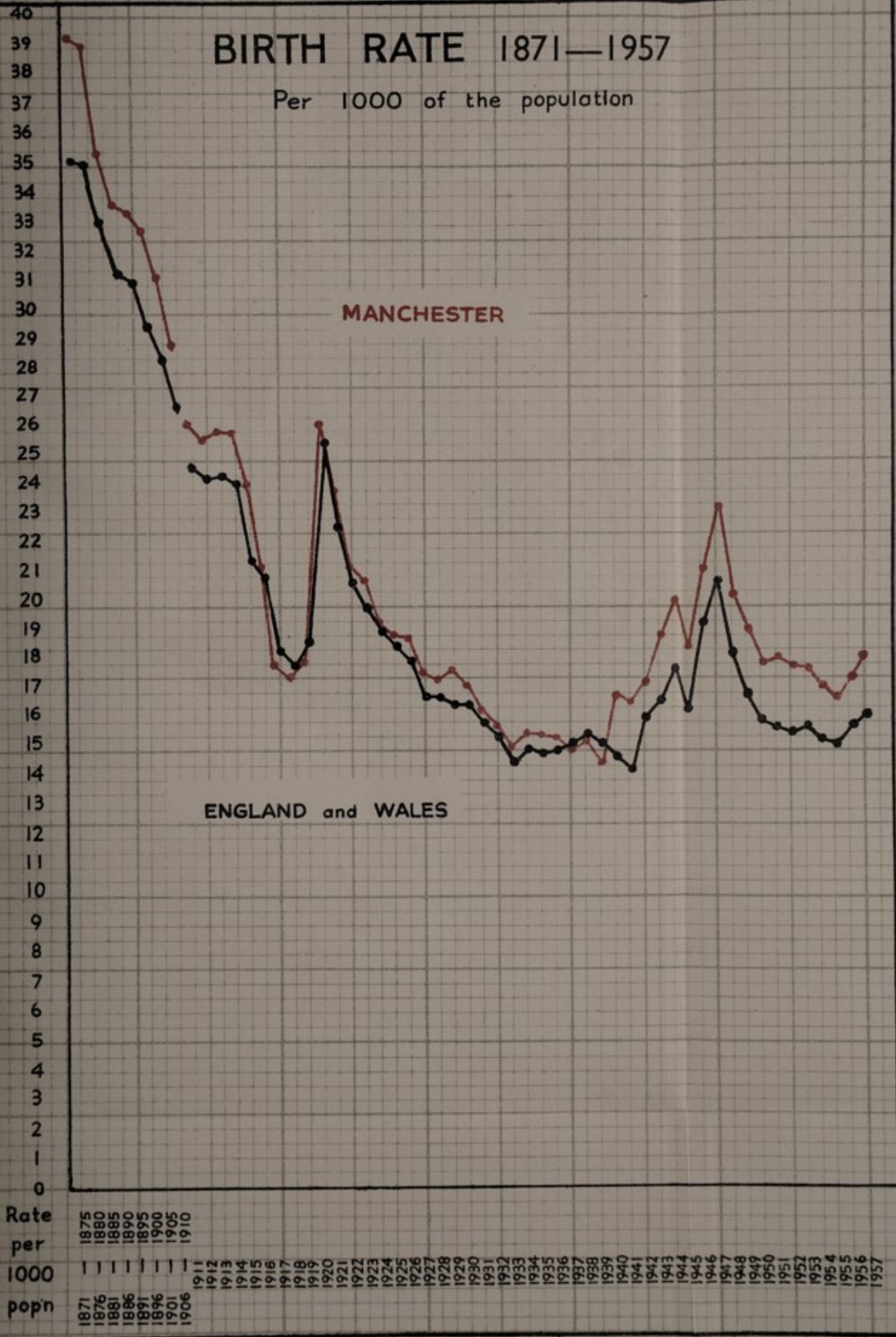


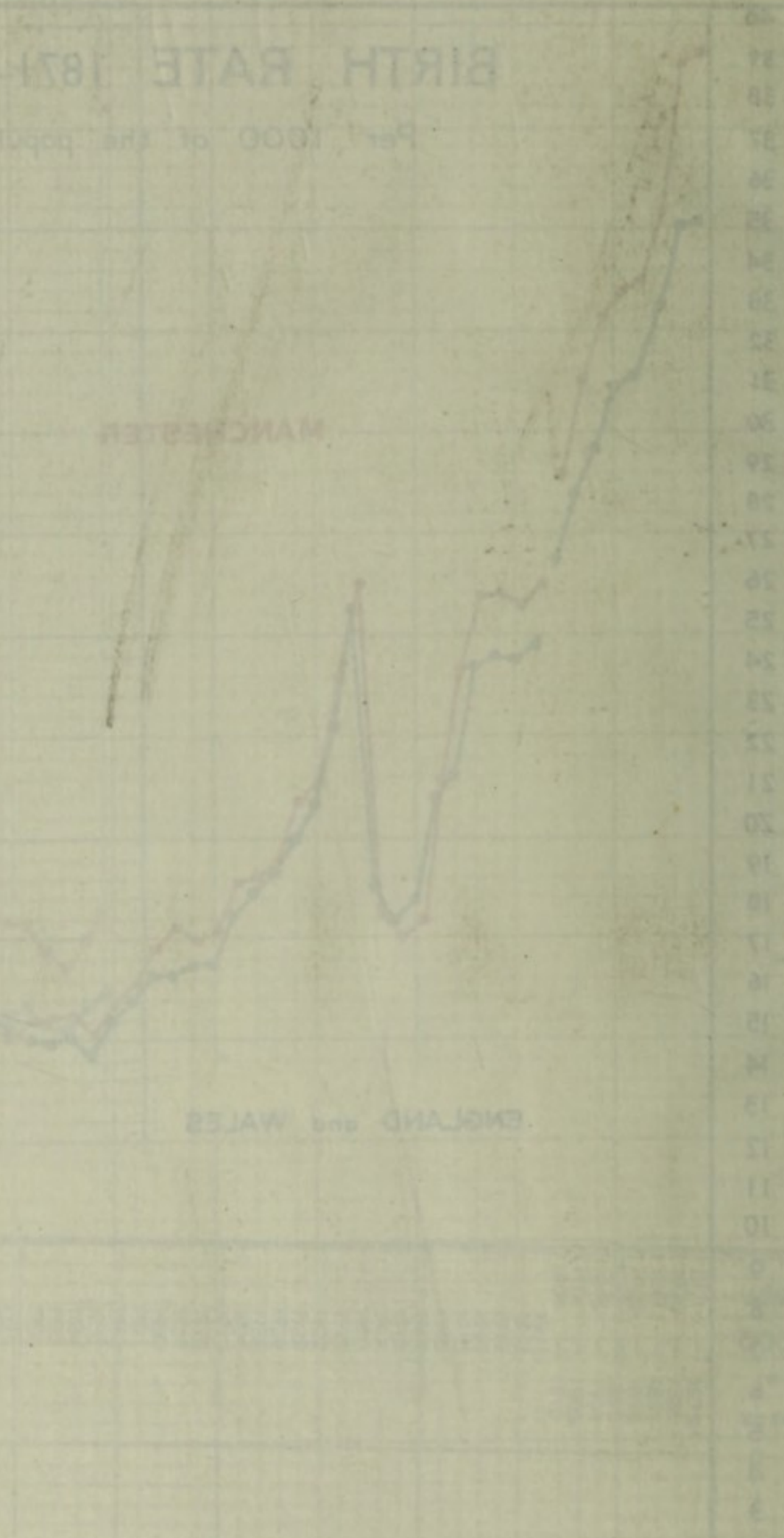
BIRTH RATE 1871—1957

Per 1000 of the population

MANCHESTER

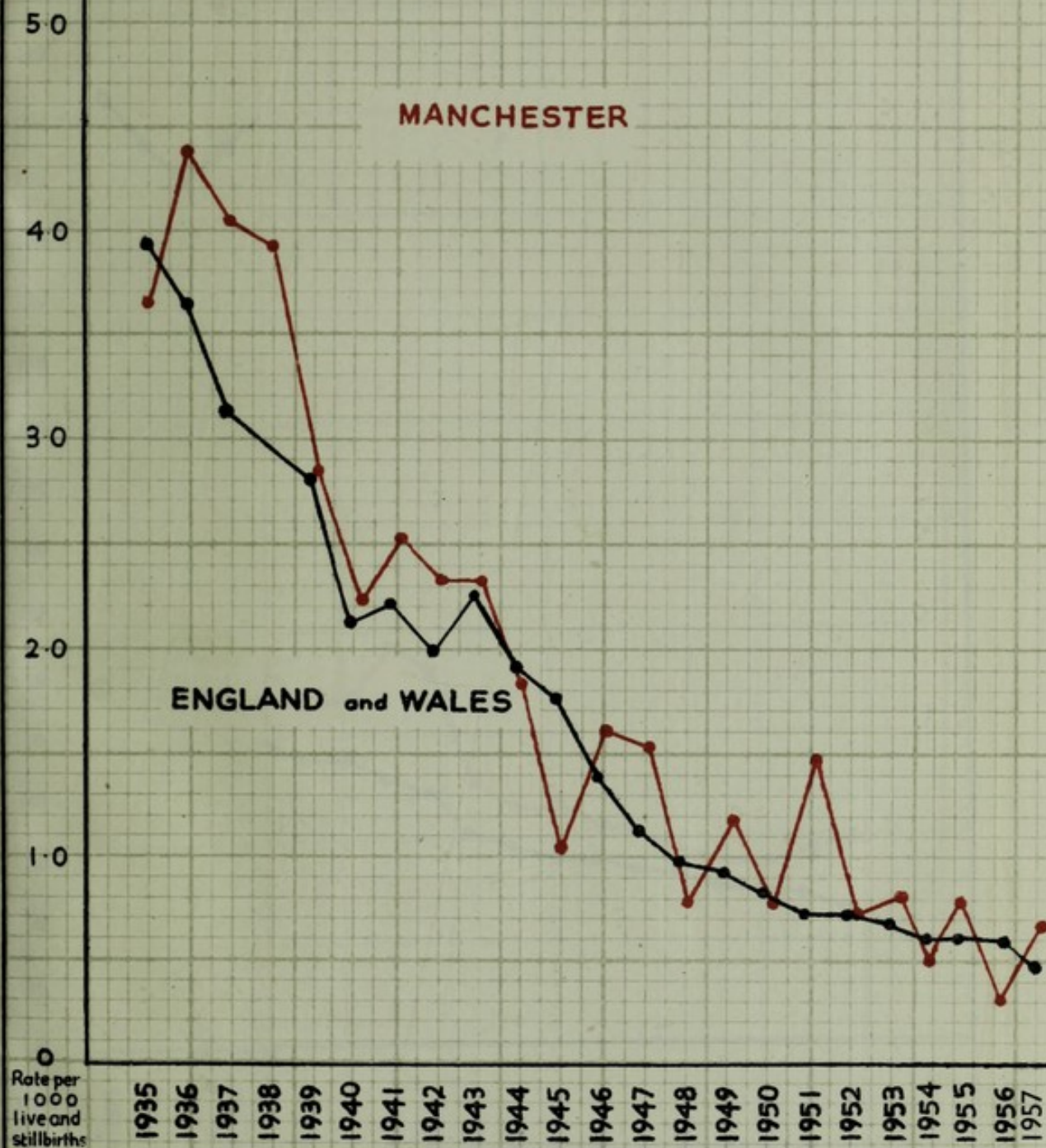
ENGLAND and WALES





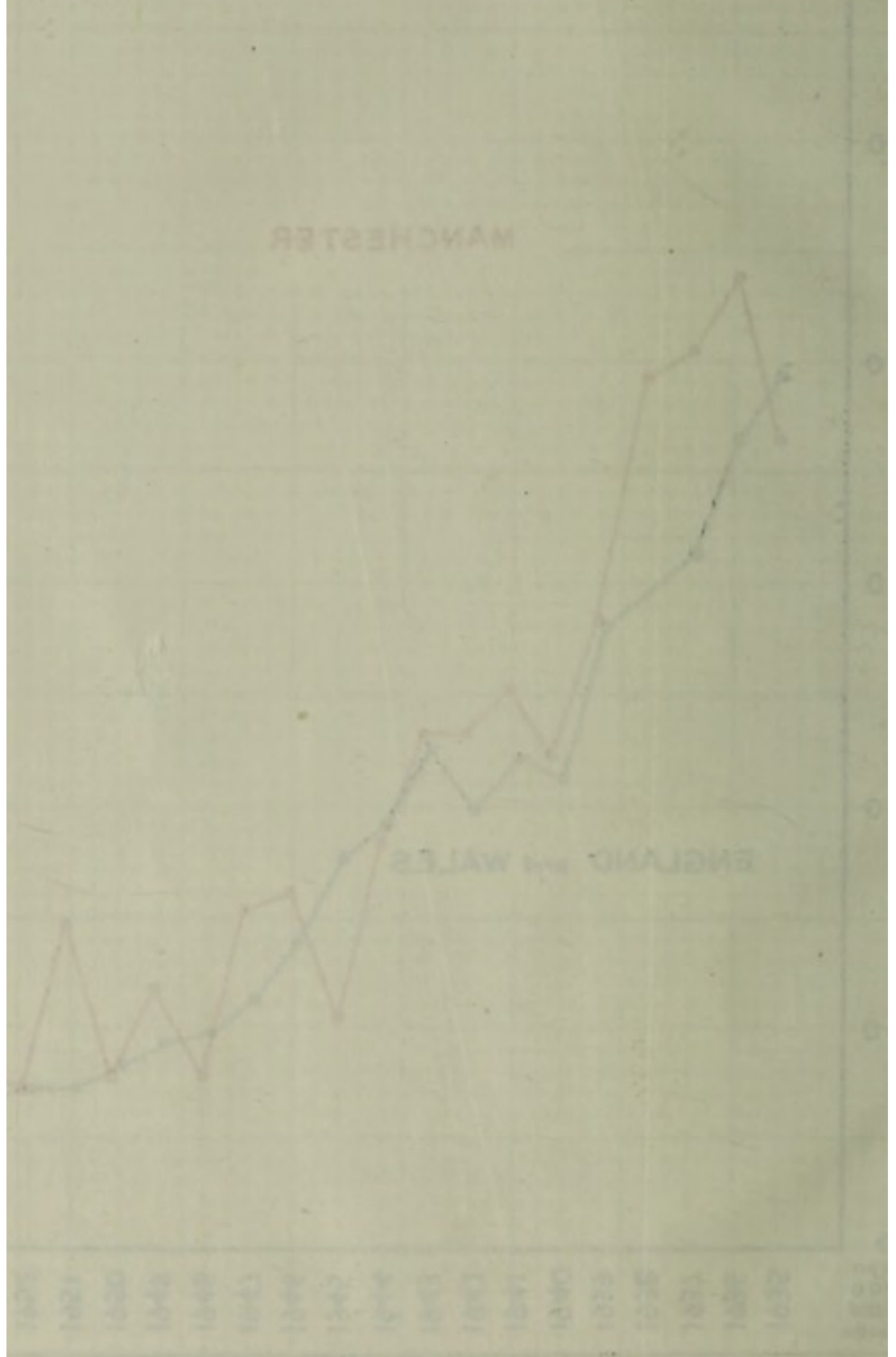
MATERNAL MORTALITY 1935—1957

Mortality per 1000 live and stillbirths



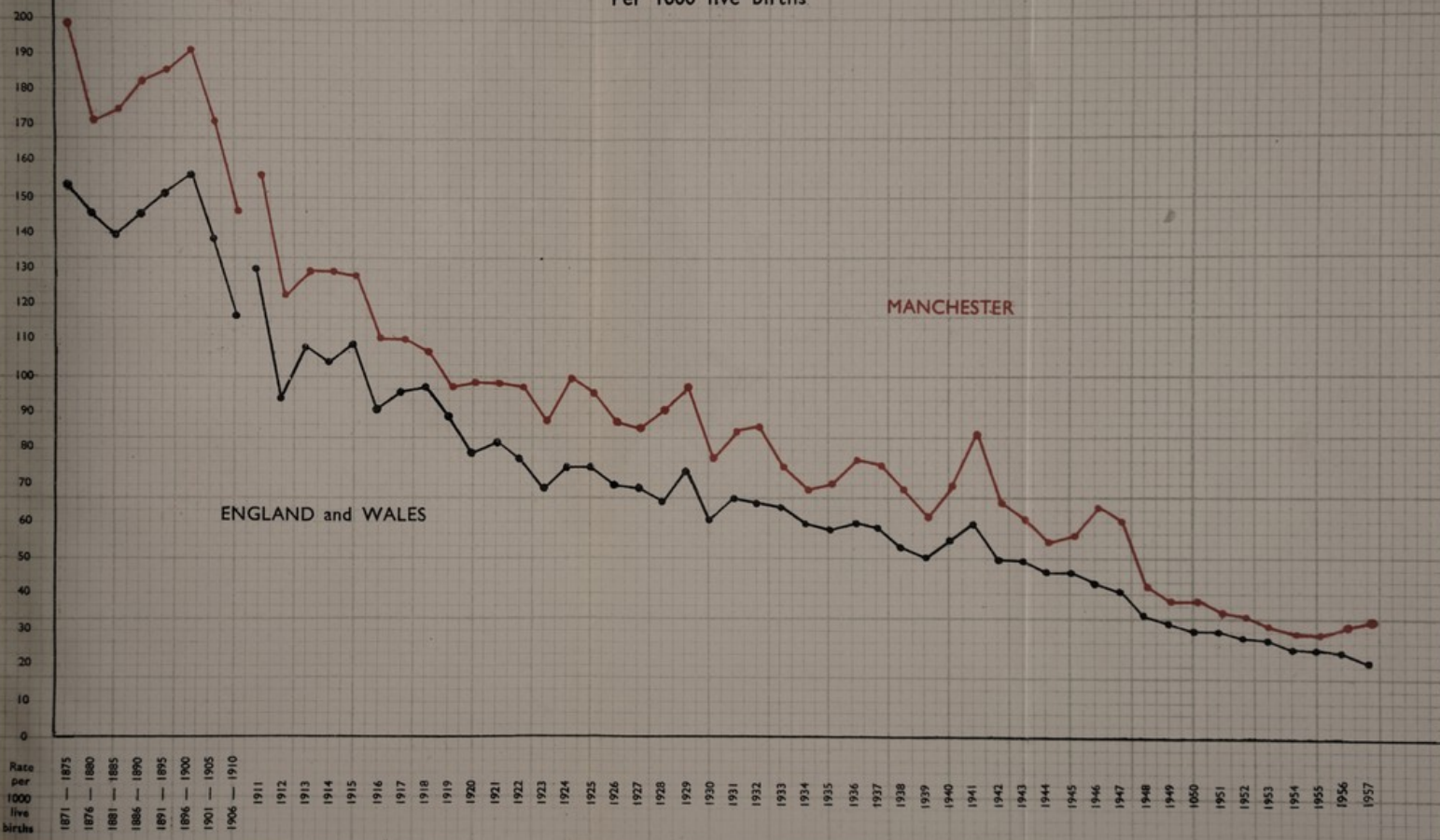
MATERNAL MORTALITY 1932

Mortality per 1000 live and stillbirths



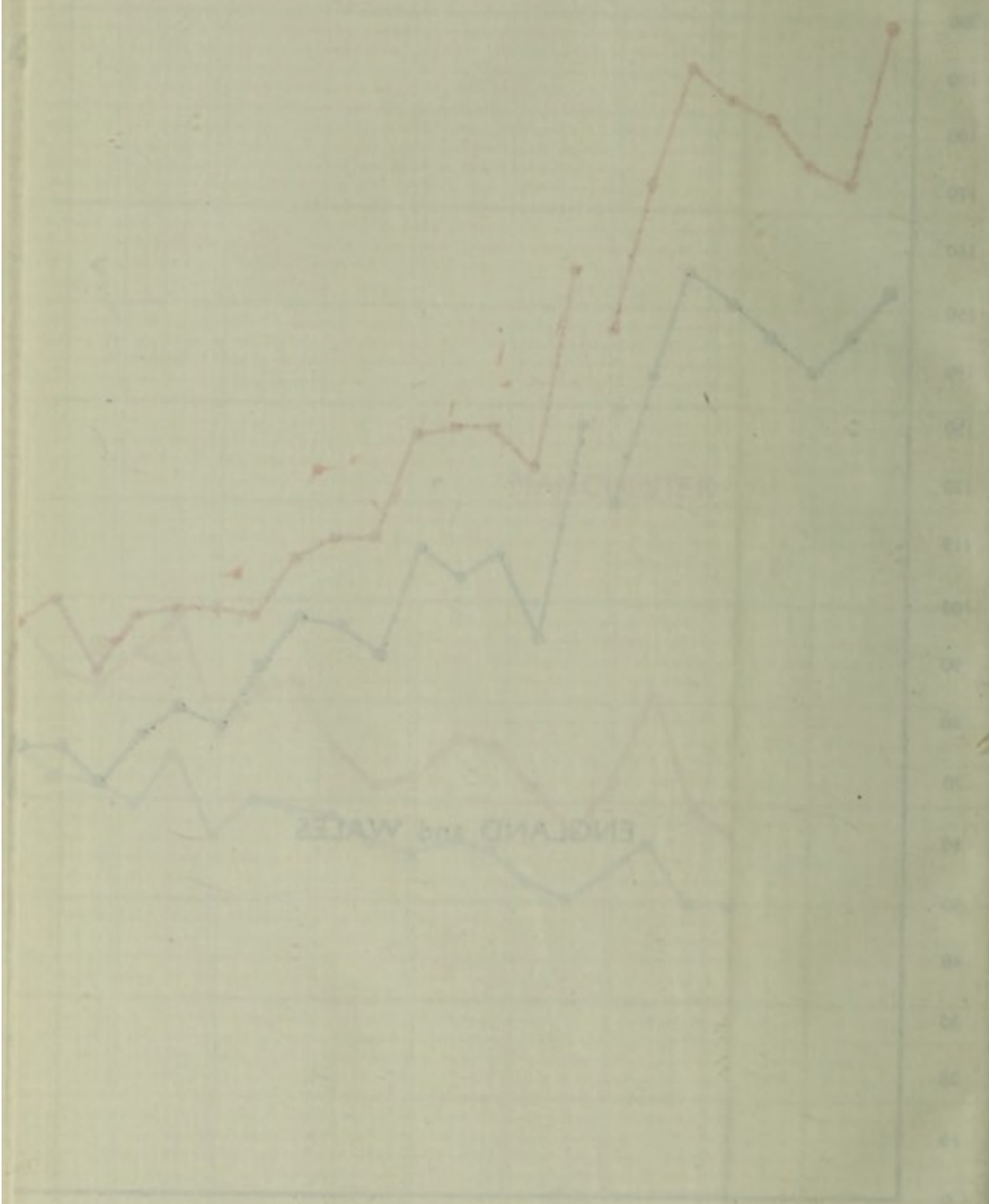
INFANT MORTALITY 1871—1957

Per 1000 live births



MORTALITY 1871-1957

Per 1000 live births



1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957

Infant mortality

Deaths from various causes per 1,000 live births

1953-57

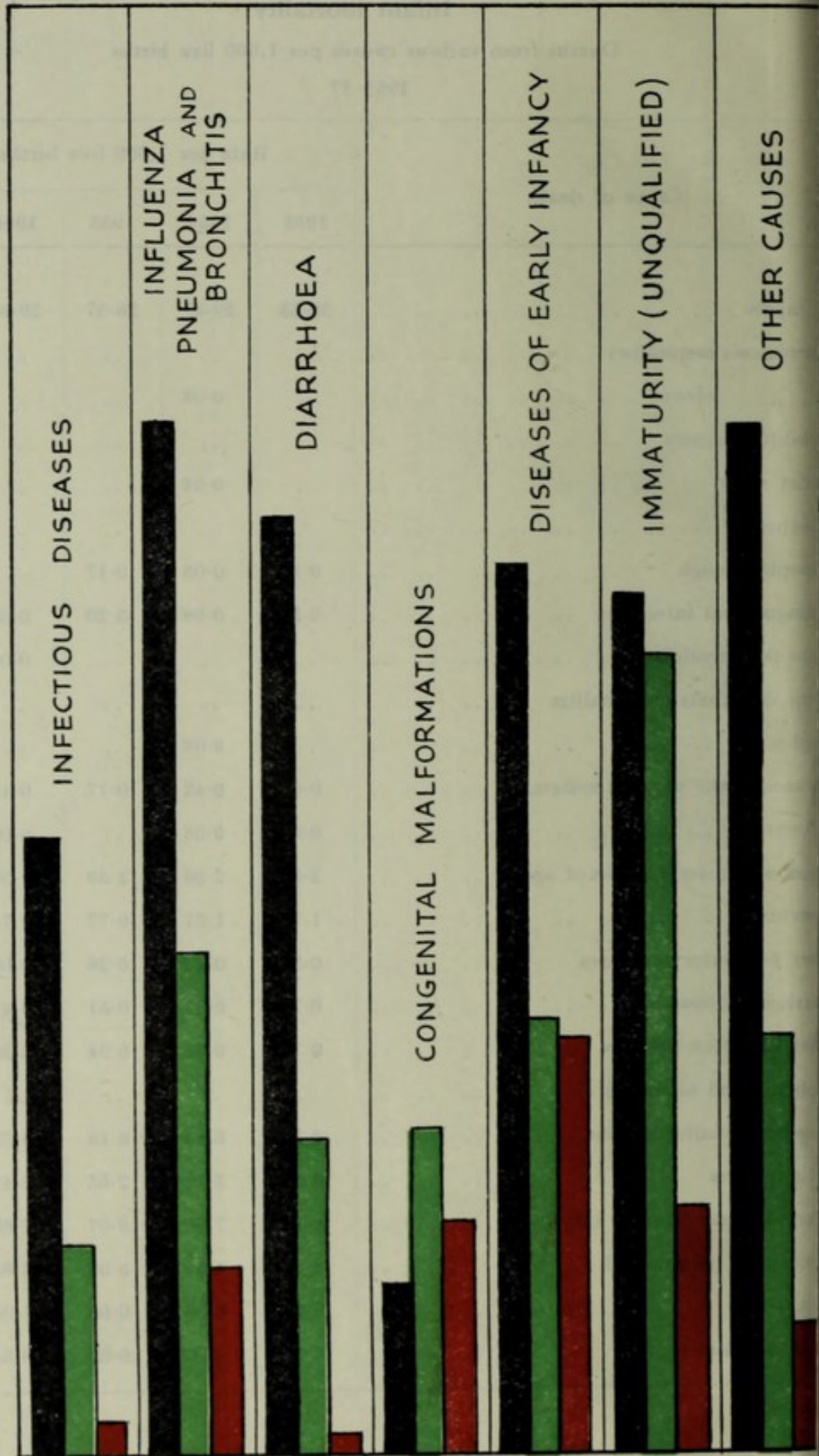
Cause of death	Rate per 1,000 live births				
	1953	1954	1955	1956	1957
Causes	30.53	29.47	28.37	29.92	30.10
Tuberculosis respiratory .. .. .	..	..	..	..	..
" other .. .. .	..	0.08	..	..	..
Septic diseases .. .. .	..	..	..	..	..
Scarlet fever .. .. .	..	0.08	..	..	..
Diphtheria .. .. .	..	..	..	..	..
Whooping cough	0.24	0.08	0.17	..	0.08
Bacterial infections	0.24	0.08	0.26	0.59	0.24
of poliomyelitis .. .. .	..	..	..	0.08	..
of infectious encephalitis .. .. .	..	..	..	..	..
of convulsions .. .. .	..	0.08	..	..	0.16
Diseases of the nervous system	0.08	0.42	0.17	0.42	0.40
Influenza	0.08	0.08	..	0.08	0.08
Dysentery (over 4 weeks of age)	3.03	2.36	3.59	3.59	4.26
of bacillary dysentery	1.15	1.27	0.77	0.75	0.08
of other respiratory diseases	0.33	0.42	0.26	0.08	0.08
of diarrhoeal diseases	0.74	0.93	0.51	0.42	0.16
of other digestive diseases	0.74	0.34	0.94	0.59	0.56
of hepatitis and nephrosis .. .. .	..	..	..	..	..
of congenital malformations	4.34	6.84	6.15	5.52	5.15
of birth injuries	3.60	3.72	2.65	2.42	3.54
of other diseases of early infancy	6.87	7.60	6.07	7.69	6.68
of prematurity, unqualified	6.96	4.39	5.30	5.85	6.92
of congenital syphilis	1.23	0.08	0.68	1.00	1.13
of other causes	0.90	0.62	0.85	0.84	0.58

INFANT MORTALITY

1934 - 1938 IN GREEN

1910 1914 IN BLACK

1957 IN RED



Same as table one year of age with immaturity-unqualified deaths of early infancy and other causes 1938-1957

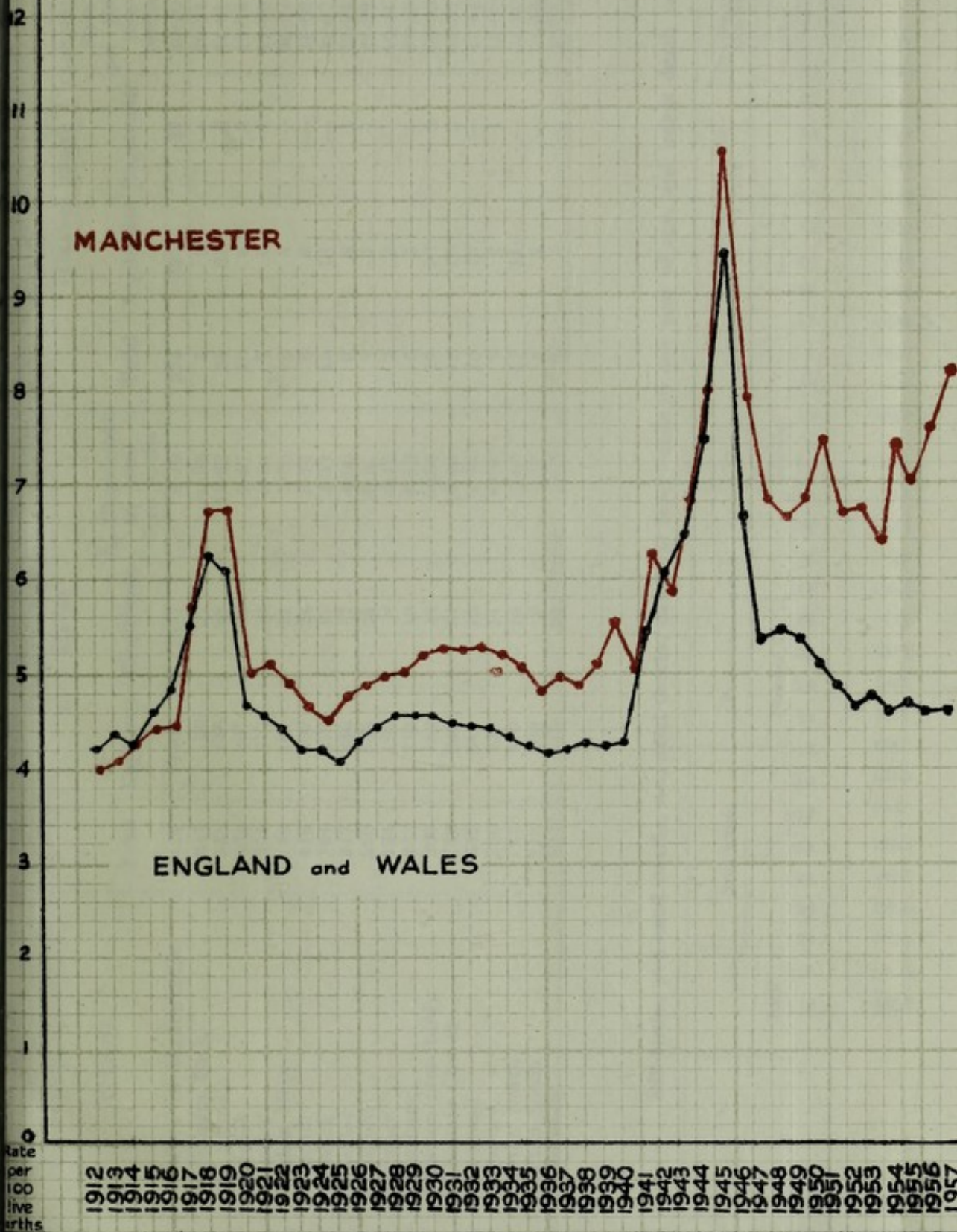
Year	Diarrhoea		Congenital malformations		Injury at birth		Atelectasis		Others of early infancy		Immaturity unqualified		Other causes		Total deaths	Infant mortality rate per 1,000 live births
	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 live births		
1938..	100	9.1	87	7.9	29	2.6	25	2.3	47	4.3	192	17.4	281	25.4	761	69.0
1939..	60	5.8	83	8.0	31	3.0	29	2.8	47	4.5	161	15.5	223	21.5	634	61.1
1940..	70	6.7	92	8.9	25	2.4	16	1.5	56	5.4	146	14.1	324	31.2	729	70.2
1941..	109	11.1	81	8.2	23	2.3	22	2.2	44	4.5	176	17.9	377	38.3	832	84.5
1942..	88	8.6	86	8.4	20	1.9	19	1.8	43	4.2	187	18.2	220	21.4	663	64.5
1943..	85	7.6	80	7.2	36	3.2	12	1.1	49	4.4	167	14.9	252	22.5	681	60.9
1944..	72	5.9	82	6.7	28	2.3	18	1.5	49	4.0	164	13.4	241	19.8	654	53.6
1945..	83	7.3	82	7.2	42	3.7	24	2.1	41	3.6	129	11.4	233	20.5	634	55.8
1946..	167	12.0	118	8.4	40	2.9	47	3.4	38	2.7	193	13.8	287	20.5	890	63.7
1947..	223	14.1	90	5.7	37	2.3	57	3.6	49	3.1	181	11.4	309	19.6	946	59.8
1948..	57	4.1	72	5.2	45	3.3	49	3.6	22	1.6	104	7.5	232	16.8	581	42.1
1949..	57	4.3	63	4.8	45	3.4	47	3.6	25	1.9	70	5.3	195	14.9	502	38.2
1950..	38	3.0	67	5.4	43	3.5	58	4.7	41	3.3	81	6.5	143	11.5	471	37.9
1951..	30	2.4	56	4.5	47	3.8	73	5.9	34	2.7	60	4.8	139	11.2	439	35.3
1952..	19	1.5	77	6.2	43	3.5	65	5.3	26	2.1	86	7.0	108	8.7	424	34.3
1953..	9	0.7	53	4.3	44	3.6	51	4.2	33	2.7	85	7.0	98	8.0	373	30.5
1954..	11	0.9	81	6.8	44	3.7	53	4.5	37	3.1	52	4.4	71	6.1	349	29.5
1955..	6	0.5	72	6.2	31	2.6	43	3.7	28	2.4	62	5.3	90	7.7	332	28.4
1956..	5	0.4	66	5.5	29	2.4	50	4.2	42	3.5	70	5.9	96	8.0	358	29.9
1957..	2	0.2	64	5.2	44	3.5	48	3.9	35	2.8	86	6.9	95	7.6	374	30.1

Legitimate and illegitimate live births and deaths of infants under one year of age—
from Registrar-General's returns

Year	LIVE BIRTHS				DEATHS UNDER ONE YEAR OF AGE								
	Legitimate	Illegitimate	Total	Illegitimate percentage of total live births	Number			Rate per 1,000 related live births					
					Legitimate	Illegitimate	Total	Legitimate	Illegitimate	Total	Legitimate	Illegitimate	Total
1918	12,053	873	12,926	6.75	1,201	180	1,381	100.00	206.19	106.83	91.3	185.6	97.2
1919	12,758	928	13,686	6.78	1,175	160	1,333	91.94	172.41	97.40	83.7	172.8	89.1
1920	18,253	960	19,213	4.99	1,169	213	1,882	64.04	221.88	97.95	76.2	156.1	79.9
1921	16,647	902	17,549	5.14	1,542	171	1,713	92.63	189.58	97.61	79.2	158.3	82.8
1922	15,013	774	15,787	4.90	1,375	150	1,525	91.59	193.80	96.60	74.2	138.7	77.0
1923	14,677	711	15,388	4.62	1,243	117	1,360	84.69	164.56	88.35	66.6	131.8	69.4
1924	13,826	657	14,483	4.54	1,316	138	1,454	95.18	210.05	100.39	72.6	133.0	75.1
1925	13,493	669	14,162	4.72	1,251	113	1,364	92.72	168.91	96.31	72.5	135.6	75.0
1926	13,290	679	13,969	4.86	1,116	100	1,216	83.97	147.28	87.05	67.6	129.6	70.2
1927	12,388	648	13,036	4.97	1,032	90	1,122	83.31	138.89	86.07	67.4	119.8	69.7
1928	12,256	646	12,902	5.01	1,084	95	1,179	88.44	147.06	91.38	62.7	114.8	65.1
1929	12,380	678	13,058	5.19	1,144	128	1,272	92.41	188.79	97.41	71.9	125.9	74.4
1930	12,178	673	12,851	5.24	881	114	995	72.34	169.39	77.43	57.8	104.7	60.0
1931	11,694	643	12,337	5.21	956	93	1,049	81.75	144.64	85.03	64.3	110.7	66.3
1932	11,206	619	11,825	5.24	934	81	1,015	83.35	130.86	85.83	62.9	112.2	65.0
1933	10,582	574	11,156	5.15	769	65	834	72.67	113.24	74.76	61.7	107.5	63.7
1934	10,974	581	11,555	5.03	742	56	798	67.61	96.39	69.06	56.9	95.4	58.6
1935	10,842	537	11,379	4.72	757	52	809	69.82	96.83	71.09	55.5	89.5	56.9
1936	10,681	550	11,231	4.90	816	47	863	76.40	85.45	76.84	57.3	88.0	58.5
1937	10,268	518	10,786	4.80	770	53	823	74.99	102.32	76.30	56.3	88.1	57.6
1938	10,468	557	11,025	5.05	702	59	761	67.06	105.92	69.03	51.4	80.8	52.7
1939	9,807	571	10,378	5.50	587	64	651	59.85	82.31	61.09	48.6	89.8	50.4
1940	9,873	515	10,388	4.96	677	52	729	68.57	100.97	70.18	55.6	82.4	55.8
1941	9,239	610	9,849	6.19	767	65	832	83.02	106.56	84.47	58.8	82.3	58.8
1942	9,680	596	10,276	5.80	621	42	663	64.15	70.47	64.52	49.2	75.0	49.3
1943	10,431	754	11,185	6.74	625	56	681	59.92	74.27	60.88	47.6	71.4	49.0
1944	11,239	965	12,204	7.91	577	77	654	51.34	79.79	53.59	43.7	68.5	44.5
1945	10,175	1,187	11,362	10.45	557	77	634	54.74	64.87	55.80	44.1	64.8	47.0
1946	12,874	1,095	13,969	7.84	798	92	890	61.99	84.02	63.71	41.6	60.1	40.9
1947	14,760	1,070	15,830	6.76	859	87	946	58.20	81.31	59.76	40.4	58.0	41.8
1948	12,886	908	13,794	6.58	524	57	581	40.66	62.77	42.12	33.3	45.3	34.5
1949	12,243	886	13,129	6.75	461	41	502	37.65	46.28	38.24	31.7	44.8	32.7
1950	11,523	913	12,436	7.34	433	38	471	37.58	41.62	37.87	29.1	39.4	29.8
1951	11,616	822	12,438	6.58	407	32	439	35.03	38.93	35.29	29.2	38.5	29.6
1952	11,549	818	12,367	6.61	398	26	424	34.46	31.78	34.38	27.2	34.9	27.6
1953	11,450	768	12,218	6.29	352	21	373	30.74	27.34	30.53	26.5	33.0	26.8
1954	10,967	876	11,843	7.40	322	27	349	29.36	30.82	29.47	25.1	32.1	25.4
1955	10,879	825	11,704	7.05	312	20	332	28.68	24.24	28.37	24.5	31.7	24.9
1956	11,052	915	11,967	7.65	327	31	358	29.59	33.88	29.92	23.4	28.5	23.7
1957	11,407	1,017	12,424	8.19	337	37	374	29.54	36.38	30.10	23.4	28.5	23.0

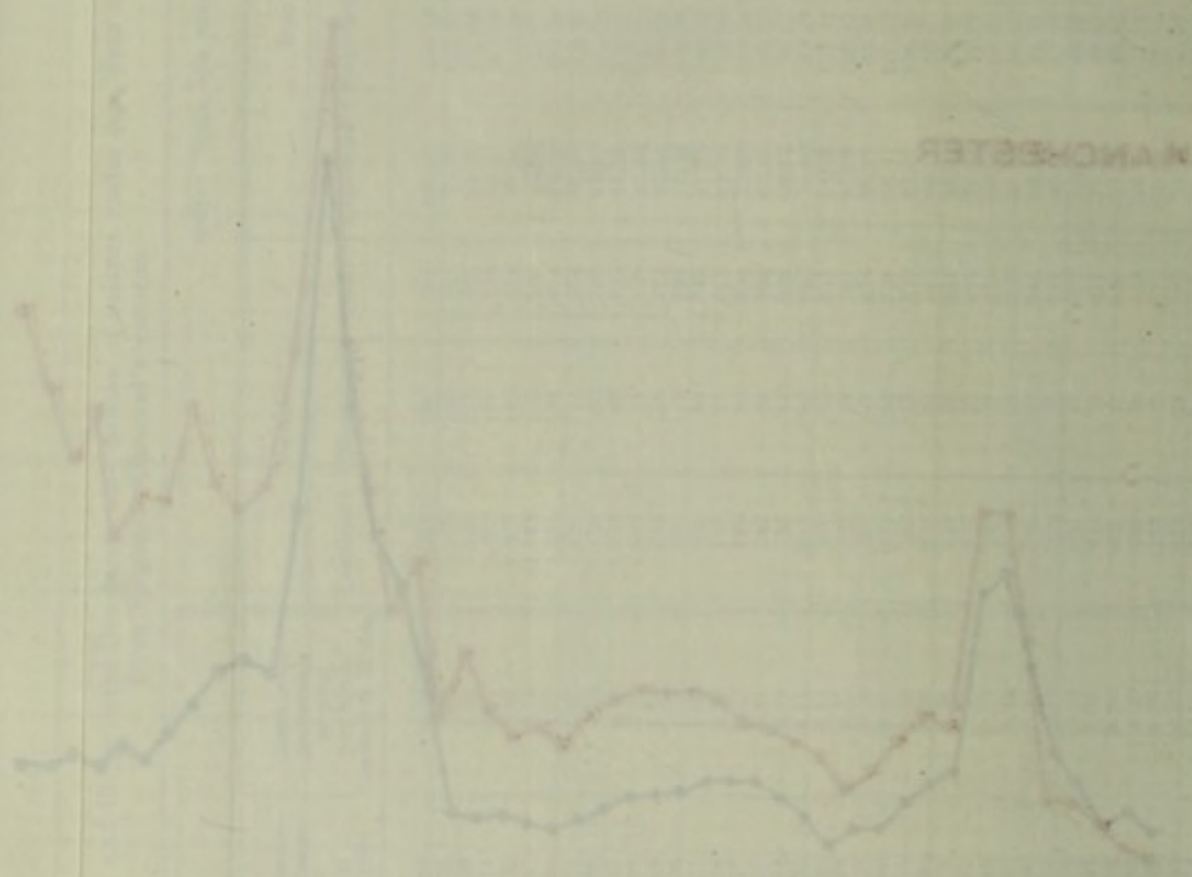
ILLEGITIMATE BIRTHS

Per 100 total live births



ILLEGITIMATE BIRTHS

Per 100 total live births



MANCHESTER

ENGLAND and WALES

Source: Registrar-General, England and Wales, 1860-1900

also the proportion of mortality among infants of both classes under one year of age
(figures compiled in the Health Department)

WARDS *	LIVE BIRTHS				DEATHS UNDER 1 YEAR OF AGE				
	Total	Legitimate	Illegitimate	% Illegitimate to total live births	Total	Legitimate	Illegitimate	Rate per 1000 live births	Rate per 1000 live illegitimate births
CITY OF MANCHESTER ..	12424	11407	1017	8.19	374	337	37	30.10	36.38
Alexandra Park ..	247	220	27	10.93	5	5	—	20.24	—
All Saints ..	538	440	98	18.22	24	21	3	44.61	30.61
Ardwick ..	439	397	42	9.57	10	8	2	22.78	47.62
Baguley ..	391	377	14	3.58	7	6	1	17.90	71.43
Barlow Moor ..	142	131	11	7.75	5	5	—	35.21	—
Benchill ..	416	397	24	5.77	9	9	—	21.63	—
Beswick ..	394	377	17	4.31	15	15	—	38.07	—
Blackley ..	347	330	17	4.90	9	8	1	25.94	58.2
Bradford ..	360	336	24	6.67	8	7	1	22.22	41.67
Burnage ..	194	186	8	4.12	2	2	—	10.31	—
Cheetham ..	232	213	19	8.19	5	5	—	21.55	—
Chorlton-cum-Hardy ..	200	182	18	9.00	12	10	2	60.00	111.11
Collegiate Church ..	282	248	34	12.06	12	10	2	42.55	58.82
Crumpsall ..	362	347	15	4.14	15	15	—	41.44	—
Didsbury ..	250	239	11	4.40	3	2	1	12.00	90.91
Gorton North ..	241	326	15	4.40	11	11	—	32.26	—
Gorton South ..	218	209	9	4.13	4	4	—	18.35	—
Harpurhey ..	337	315	22	6.53	7	7	—	20.77	—
Hugh Oldham ..	468	445	23	4.91	17	17	—	38.46	43.48
Levenshulme ..	238	222	16	6.72	3	3	—	12.61	—
Lighthowne ..	295	292	3	1.02	7	7	—	23.73	—
Longsight ..	248	225	23	9.27	6	6	—	24.19	—
Miles Platting ..	255	245	10	3.92	7	7	—	27.45	—
Moss Side East ..	553	425	128	23.15	19	17	2	34.36	15.63
Moss Side West ..	441	399	42	9.52	14	11	3	31.75	36.59
Moston ..	327	313	14	4.28	8	7	1	24.46	71.43
New Cross ..	321	302	19	5.92	11	8	3	34.27	157.89
Newton Heath ..	242	239	3	1.24	4	4	—	16.53	—
Northenden ..	331	320	11	3.32	10	7	3	30.21	272.73
Old Moat ..	179	173	6	3.35	8	8	—	44.69	—
Openshaw ..	365	349	16	4.38	9	8	1	24.66	62.50
Rusholme ..	248	226	22	8.87	10	8	2	40.32	90.91
St. George's ..	418	375	43	10.29	18	15	3	43.06	69.77
St. Luke's ..	504	420	84	16.67	20	18	2	39.68	23.81
St. Mark's ..	357	326	31	8.68	14	12	2	39.22	64.52
St. Peter's ..	150	128	22	14.67	6	6	—	40.00	—
Withington ..	192	181	11	5.73	3	2	1	15.83	11.05
Woodhouse Park ..	602	580	22	3.65	16	16	—	26.67	—

Still-births, peri-natal deaths, neo-natal deaths, deaths at four weeks to one year of age, and infant death rate, 1938-1957

Year	Total live and still-births	STILL-BIRTHS		PERI-NATAL DEATHS		NEO-NATAL DEATHS		DEATHS, 4 WEEKS—1 YEAR		DEATHS UNDER 1 YEAR AND STILL-BIRTHS		Infant death rate per 1,000 live births
		Number of still-births	Rate per 1,000 live and still-births	Number of peri-natal deaths (still-births and deaths under 1 week)	Rate per 1,000 total live and still-births	Number of neo-natal deaths, 0-4 weeks	Rate per 1,000 total live births	Number of deaths, 4 weeks-1 year	Rate per 1,000 total live births	Number of deaths under 1 year and still-births	Rate per 1,000 total live and still-births	
1938	..	507	43.96	751	65.12	351	31.84	410	37.19	1,268	109.95	69.03
1939	..	492	45.26	719	66.15	321	30.93	313	30.16	1,126	103.59	61.09
1940	..	478	43.99	687	63.22	295	28.40	434	41.78	1,207	111.08	70.18
1941	..	400	39.03	611	59.62	292	29.65	540	54.82	1,232	120.21	84.47
1942	..	443	41.33	636	59.33	304	29.58	359	34.94	1,106	103.18	64.52
1943	..	406	35.02	612	52.80	306	27.36	375	33.52	1,087	93.77	60.88
1944	..	367	29.19	602	47.89	315	25.81	339	27.78	1,021	81.22	53.59
1945	..	372	31.70	592	50.45	311	27.37	323	28.43	1,006	85.73	55.80
1946	..	445	30.87	720	49.95	474	33.93	416	29.78	1,335	92.62	63.71
1947	..	427	26.27	694	42.69	466	29.44	480	30.32	1,380	84.89	59.76
1948	..	376	26.53	588	41.50	274	19.85	307	22.26	957	67.54	42.12
1949	..	331	24.59	528	3.23	242	18.43	260	19.80	833	61.88	38.24
1950	..	333	26.08	551	43.15	263	21.15	208	16.72	804	62.96	37.87
1951	..	319	25.01	521	40.84	251	20.18	188	15.11	758	59.42	35.29
1952	..	349	27.45	575	45.22	269	21.75	155	12.53	773	60.78	34.28
1953	..	355	28.24	583	46.37	255	20.87	118	9.66	728	57.90	30.53
1954	..	389	31.80	587	47.99	237	20.01	112	9.46	738	60.33	29.47
1955	..	318	26.45	496	41.26	215	18.37	117	10.00	650	54.07	28.37
1956	..	324	26.36	538	43.77	241	20.14	117	9.78	682	55.49	29.92
1957	..	331	25.95	555	43.51	261	21.01	113	9.09	705	55.27	30.10

Abstract of Registrar General's Yearly Report

YEAR	POPULATION	DEATH RATE			BIRTH RATE			INFANT DEATH RATE			ALL FETTERAL CAUSES			PULMONARY AND POST-TUBERCULOUS			OTHER FETTERAL CAUSES			ALL FORMS OF TUBERCULOSIS			PULMONARY TUBERCULOSIS			OTHER FORMS OF TUBERCULOSIS			TYPHOID AND PARATYPHOID FEVERS			SCARLET FEVER			DIPHTHERIA		
		Number of deaths	Per 1000 pop'n	England and Wales	Number of births	Per 1000 pop'n	England and Wales	Number of deaths	Per 1000 births	England and Wales	Number of deaths	Rate per 1000 births	England and Wales	Number of deaths	Rate per 1000 births	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales	Number of deaths	Rate per 1000 pop'n	England and Wales
1901	443872	11051	24.70	16.9	13651	28.85	25.5	3114	198	151	61	3.89	4.73	34	2.17	2.24	27	1.72	2.49	—	1571	2.89	1339	3164	2.19	—	427	0.79	253	75	0.14	2592	277	0.23	437	133	0.24
1911	716363	12251	17.13	14.6	18355	25.96	24.4	2968	156	139	72	3.87	3.87	28	1.56	1.43	44	2.37	2.44	—	1691	2.08	1527	3145	1.46	—	248	0.40	256	56	0.07	1959	44	0.06	472	69	0.10
1921	744900	10111	13.59	12.3	17549	23.59	22.4	1713	98	92	64	3.65	3.91	34	1.94	1.98	30	1.71	1.53	2174	1759	1.65	1641	201	1.22	230	249	0.33	90	12	0.016	5419	29	0.079	1945	90	0.121
1931	772000	10845	13.79	12.3	15327	19.98	19.8	1949	85	68	49	3.69	3.94	34	1.94	1.98	30	1.71	1.53	2174	1759	1.65	1641	201	1.22	230	249	0.33	90	12	0.016	5419	29	0.079	1945	90	0.121
1932	782000	10076	13.21	12.0	15185	19.40	19.3	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1933	788100	10343	13.05	12.0	15166	19.41	19.4	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1934	784600	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1935	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1936	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1937	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1938	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1939	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1940	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1941	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1942	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1943	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1944	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1945	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1946	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1947	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1948	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1949	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1950	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1951	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1952	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1953	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1954	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1955	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1956	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119
1957	788100	9830	12.43	11.8	15555	19.81	19.8	1916	86	63	47	3.79	4.04	35	1.91	1.95	27	1.68	1.50	2150	1740	1.64	1620	198	1.21	228	246	0.32	88	11	0.015	5349	28	0.076	1936	89	0.119

* Excluding abortions.
 † From 1951 rates for maternal mortality are based on live and still births.
 × Figures from 1955 not available.

From 1944 the number of notifications of infectious diseases refers to true cases only.

INFECTIOUS DISEASES AND EPIDEMIOLOGY

Immunization against specific diseases

Smallpox vaccination

Vaccination against smallpox is still as necessary as ever, and perhaps more so in view of the increased possibilities of the introduction of the infection to the country by travellers returning from abroad by air suffering from a mild unrecognised attack of the disease. Since 1948 when compulsory vaccination was abolished, greater reliance has been placed on the persuasive efforts of the local authority to educate the public in the need for vaccination.

At clinics and also in the course of their visits to homes the health visitors impress upon each mother the necessity of having her baby protected against smallpox, and the procedure can be carried out either at the clinic or by the child's general practitioner. There was an increase in the number of babies under 1 year of age vaccinated during the year compared with previous years, which may be considered a fair result of the propaganda efforts carried out by the Department, especially as the decision for or against vaccination in young children is entirely a matter for the parents. The aim is to vaccinate as many children as possible from the age of 1 month to 4 months. No instance was reported during the year of a vaccination in which there occurred an illness which was alleged to have occurred a general vaccinia, post-vaccinal encephalomyelitis or death from any other complications of vaccination. Supplies of vaccine are available to all general practitioners on direct application to the Public Health Laboratory, Monsall Hospital, Monsall Road, Manchester, 10.

As will be seen from the following table, there is a definite tendency for the acceptance rates to increase, and that the bulk of the work was carried out by medical officers at child welfare centres:—

General practitioners			Child welfare clinics		
Primary	.. .. .	1,850	Primary	.. .. .	4,264
Insusceptible	.. .. .	66	Insusceptible	.. .. .	266
Total 1,916			Total 4,530		

The numbers of children successfully vaccinated in each of the past 10 years, with percentages, are as follows:—

Year	Numbers of persons vaccinated					Numbers of live births	Percentages vaccinated under 1 year to live births
	under 1 year	1—4 years	5—14 years	15 years and over	Totals		
1948 ..	4,916	173			5,089	13,794	35·64
1949 ..	2,957	2,031	70	383	5,441	13,129	22·52
1950 ..	5,409	2,668	846	685	9,608	12,436	43·49
1951 ..	4,803	587	311	1,937	7,638	12,438	38·61
1952 ..	4,419	599	382	2,106	7,506	12,367	35·73
1953 ..	5,827	1,227	1,328	3,776	12,158	12,218	47·69
1954 ..	5,627	704	120	427	6,878	11,843	47·51
1955 ..	5,401	608	139	380	6,528	11,704	46·15
1956 ..	5,755	436	106	311	6,608	11,967	48·10
1957 ..	6,434	545	159	393	7,531	12,424	51·79

NOTE.—Percentage vaccinated under 1 year to live births for the year 1948 was expressed in previous reports as percentage of the uncorrected live births.

Diphtheria immunization

Constant efforts are made to encourage more children to receive protection, and parents are made aware, by every possible means, of the importance of availing themselves of the service in order that their children may obtain immunity. It is recognised that the personal influence of the health visitor is the biggest single factor in achieving a high level of immunity in the pre-school child, and efforts are made to obtain the parents' consent to immunization on the initial visit to the house. There was a slight increase in the number of young children primarily immunized compared with recent years. Routine enquiries were made as usual at schools into the immunization state of children attending, and in cases where it is found that no protection has been given at all, or where children have not received a reinforcing injection, the parents are reminded of the urgent need for such injections to be given and their consent obtained for the necessary arrangements to be made.

A circular letter dated 4th July, 1957, issued by the Ministry of Health drew the attention of local authorities to advice received from the Central Health Services Council on the procedure recommended for immunization against diphtheria and whooping cough under the National Health Service Act. It was pointed out that, based on statistical evidence, inoculations with certain of prophylactics used against diphtheria or whooping cough involved some risk of provoking paralysis due to poliomyelitis. Acting upon the information contained in this circular, it was decided to change the central supply from APT (alum precipitated toxoid) to FT (formol diphtheria toxoid) and TA (diphtheria toxoid antitoxin floccules) only; general practitioners in the area were circularized accordingly and informed of the reasons for the changeover and that the material was obtainable on request to the Department.

The following routine was, therefore, adopted:—

Diphtheria immunization

Age	Primary immunization	Reinforcing inoculation
8 months to 5 years	2 doses each of 1 cc. F.T. with 28 days interval between injections	1 dose of 1 cc. T.A.F. 5 years after primary course.
5 years and over	Do.	Do. (1 cc. of T.A.F. if primarily immunized with A.P.T.A.P., or combined diphtheria-pertussis vaccine).

The Ministry stressed the importance of trying to secure the first injection about 8 to 9 months of age so that protection could be completed before the first birthday.

The service provided by the Mobile Immunization Unit (Dr. Basil Park Jakeman, M.R.C.S., L.R.C.P., M.B., CH.B.) for diphtheria and whooping cough immunization was again in great demand, in the main by those parents who were unable to attend welfare centres owing to sickness in the home, or living in inconvenient parts of the City. The number of children who received a full course of immunization on the Unit was 2,194 (an increase of 175 on 1956) or 21.7 per cent. of the total immunized in the City.

10,194 Manchester persons received a complete course of diphtheria antigen injections, 519 others received an incomplete course and 6,667 were given a reinforcing injection. In addition, 222 non-Manchester residents received a full course of primary immunization and 231 a "booster" injection. The numbers were distributed as follows:—

Cases of notifiable infectious diseases other than tuberculosis classified in wards of the City

Estimated population	Total for the City	Dysentery	Typhoid fever	Paratyphoid fevers	Other food poisoning	Scarlet fever	Diphtheria	Erysipelas	Whooping cough	Measles	German measles	Meningococcal infections	Acute poliomyelitis		Encephalitis		Pneumonia				Smallpox	Malaria (contracted in England & Wales)	Ophthalmia neonatorum	Pemphigus recanatorum	Puerperal pyrexia	Total cases	Rate per 1,000 population in wards	
		1	7	75	479	—	32	1051	11896	475	27	14	1	3	2	181	54	99	77	—	—	47	—	403	15376	22.55		
WARDS																												
21324	ALEXANDRA PARK	9	—	—	3	11	—	1	10	308	23	—	—	—	—	—	—	1	—	—	—	—	—	—	—	9	381	17.87
17323	ALL SAINTS	21	—	—	9	9	—	1	17	311	13	—	—	—	—	—	—	7	9	3	5	—	—	—	—	16	425	24.53
16615	ARDWICK	6	—	—	6	6	—	1	52	397	14	—	—	—	—	—	—	2	1	3	1	—	—	—	—	22	511	30.75
18889	BAGULEY	24	—	—	3	45	—	1	18	460	20	1	—	—	—	—	—	1	—	—	—	—	—	—	—	4	580	30.71
15246	BARLOW MOOR	—	—	—	1	27	—	—	2	102	8	—	—	—	—	—	—	9	1	1	—	—	—	—	—	4	123	8.05
19333	BENCHILL	15	—	—	1	9	—	—	25	396	21	—	—	—	—	—	—	10	3	1	2	—	—	—	—	13	511	26.43
18418	BESWICK	4	—	—	—	7	—	—	67	396	4	—	—	—	—	—	—	11	—	—	—	—	—	—	—	5	521	28.29
21830	BLACKLEY	18	—	—	—	12	—	—	15	508	4	—	—	—	—	—	—	6	—	—	—	—	—	—	—	4	589	26.96
21756	BRADFORD	4	—	—	3	7	—	—	43	339	17	—	—	—	—	—	—	7	—	—	—	—	—	—	—	15	442	20.32
21447	BURNAGE	—	—	—	—	14	—	—	11	396	8	—	—	—	—	—	—	1	—	—	—	—	—	—	—	11	561	16.83
13707	CHEETHAM	8	—	—	1	10	—	3	18	257	10	—	—	—	—	—	—	2	—	—	—	—	—	—	—	4	316	23.05
19643	CHORLTON-CUM-HARDY	3	—	—	—	3	—	—	12	143	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	184	9.41
12329	COLLEGIATE CHURCH	18	—	—	1	3	—	—	28	330	7	—	—	—	—	—	—	2	—	—	—	—	—	—	—	4	413	33.50
23457	CRUMPSALL	4	—	—	3	19	—	2	13	376	5	—	—	—	—	—	—	2	—	—	—	—	—	—	—	5	439	18.71
17409	DIDSBURY	9	—	—	3	13	—	—	35	248	8	—	—	—	—	—	—	3	4	6	1	—	—	—	—	9	339	15.14
22397	GORTON NORTH	1	—	—	4	15	—	—	32	170	7	—	—	—	—	—	—	1	—	—	—	—	—	—	—	7	224	13.37
16758	GORTON SOUTH	5	—	—	—	1	—	—	34	260	4	—	—	—	—	—	—	2	—	—	—	—	—	—	—	3	346	20.12
17193	HARPUREY	28	—	—	—	2	—	—	1	411	7	—	—	—	—	—	—	15	2	3	2	—	—	—	—	6	556	33.36
16667	HUGH OLDHAM	16	—	—	2	18	—	1	70	411	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	165	8.87
18609	LEVENSHULME	3	—	—	1	1	—	—	9	141	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	276	14.24
19381	LIGHTBOWNE	10	—	—	1	6	—	—	26	216	6	—	—	—	—	—	—	4	1	1	2	—	—	—	—	3	269	17.95
14982	LONGSIGHT	4	—	—	1	22	—	3	28	323	11	—	—	—	—	—	—	11	3	—	1	—	—	—	—	6	411	30.47
13489	MILES PLATING	2	—	—	—	5	—	—	30	448	10	—	—	—	—	—	—	1	4	—	—	—	—	—	—	23	538	29.83
18933	MOSS SIDE EAST	9	—	—	1	13	—	2	25	219	14	1	—	—	—	—	—	2	2	6	2	—	—	—	—	20	367	29.41
17240	MOSS SIDE WEST	8	—	—	—	19	—	—	40	408	25	—	—	—	—	—	—	7	3	3	2	—	—	—	—	2	382	18.71
20418	MOSTON	86	—	—	5	10	—	—	40	408	25	—	—	—	—	—	—	7	3	3	2	—	—	—	—	9	528	41.08
12852	NEW CROSS	5	—	—	—	13	—	1	41	335	13	—	—	—	—	—	—	18	6	10	5	—	—	—	—	3	466	25.85
18027	NEWTON HEATH	5	—	—	3	48	—	5	72	641	59	—	—	—	—	—	—	5	3	5	3	—	—	—	—	5	858	40.52
21177	NORTHENDEN	5	—	—	—	7	—	—	3	293	18	—	—	—	—	—	—	2	2	2	1	—	—	—	—	6	253	15.18
16662	OLD MOAT	2	—	—	—	12	—	—	1	30	211	17	—	—	—	—	—	11	12	3	3	—	—	—	—	5	361	13.90
21655	OPENSHAW	8	—	—	—	7	—	—	31	272	13	—	—	—	—	—	—	1	1	3	3	—	—	—	—	6	341	20.52
16615	RUSHOLME	35	—	—	7	21	—	—	25	452	13	1	—	—	—	—	—	2	—	5	1	—	—	—	—	14	578	33.71
17148	ST. GEORGE'S	9	—	—	—	4	—	1	26	241	5	—	—	—	—	—	—	4	7	—	—	—	—	—	—	20	326	19.12
17048	ST. LUKE'S	9	—	—	—	12	—	1	26	312	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	376	18.55
20268	ST. MARK'S	8	—	—	1	2	—	—	9	111	2	—	—	—	—	—	—	4	1	5	2	—	—	—	—	7	157	15.77
9932	ST. PETER'S	3	—	—	—	14	—	—	3	195	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	248	16.06
15439	WITHERINGTON	2	—	—	—	9	—	—	9	111	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	714	33.45
21342	WOODHOUSE PARK HOSPITALS AND INSTITUTIONS	15	1	—	2	20	—	—	73	571	5	1	—	—	—	—	—	8	2	1	2	—	—	—	—	88	116	—

Organization	Address	City	State	Country	Activities	Remarks
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	37	38	39	40	41	42
43	44	45	46	47	48	49
50	51	52	53	54	55	56
57	58	59	60	61	62	63
64	65	66	67	68	69	70
71	72	73	74	75	76	77
78	79	80	81	82	83	84
85	86	87	88	89	90	91
92	93	94	95	96	97	98
99	100	101	102	103	104	105

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TABLE I. (continued) - 1957

Year	Number of persons												Total																																																																																																																																																																																										
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36																																																																																																																																																																																											
1957	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000

TABLE II. (continued) - 1957

Year	Number of persons												Total																																																																																																																																																																																										
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36																																																																																																																																																																																											
1957	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000

TABLE III. (continued) - 1957

Year	Number of persons												Total																																																																																																																																																																																										
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36																																																																																																																																																																																											
1957	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000

Number of Manchester persons immunized and number of immunizations effected

	Numbers having received complete course of antigen	Numbers having received incomplete course of antigen	Numbers having received reinforcing course of antigen
and school clinics ..	2,360	313	6,315
welfare centres	3,555	81	26
y nurseries	297	11	7
ospitals	177	8	—
Health Office	5	—	8
obile Unit	2,194	72	16
eneral practitioners	1,606	34	282
Manchester persons immunized by outside authorities ..	—	—	13
ersons from outside authorities immunized in Manchester	222	—	231
Total Manchester persons immunized	10,194	519	6,667
Total immunizations effected in Manchester	10,416	519	6,898

7,878 children under five years of age and 2,249 children of school age (a total of 10,127 children) each completed a full course of immunization.

At the close of the year, 81.06 per cent. of Manchester children had completed a course of diphtheria immunization (primary or booster) since the 1st January, 1943; the percentages in age groups being 6.23 under 1 year, 1.10 in the group 1-4 years and 99.24 in the group 5-14 years.

Antigens used in immunizing Manchester pre-school and school children

Age group	Numbers having received a complete course of injections	Antigens used				
		F.T.	A.P.T.	T.A.F.	Diphtheria and pertussis combined	Diphtheria pertussis and tetanus combined
nder 1 year	3,748	698	2,360	55	311	319
4 years	4,130	1,248	2,615	13	157	102
14 years	2,249	628	732	879	8	2
Totals—under 15 years	10,127	2,574	5,707	947	476	423

Although Schick testing is not practised as a routine in connection with the greater part of the scheme, such tests were carried out largely among hospital patients and staff. The number of primary tests performed on persons was 177, of which 22 gave positive results and 155 negative.

The following table illustrates the progress of the immunization scheme since its inception:—

DIPHTHERIA IMMUNIZATION

Illustrating the progress of the immunization scheme since its inception
Numbers of Manchester persons, in age groups, having had complete courses of injections

	1928 to 1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	Total under 5 years at end of 1957
Under 1 year	7037	503	1497	1761	2298	1767	2383	2540	3349	4582	4678	3863	3281	3411	3108	3495	3527	3586	3748	
1 year ..	9233	912	1882	2411	3557	2927	4379	4202	3444	4747	3994	3222	4133	3931	3848	3243	3266	2508	2650	
2 years ..	6967	409	1295	1292	1567	342	1258	1517	574	1139	1134	837	842	1093	940	831	1161	598	795	
3 ..	6685	272	1065	1140	1504	168	554	1045	280	369	439	405	462	541	461	360	496	281	374	32651
4 ..	6882	238	1057	920	1710	145	342	600	202	220	189	207	420	466	398	331	430	287	311	
5 ..	7295	192	1226	473	1747	182	264	333	100	132	116	170	444	603	583	511	598	416	405	
6 ..	7410	222	1241	379	2165	199	233	269	77	91	74	171	483	381	467	375	922	445	389	Total 5-9 years
7 ..	7090	195	1215	236	1577	206	139	215	52	68	58	171	515	310	225	287	686	250	283	
8 ..	7077	179	1137	176	931	106	101	189	43	63	33	141	640	337	199	170	494	179	193	54164
9 ..	6500	162	1036	112	805	98	68	143	36	54	31	159	584	363	164	111	286	185	211	
10 ..	6092	137	1050	117	864	97	87	86	28	37	23	216	749	380	198	105	348	193	265	
11 ..	4738	86	933	121	595	72	71	89	15	27	16	165	645	354	149	87	307	172	148	Total 10-14 years
12 ..	3984	43	1038	131	465	32	67	61	22	18	7	186	702	426	160	78	207	137	107	
13 ..	3433	39	502	100	436	33	50	36	11	15	5	145	747	398	166	90	159	127	127	51581
14 ..	944	11	219	53	51	12	14	17	6	11	5	126	567	260	125	71	151	123	121	
15 years and over ..	3598	105	309	221	298	139	210	155	112	108	47	60	155	68	75	80	81			Total 15 years & over 159582
Totals 1928-57	94965	3705	16702	9643	20570	6525	10220	11497	8351	11681	10849	10244	15369	13322	11266	10225	13111		94	297978

The totals at the end of 1957 indicate only approximately the immune population since no account is taken of any d

Whooping cough immunization

In 1953 a scheme of immunization against whooping cough was commenced in the City and is being operated by general practitioners and medical staff at infant welfare centres and day nurseries. From the inception of the service there has been a growing response, with the result that at the beginning of 1957 it was decided to utilize the Mobile Immunization Unit to assist in coping with the demand. The number of children under 5 years of age who received a complete course on the Unit was 893. It is pointed out in the Ministry of Health's circular, dated 4th July, 1957, that, in order to provide protection at an age when the disease is most liable to have serious results, it is important to try to secure that the first injection is given to children not later than 3 months of age.

The standard procedure which has been adopted is as follows:—

Age	Primary immunization	Reinforcing inoculation
3 months and not exceeding 5 years of age	3 × 1 cc. doses of vaccine at monthly intervals. (Glaxo suspended whooping cough vaccine)	3 years after primary course (1 cc. Glaxo suspended whooping cough vaccine)

In cases where an interval between any two doses of whooping-cough vaccine is unusually long, e.g. because of intercurrent illness, the maximum intervals that should elapse between injections in the initial period of immunization should be as follows:—

- Between first and second injections—3 months
- Between second and third injections—6 months

The total number of children, in age groups, who received complete courses in 1956 and 1957

Age	Welfare centres		General practitioners		Day nurseries		Hospitals		Health Office		Mobile Unit		Totals	
	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957
Under 1 ..	2,807	3,161	378	413	14	13	—	259	2	—	—	166	3,201	4,012
2	449	400	134	151	66	57	—	8	—	1	—	336	649	953
3	74	94	31	27	60	39	—	1	—	2	—	205	165	368
4	49	51	22	13	33	20	—	1	—	—	—	112	104	197
5	17	26	15	10	17	7	—	—	—	—	—	74	49	117
	3,396	3,732	580	614	190	136	—	269	2	3	—	893	4,168	5,647

The total number of children, in age groups, who received reinforcing injections in 1956 and 1957

Age	Welfare centres		General practitioners		Day nurseries		Hospitals		Health Office		Mobile Unit		Totals	
	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957	1956	1957
Under 1 ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	1	—	—	—	—	—	—	—	1	—
3	5	—	1	1	—	—	—	—	—	—	—	—	6	1
4	67	82	1	3	2	1	—	—	—	—	—	—	70	86
5	226	215	10	10	17	11	—	—	—	—	—	—	253	236
	298	297	12	14	20	12	—	—	—	—	—	—	330	323

Poliomyelitis vaccination

The scheme of vaccination against poliomyelitis of children in the City born in the years 1947 to 1954 initiated by the Ministry of Health during 1956 was continued during the year 1957.

In May under Ministry of Health circular 6/57 the scheme was extended to cover children born in 1955 and 1956 and a further opportunity was given to the parents of children born between 1947 and 1954 to register their children if they had not accepted the offer of vaccination in 1956. 21,777 letters were sent to the parents of children born in 1955 and 1956, resulting in 9,868 applications and leaflets were distributed through child welfare centres and schools to the parents of the remaining children eligible for vaccination.

The circular also stated that there would be no suspension of vaccination against poliomyelitis during the summer months as had happened in 1956 unless the Medical Officer of Health considered that it was advisable to do this having regard to the incidence of poliomyelitis in the district.

In November, 1957, the classes eligible for vaccination were again extended by circular 16/57 to cover children born in the years 1943 to 1946, children born in 1957 who had reached six months of age, expectant mothers, general practitioners and their families, ambulance staffs and their families and the families of staffs of infectious disease hospitals. This increased offer was made possible by the importation of Salk vaccine from America and Canada, but all classes were to be given the choice of refusing Salk vaccine even though this might delay the vaccination.

The first issue of British vaccine was received in March and regular supplies were received monthly throughout the year. A programme of special vaccination sessions held in child welfare centres and school clinics commenced on 25th March and 752 such sessions were held during the remaining nine months. The services of general practitioners were used at all the sessions and children were sent to the child welfare centre or school clinic nearest to their homes irrespective of their ages. The Mobile Immunization Unit was also used for some areas not served by other centres.

Some general practitioners also vaccinated children who were registered but due to the difficulty of storing the vaccine and delivering it to the general practitioner, most practitioners preferred not to take part in the scheme under these conditions.

At the beginning of the year the number of children on the register who had not received any injections was 31,734, the number of children who completed their course of injections during the year was 23,089; in addition 4,084 had received a first injection at 31st December.

The 23,089 children who completed their vaccination during the year received injections as follows:—

Child welfare centres	.. .. .	15,573
School clinics	.. .. .	6,546
Town Hall and mobile immunization unit	.. ..	928
General practitioners	.. .. .	42
Total	.. ..	<u>23,089</u>

The following table shows the total number of children who had received complete course of two injections by the end of the year, divided according to the year of their birth:—

Year of birth	Year of vaccination		Total number vaccinated
	1956	1957	
1947	617	3,309	3,926
1948	511	3,231	3,742
1949	282	3,363	3,645
1950	218	3,156	3,374
1951	620	2,366	2,986
1952	557	2,302	2,859
1953	514	2,254	2,768
1954	429	2,172	2,601
1955	—	477	477
1956	—	459	459
	3,748	23,089	26,837

The number of persons remaining on the register at 31st December, 1957, who had received no injections was 33,969, divided as follows:—

Class	Number of applicants awaiting vaccination at 31st December, 1957
Children born in the years 1943-46	14,345
Children born in the years 1947-57	19,400
Expectant mothers	100
General practitioners and families	57
Ambulance staff and families	67
Total	33,969

Arrangements were made by the Ministry of Health during the year for vaccine to be supplied to the staffs of infectious disease hospitals likely to come into contact with cases of poliomyelitis and by the end of the year 90 members of the staff at Monsall Hospital, Newton Heath, had been vaccinated under this scheme. All the vaccine supplied to the Hospital was replaced by the Ministry of Health in subsequent issues of vaccine.

Influenza (Asian 'flu—A virus infection) and vaccination

When it appeared that an outbreak of influenza was about to occur in the country as a whole during the latter end of 1957, arrangements were made to enlist the co-operation of a number of suitable general practitioners ("Spotters") in the City, and also those in medical charge of nurseries, schools and old people's homes, to inform the Department or the Public Health Laboratory of suspected cases. The Director of the Regional Public Health Laboratory arranged for investigations to be carried out by a medical officer who took throat and nose washings and blood specimens to confirm the diagnosis. Positive cases were notified to general practitioners and publicity given in the press for the benefit of the public to ensure that some measure of precaution was taken against contracting the illness, e.g. well ventilated rooms, and avoiding crowded places whenever possible. Some indication of the beginning of an outbreak was a rise in excess of the seasonal normal of weekly new claims for sickness benefit in the Manchester area which was shown in figures supplied by the local Ministry of Pensions and National Insurance for the week ended

27th August, 1957, when 1,851 claims were received. The monthly total of claims for sickness benefit during the period when influenza was prevalent was as follows:—September 22,450, October 34,106, and November 11,518; the peak figure was reached in the week ended 1st October, 1957, when 11,965 claims were received.

Influenza in schools

Head teachers were requested to notify the School Health Service Department when the first signs of undue absence occurred in schools and to return the number suffering from influenza each week. The number of absentees so reported was 66,156 in September, 11,958 in October and for the first two weeks in November, 107. The peak figure was reached in the week ended 21st September, 1957, when 34,355 cases were reported; most schools in the City were more or less affected and the average absence from school of each pupil was about a week. The virus identified by the Public Health Laboratory in the second and third weeks of September in two different areas of the City was Influenza A, Far East.

Influenza vaccination

A supply of vaccine designed to give protection against Asian-type influenza was provided by the Ministry of Health for those general practitioners who signified their willingness to receive such vaccination and also for members of the staff who care for the sick in their homes, e.g. nurses, midwives, home helps, ambulance staff and any other staff who may be called upon to visit the sick at home. 116 general practitioners availed themselves of the offer, and the following is a list of members of the staff who received some degree of protection:—

	2 injections	1 injection
District nursing	49	12
Health visitors	49	6
Domestic helps	44	12
Municipal midwives	34	3
Ambulance	54	21
Mental health	11	—
School nurses	10	3
District public health inspectors	17	2

Summary of immunization procedures

The following revised schedule of times for routine vaccination and immunization is suggested as the optimum for early protection of the child against the diseases in question.

Age	Type of immunization or vaccination
1 to 2 months	Smallpox vaccination
2 to 4 months	Whooping cough immunization
4 to 6 months	Diphtheria immunization
6 months to 15 years	Poliomyelitis vaccination.

Dry Sterilization Unit for hypodermic syringes and needles

The Medical Research Council published a memorandum in 1945 (revised 1953) on "The Sterilization Use and Care of Syringes". In this it was pointed out that "a boiled syringe is not necessarily sterile and its safety cannot be absolutely guaranteed". Further, the memorandum stressed that "The word sterile applied to a syringe and needle implies that the syringe and needle have been through the process of sterilization in the autoclave or hot-air oven".

The word sterile has often been loosely applied in the past to a syringe which has been boiled and while it may be accepted as a reasonably safe procedure for an occasional injection where sterilization in a hot-air oven is not available its safety cannot be guaranteed.

In view of the increasing number of injections given in the prophylaxis of diphtheria and whooping cough, and more recently of poliomyelitis, a recommendation was accepted by the Health Committee that a dry sterilization unit be established in the department and this is located at Monsall Road Cleansing and Disinfecting Station.

The unit came into operation in mid-April, 1957 and its function is to provide a separate dry sterile syringe and needle for each injection given of diphtheria, whooping cough or poliomyelitis prophylactic.

The decision of the Government to import Salk Vaccine for the purpose of offering vaccination to all children between the ages of 6 months and 15 years and to certain other categories of the population has made it necessary to double the number of syringes and needles in stock for this purpose.

The service has been widely appreciated by departmental medical officers and by those practitioners engaged on a sessional basis at clinics, and it is likely that further demands in the service may be expected in the future.

Smallpox

No case of smallpox occurred in Manchester during the year.

Diphtheria

It is gratifying to record that once again no confirmed case of diphtheria was reported during the year, in fact, only one case has occurred during the past four years. The complete absence of diphtheria may lead to apathy on the part of parents and make more difficult the task of persuading them that immunization is worth while, especially at this time when vaccination against poliomyelitis is in great demand. During the year seven suspected cases of diphtheria were removed to hospital and all proved to be tonsillitis, with the exception of one, which was scarlet fever.

The following table shows the annual total of confirmed cases since 1948:—

Year	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Number of cases	43	22	22	10	7	7	—	1	—	—

It may be of interest to set out the case incidence and mortality during the past 25 years, and the following table graphically shows a remarkable reduction in recent years, which bears eloquent witness to the efficacy of diphtheria immunization:—

1932-36 (average)		1937-41 (average)		1942-46 (average)		1947-51 (average)		1952-56 (average)		1957	
Cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
263	80	1,286	55	486	18	35	1	3	—	—	—

Mortality

Nil.

Carriers" and the virulence test

None.

Supply of antitoxin

Under the National Health Service Acts the responsibility for the provision of antitoxin for use by general practitioners, when required, has been taken over by the Manchester Regional Hospital Board. Until last year supplies were available at certain hospitals and fire stations situated in various parts of the City, but due to the comparative absence of diphtheria in the City and consequent lack of demand, it was decided to withdraw all stocks from these establishments and arrange for the material to be available, on request, to Monsall Isolation Hospital, Monsall Road, Newton Heath, Manchester, 10. The matter was put to the Manchester Local Medical Committee, who agreed to the new arrangement.

Meningococcal infection

27 cases of meningococcal infection with 2 deaths occurred during 1957, a case fatality rate of 7.4 per cent., compared with 28 cases and 8 deaths, case fatality rate of 28.6 in 1956. Whereas the incidence of the disease in previous years was fairly evenly spread in time, 85 per cent. of the cases occurred in the first and last quarters of 1957, with no geographical significance.

Cases of meningococcal infection, in quarters of the year, age groups and sexes:—

	1st quarter		2nd quarter		3rd quarter		4th quarter		Totals		Deaths	
	M	F	M	F	M	F	M	F	M	F	M	F
Under 5 years	7	3	1	1	1	1	3	7	12	12	1	1
5—9 ..	1	—	—	—	—	—	—	1	1	1	—	—
10—14 ..	—	—	—	—	—	—	—	—	—	—	—	—
15—19 ..	—	—	—	—	—	—	—	—	—	—	—	—
20—24 ..	—	—	—	—	—	—	—	—	—	—	—	—
25—34 ..	—	—	—	—	—	—	—	—	—	—	—	—
35 and over ..	—	—	—	—	—	—	—	1	—	1	—	—
All ages	8	3	1	1	1	1	3	9	13	14	1	1

Poliomyelitis

Of the 15 confirmed cases of poliomyelitis in 1957, 14 were paralytic and one non-paralytic, which was a considerable decrease compared with the figure recorded in 1956, when 321 cases occurred, 93 paralytic and 228 non-paralytic with 8 deaths. There were no fatalities amongst the notified cases in the City, but a man, aged 21 years, whose normal place of residence was in Manchester, died at the end of May in a North Wales hospital from poliomyelitis (paralytic). This case was included in the transferable deaths from the Registrar General but is not shown in the following tables. None of the patients who contracted the disease in 1957 was vaccinated against poliomyelitis.

Months of onset of confirmed cases:—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Paralytic	—	1	—	—	2	1	6	3	—	1	—	—
Non-paralytic	—	—	—	—	—	—	—	1	—	—	—	—

ACUTE POLIOMYELITIS

300

TOTAL CASES

PARALYTIC CASES (From 1947)

250

200

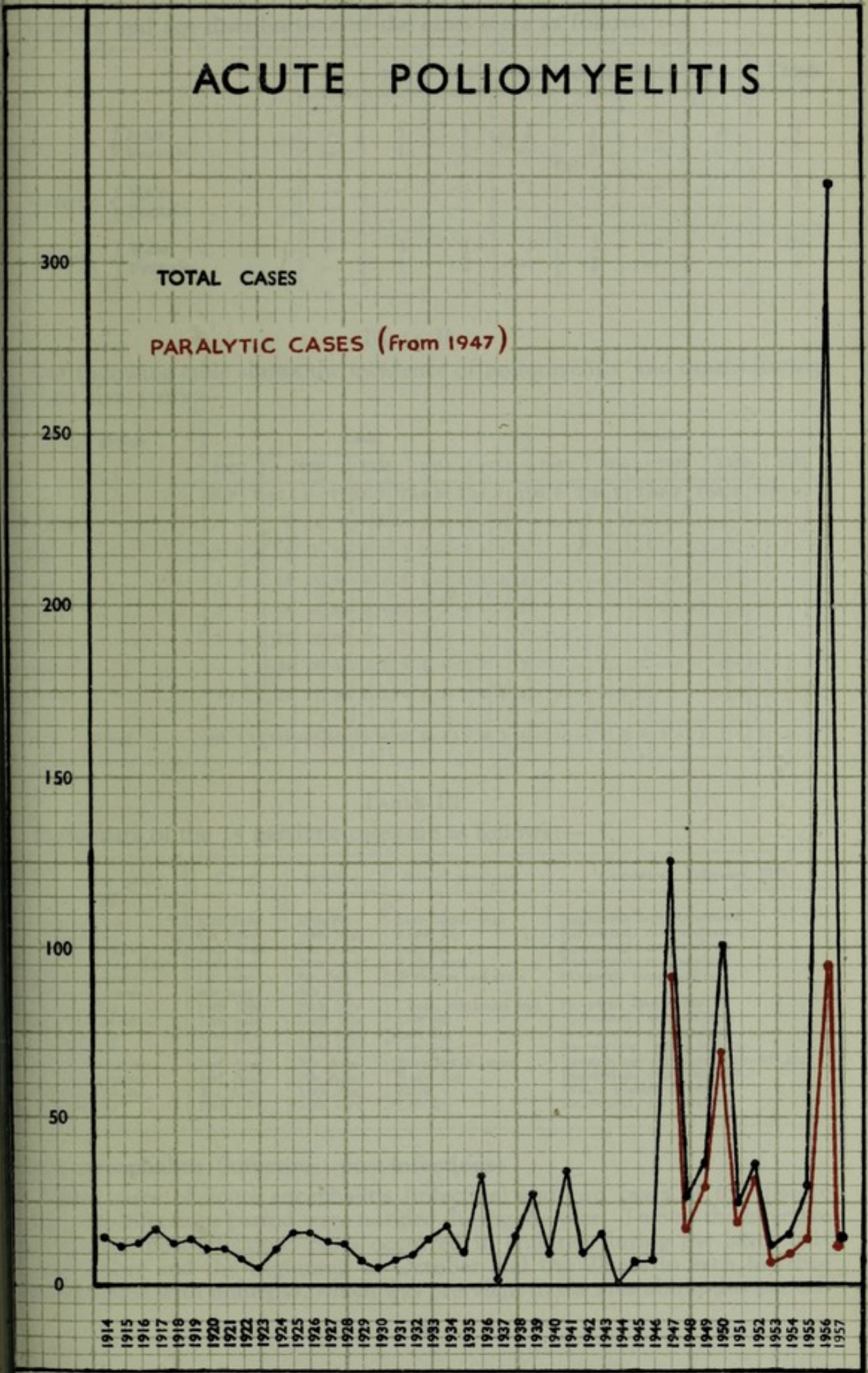
150

100

50

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1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957



ACUTE POLIOMYELITIS

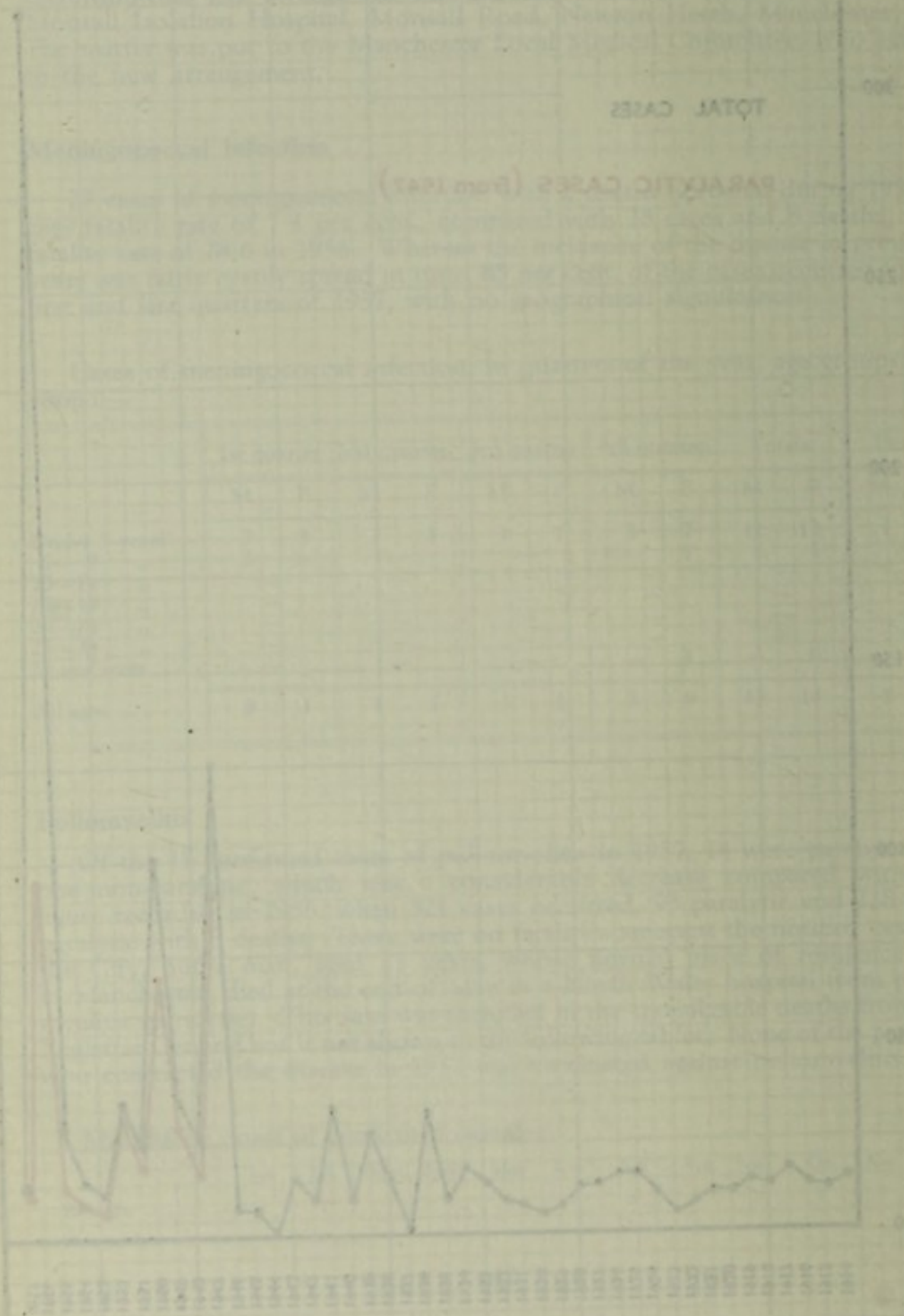


TABLE I.

The sex and age distributions of the cases were as follows :—

		-1	1-2	3-4	5-9	10-14	15-24	25+	Totals
Paralytic	{ Male	—	3	1	2	1	—	2	9
	{ Female	—	1	2	—	2	—	—	5
Non-paralytic	{ Male	—	—	—	1	—	—	—	1
	{ Female	—	—	—	—	—	—	—	—
Totals	{ Male	—	3	1	3	1	—	2	10
	{ Female	—	1	2	—	2	—	—	5

TABLE II

The following table shows the incidence of poliomyelitis and deaths during the past five years:—

Age groups	Cases															Deaths																	
	1957			1956			1955			1954			1953			1957			1956			1955			1954			1953					
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 1 year	—	—	—	2	4	6	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1-2 years	3	1	4	15	11	26	2	1	3	2	—	2	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3-4 years	1	2	3	28	23	51	4	1	5	1	—	1	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5-9 years	3	—	3	55	33	88	7	4	11	2	2	4	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
10-14 years	1	2	3	21	19	40	2	—	2	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
15-24 years	—	—	—	24	28	52	2	2	4	1	1	2	2	—	2	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
25 and over	2	—	2	31	27	58	1	3	4	1	1	2	2	1	3	—	—	—	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—
Total	10	5	15	176	145	321	18	11	29	9	4	13	8	3	11	—	—	—	5	3	8	1	—	1	1	—	1	—	—	—	—	—	—

TABLE III

Particulars of the 14 paralytic cases are as follows:—

Age	City ward	Onset	Notified	Site of paralysis	Condition—February, 1958
3	Ardwick	13th Feb.	18th Feb.	Left upper arm	Improving with treatment.
3	Blackley	6th May	16th May	Right leg	Recovered; no paralysis.
2	Sr. Luke's	30th May	5th June	Left leg	Recovered; no paralysis.
7½	Moss Side East	16th June	21st June	Right arm	Recovered; no paralysis.
35	Sr. Luke's	1st July	8th July	Both legs and arms	Hospital; wears calipers.
27	New Cross	4th July	8th July	?	?
14	Beswick	14th July	19th July	Chest, arms and legs	Hospital; improving.
10	Old Moat	20th July	23rd July	Left leg	Recovered; no paralysis.
1	Moston	21st July	25th July	Left leg	Recovered; no paralysis.
11½	Beswick	21st July	29th July	Left leg	Recovering; wears calipers.
10	Withington	2nd Aug.	8th Aug.	Both lower limbs	Recovering; slight paralysis left leg.
2	Openshaw	2nd Aug.	9th Aug.	Right leg	Improving; wears calipers.
6	Old Moat	3rd Aug.	14th Aug.	Neck	Wears plaster jacket.
4	Baguley	18th Oct.	24th Oct.	Left leg	Recovered; no paralysis.

Acute encephalitis (infective—post-infectious)

Three cases of acute encephalitis (infective) and two cases of the disease in the post-infectious period were notified during the year. Two of the infective and the two post-infectious cases occurred in children during the latter part of September and the beginning of October and the illness in each instance was associated with influenza, which was prevalent in the area about this period.

Pneumonia

There were 411 cases of pneumonia notified, consisting of:—

Primary pneumonia	{	lobar	181	} 411
		lobular	54	
		unclassified	77	
Influenzal pneumonia			99	

Investigations were carried out in the majority of the cases; 115 of them were treated in hospital.

There were 359 deaths, 70 lobar, 293 lobular, and 26 unclassified. In addition there were 81 deaths from influenza associated with pneumonia.

Malaria

No notification was received.

Anthrax

No case of anthrax came to the notice of the Department.

Measles and German measles

The number of cases of measles recorded in 1957 was 11,896, which was the highest figure since 1940, when 14,844 cases were notified. The maximum incidence was in the first quarter of the year, falling to a low level in the fourth quarter. The epidemic had been gaining momentum during the latter part of 1956 and rose to its maximum in the week ended 16th March, when 768 cases of measles were notified.

Cases notified	1957				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Totals
MEASLES—					
By medical practitioners	6,887	3,848	478	223	11,436
„ others (parents, health visitors and school authorities) ..	330	130	Nil	Nil	460
Totals	7,217	3,978	478	223	11,896
GERMAN MEASLES—					
By medical practitioners	144	150	113	57	464
„ others (parents, health visitors and school authorities) ..	2	5	3	1	11
Totals	146	155	116	58	475

Whooping cough

There were 1,051 notifications of whooping cough in the year and 2 deaths a case fatality rate of 0.19. This figure is the lowest recorded for the past 16 years and gives some indication of the effectiveness of preventive immunization and of the new forms of treatment in this disease.

1st quarter	2nd quarter	3rd quarter	4th quarter	Total
471	399	133	48	1,051

The registered cases, deaths and fatality rates in quinquennial periods (average) for the past 25 years are shown in the following table, the case fatality rate showing a steady fall:—

Years	Cases	Deaths	Case fatality rates
1932-36 ..	1,833	54	2.95
1937-41 ..	1,854	34	1.83
1942-46 ..	2,097	28	1.34
1947-51 ..	2,822	18	0.64
1952-56 ..	1,849	4	0.22

Typhoid fever

One case of typhoid fever was notified and confirmed during the year. The patient, a girl of 7 years of age, was on holiday with her parents for 7 weeks in Germany and returned to this country towards the end of September, and the onset of the illness occurred 11 days later. It may be considered almost certain, therefore, that the infection was contracted abroad, as the family stayed in a country area in Germany where water was drawn from a well. The salmonella typhi belonged to an untypable Vi strain. Faeces and urine specimens submitted for examination from the parents were examined and gave negative results.

Paratyphoid fever

Salmonella paratyphoid B (untypable strain)

Information from a Manchester hospital following the examination of a faeces specimen from a maternity patient led to a discovery of an insidious spread of paratyphoid B, mainly among maternity patients and children, in the south Manchester area. The patient had been in hospital 4 weeks on account of ante-partum haemorrhage when the positive specimen was taken during a very mild attack of gastro-enteritis of short duration.

About seven weeks after the first case, routine faeces specimens from a child in a north Manchester hospital and a baby in a south Manchester babies' home, both non-resident in Manchester, revealed the presence of the organism. There was no apparent common source of infection between them, but it was found that the baby had been unsuspectingly exposed to infection in the maternity wards with the first known case.

Later it was learned that the same organism had been found in another 11 cases in districts close to Manchester, 7 of whom had no symptoms of illness. No common source of infection could be found between these cases and those found in Manchester.

A singular complicating feature was the discovery and removal of a similarly infected Manchester mother and her 5 month old son to an isolation hospital in Sheffield, when on a brief visit to relations there. Although her surname was the same as the known original case, no common relationship or exposure to infection was established. A further interesting complication was the finding of the organism in the faeces of her 9 months old Alsatian dog.

A routine examination of faeces specimens from the hospital nursing staff and patients on the wards concerned revealed the presence of the organism in one of the sisters and four babies. The sister had had no illness but it was learned that she had been on a 2 weeks' holiday to her home town in Eire. Inquiries revealed that no known infection of this type had occurred in this district of Eire. On her return from holiday she had carried out duties in the maternity wards concerned for about 14 days immediately prior to the onset of illness in the known original case. The babies, two of whom were resident outside Manchester, were transferred to an isolation hospital.

With the co-operation of the general practitioners in the City, faeces specimens have been examined from 50 per cent. of the families (mother and child) to date (133 of 266 families) who had been in the infected ward over the 3½ months of possible infectivity. As a result of the examination 7 further cases have been found, 2 of which were as a result of secondary infection at home.

The medical officers of health of adjoining districts were notified of hospital patients from the infected wards being discharged and as a result of faeces specimens being examined another 4 positive cases were revealed.

Investigations and examination of faeces specimens are still proceeding.

Dysentery

During the year 485 cases of dysentery were notified or otherwise ascertained. After revision 452 were accepted as being dysentery, and of these 398 were confirmed bacteriologically as *Sh. sonnei*, 17 *Sh. flexneri* and in the remaining 37 the causative organism was not identified. The incidence of the disease was greater in the second quarter of the year when 50 per cent. of the total number of cases was recorded.

The following table shows corrected notifications by quarters of the year and by sex:—

	Males	Females	Totals
1st quarter	39	36	75
2nd quarter	113	115	228
3rd quarter	36	35	71
4th quarter	39	39	78
Totals	227	225	452

Classification of cases of dysentery in various age groups are as follows:—

Age group	Males	Females	Totals
Under 5 years	147	116	263
5—14 years	63	58	121
Totals	210	174	384
15 years and over	17	51	68
Totals	227	225	452

Scarlet fever

In 1957 there were 479 registered, which is the lowest number of cases ever recorded and is 48 fewer than the previous lowest figure, that of 1956. The age distribution has maintained a more or less constant pattern, 37 per cent. of the cases occurring in children under 5 years; 60 per cent. in children between 5 to 15 years and 3 per cent. beyond the age of 15 years. 52 patients or 10.9 per cent. of the total, were removed to hospital; the case mortality was nil.

Deaths from infectious diseases

The following figures indicate the causes of deaths from the more common diseases:—

Disease	Years	
	1952-56 average	1957
Measles	3	5
Whooping cough	4	2
Scarlet fever	—	—
Diphtheria	—	—
Influenza	45	119
Pneumonia (all forms)	350	389
Typhoid fever	—	—
Diarrhoeal disease	11	3
Pulmonary tuberculosis	177	97

Consultations

Three consultation visits were made by medical officers of the Department, at the request of medical practitioners in the City, in connection with the diagnosis of cases of infectious disease in which the nature of the illness was in doubt.

International certificates of vaccination

Under the International Sanitary Regulations, 1952, certificates of vaccination and inoculations issued to travellers and signed by doctors practising in the City are required to be checked, stamped and countersigned in the Department; 3,304 of such certificates were dealt with.

Food poisoning

No. of outbreaks	No. of cases	Single cases	Remarks
8	60		Agent identified
3	20		Agent unknown
		47	Agent identified
		13	Agent unknown
Totals .. 11	80	60	
	140		
Summary : No. notified	75		
No. ascertained	65		
Total	140		

Brief details of the cases are contained in the following schedule of food poisoning incidents copied in the suggested form for annual returns to the Minister of Health as in Appendix D (ii) of the revised memorandum 188-Med. 1958:—

Summary of f
Cases where ca

Outbreak caused by		Cases		Illness—clinical features			
Food	Agent	Notified	Ascertained	Average incubation	Main symptoms	Severity	Duration
1. Meat pie suspected	Salmonella typhimurium	1	—	18 hrs.	Abdominal pain, vomiting, diarrhoea, pyrexia	Moderate	2 weeks
2. Meat pie suspected	do.	1	—	16 hrs.	Abdominal pain, vomiting, diarrhoea, pyrexia	Mild	7 days
3. Not known	do.	2	—	Not known	Abdominal pain, diarrhoea, pyrexia, anaemia	Mild	Few cases
4. Not known	do.	1	2	do	Abdominal pain, diarrhoea, pyrexia, 2 symptomless excreters	Moderate	10 days
5. Old cake suspected	do.	1	—	20 hrs.	Vomiting, abdominal pain, diarrhoea, pyrexia	Moderate	7 days
6. Not known	do.	1	2	Not known	Abdominal pain, diarrhoea, blood in stools, 2 symptomless excreters	Mild	7 days
7. Haddock suspected	do.	1	—	18 hrs.	Abdominal pain, diarrhoea, vomited, pyrexia	Mild	3 days
8. Home made broth suspected	do.	1	1	23 hrs.	Vomited, diarrhoea, pyrexia, 1 symptomless excreter	Mild	3/4 cases
9. Not known	do.	—	1	Not known	Entered babies' hospital for convulsions	Hospitalized	—
10. Not known	do.	—	1	do	Entered hospital for rheumatoid arthritis	Hospitalized	—
11. Not known	do.	—	1	do	Diarrhoea	Mild	Few cases
12. Not known	do.	2	1	do	Diarrhoea, abdominal pain, vomiting, pyrexia, 1 symptomless excreter	2 hospitalized	—
13. Not known	do.	1	—	do	Diarrhoea, vomiting and anorexia	Mild	3/4 cases
14. Not known	do.	1	—	do	Abdominal pain, nausea and blood in stools	Hospitalized	6 days
15. Partially cooked egg suspected	do.	1	—	12/14 hrs.	Vomited, pyrexia, anorexia and abdominal pain	Mild	4/5 cases
16. Not known	do.	—	2	Not known	Diarrhoea	Mild	2/3 cases
17. Tripe suspected . .	do.	1	1	6 hrs.	Abdominal pain, pyrexia, vomiting, diarrhoea, 1 symptomless excreter	Moderate	2 weeks
18. Not known	do.	1	—	Not known	Vomiting, diarrhoea, abdominal pain, anorexia	Hospitalized	7 days
19. Not known	do.	1	—	do	Abdominal pain, diarrhoea, blood in stools	Hospitalized	—
20. Not known	do.	1	—	do	Vomited, pyrexia, languid, abdominal pain	Hospitalized	—
21. Not known	do.	1	—	do	Diarrhoea, blood in stools, vomiting	Hospitalized	—
22. Not known	do.	—	3	do	Abdominal pain and diarrhoea	Mild	—
23. Poached egg suspected	do.	1	2	10 hrs.	Abdominal pain, diarrhoea, 1 symptomless excreter	Mild	Few cases
24. Not known	do.	1	—	Not known	Diarrhoea, vomiting	Mild	7 days
25. Not known	do.	1	—	do	Abdominal pain, diarrhoea, blood in stools	Moderate	9 days

aning cases 1957

nts were identified

Cases (specimens)	Results of laboratory investigations			Origin and preparation of food suspected	Place at which food causing illness was consumed	Estimated number at risk	Probable origin of infection or contamination of food
	Food samples	Food handlers (faecal specimens)	Other (faecal specimens)				
ve	—	—	—	Bakery	At work	?	Not known.
ve	—	—	3— negative	Bakery	Home	4	Not known.
ve	—	—	2— negative	—	School or home	—	Not known.
ve	—	—	2+ve	Works canteen and home	Works canteen and home	6	Meal common to all.
ve	—	—	3— negative	Home of relative	Home of relative	4	Home. Cake was 4/5 months old.
ve	—	—	2+ve	Home	Home	4	Mother and infant son were symptomless excreters and baby 6 weeks old was case.
ve	—	—	4— negative	Home	Home	5	Not known.
ve	—	—	1+ve	Home	Home	5	Not known.
ve	—	—	—	Hospital	Hospital	—	Probably hospital infection.
ve	—	—	—	Hospital	Hospital	—	Probably hospital infection.
ve	—	—	—	Home	Home	5	Probably hospital infection.
ve	—	—	4— negative	Home	Home	6	Probably hospital infection.
ve	—	—	—	Home	Home	5	Not known.
ve	—	—	—	Home	Home	4	Not known.
ve	—	—	2— negative	Home	Home	1	Not known.
ve	—	—	3— negative	Home	Home	5	Not known.
ve	—	—	1+ve 1— negative	Home	Home	3	Of 6 eggs used, 2 were bad. Last of 3 eggs fried was eaten by patient.
ve	—	—	8— negative	Home	Home	9	Not known.
ve	—	—	—	Home	Home	3	Not known.
ve	—	—	—	Home	Home	4	Not known.
ve	—	—	—	Home	Home	3	Not known.
ve	—	—	—	Home	Home	3	Not known.
ve	—	—	1— negative 1+ve	Home	Home	4	Not known.
ve	—	—	—	Home	Home	6	Not known.
ve	—	—	2— negative	University canteen and local cafes	University canteen and local cafes	?	Not known.

Outbreak caused by		Cases		Illness—clinical features			
Food	Agent	Notified	Ascertained	Average incubation	Main symptoms	Severity	Duration
26. Not known	do.	1	—	Not known	Abdominal pain, pyrexia ..	Hospitalized	—
27. Poached egg suspected	Salmonella typhi-murium	1	—	do.	Abdominal pain, diarrhoea, vomiting	Hospitalized	—
28. Iced lolly suspected	do.	1	—	do	Abdominal pain, diarrhoea, vomiting	Hospitalized	—
29. Not known	do.	1	1	do	Diarrhoea, blood present, vomiting, 1 symptomless excreter	Hospitalized	—
33/38. Not known ..	do.	9	—	do	Hospital infection, single cases	Hospitalized	—
39. Sour milk suspected	Salmonella heidelberg	1	—	5 hrs.	Nausea, languid, anorexia, blood in stools, headache	Hospitalized	—
40. Not known	do.	1	3	Not known	Headache, diarrhoea, abdominal pain, high temperature, vomiting, 3 symptomless excreters	Hospitalized	—
41. Not known	do.	1	1	do	Vomited, diarrhoea, blood in stools	Mild	—
42. Not known	do.	1	—	do	Excessive diarrhoea, had recently been discharged from hospital following pneumonia	Mild	10 da
43. No known	Salmonella muenchen	1	—	do	Vomiting, diarrhoea, pyrexia and abdominal pain	Hospitalized	—
44. Not known	do.	1	—	do	Diarrhoea and vomiting ..	Moderate	21 da
45. Not known	Salmonella thompson	2	—	do	Diarrhoea, blood present, pyrexia, 1 symptomless excreter	Hospitalized	—
46. Not known	do.	1	—	do	Diarrhoea	Mild	Few d
47. Not known	do.	1	—	do	Nausea, abdominal pain, diarrhoea, anorexia	Mild	3 da
48. Not known	do.	1	—	do	Diarrhoea, vomiting, abdominal pain, anorexia	Mild	3/4 d
49. Not known	Salmonella anatum	—	1	do	Diarrhoea, vomiting, abdominal pain	Hospitalized	5 da
50. Not known	Toxaemia due to Salmonella infection	—	1	do	Diarrhoea and vomiting ..	Fatal	—
51. Not known	Salmonella (unidentified)	—	1	do	Diarrhoea, abdominal pain ..	Moderate	Hospit
52. Vanilla filling ..	Staph aureus (12 cases in districts outside Manchester additional to above)	18	—	2/4 hrs.	Nausea, vomiting, diarrhoea, sweats	Moderate	Few d
53. Not known	Salmonella give	—	1	Not known	Earache, high temperature, vomited	Hospitalized	—
54. Roast veal	Clostridium welchii	—	30	13 hrs.	Diarrhoea, abdominal pain, nausea	Mild	2/3 d

es cal mens)	Results of laboratory investigations			Origin and preparation of food suspected	Place at which food causing illness was consumed	Estimated number at risk	Probable origin of infection or contamination of food
	Food samples	Food handlers (faecal specimens)	Other (faecal specimens)				
ve	—	—	—	Home and school	Home and school	?	Hospital infection.
ve	—	—	4— negative	Home	Home	5	Not known.
ve	—	—	—	Home	Home	5	Not known.
ve	—	—	1+ve	Home	Home	7	Not known.
ve	—	—	—	Hospital	Hospital	—	Hospital infection.
ve	—	—	4— negative	School	School	?	Said to have drunk stale, sour milk at school.
ve	—	—	3+ve	Home	Home	6	Not known.
ve	—	—	2— negative	Home	Home	4	Not known.
ve	—	—	8— negative	Home	Home	9	Home conditions very bad.
e	—	—	—	?	?	?	Few weeks old baby born in hospital and later transferred to two other hospitals.
e	—	—	—	Work place	Work place	?	Meat pies and meat and potato pies eaten frequently at work.
e	—	—	1+ve	Home	Home	4	Not known.
e	—	—	—	Home	Home	3	Not known.
e	—	—	2— negative	Home	Home	3	Not known.
e	—	—	—	Home	Home	2	Not known.
e	—	—	—	Home	Home	2	? Currant cake or tripe.
e	—	—	—	Railway canteen	Railway canteen	?	Meat pie or cold boiled ham.
em cho nia mia o ella on	—	—	—	Home	Home	4	? Strawberries.
e	14+ve	3+ve nasal 10+ve hand and finger swabs	3+ve swabs from table and utensils	Large wholesale bakery	Homes	? Distribution over large area	Unsatisfactory technique in making and handling vanilla filling.
	—	—	—	Home	Home	3	Not known.
	1+ve roast veal	—	1— negative	Works canteen	Works dining room	130	Not known.

Outbreak caused by	Cases			Illness—clinical features		
	Notified	Ascertained	Average incubation	Main symptoms	Severity	Durat
55. Not known	1	—	—	Body rash, sore throat and temperature, anorexia	Mild	Few d
56. Not known	1	—	—	Rash on body	Mild	Few d
57. Not known	1	—	Not known	Itching rash, abdominal pain	Mild	2 da
58. Not known	1	—	do	Vomiting, diarrhoea, abdominal pain, pyrexia	Mild	Few d
59. Not known	—	1	do	Swollen face, abdominal pain, diarrhoea, vomited	Mild	2 da
60. Not known	1	—	do	Abdominal pain, diarrhoea ..	Mild	2/3 d
61. Not known	1	—	do	Diarrhoea, blood in stools ..	Mild	2/3 d
62. Not known	1	1	do	Nausea, vomiting, diarrhoea, high temperature	Moderate	3/4 d
63. Not known	1	—	do	Aching legs, vomiting, abdominal pain, diarrhoea	Mild	2/3 d
64. Not known	—	1	do	Abdominal pain, diarrhoea and vomiting	Hospitalized	—
65. Not known	—	15	14/16 hrs.	Nausea, abdominal pain and diarrhoea	Mild	2/3 d
66. Tinned crab suspected	—	3	2 1/4 hrs.	Abdominal pain, diarrhoea, sweating, cramp and vomiting	Mild	2/3 d
67. Not known	1	—	Not known	vomiting, high temperature ..	Mild	2/3 d
68. Not known	1	—	do	Vomiting and diarrhoea ..	Mild	2 d
69. Tinned sardines suspected ..	—	1	12/13 hrs.	Nausea, abdominal pain, diarrhoea and pyrexia	Mild	2 d
70. Meat pie suspected	1	—	6/7 hrs.	Abdominal pain, vomiting, pyrexia	Mild	3/4 d

e not found

Cases (persons)	Results of laboratory investigations			Origin and preparation of food suspected	Place at which food causing illness was consumed	Estimated number at risk	Probable origin of infection or contamination of food
	Food samples	Food handlers (faecal specimens)	Other (faecal specimens)				
	—	—	3— negative	Home	Home	4	Not known.
	—	—	4— negative	Home	Home	4	Not known.
	—	—	3— negative	Home	Home	3	Corned beef suspected.
	—	—	8— negative	Home	Home	8	Not known.
	Steak and kidney pies 2—negative	—	—	Local cafe	Work place	?	Steak and kidney pie suspected.
	—	—	3— negative	Home	Home	3	Not known.
	—	—	1— negative	Home	Home	4	Not known.
	—	—	4— negative	Home	Home	4	Not known.
	—	—	8— negative	Hotel and home	Hotel and home	8	Not known.
	—	—	5— negative	Home	Home	6	Not known.
	5—negative (sample meal)	—	3— negative	School kitchen	School canteen	295	Not known.
	2—negative tinned crab	—	—	?	Home	5	Not known.
	—	—	4— negative	Home	Home	4	Not known.
	—	—	2— negative	Home	Home	2	Not known.
	1—negative tinned sardines	—	1— negative	Warehouse canteen kitchen	Warehouse dining room	1	Not known.
	—	—	6— negative	Home	Home	6	Not known.

GENERAL MEDICAL SERVICES

Medical examination of entrants to the Corporation service

In May, 1956, the City Council approved a recommendation of the Organization and Methods Unit that, for an experimental period, the medical examination of new entrants to the Corporation service should be discontinued except in the case of any special classes where the employing Department in consultation with the Medical Officer of Health considered a medical examination necessary ; in place of the medical examination, the Unit recommended that new entrants should complete a medical questionnaire form which would enable the Medical Officer of Health to determine whether it was necessary for new entrants to be medically examined or rejected. The experimental period has expired and between June, 1956, and November, 1957, 629 completed questionnaires were returned to the Health Department ; examination of these resulted in the rejection of four applicants because of unfitness, whilst seven applicants were asked to undergo a medical examination. After obtaining further information resulting from these examinations, the seven applicants were accepted for Corporation service.

The scheme has proved to be satisfactory. The questionnaire provides, in most cases, information which is adequate to enable a proper assessment of fitness to be made. If there is any doubt, enquiries can be made from the applicant's own doctor or a full medical examination arranged.

The scheme has expedited the filling of staff vacancies and there have been no adverse comments about it from any of the departments of the Corporation. The Organization and Methods Unit and the Medical Officer of Health recommended to the Council that the scheme be adopted on a permanent basis and that it should apply uniformly to all the professional, technical and administrative staffs of the Corporation.

Retirements through incapacity

The Manchester Corporation Superannuation Scheme provides that all applicants for retirement on superannuation through incapacity are to be medically examined under the direction of the Medical Officer of Health. A certificate is signed by the Medical Officer of Health if the person proves to be unfit to continue his work.

Miscellaneous examinations

Medical examinations of sick employees are carried out at the request of various Corporation Committees. These requests are made when a member of the staff has been absent for some time due to sickness and has asked for numerous extensions of his sickness pay but has not made application to retire on medical grounds.

Rehousing on medical grounds

In May, 1957, the City Council approved a recommendation of the Organization and Methods Unit that medical evidence in support of applications for Corporation houses should, in future, be submitted direct to the Medical Officer of Health, and all medical practitioners and hospital authorities within the area were notified accordingly. The new system has increased the volume of work in connection with rehousing on medical grounds so far as the Health Department is concerned. The administrative medical staff considered 3,787 cases during 1957, an increase of 347 on the previous year. Every medical recommendation received from hospital authorities, specialists, doctors, welfare organizations or other sources in support of rehousing on medical grounds receives careful consideration, and detailed investigations are conducted by officers of the Department.

staff welfare

Staff employed in the Town Hall and Extension, who are involved in accidents or taken ill whilst at work, are attended to in the staff accident and welfare room ; 111 persons were so treated during 1957.

Details of the medical questionnaire forms examined and the medical examinations carried out by the medical staff of the Department and by independent specialists are shown in the following table :—

Medical examination of staff and entrants to the Corporation Service

Department	Medical examinations arranged—entrants	Medical questionnaire forms examined—entrants	Retirements on superannuation—staff	Miscellaneous—staff	Totals
Town Clerk's	—	10	—	—	10
Drivers	—	—	2	—	2
Fire Brigade	—	—	—	1	1
Paths and Wash-houses ..	—	3	—	1	4
Children's	40	9	2	2	53
City Architect's	—	40	—	2	42
City Surveyor and Engineer's	—	31	6	4	41
City Treasurer's	1	44	1	1	47
Cleaning	—	—	5	—	5
Clothing	—	2	3	6	11
Markets	—	3	1	—	4
Parks and Cemeteries ..	—	3	2	2	7
Health	236	123	6	—	365
Stationery	—	5	1	—	6
Waterworks	—	43	3	—	46
Welfare Services	—	25	1	2	28
Reports	—	8	—	—	8
Probation Service	3	2	—	—	5
Transport	—	—	51	—	51
Corporation	—	33	—	1	34
Police	—	16	1	—	17
Weights and Measures ..	—	3	1	—	4
Education	—	—	4	—	4
Totals	280	403	90	22	795
For other local authorities	27	—	—	—	27
GRAND TOTALS ..	307	403	90	22	822

NOTE—The medical examination of entrants into the service of the Education Department is arranged within the School Health Service.

† The Transport Department have their own Medical Officer who carries out medical examinations of administrative staff.

MENTAL HEALTH SERVICE

Administration

Mental Health Sub-committee

The Mental Health Sub-committee, consisting of 15 members, is responsible through the Health Committee, for the operation of the Council's scheme under the Mental Deficiency Acts, 1913/1938, and the Lunacy and Mental Treatment Acts, 1890/1930 as amended by the National Health Service Acts 1948/1952. Meetings of the Sub-committee are held monthly.

Staff

The Medical Officer of Health is approved by the Minister of Health for the purpose of making recommendations for voluntary and temporary treatment under the Mental Treatment Act, 1930. In addition to the Medical Officer of Health, the Deputy Medical Officer of Health and the Senior Medical Officer (Administrative) are authorised by the local health authority to give medical certificates accompanying petitions to judicial authorities for Orders under the Mental Deficiency Acts, 1913/1938.

The initiation of proceedings for the care and treatment of persons suffering from mental illness was, at the start of the year, carried out by three male duly authorized officers, all qualified by experience, one holding the relieving officer's certificate. On 1st August, 1957, the two trainee duly authorized officers, both qualified mental nurses, were appointed duly authorized officers after completing a year's in-service training. These appointments, bringing the establishment of duly authorized officers to five, considerably eased the work involved in maintaining the 24-hour duty rota necessary to deal with emergency cases.

Two of the six female mental health visitors employed in connection with the Council's responsibilities under Section 30 of the Mental Deficiency Act 1913, resigned in August, 1957, one to take up a post outside the Corporation and the other to marry. They were replaced in November, 1957. All the mental health visitors are qualified on grounds of experience, and two have qualifications in mental or mental deficiency nursing.

Work in the care and after-care of mental illness is carried out by a qualified psychiatric social worker and a social worker, both female; the authorized assignment of the Mental Health Service has been increased by two psychiatric social workers and the post of trainee psychiatric social worker has been relinquished. It is anticipated that the vacancies in the assignment will be filled early in 1958.

No part-time staff are employed.

The following tables give details of staff employed in centres:—

Occupation centre staff

Occupation centre	Supervisor	Assistant supervisor	Nursery assistant	Domestic help	Part-time guides	Care-taker	Stoke
Ancoats	1	2	—	1	1	—	—
Blackley	1	4	—	1	2	1	—
Victoria Park . .	1	7	—	3	2	—	1
Wythenshawe . .	1	3	1	1	1	—	—
	4	16	1	6	6	1	1

At 31st December, 1957, one post of assistant supervisor at the Victoria Park Occupation Centre was unfilled.

One member of the staff is recognised as being qualified on grounds of experience and six hold the diploma of the National Association for Mental Health.

	Instructor	Assistant instructor	Part-time guides
Adult industrial centre ..	1	2	2

Co-ordination with hospitals

The number of mental defectives on the Regional Hospital Board's waiting list has shown a welcome reduction. At the end of the year the waiting list numbered 118, compared with 138 in 1956. This reduction is due partly to an increase in the Regional Hospital Board's mental deficiency hospital accommodation, partly to the local health authority's increased facilities for the community care of mental defectives, and partly to an increase in the use of short-term care in cases of urgency.

The following table gives details of the sex, age and type of cases on the waiting list, together with an indication of the period of time which these patients have been waiting for admission:—

Type, age and sex distribution of mental defectives awaiting hospital admission

Time on waiting list	Males								Females								Totals
	Under 16				Over 16				Under 16				Over 16				
	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	
4 years	1	5	1	1	3	2	4	—	5	2	1	—	3	6	5	2	41
3 years	1	5	1	—	—	3	—	—	1	1	—	—	1	1	1	1	16
2 years	1	3	2	—	—	—	1	—	1	2	—	—	—	5	2	—	17
1 year	5	1	2	—	—	3	3	—	3	—	1	—	—	—	2	2	22
Under 1 year	3	5	—	—	—	2	3	—	3	3	—	—	2	1	—	—	22
numbers on waiting list at 31st December, 1957 ..	11	19	6	1	3	10	11	—	13	8	2	—	6	13	10	5	118

(a) cot and chair cases.

(b) ambulant low grade cases.

(c) medium grade cases.

(d) high grade cases.

75 cases were admitted to mental deficiency hospitals as shown in the following table:—

Mental defectives admitted to mental deficiency hospitals during 1957

Method of admission	Males		Females		Totals
	Under 16	Over 16	Under 16	Over 16	
On petition	7	14	3	15	39
Ordered by parent	1	—	—	2	3
Court Order	1	4	1	—	6
Order of the Secretary of State ..	—	—	—	—	—
Order of safety	—	—	—	—	—
Short-term care	5	4	8	9	26
Welfare order	—	1	—	—	1
Totals	14	23	12	26	75

Details of the admissions to mental hospitals appear in the section dealing with the Lunacy and Mental Treatment Acts.

The Mental Health Service has continued to work in close collaboration with mental deficiency hospitals in providing domiciliary reports and in supervising patients on licence. The following table gives details:—

Social history, progress, licences and recertification reports

Type of report	Males		Females		Totals
	Under 16	Over 16	Under 16	Over 16	
Social history	24	30	11	31	96
Progress	—	61	—	12	73
Licence	6	107	9	55	177
Recertification	18	167	9	109	303
Totals	48	365	29	207	649

Voluntary associations

No duties are delegated to voluntary associations, but there is co-operation with the National Association for Mental Health for the provision of holiday accommodation for pupils of occupation centres and for the training of occupation centre staffs.

The value of the use of voluntary homes for the provision of short-term care cannot be stressed too much. In 38 cases mental defectives have been maintained by the Corporation in such homes for periods varying from fortnight to two months, and this action has afforded welcome relief to the families of mental defectives. The Mental Health Service, for this purpose has used Orchard Dene Short-stay Home, Rainhill, near Liverpool; Redcourt Approved Home, Glossop; Broomgrove, Victoria Park, Liverpool; the Handicapped Children's Hotel, Grange-over-Sands; the Approved Home attached to the Manchester and District School for Jewish Handicapped Children and, as in previous years, a bed was reserved for Manchester patients at Orchard Dene Short-stay Home during the months of June to August inclusive.

In co-operation with the Mental After-care Association and the Evelyn Devonshire Home, Buxton, convalescence has been provided for five patients discharged from mental hospitals.

Training of staff

In August, 1957, the two trainee duly authorized officers completed their year's period of in-service training and were appointed duly authorized officers bringing the total number of duly authorized officers in the Mental Health Service to five.

One member of the occupation centre staff has again been seconded to the National Association for Mental Health Course for Teachers of the Mentally Handicapped, and two members attended the refresher course held in London

For the second year running a member of the staff attended the National Association for Mental Health Refresher Course for Mental Health Workers held in conjunction with the Department of Extra-Mural Studies of Leeds University and approval has been given for a further member to attend the third course commencing in September, 1958.

Work in the community

Prevention, care and after-care

The following table gives details of the work done in relation to the prevention, care and after-care of mental illness:—

Care and after-care of mental illness

	Males	Females	Totals
Number of visits or interviews	482	987	1,469
Removed from care	50	107	157
Referred for medical report :—			
(a) to general medical practitioner	—	—	—
(b) to psychiatrist or clinic	27	35	62
Interviews with other agencies, departments or employers	60	67	127
Totals	619	1,196	1,815

Although the number of referrals to the care and after-care service continued to rise, work in this important field was restricted by the fact that it was found impossible to appoint a trainee psychiatric social worker, the work therefore revolving on the psychiatric social worker and social worker who had a case load of 300 and 150 respectively. With these case loads it is impossible to devote an adequate amount of time to each case, and a decision has had to be made as to the type of case to be selected for intensive case-work on the grounds of greatest need. This has necessarily meant the acceptance of certain risks in ceasing to provide care and after-care in specific cases. With the expected appointment early in 1958 of two additional psychiatric social workers it will be possible to deal with this branch of the work more effectively and more intensively.

A valuable contribution has been made by Dr. N. J. de V. Mather, Consultant Psychiatrist to the Mental Health Service, by way of specialist advice and consultations at the Town Hall, and it was with regret that his resignation, due to increased commitments in the Hospital Service, was accepted on 1st December, 1957.

Liaison with mental hospitals in the Manchester area in matters concerning the after-care of discharged patients has been satisfactorily maintained.

In certain cases breakdowns in mental health, due to bad housing conditions, have been averted by the award of medical priorities for rehousing.

Lunacy and Mental Treatment Acts

Lunacy and Mental Treatment Acts, 1890-1930

(a) notifications

Source of notification	Males	Females	Totals
General medical practitioners	220	327	547
Hospitals and clinics	110	103	213
Police authorities	32	22	54
Other Corporation departments	12	22	34
General public	38	25	63
Other sources	4	7	11
Totals	416	506	922

(b) disposal of cases notified

	Males	Females	Totals
Hospital admission—			
(a) observation	229	241	470
(b) voluntary	62	65	127
(c) temporary	—	—	—
(d) certifiable	45	72	117
Referred to other departments or agencies	12	24	36
No further action necessary	68	104	172
Totals	416	506	922

(c) disposal of patients admitted to mental hospitals for observation

Disposal	Males	Females	Totals
Voluntary	100	173	273
Certified	73	56	129
Discharged	54	27	81
Died	9	12	21
Totals	236	268	504

(d) patients admitted direct into mental hospitals

	Males	Females	Totals
Voluntary patients	239	224	463

In addition to their duties under the Lunacy and Mental Treatment Acts, the duly authorised officers have presented a number of petitions for Orders under the Mental Deficiency Acts.

Mental Deficiency Acts, 1913/1938

ascertainment

Ascertainment	Males		Females		Totals
	Under 16	Over 16	Under 16	Over 16	
Particulars of cases reported during 1957—					
(a) Cases ascertained to be defectives "subject to be dealt with"—					
Number in which action taken on reports by:—					
(1) Local Education Authorities on children:—					
(i) while at school or liable to attend school					
	21	1	15	—	37
(ii) on leaving special schools					
	1	18	2	7	28
(iii) on leaving ordinary schools					
	1	—	—	1	2
(2) Police or by Courts					
	—	—	—	—	—
(3) Other sources					
	2	6	—	13	21
Totals					
	25	25	17	21	88
(b) Cases reported who were found to be defectives but were not regarded as "subject to be dealt with" on any ground					
	—	17	—	9	26
(c) Cases reported who were not regarded as defectives and are thus excluded from (a) or (b)					
	1	3	1	4	9
(d) Cases reported in which action was incomplete at 31st December, 1957, and are thus excluded from (a) or (b)					
	5	8	3	4	20
Totals of 1 (a) to (d) inclusive					
	31	53	21	38	143
Disposal of cases reported during 1957—					
(a) Of the cases ascertained to be defectives "subject to be dealt with" (i.e. at 1 (a)), number:—					
(i) placed under statutory supervision					
	22	20	15	15	72
(ii) placed under guardianship					
	—	—	—	—	—
(iii) taken to "places of safety"					
	—	—	—	—	—
(iv) admitted to hospitals					
	3	3	1	6	13
Totals					
	25	23	16	21	85
(b) Of the cases not ascertained to be defectives "subject to be dealt with", (i.e. 1 (b)), number:—					
(i) placed under voluntary supervision					
	—	15	—	8	23
(ii) action unnecessary					
	—	2	—	1	3
Totals					
	—	17	—	9	26
(c) Cases reported at 1 (a) or (b) above who removed from the area or died before disposal was arranged					
	—	2	1	—	3
Total of 2 (a) to (c) inclusive					
	25	42	17	30	114

Forms of care at 31st December, 1957

Type of care	Number of patients	Percentage of total cases
Statutory supervision.. .. .	1,100	44
Voluntary supervision	247	10
In institutions	1,179	46
In places of safety	8	—
Under guardianship	16	—
Totals	2,550	100

Removals from supervision

In all, 130 persons were removed from supervision during the year; 99 were removed from statutory supervision and 33 from voluntary supervision.

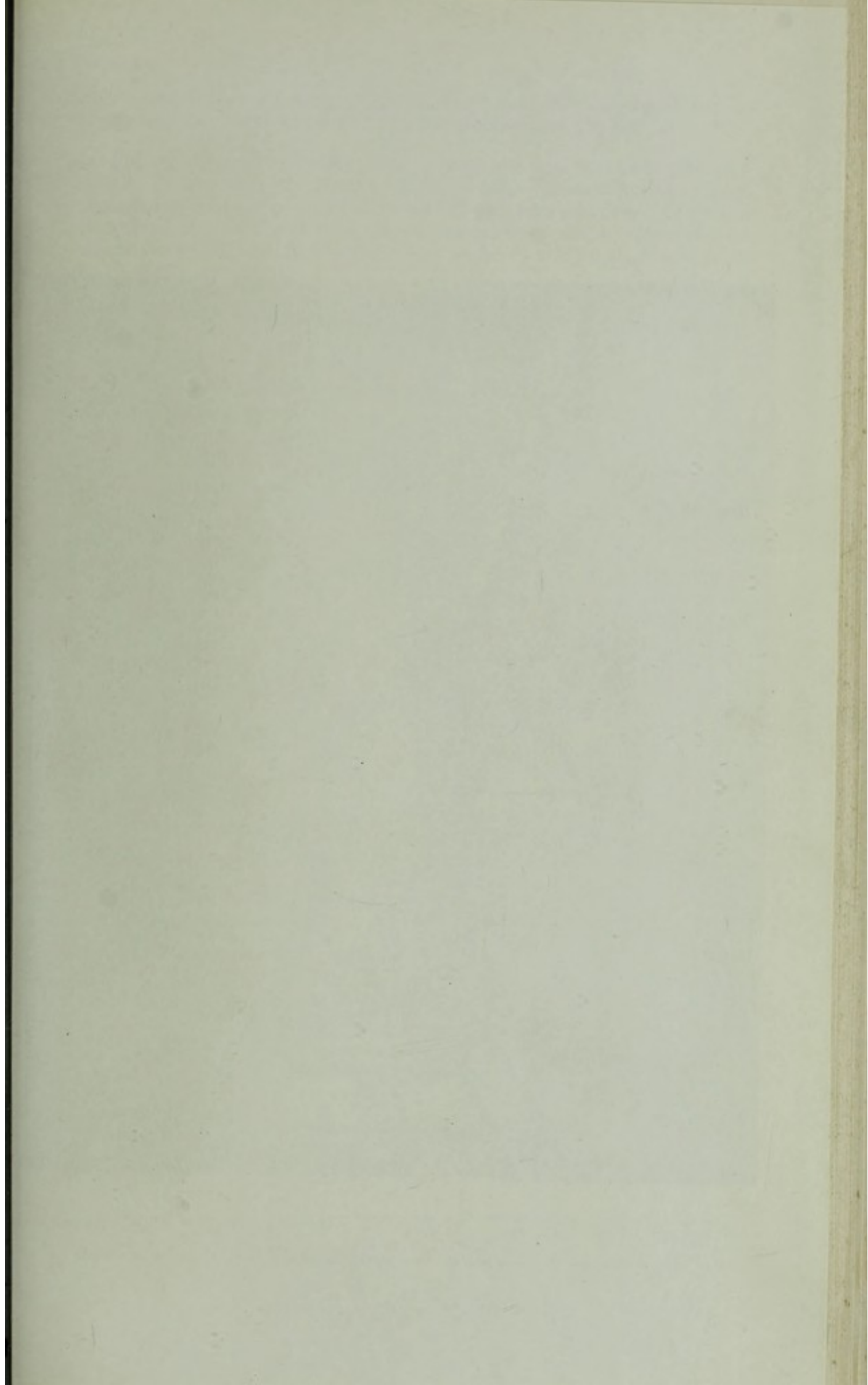
Reasons for removal are as follows:—

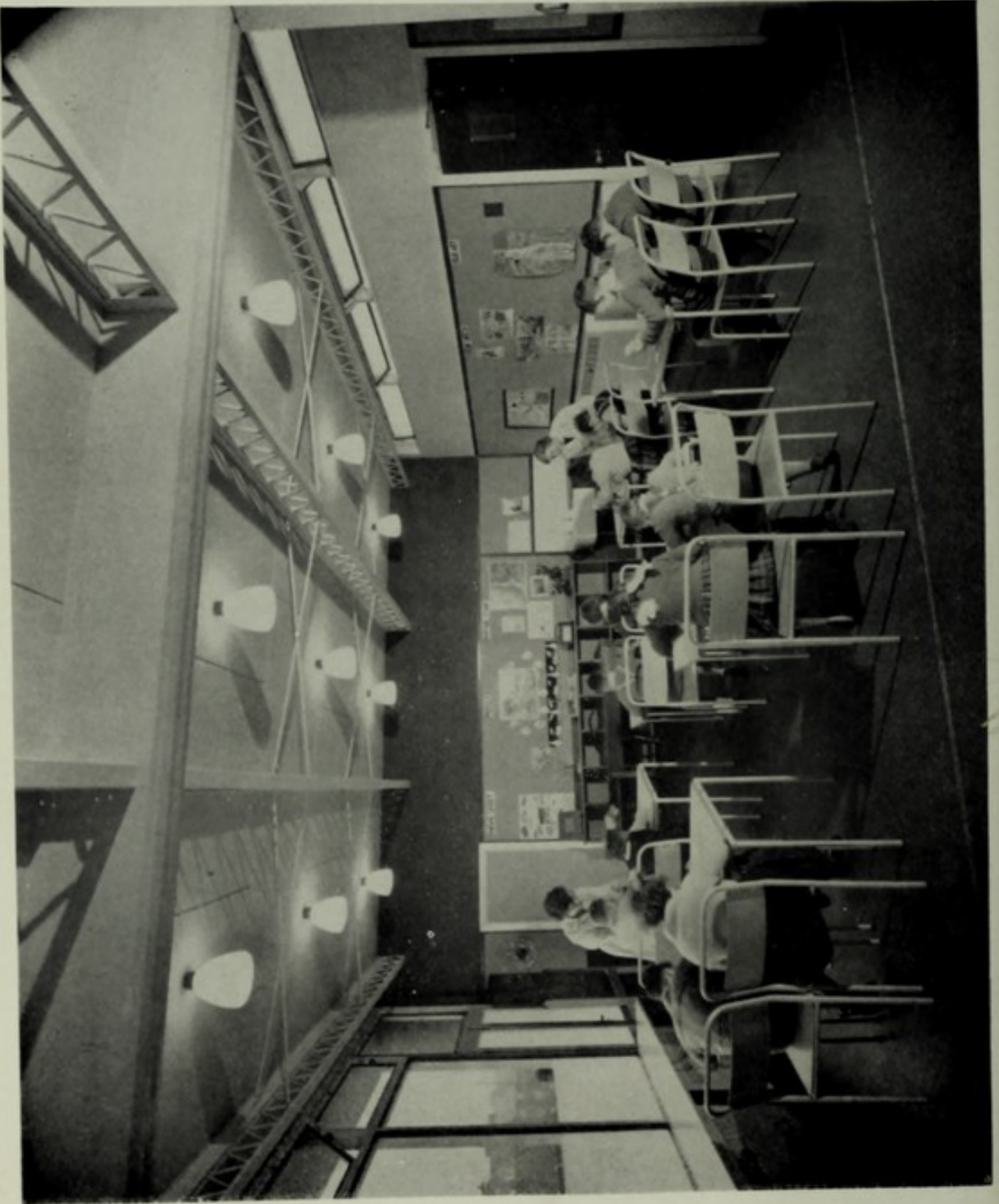
Removal of mental defectives from supervision

Reason for removal	Males		Females		Total
	From statutory supervision	From voluntary supervision	From statutory supervision	From voluntary supervision	
Capable of managing themselves and their affairs	7	9	3	8	27
Notification under Section 57 of the Education Act, 1944, cancelled	2	—	1	—	3
Transferred to voluntary-statutory supervision	2	—	1	—	3
Transferred to other authorities	7	4	8	4	23
Lost sight of	2	1	4	3	10
Died	3	2	4	—	9
Other causes	33	2	20	—	55
Totals	56	18	41	15	130

Guardianship

No additional cases were placed under guardianship. One girl, placed under guardianship by her parents, was withdrawn at their request and one youth who proved unsuitable for guardianship was admitted to a mental deficiency hospital, bringing the total number of patients under guardianship to 16.





Students in classroom

Occupation centres

Occupation centres at Ancoats, Victoria Park and Wythenshawe are in operation, and have the same holidays as primary schools in the City.

At the end of December, work was completed on the new Blackley Occupation Centre, the first occupation centre in Manchester which has been specially designed and built for this function. It provides places for 64 pupils from the north of the City and will relieve the pressure on accommodation at the Victoria Park Occupation Centre where some of the north Manchester pupils have hitherto attended.

The accommodation is as follows:—

Four classrooms each to accommodate 16 pupils; the two middle classrooms are divided by means of a folding screen which can be opened to provide an assembly room which will also be used as a dining room.

Girls' lavatory accommodation providing 4 w.c.'s, 4 lavatory basins, cloak racks and lockers.

Junior boys' lavatory accommodation providing 2 w.c.'s, 2 urinal stalls, 3 lavatory basins, cloak racks and lockers.

Serving kitchen fitted with hot cupboard, boiling table, stainless steel sink, electric cooker and storage cupboard.

Larder equipped with refrigerator.

Bathroom providing bath and lavatory basins.

Cleaners' room with bucket hopper.

Infants' toilet accommodation providing 4 w.c.'s, lavatory basin, cloak racks and lockers.

Office, staff room (used also as a medical inspection room), staff toilets and cloakroom.

General storerooms, heating chamber, outside stores for sports equipment and garden tools.

The occupation centre is a single-storey building with the classrooms facing south to obtain the maximum natural light; the classrooms are light and airy and are designed to give cross ventilation; the colour scheme is bright throughout the building. Adequate storerooms are built in between classrooms where possible to give good sound insulation and for this same reason the staff accommodation is in a separate wing from the classroom accommodation.

Occupation centre attendances

Occupation centre	Males		Females		Totals
	Under 16	Over 16	Under 16	Over 16	
Ancoats	10	6	13	4	33
Victoria Park	44	3	34	17	98
Wythenshawe	17	2	20	6	45
Blackley Industrial	5	30	—	—	35
Number awaiting vacancies	—	26	—	—	26
Totals	76	67	67	27	237

The average attendance was 78 per cent.

In addition 6 Manchester pupils attend the Manchester and District School for Jewish Handicapped Children daily.

With the co-operation of the School Meals Service, mid-day meals are supplied to the pupils at a cost of 6d. each per meal. In cases of financial hardship, meals are provided free of charge. Each pupil under the age of 16 years receives $\frac{1}{2}$ pint of milk free each day and the older pupils have cups of tea.

Five special buses are used to convey pupils to and from the centres, and the children are supervised on the buses by seven part-time guides. Prior to April, 1956, this supervision was carried out by the staffs of the occupation centres.

A medical examination of all pupils was carried out, and this year 14 pupils were referred to their family medical practitioners; 47 were referred to the Dental Hospital and 19 to the Manchester Royal Eye Hospital for examination and possible treatment.

In June a party of 27 pupils with 4 supervisory staff spent an enjoyable week at the National Association for Mental Health Home at Rhyl. Each centre had its open day for parents and friends and, at the Victoria Park Occupation Centre, the event was combined with the annual Rose Queen festival.

Plans have been drawn up for a new centre to replace the Wythenshaw Occupation Centre which is at present in rented premises. A site has been provided and it is hoped that building work on the new centre, to cater for 100 pupils, will commence in late 1958. The provision of a new centre to replace the Ancoats Occupation Centre, also in rented premises, has been impossible to proceed with at present because of the difficulties in obtaining a site.

Adult Industrial Centre

The centre, because of lack of space, is limited to two classes, one for general handicrafts such as basketry, leather-work, wicker-work, pottery and glass decoration, rug making, stool making, and the other for wood-work.

The latter class is accommodated in the woodwork machine shop in which by the extensive use of specially designed jigs, the production of component parts and the assembly of finished articles is reduced to simple stages whereby even the lowest grade patient is able to play his part. This policy was adopted with a view to training the patients for the introduction of piece-work when adequate accommodation for a sheltered workshop is obtained. Woodworking machinery installed consists of a bandsaw, a planing machine, a fret-work machine and orbital sanders, all electrically driven.

The products of the workshop can be divided into two main types; firstly domestic articles such as stepladders, clothes racks, stool frames, coffee table, bedside cabinets, fire-screens and newspaper racks which are ordered by parents and visitors and, secondly, articles which are ordered by Corporation Departments, such as seed boxes, acid bottle carriers and carriers for hypodermic syringes. In addition, a supply of stool frames is maintained to the other occupation centres in the City. This system whereby articles are made to order has ensured that the workshops are used to capacity and that there is no difficulty in the disposal of finished articles.

The value of the work of this centre, catering for adult male mental defectives, cannot be over-emphasised and is reflected in the growing sense of pride of achievement among the pupils which is more and more apparent in their bearing and relationships with other people.

It is regrettable that the essential development of this centre to accommodate 100 pupils is held up by an inability, so far, to secure a building site.

HEALTH EDUCATION

During the year under review, health education has been brought to the attention of the general public mainly through the media of lectures and addresses delivered by both the medical and senior nursing staff to various organizations and societies. It has been noticeable from the type of question which has been asked after the lectures, that people are taking more than a passing interest in health education.

The field workers of the public health team—medical officers, health visitors, mental health visitors and public health inspectors—are still, however, the principal health educators. They are, by reason of their duties, able to enter the homes of members of the community where, on personal contact, they are able to advise and assist in any problem relating to health matters.

Publicity in the form of a variety of "eye-catching" posters and leaflets, obtained from the Central Council for Health Education and the Royal Society for the prevention of Accidents, were displayed at the child welfare centres and school health clinics. "Better Health", the monthly magazine also published by the Central Council for Health Education, was distributed mainly through child welfare centres and school health clinics to the extent of two thousand copies each month. In addition, Departmental publications "Infectious Diseases", "The Family Welfare Service" and "Health Services of the City" were distributed to the public. The value of diphtheria immunization has been publicized by means of advertisements in the local press and once again by advertisements in the programme and handbooks published in connection with the Wythenshawe Civic Week and the Church of England and Roman Catholic Whit Week processions.

Medical and social administration students have attended the Department for the purpose of observing the activities of the various branches of the health services administered by the City Council.

The following is a summary of the educational work in connection with the child welfare centres and the Health Department generally :—

- (a) Lectures were given to social and business organizations by members of the health visiting and sanitary services staffs as follows:—10 to Old People's Clubs; 1 to a Women's Co-operative Guild; 1 to a Young Wives' Club; 1 to a Mothers' Union; 1 to an Old Age Pensioners' Association; 1 to an Over Sixties' Club; 1 to a Nursery Training College; 5 to Girls' High Schools; 1 to Girl Guides; 1 to Boy Scouts; 1 to a Women's Guild; 2 to Men's Fellowships; 1 to a Rotary Club; 1 to Health Visitors; 5 to District Nursing Association; 8 to Catering Establishments; and 1 to a Property Owners' Association.
- (b) Three courses of lectures on mothercraft were given to women with young children, in H.M. Prison for child neglect.
- (c) Lectures and practical experience were arranged for student nurses of local hospitals; 415 students attended one lecture on the social aspects of disease; 139 students attended a lecture on the work of the public health nurse; 103 students spent a half-day on the district with health visitors; 83 observed the work of an infant clinic at a child welfare centre.

- (d) Visits of observation to child welfare centres were made by nursery assistants in 52 instances and by child care reserve students in 25 instances.
- (e) Students from the Department of Child Health, St. Mary's Hospitals, made 86 visits of observation to day nurseries and infant clinics at child welfare centres.
- (f) Medical practitioners studying for the Diploma in Child Health attended sessions at child welfare centres.
- (g) A visit of observation was made to an infant clinic at a child welfare centre by a group of six students from the Princess Christian College.
- (h) The work of the Department was discussed with a group of 12 students in social administration at Manchester University, all of whom later spent a half-day at a child welfare centre each week for seven weeks. One of the students spent a day each week for six weeks with the Welfare Officer for the unmarried mother.
- (i) Four hospital social welfare trainees attended ten lectures given by senior administrative clerical and health visiting staffs in the Health Visiting, Midwifery and Home Help sections of the Department. Students visited the Monsall Road Cleansing Clinic and 15 child welfare centre infant and toddler clinics and two child welfare centres for screening tests of hearing.
- (j) Members of the staff of the Mental Health Service have throughout the year played a part in introducing social workers and others to local health authority work in the Mental Health field.
- Lectures have been given to D.P.H. students, theological students, third year student in social science, students of the Extra Mural Department of Social Studies at Manchester University and student health visitors. Periods of observation and practical work with the staff of the Mental Health Service have been spent by social science students from the universities of Manchester and Sheffield and University College, Swansea. Social workers from voluntary and statutory bodies and other interested persons have also been given the opportunity of seeing the work done in the City's occupation centres.
- (k) Visits to the Department and Departmental establishments were made by a Swedish teacher; a doctor from Milan; a doctor from Turkey; a doctor from Jugoslavia; two visitors from Japan; a social worker from Jerusalem; a nursing sister from the West Indies; four doctors from Thailand and an administration student from Burma.

AMBULANCE AND TRANSPORT SERVICE

Ambulance Service

Introduction

The Manchester Ambulance Service has continued to operate in accordance with the provisions of Section 27 of the National Health Service Act—1946, as amended by Section 24 of the National Health Service (Amendment) Act—1949 and the National Health Service (Amendment) Act—1957.

At the 31st December, 1957, the ambulance fleet consisted of the following vehicles :—

51 ambulances (2/4 stretcher)
15 dual-purpose vehicles (1 stretcher)

Operational record

	1956	1957
Number of journeys	89,144	80,978
Patients removed	201,385	194,186
Total mileage	913,166	892,759*
Mileage outside Manchester (non-Manchester patients)	11,663	12,466
Analysis of removals		
	1956	1957
Accidents	10,278	10,983
Infectious	4,471	2,633
General	186,636	180,570
	201,385	194,186

*Includes 16,746 miles in respect of pool cars utilized in ambulance service.

Train journeys

The policy of arranging the transport of patients by rail in appropriate cases has been continued, and 375 such journeys were arranged during the year. Ambulance Service transport is provided to convey the patients to and from the railway stations, and full and effective co-operation is given by British Railways in ensuring the comfort of the patients during the railway journeys.

Radio control

The experiment commenced late in 1956 with radio control for a small number of ambulances continued during the year. The results were sufficient to justify the permanent adoption of the scheme, and in December the installation of additional sets was commenced. During the experimental period a "Viscount" aircraft crashed whilst approaching the Manchester airport, and radio proved invaluable in despatching ambulances to the scene of the crash and also in maintaining contact between the Ambulance Service control room and the Ambulance Officer at the scene of the crash.

Staff

The number of authorised operational staff has remained constant during the year, and when vacancies have arisen no difficulty has been experienced in obtaining replacements.

First-aid training has continued, and of the 147 operational staff, all except 11 new entrants into the service have qualified or requalified during the last three years.

Ambulance drivers, together with other drivers employed in the Health Department were again entered in the National Safe Driving Competition in order to help in maintaining the high standard of driving expected from the staff of the Ambulance Service, and of the 79 entries, 62 qualified for awards, 5 leaving the service during the course of the year.

Hospital Car Service

The transport of walking cases to and from out-patient clinics and convalescent homes has been augmented by the use of hospital car service volunteers, and the work carried out by the 15 drivers normally available was as follows:—

Journeys	5,400
Patients	15,818
Mileage	148,554

Civil Defence

Standard and advanced training in the work of the Ambulance and Casualty Collecting Section has been carried out weekly at training centres designed to serve volunteers from all the suburbs of the City. The standard training syllabus takes approximately 26 weeks to complete, and during the year 32 volunteers completed the standard course and commenced training in first-aid, casualty handling, ambulance loading and revision of other items included in the standard training syllabus.

3 full first-aid courses were arranged during the year. 44 volunteers completed a course, passed the examination and were awarded certificates.

Driving instruction by a well known school of motoring has been given since July to volunteers who have completed standard training. During the 6 months ended December, 9 volunteers passed the driving test. Trained drivers have been afforded opportunities for driving practice at regular intervals, and have visited hospitals in Manchester and some surrounding districts. Several map-reading exercises have been combined with the driving practice.

Several small-scale outdoor exercises were arranged during the summer months to test the volunteers in the practical application of their training in first-aid, casualty handling, ambulance loading and operational control.

A team of 6 volunteers which was entered in the regional tourney at Belle Vue, Manchester, on Saturday, 21st September, 1957, was placed fourth out of a total of 22 competing teams.

A course for potential instructors ended in March, 1957, when 6 of the candidates passed the examination and were awarded certificates.

A class opened in September, 1956, for volunteers from the Wythenshawe area had to be closed in July, 1957, through lack of support, and the few volunteers training there transferred to another training centre. A class was commenced in December, 1957, in premises over number 585, Cheetham Hill Road, leased by the Civil Defence Committee for training purposes.

Municipal Car Pool

The Municipal Car Pool, consisting of two limousine cars and six saloon cars, has continued to be administered and operated by the Ambulance and Transport Service. These cars are used by the various committees and officials of the Corporation, including officers of the Mental Health Service conveying patients to hospitals. The operating mileage for the year was 78,697, compared with 71,529 in the preceding year.

Commercial vehicles

During the year a lorry was replaced by a van, and from April, three vans were operated on Health Committee functions. The mileage run was 24,249 including 9,994 on the Disinfection Service.

Disinfection Service

A disinfection station forms part of the Monsall Sub-depot and two steam disinfectors are used for the disinfection of clothing and bedding. In addition, a formalin chamber is used for articles which cannot be subjected to the steam process. One of the commercial vehicles is utilized as a bedding van for the collection of infected bedding, clothing, etc., and has been designed so as to ensure that complete disinfection of the interior can be carried out before being put into service for the return of disinfected articles. The disinfection of 24,809 articles was carried out, this total consisting of the following :—

Blankets	961
Sheets	121
Pillows	775
Bolsters	15
Quilts	7
Mattresses	574
Beds	33
Articles of clothing	14,415
Library books	00
Bales of cotton waste	816
Miscellaneous	6,612
	<hr/>
	24,809
	<hr/>

Immunization Unit

The mobile immunization unit continued to operate during the year and provided facilities for the immunization against diphtheria and whooping cough of children whose parents could not bring them to child welfare centres. In addition, special visits were made to those areas where the percentage of immunized pre-school age children was low. This vehicle, which is a converted single-deck omnibus, operates from the Monsall Sub-depot and its mileage in 1957 was 8,519.

Clinic

A clinic for the treatment of persons suffering from scabies and verminous conditions is situated at Monsall Sub-depot, and the following figures show the number of treatments given during the year :—

Scabies	362
Verminous conditions	434
School-children	480

Operating mileage

The total mileage operated by the various sections of the Ambulance and Transport Service during 1957 was as follows :—

Ambulance Service	876,013
Municipal Car Pool	78,697*
Commercial vehicles	14,255
Bedding van	9,994
Immunization Unit	8,519
	<hr/>
	987,478

*Includes 16,746 miles in respect of pool cars utilized in ambulance service.

LANGHO COLONY FOR EPILEPTICS

STAFF:

G. A. Thompson, M.R.C.S.(ENG.), L.R.C.P.(LONDON) ..	Medical Superintendent.
Miss E. J. Smith, S.R.N., R.M.N., R.M.P.A.	Matron.
S. A. C. Bunn, F.C.C.S., A.H.A.	Secretary-Steward.

This Colony, which is administered by the Manchester City Council, under the terms of Part III of the National Assistance Act, 1948, is a residential home for persons requiring care and attention, and had on the 31st of December, 1957, 247 male and 257 female residents; of these, 185 came from Manchester and the remainder from as far afield as Bath, Durham, Glamorgan and Southampton.

The aims of the Colony are to provide a home life and occupation for persons suffering from epilepsy. Notwithstanding many recent advances in medicine and neuro-surgery, there is still a large number of people who, suffering from this malady, require care and employment in sheltered conditions. This is what the staff at the Colony set out to do, besides trying wherever possible to rehabilitate the residents for life outside.

On admission, all residents are medically examined, their case histories taken and medication prescribed for their condition; this is varied as required, and the epilepsy stabilised as far as practicable. To achieve this end, any new anti-convulsant drugs are given thorough tests, but in the main, reliance is placed on Primidone, sodium hydantoinate and pheno-barbitone with paraldehyde etc., during any exacerbations of the condition. Any other concurrent illness is also treated, and each resident is found employment in a situation suitable to his or her capabilities and disposition, with the emphasis always being on rehabilitation. An incentive scheme is in force which gives financial encouragement to the residents to do their best at whatever job they are given.

The following tables of statistics relate to residents in Langho Colony during 1957:—

(a) The total number of epileptic seizures during 1957 was 16,274.

	Severe	Slight	Total	Average	Numbers of residents maintained
Male ..	5,595	5,199	10,794	49	247
Female ..	2,639	2,841	5,480	21	257
Totals ..	8,234	8,040	16,274	—	504

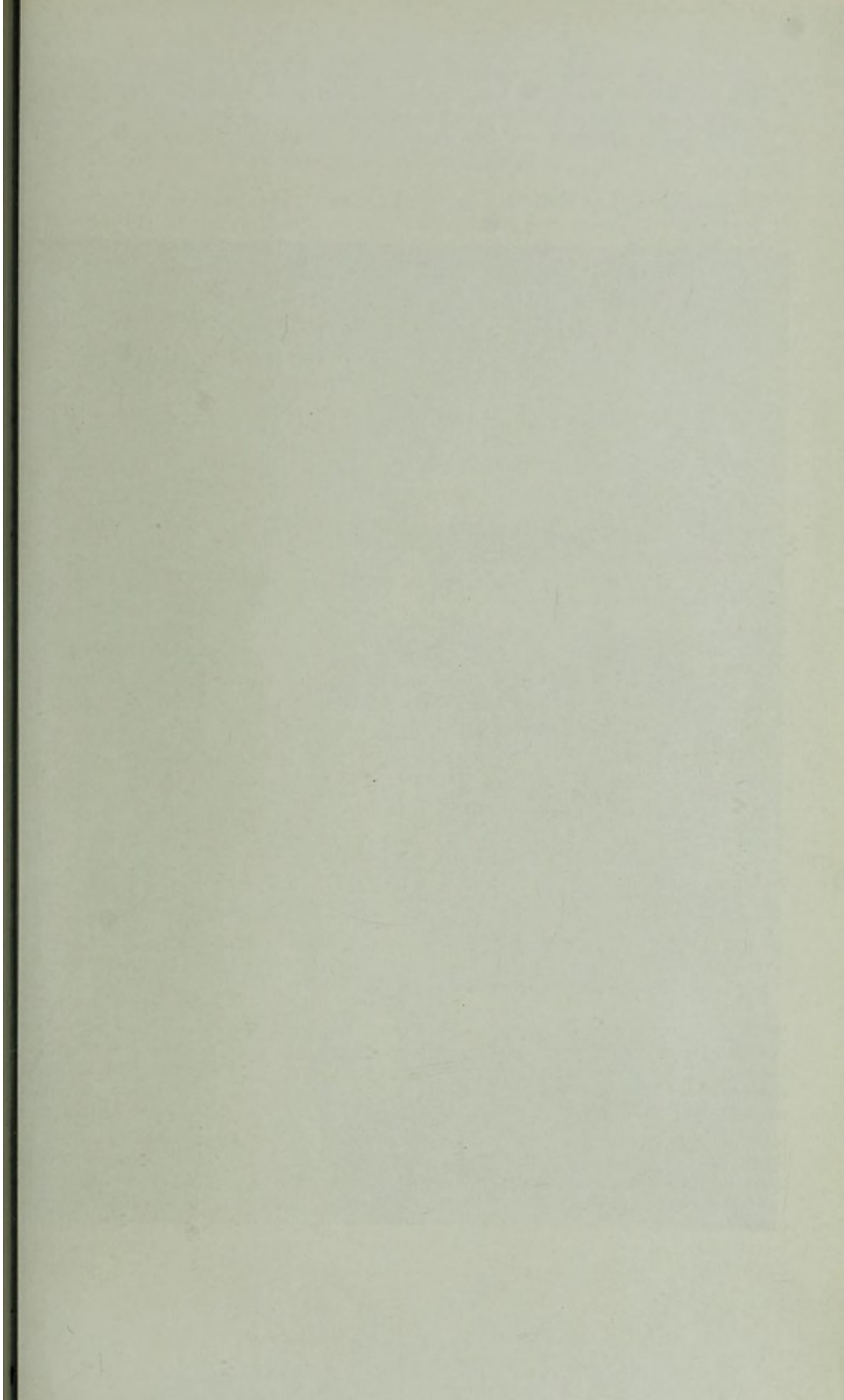
(b) The classification of the incidence of seizures during the year is as follows:—

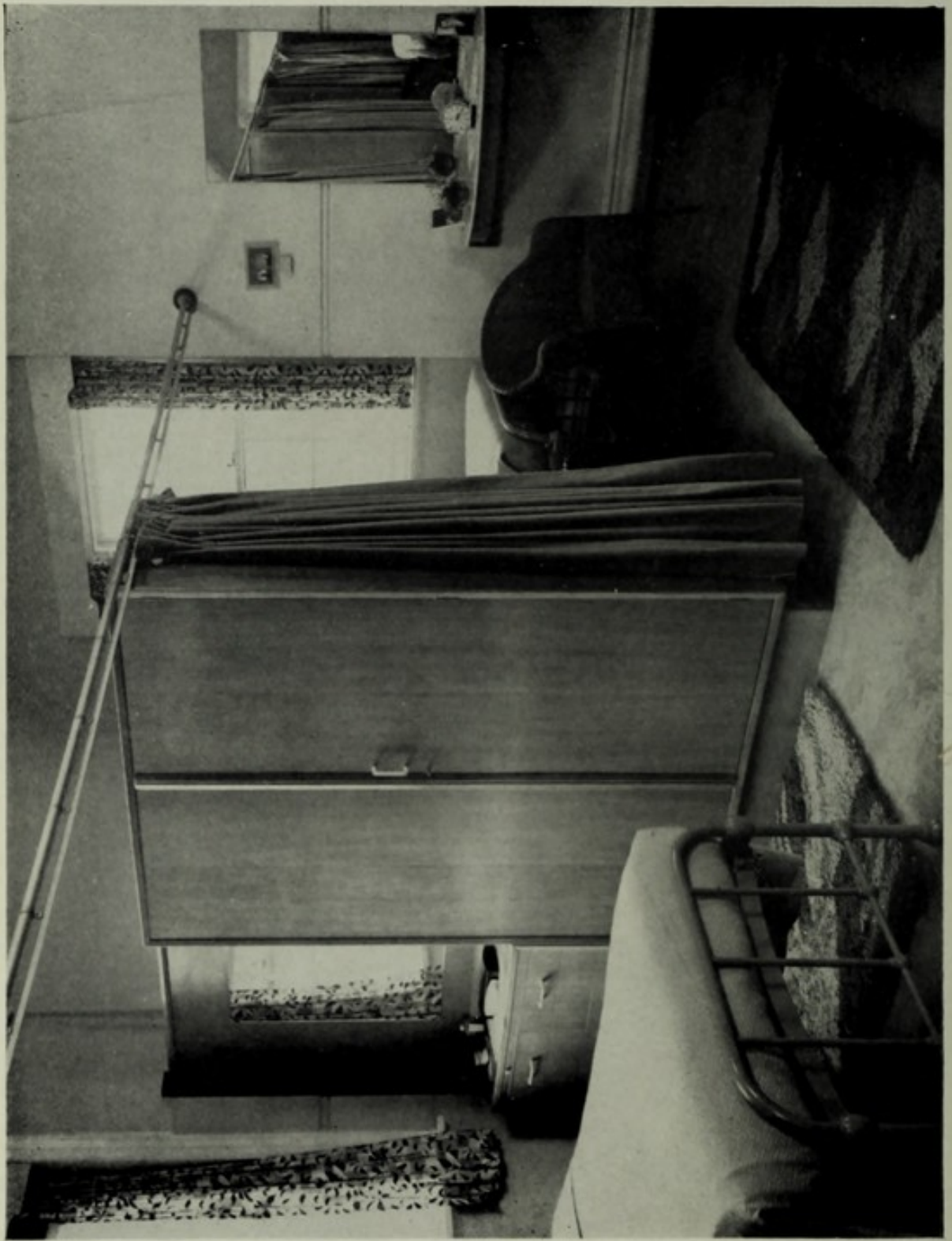
	Males	Females
Increased incidence	45	3
Decreased incidence	67	104
No change	87	46
No seizures during the year	60	77

(c) There were:—

	Males	Females	Totals
Admissions	46	31	77
Re-admissions	26	2	28
Discharges	46	27	73
Deaths	10	8	18

During the last twelve months great progress has been made in the male occupational therapy department, under the programme laid down by the Residential Homes Sub-Committee of the Health Committee. A full time Handicraft Instructor has been appointed, woodworking, chain link fencing machinery and looms have been installed and toys and appliances are being made for the Children's Department of the Corporation, wire fencing for the City Architect's Department, rugs for the Colony, besides basketry, leather work etc. Other male residents are engaged on the Colony farm, kitchen garden, in the general stores, engineering, shoemaking and tailoring departments, on the grounds and in domestic work about the homes. The female residents are likewise fully employed with domestic work in the homes and the administrative building, in the laundry, the sewing room and the occupational therapy department. It is of interest that approximately 20 per cent of the residents





The room in the house of the late Mrs. J. L. ...

be unable to follow any useful employment because of old age and infirmity. As part of their treatment, residents are encouraged to lead a normal life and, with this end in view, rules and regulations are kept to a minimum; they can be visited any time by their relatives and friends and few restrictions are placed on their visiting their own homes or neighbouring towns.

One of the female homes has been modernised, cubicles have been introduced giving a number of the residents what is tantamount to a room of their own; the bathing accommodation in the home has been enlarged and the furnishings generally improved. This is a pilot scheme to act as a basis for future modernisations, but the residents have already shown their appreciation, of what has been done to date.

The usual full programme of recreational activities has been carried out during the year; the Colony is now a member of the Manchester Regional Hospital Football and Cricket Leagues, and a Colony team also played in the North-East Lancashire Cricket League. Blackburn Rovers' "A" team have played a number of their "home" games on the Colony ground, and this has given great pleasure to a number of the residents who cannot get away from the establishment because of infirmity.

The annual outings to Blackpool, Morecambe and Southport took place in May and June, 1957; a successful Sports Day and a Christmas programme which included a visit to a pantomime in Bolton, were held as usual, in addition to the weekly dances and cinema shows. The Colony bus has been fully utilised giving the older residents country runs, taking the Colony teams to their "away" matches, and conveying staff on and off duty; during the 'bus strike proved invaluable.

Consultant services were readily available at neighbouring hospitals in Blackburn, Preston and Manchester, and thanks are due to the local Lancashire County Ambulance Service for their help and assistance at all times.

One innovation during the year was to give short-term accommodation to persons suffering from epilepsy—but living at home—to enable those looking for them to enter hospital or have a much needed holiday. This facility was much appreciated by those concerned.

The Colony farms have made excellent progress and it can be said that a lot has been developed under the Farm Bailiff where any resident selecting agriculture as a possible career can obtain knowledge and practical experience without rival, outside expensive training centres. The 140 acres carry 110 Friesian Ayrshire cattle producing T.T. milk, 400 pigs, chiefly large white and Duroc, and between two and three thousand head of poultry, which are a light heavy cross for egg production, kept in battery houses or on deep litter. The farms supply the total needs of the Colony of milk, eggs, bacon, pork and poultry, also a part of the beef requirements, the surplus going to the open market. An approach to full mechanization on modern lines is being developed, and the farm buildings in general are being modernized.

The Medical Superintendent again expresses his thanks to all the members of the staff for their support during 1957 and to the members of the Residential Homes Sub-Committee for their unfailing courtesy.

DR. GARRETT MEMORIAL HOME

The Home, situated on the western bank of the mouth of the river Conway contains 130 effective beds, and affords recuperative sea-side convalescence for Manchester children between the ages of two and fifteen years, usually for a period of six weeks.

The sources from which children are referred to the Home are, the School Medical Service, maternity and child welfare centres, City hospitals and general medical practitioners. The majority of those admitted suffer from general and/or nervous debility, some form of disease of the respiratory system or anaemia.

22 children are conveyed between Manchester and the Home in Conway North Wales, by chartered omnibus once each week.

The year 1957 will be remembered for a long time as a year of infection and sickness amongst the children; not since 1954 have so few children been admitted. Out of a possible 50 admission dates only 43 were utilised.

Yearly statistics are as follows: Admissions numbered 865 compared with 987 in 1956; of the 845 children discharged, 680 were recorded as "fit," 113 as "improved," and 31 as "requiring hospital treatment," 29 of whom were transferred to the local isolation and general hospitals; 837 gained weight during their stay, whilst in the case of the remaining 8, no changes in weight were perceived.

The highest number in residence was 134 and the lowest 70; the average number maintained was 105.08 as compared with 116.6 last year. It is estimated that another 5.1 could be added to the former figure in respect of children taken home by their parents prior to due discharge date; 325 children were "discharged" in such circumstances, as compared with 394 last year.

It is a pleasure to record that no incidents of absence without permission occurred, as against one incident last year.

Children requiring nursing care in the Home are summarised as follows: Tonsillitis, 58; influenza, 43; measles, 10; rubella, 13; chicken pox and contact 26; scarlatina, 23; bronchitis, 7; sore throats, coughs, colds etc., 21; glandular fever, 6; whooping cough, 4; mumps, 3; jaundice, 2; minor injuries, 8.

Whenever the weather permitted, outdoor recreational games, walks etc. were enjoyed under the direction of three wardens. Simple handicraft, musical games and dancing, television and films, provided indoor recreation during inclement weather.

An outstanding local item which has interested the older children this year is the building of the new Conway Bridge, which, in due course, will replace Telford's Suspension Bridge. The quayside, with its yachts, fishing boats and the Smallest House, the Castle and other medieval buildings are always a source of interest to new intakes.

Miss D. Whittaker, Assistant Matron, left on the 6th June, 1957. Miss A. C. Corlett, Assistant Matron, commenced duty on 30th September, 1957. Head Cook was appointed on 4th February, 1957.

All property has been maintained in good condition and a new Provision Store provided.

The Mayor and Mayoress of Conway visited on Christmas morning, and the usual festivities were enjoyed by all, with the exception of one child, who developed scarlatina on Christmas Eve, and was transferred to the local Isolation Hospital. This proved to be the forerunner of a number of cases, which caused further curtailment of admissions.

MUNICIPAL HOSTELS

Women's: Ashton House (Corporation Street, Ancoats)
Miss S. J. Bayley, Manageress—to 14th February, 1957.
Mrs. A. G. Barber, Manageress—from 15th February, 1957.

Men's: Walton House (Harrison Street, Ancoats)
Mr. H. Stainton, Manager.

The municipal hostels are registered as common lodging houses and can accommodate, in separate cubicles, 210 women and 464 men; during 1957 the average nightly occupancy was 150 and 447 respectively which, compared with the figures for 1956, show a slight reduction at Ashton House and an increase at Walton House.

Ashton House provides excellent accommodation for working-class women, but has not been used to capacity for several years due, probably, to gradual changes which have taken place in the district. Although ideally situated when it was erected in 1910, Ashton House is no longer suitably sited for a working women's hostel and, consequently, does not prove attractive to present-day women. The majority of the residents are old people who have spent the greater part of their lives in the Hostel and the present intake of younger women does not compensate the number of old persons who either die or are transferred to homes for old people. Facilities available to the residents include:—cubicle (furnished with a comfortable bed), bedside rug, chair and mirror, use of dining room, smoke room, reading room, kitchen, baths and laundry.

A general purpose shop situated on the ground floor is well patronized by the residents and the catering turn-over figures showed an increase over 1956. Recent improvements include the relaying of the worn concrete floor in the residents' kitchen, with tiles.

Walton House municipal hostel for men provides similar facilities to those at Ashton House and there continues to be a steady demand for accommodation. In recent months, bookings reached capacity and many requests for admission had to be refused. The laundry, which is operated by the Corporation, undertakes work for the residents and for certain Corporation departments, a charge being made for this service.

About half of the present residents are old-age pensioners who seldom leave the Hostel; entertainment is provided for them by means of a projector type T.V. receiving set which is situated in the smoke room. This set was installed and is maintained from a social fund subscribed to by the residents.

The catering section continued to provide excellent service and both the shop and kitchen have been well patronized.

Accommodation charges were as follows:—

Ashton House:	Rent of cubicle 3s. a night or 19s. 3d. weekly; parcels 1d. per week.
Walton House:	Rent of cubicle 3s. 3d. a night or £1 1s. weekly; parcels 1d. per week.

The rent charge includes free use of lockers, baths (with soap and towel provided) and early calling of residents, upon request.

The following is a list of the names of the persons who have been admitted to the hospital since the last meeting of the Board of Directors. The names are arranged in alphabetical order of their surnames. The names of the persons who have been admitted to the hospital since the last meeting of the Board of Directors are as follows: [The text is extremely faint and largely illegible, but appears to be a list of names.]

Nursing Services Division

DOMICILIARY MIDWIFERY
INCIDENCE OF BLINDNESS
CARE OF MOTHERS AND YOUNG CHILDREN
DENTAL CARE
HEALTH VISITING
REGISTRATION OF NURSING HOMES
DAY NURSERIES
TUBERCULOSIS SERVICE
EPILEPSY AND CEREBRAL PALSY
HOME NURSING
DARBISHIRE HOUSE HEALTH CENTRE
CONVALESCENCE
HOME HELP SERVICE
FAMILY WELFARE SERVICE
VENEREAL DISEASES
PROFESSIONAL CONFERENCE ON
ANTE-NATAL CARE IN MANCHESTER

DOMICILIARY MIDWIFERY
INCIDENCE OF BLINDNESS
CARE OF MOTHERS AND YOUNG CHILDREN
DENTAL CARE
HEALTH VISITING
REGISTRATION OF NURSING HOMES
DAY NURSERIES
TUBERCULOSIS SERVICE
EPILEPSY AND CEREBRAL PALSY
HOME NURSING
DARSHIRE HOUSE HEALTH CENTRE
CONVALESCENCE
HOME HELP SERVICE
FAMILY WELFARE SERVICE
VENEREAL DISEASES
PROFESSIONAL CONFERENCE ON
ANTE-NATAL CARE IN MANCHESTER

NURSING SERVICES DIVISION

Dr. Alice I. Burke, Senior Medical Officer

STAFF

Medical—

Alice I. Burke, M.B., Ch.B., D.P.H., Senior Medical Officer	}	Medical Officers
Muriel Jane Brayshay, M.B., Ch.B.		
Maureen Buckley, M.B., Ch.B., B.A.O., L.M.		
Annie Margaret Dawson, B.Sc., M.B., Ch.B., D.C.H., D.O.		
Harold Diggles, M.B., Ch.B. (resigned 31st August, 1957)		
Florence Maud Duckworth, M.B., Ch.B.		
Joyce Kathleen Howarth, M.B., Ch.B., D.C.H.		
Rosaline Howat, M.B., Ch.B.		
Gwendoline Mary Elsie Keevil, M.B., B.S., D.C.H.		
William Lees, M.B., Ch.B., M.R.C.S., L.R.C.P., D.Obst., R.C.O.G.		
Margaret Longden Marsland, M.R.C.S., L.R.C.P. (appointed 18th November, 1957)		
Lydia McMurdo, M.R.C.S., L.R.C.P.		
Joyce Elizabeth Anne Ovens, L.R.C.P. & S. (Eng.), D.Obst., R.C.O.G.		
Derek Robinson, M.B., Ch.B. (appointed 6th May, 1957) (resigned 14th September, 1957)		
Rachel Daphne Rebecca Sasieni, M.B., Ch.B., D.Obst., R.C.O.G.		
Henry Roy Simpson, M.B., Ch.B., D.Obst., R.C.O.G.		
Dorothy Elizabeth Margaret Thomas, M.B., Ch.B., D.Obst., R.C.O.G.		

Nursing—

Eileen A. Lamb, S.R.N., S.C.M., M.T. DIPLOMA—Non-medical Supervisor of Midwives.
 Evelyn L. Gowing, S.R.N., S.C.M., H.V. CERTIFICATE—Superintendent of Health Visitors.

Lay—

Charles A. Hay, M.B.E.—Chief Administrative Assistant.

DOMICILIARY MIDWIFERY SERVICE

STAFF

The number of domiciliary midwives employed at the end of the year was 67 whole-time and 7 part-time in addition to the non-medical supervisor and assistant supervisors, and 3 premature baby nurses. The actual establishment was 67 midwives and 3 premature baby nurses.

Midwives are also employed on an agency basis on behalf of the City Council by the St. Mary's Hospital Extern Service and the Manchester District Nursing Institution.

Recruitment has been very difficult during the year, and despite advertising and other efforts by all concerned, the number of midwives forthcoming remains limited.

Notification of intention to practice

204 midwives notified their intention to practice in the City as against 263 the previous year. Particulars of the sources of notices received are shown in the following table :—

Sources of notices of intention to practice

Municipal midwives	Employed on an agency basis	Independent midwives	Private maternity nurses	Institutions	Total
59	11	1	1	132	204

Supervision of midwives

The Supervisor of Midwives exercises a general control over the municipal midwives, midwives employed by agencies, independent midwives, and midwives who notify their intention to practice from maternity homes. She also maintains a close liaison with the hospitals in the City.

For the purpose of administration the City is divided into two districts and each assistant supervisor of midwives supervises the work of the municipal midwives on the district allotted to her.

The following visits were paid by the supervisors of midwives :—

Routine inspection visits	15
Nursing supervised	17
Labours attended or supervised	1
Visits to Ante-natal clinic	7
Special visits to midwives (sickness, etc.)	5
Visits to hospitals and nursing homes	3
Meetings and lectures attended	1
Investigations	24
To Central Midwives Board.. .. .	

The last item referred to above concerns a penal session of the Board in connection with a case of misappropriation of drugs by a midwife who notified her intention to practice from an institution. Her name was removed from the roll.

Training of Midwives

The training scheme of pupil midwives is operated jointly by the St. Mary's Hospital Extern Service and the Manchester City Council. 24 municipal midwives and 2 midwives of St. Mary's Hospital Extern Service are approved by the Central Midwives Board for Part II training.

During the year under review 26 pupils were trained of whom 21 were successful in qualifying as midwives at the first attempt, 4 at the second, and 1 failed the examination and did not re-sit.

The Premature Baby Nurses have been included in the training arrangements during the year and 3 pupils have accompanied them on their visits in connection with the domiciliary care of premature babies.

Post-graduate courses

8 midwives attended the recognised residential courses organised by the Royal College of Midwives and an assistant supervisor attended the course at Bedford College.

Educational activities

Discussions on the midwifery service in all its aspects have been held with almoners, students of social science and visitors from overseas. The service has also been the subject of lectures by the Supervisor of Midwives to student nurses at hospitals and various organisations. A talk was given at a well-attended meeting of midwives in the City by a Paediatrician on the latest advances in the care of premature babies.

Transport

30 municipal midwives use their private cars on Corporation business and are reimbursed in accordance with the National Joint Council scale of allowances. Midwives without cars are provided with transport facilities, day and night, from the Health Committee's Ambulance and Transport Section.

Equipment

Municipal midwives' equipment includes trilene and gas/air apparatus, a sphygmomanometer and a sparklet oxygen apparatus which is fitted with a 2-way polythene catheter for intragastric insufflation. This has proved useful on many occasions in the recussitation of infants.

Analgesia

Gas/air analgesia was administered to 2,277 patients while 1,044 had trilene ; pethidene was given to 2,671 patients.

There is a certain percentage of patients who do not receive any form of analgesia. This may be for several reasons :—

- (a) The patient is too far advanced in labour at the time of sending for the midwife.
- (b) The baby may even be born before the midwife's arrival.
- (c) The patient may not have taken the trouble to have the medical certificate of fitness for analgesia completed, in which case the midwife is precluded by the rules of the Central Midwives Board from administering inhalation analgesia.
- (d) The patient may have some respiratory infection at the time of labour.

In a great many cases, however, gas/air is administered, followed, as labour advances, by trilene inhalation. This is well received by the patients and appears to be gaining in popularity, which is evidenced by the number of expectant mothers now asking specifically for trilene.

Ante-natal care

Ante-natal clinics were held at 24 of the municipal welfare centres during the year. The midwives made 2,709 attendances.

Post-natal care

There are facilities for post-natal examinations at nine ante-natal clinics in the City where such examinations are carried out by the Medical Officer—the midwives, though present in the clinics, are not required to be in attendance.

The regulations of the Maternity Medical Service place the responsibility for post-natal examinations on the general practitioner who has been booked for the mother for confinement.

Post-natal examinations at local authority clinics are only undertaken on those mothers who have not booked a doctor or where a mother who has had her baby in a hospital finds she cannot attend for her examination.

During 1957, 223 mothers attended and 242 post-natal examinations were undertaken.

Deliveries

The total number of births in the City during 1957 was 12,755 of which 222 were home confinements. This is an increase of 560 over the number of domiciliary confinements undertaken in 1956.

Attendances at domiciliary births

Municipal midwives		Queen's district midwives		St. Mary's district* midwives		Independent midwives present	Total	
Doctor not present	Doctor present	Doctor not present	Doctor present	Doctor not present	Doctor present			
1957..	3,495	925	104	5	687	2	4	5,221
1956..	3,176	760	106	9	611	—	—	4,662

* St. Mary's district midwives participate in the domiciliary training of medical students. The patients own doctor is not therefore involved.

This gives a percentage of those confined at home of 40.9. The percentage of previous years are as follows :—

1956..	.. .. .	33.9
1955..	.. .. .	33.0
1954..	.. .. .	34.3
1953..	.. .. .	38.4

There were 5,397 applications for the services of municipal midwives and of these 540 were cancelled for various reasons.

This figure includes patients transferred to hospital during labour.

Visits were paid by midwives as follows :—

Nursing visits	90,6
Visits to patients discharged from hospital before the 14th day	6,4
Investigation of homes regarding their suitability for domiciliary confinement	1,1
Ante-natal visits to patients' homes	15,4
Abortions attended and nursed	

The average number of cases per annum attended by domiciliary midwives employed direct or under agency arrangements with the City Council is as follows :—

Municipal midwives	88.4
St. Mary's district midwives	68.9
Queen's district midwives.. .. .	51.0

There has been a marked increase in the number of domiciliary births over the past 2 years :—

The actual number being—

1955	3,615
1956	4,662

There has been a corresponding increase in the number of applications for the services of domiciliary midwives and the number of cancellations. These are due to (a) removals from the City ; (b) obstetrical causes arising during labour which necessitate the patient's transfer to hospital ; and (c) miscarriages.

Emergency cases (Flying Squad)

St. Mary's district midwives are responsible for manning the Flying Squad Unit and 130 such calls were answered.

Source of requests for the Flying Squad

Municipal midwives	St. Mary's district	Nursing homes inside City boundary	Nursing homes outside City boundary	General practitioners	Total
53	18	13	14	32	130

Midwives are authorised in an emergency to send for the services of the Flying Squad on their own initiative.

Medical aid

There were 1,598 requests for medical aid in accordance with the rules of the Central Midwives Board. Of these 27 were by midwives in Maternity Homes having no resident Medical Officer.

Artificial feeding

Notifications of recourse to artificial feeding were received in 792 instances—185 from domiciliary midwives and 607 from institutions.

Pemphigus neonatorum

This is the first occasion on record on which there has been no notified case during the year.

Puerperal pyrexia

404 cases of puerperal pyrexia were notified under the Pyrexia Regulations of 1951, the rate per 1,000 total births being 31.67. The rate for 1956 was 22.06. There was one death among cases so notified. This was not due to sepsis. The incidence of pyrexia is shown on the following table :—

Incidence of Pyrexia

	Municipal midwives	Midwives acting as Maternity Nurses	St. Mary's district	Institutions	General practitioners	Totals
A. (1) Infection of genital tract ..	—	5	2	58	—	65
(2) Abortions ..	—	—	—	1	3	4
B. Extra-genital causes	1	10	5	72	—	88
C. Unclassified ..	1	3	3	240	—	247
Totals ..	2	18	10	371	3	404

280 abortions occurred which were transferred to hospital but were not notifiable under the pyrexia regulations. This compares favourably with 319 in the previous year.

Maternal deaths

There were 8 deaths during 1957 which were directly attributable to child birth. 5 other deaths occurred which were associated with childbirth ; three of these were primarily due to influenzal pneumonia during the epidemic in October.

The mortality rate was 0.63 as compared with 0.24 in 1956.

The 8 deaths which occurred were due to the following causes :—

1. 1 (a) Membranous colitis.
(b) Paralytic ileus.
(c) Eclampsia (about 32 weeks gestation).
- 11 Delivery by Caesarian Section (this case had received no ante-natal care).
2. 1 (a) Pulmonary embolus.
(b) Childbirth (this death occurred 4 weeks after delivery).
3. 1 (a) Anuria.
(b) Accidental haemorrhage.
(c) Pregnancy.
4. 1 (a) Generalised peritonitis.
(b) Abdominal abscess.
(c) Macerated stillborn infected child. This patient took her own discharge against medical advice and gave a fictitious home address.
5. 1 (a) Circulatory failure.
(b) Generalised peritonitis.
- 11 Parturition.
6. 1 (a) Uremia.
(b) Chronic nephritis.
(c) Toxaemia of pregnancy (the pregnancy referred to took place in 1944 and the death occurred outside the City area).
7. Air embolism due to mechanical interference with a pregnant uterus (in this case there was a conviction of manslaughter).
8. 1 (a) Post partum eclampsia.
(b) Twin delivery.

In addition there were 5 other deaths in Manchester hospitals, four of the patients residing outside the City boundary—Stretford, Langley, Sale and Salford.

Stillbirths

There were 405 notified stillbirths, which represents a percentage relation to total births of 3.18.

The respective percentages for previous years were as follows :—

1956	..	..	..	..	..	2.76
1955	..	..	..	..	..	2.93
1954	..	..	..	..	..	3.63
1953	..	..	..	..	..	2.70

73 stillbirths occurred in domiciliary practice and 332 in institutions.

Premature babies

Three midwives, all of whom have taken a course on the care of Premature babies were employed for the domiciliary care of such infants.

They attended 503 babies which necessitated 4,230 visits during the year. This shows an increase of 51 cases and 180 visits over the previous year.

Neo-natal mortality of premature infants according to birth weights

Weight	Survived	Died	Totals
Under 3 lb.	11	—	11
3 lb.—4 lb.	58	—	58
4 lb.—5 lb.	201	—	201
5 lb. plus	229	4	233
Totals	499	4	503

Cause of death of the 4 infants (5lb.+) :—

- 1 Staphylococcal pneumonia
- 2 Broncho pneumonia
- 1 Cerebral haemorrhage

Source of reference of premature babies :—

Hospitals	352
Midwives	129
Maternity homes	13
Health Visitors	3
Queen's Midwives	3
St. Mary's District Staff	3
	503

When the nurses ceased to attend, 92 babies were entirely breast fed, 6 breast and complementary, while 355 were artificially fed.

There were 40 maternity cases with one premature infant nursed at home to which 262 visits were paid and 5 maternity cases with twins nursed at home to which 17 visits were made.

Triplets (born in hospital—all over 5lb.) were nursed at home after being discharged on the 14th day and 15 visits were made, after which they were referred with satisfactory conclusion to the health visitor. They have continued to make extremely good progress and are now 4 months old.

Cots

Special cots are available for use in the home if required. 29 applications were received during the year.

Ophthalmia neonatorum and other eye conditions

There is an establishment of 3 ophthalmic trained nurses for the care of all eye cases referred to the department, but at the end of the year only one was employed.

**Analysis of the eye conditions of children over 14 days referred
by the health visitors and child welfare centres**

	Brought forward from 1956	New cases	Cases referred to 1956
Conjunctivitis (simple)	14	147	
Conjunctivitis (purulent)	—	64	
Lacrimal obstruction	—	95	
Dacryocystitis	—	3	
Hordeolum	—	13	
Corneal ulcer	1	—	
Congenital Cataract	22	3	
Glioma	5	2	
Defective vision	23	3	
Microphthalmos	2	2	
Nystagmus	7	1	
Anophthalmos	4	—	
Albino	2	—	
Buphthalmos	1	—	
Ptosis	2	2	
Choroid Retinitis	1	—	
Blepharitis	—	1	
Keratitis	1	1	
Totals	85	337	

Children with abnormal eyesight who attained the age of 5 years were referred to the Senior Medical Officer, School Health Service.

**Cases of ophthalmia neonatorum and conjunctivitis in newly born infants
and eye defects in older children**

	Legitimate	Illegitimate	Totals
1. Ophthalmia neonatorum—			
(a) Notified by medical practitioners	34	4	38
(b) Notified by Royal Eye Hospital	6	3	9
2. Conjunctivitis in newly born—reported by midwives			
(a) Own cases	395	3	398
(b) Discharges from hospital before 14th day ..	52	—	52
3. Conjunctivitis and other eye defects in children over 14 days			
(a) Reported by medical officers of child welfare centres	97	—	97
(b) Reported by health visitors	234	6	240
Totals	818	16	834

Premature live and still-births

The following tables give particulars as to the survival of premature infants born alive at home and in nursing homes and hospitals in the City during 1957. Particulars are also given regarding still-births.

1. Number of premature live births notified (as adjusted by transferred notifications).

(a) In hospital	689
(b) At home	375
(c) In private nursing homes	19

Total 1,083

2. Number of premature still-births notified (as adjusted by transferred notifications).

(a) In hospital	143
(b) At home	24
(c) In private nursing homes	—

Total 167

Weight at birth (1)	Premature live births															Premature still-births		
	Born in hospital			Born at home and nursed entirely at home			Born at home and transferred to hospital on or before 28th day			Born in nursing home and nursed entirely there			Born in nursing home and transferred to hospital on or before 28th day			Born in hospital	Born at home	Born in nursing home
	Total (2)	Died within 24 hrs. of birth (3)	Survived 28 days (4)	Total (5)	Died within 24 hrs. of birth (6)	Survived 28 days (7)	Total (8)	Died within 24 hrs. of birth (9)	Survived 28 days (10)	Total (11)	Died within 24 hrs. of birth (12)	Survived 28 days (13)	Total (14)	Died within 24 hrs. of birth (15)	Survived 28 days (16)	(17)	(18)	(19)
(a) 3lb. 4oz. or less (1,500 gms. or less)	96	28	37	25	3	22	14	6	8	—	—	—	—	—	—	70	11	—
(b) Over 3lb. 4oz. up to and including 4lb. 6oz. (1,500-2,000 gms.)	137	13	107	42	—	42	26	2	24	3	—	—	—	—	—	36	7	—
(c) Over 4lb. 6oz. up to and including 4lb. 15oz. (2,000-2,250 gms.)	128	7	117	53	—	53	15	—	15	6	—	—	—	—	—	25	1	—
(d) Over 4lb. 15oz. up to and including 5lb. 8oz. (2,250-2,500 gms.)	328	8	311	191	1	190	9	2	7	10	—	—	—	—	—	12	5	—
Not weighed	13	5	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Totals	702	61	572	311	4	307	65	11	54	19	—	—	—	—	—	143	24	—

Phenanthrene live and still-births
 The following table gives particulars
 in nursing homes and hospitals in the
 Particulars are also given regarding

Particulars regarding live and still-births

(a) In hospital	58
(b) At home	27
(c) In private	19
Total	104

Particulars regarding still-births

(a) In hospital	145
(b) At home	11
(c) In private	1
Total	167

Date of birth	Particulars regarding live and still-births		Particulars regarding still-births		Total
	In hospital	At home	In hospital	At home	
1911	58	27	145	11	201
1912	62	31	150	15	218
1913	65	35	155	18	233
1914	68	38	160	21	249
1915	72	42	165	24	261
1916	75	45	170	27	272
1917	78	48	175	30	283
1918	82	52	180	33	295
1919	85	55	185	36	306
1920	88	58	190	39	317
Total	104	104	167	167	335

**Place of treatment for cases of ophthalmia neonatorum
and conjunctivitis in the newly born**

Number of cases attending the Royal Eye Hospital :—

In-patients	8	
Out-patients	31	
	39	

Number of cases attended by own doctor 795

Total.. .. . 834

Corneal infections —

Swabs—

Positive 10

Negative 53

Total.. .. . 64

There were 11 positive eye swabs in 1957. This is an increase of 1 positive swab on the previous year.

A close liaison was maintained with the Director of the St. Luke's Venereal Disease Clinic and Regional Advisor in Veneriology to the Manchester Regional Hospital Board, and all positive eye swabs were reported to him.

**Summary of cases of ophthalmia neonatorum and
conjunctivitis in the newly born**

Number of cases discharged as recovered	826	
Number discharged with damaged sight	—	
Number died from any cause	—	
Number removed from district.. .. .	—	
Number still under treatment at end of year	8	
	834	

Number of visits by ophthalmic nurses

(a) primary	834	
(b) subsequent	3,867	
	4,701	

INCIDENCE OF BLINDNESS

(National Assistance Acts)

The information contained in Parts A and B of the following statement which is in the form requested by the Minister of Health, has been supplied by the Chief Welfare Officer of the City Council's Welfare Service Department:—

A.—Follow-up of registered blind and partially sighted persons, 1957

	Cause of disability			
	Cataract	Glaucoma	Retrolental fibroplasia	Other
(i) Number of cases registered during the year in respect of which section F of Forms B.D.8 recommends:—				
(a) No treatment	37	18	—	5
(b) Treatment (medical, surgical or optical)	14	5	—	10
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment..	9	4	—	1
(iii) Number of cases at (ii) above in which:—				
(a) Vision improved	3	1	—	—
(b) Sight restored	—	—	—	—
(c) Treatment continuing at end of year	4	3	—	—

B.—Follow-up of registered partially sighted persons

	Cause of disability			
	Cataract	Glaucoma	Retrolental fibroplasia	Other
(i) Number of cases registered as partially sighted during the year 1957 in respect of which Section F of Forms B.D.8 recommends:—				
(a) No treatment	14	4	—	2
(b) Treatment (medical, surgical or optical)	31	10	—	60
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment	22	9	—	5
(iii) Number of cases at (ii) above in which:—				
(a) Vision improved	—	—	—	—
(b) Sight restored	—	—	—	—
(c) Treatment continuing at end of year	13	4	—	40

C.—Ophthalmia neonatorum

(i) Total number of cases notified during the year	47
(ii) Number of cases in which—	
(a) Vision lost	Nil
(b) Vision impaired	Nil
(c) Treatment continuing at end of year	Nil
Cases of retrolental fibroplasia among premature infants.. .. .	1
Cases of congenital cataract .. .. .	..

CARE OF MOTHERS AND YOUNG CHILDREN

Welfare centres

An additional centre was opened in February, 1957, providing 2 infant, 2 ante-natal and a toddlers session weekly at a church hall in the Woodhouse Park district. There has been large housing development in this area in recent years and the centre will assist in filling a gap until the new health centre, planned for erection in this vicinity, is constructed.

The number of centres at the end of the year was thus increased by the one referred to above from 27 to 28 municipal and 1 voluntary centres.

The medical officer, health visitor and centre clerk attend from the Health Department at the voluntary centre which is situated at the Holy Name School, Chorlton-on-Medlock. It is run by the Sisters of Charity of St. Vincent de Paul, who provide the remaining staff.

It is gratifying to record that progress has been made towards the construction of three health centres in the Wythenshawe area. Work started on the single-storey combined centre at Northern Moor, Wythenshawe, during the year and it is anticipated that the premises will open in April, 1958. The centre will be used jointly by the Health and Education Departments as a maternity and child welfare centre and a school health clinic. The premises also include a dental unit.

With regard to the two proposed health centres in the Woodhouse Park and Baguley districts, the Minister of Health has intimated his willingness to give permission for the schemes to proceed, on the understanding that loan sanction is applied for during the current financial year. The necessary action has been taken to meet the Minister's requirements and it is hoped that work on the erection of both centres will commence in 1958. In the meantime, the Church Hall premises, referred to above, are being used to provide maternity and child welfare facilities in the Woodhouse Park area.

Schemes for the provision of centres combining maternity and child welfare and school health clinics, with a dental unit, in the Blackley and Charlestown districts of North Manchester have been considered by the Minister of Health who states that the need for both clinics is accepted. As the clinics are to be largely devoted to the school health service it was suggested that the local Education Authority accept responsibility for the Blackley scheme. The Health Committee and City Council have acted on the suggestion and the Education Committee have agreed to include the proposal in their first draft of proposals for the 1959-60 major building programme. With regard to the proposed centre at Charlestown, the Minister has stated that there does not appear to be any prospect of allowing the scheme to proceed during 1958-59. The possibility of approving during 1959-60 will be considered in the light of financial circumstances then prevailing.

Plans for a new maternity and child welfare centre and dental clinic in Didsbury were approved by the Health Committee and City Council during the year but the Minister of Health has stated he will not be able to authorize the proposal for some considerable time.

Sessions at the existing centres have run normally through the year and particulars of attendances are shown later in the report.

The centres have been used also for poliomyelitis vaccination sessions to which reference is made elsewhere in this report.

Clinics

Weekly clinics are provided as follows:—

Infants	76
Toddlers	30
Ante-natal	42

With the exception of 6 child welfare sessions, which were taken by Health Visitors only, and 2 ante-natal sessions where midwives only attend weekly, medical officers were in attendance at all sessions. At 6 centres there are 7 joint ante-natal and post-natal sessions per week.

Physiotherapy

Two additional full-time physiotherapists were appointed during the year but as there was one resignation and another physiotherapist had a long period of sickness, there was little difference in the number of attendances at sessions as compared with the previous year.

25 centres were used for various forms of physiotherapy as shown in the attendance table below.

Domestic science classes

Demonstrations and practical instruction in food preparation and food values were given at 7 centres during the year. Sewing classes were held at 12 centres.

Attendances, etc.

Attendances at sessions held during 1957 with comparable figures for 1956 are shown below:—

Infant and toddlers' sessions:—

Number of children on centre registers at—	31st December, 1957	31st December, 1956
Under 1 year	7,322	6,495
1 to 5 years	10,952	11,968
Total	18,274	18,463

Attendances made by children:—	31st December, 1957	31st December, 1956
Under 1 year	105,470	101,353
1 to 5 years	38,821	40,134
Total attendances ..	144,291	141,487

Ante-natal sessions:—

Number of new attenders	6,883	6,001
Total number of attenders	8,323	7,851
Number of attendances	37,641	32,905

Post-natal sessions:—

Number of attenders	223	241
Number of attendances	242	271

Physiotherapy sessions:—

Ante-natal exercises—		
Number of attendances	1,314	1,277
Post-natal exercises—		
Number of attendances	63	174
Remedial exercises—		
Number of attendances (children)	4,935	4,500
Massage—		
Number of attendances (children)	3,375	3,794

Artificial sunlight treatment:—

Number of attenders—		
Children	325	323
Adults	—	—
	} 325	} 323

Children attending child welfare centres

Centre	On register, January 1st 1957			New attendances during 1957			On register, January 1st, 1958		
	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years
Abbey Hey	256	234	358	315	44	120	259	179	330
Ancoats	90	42	41	103	7	9	115	41	41
Ardwick	243	201	306	314	50	96	249	133	241
Blackley	91	76	122	143	16	18	87	70	120
Burnage (Duchess of York)	162	141	180	197	29	40	174	157	215
Cheetham	240	161	253	307	29	84	328	148	221
Thorlton-on-Medlock	231	192	257	272	51	133	177	137	190
Thorlton-cum-Hardy	334	233	305	446	24	70	347	225	294
Clayton	202	190	262	230	14	32	285	142	211
Collyhurst	346	246	253	502	38	75	425	230	180
Crumpsall	151	111	206	208	25	42	152	117	239
Widsbury	225	171	314	282	35	51	258	190	290
Worton	289	199	226	358	33	54	272	162	176
Warpurhey	305	223	304	330	23	49	289	240	311
Higher Blackley	141	140	157	182	1	22	150	91	102
Sole Name	83	49	60	132	21	23	83	36	27
Shulme	156	129	158	231	43	82	150	100	180
Levenshulme	317	278	524	389	48	90	312	267	467
New Moston	216	136	207	313	21	56	240	124	111
Wewall Green	258	218	475	326	60	161	262	162	383
Wewton Heath	221	210	361	270	24	48	242	154	294
Worthenden	248	171	372	347	71	139	257	196	392
Worsley	326	258	304	430	52	67	386	195	254
Worsley	409	205	253	510	59	96	468	233	266
Worsley	247	181	194	373	51	98	269	160	213
Worsley	169	132	139	218	34	32	195	123	136
Worsley	274	262	402	360	41	62	300	213	359
Worsley	—	—	—	295	73	162	286	64	179
Worsley	265	112	74	318	45	52	305	135	97
Totals 1957	6,495	4,901	7,067	8,701	1,062	2,063	7,322	4,424	6,528
Totals 1956	6,395	4,499	7,176	8,209	747	2,356	6,495	4,901	7,067

Minor ailments

84 children under five years of age were referred by the medical officers at welfare centres to school clinics for the treatment of minor ailments. Children who fail to attend or cease attending before treatment is completed are "followed up" by health visitors who stress the desirability of treatment.

Types of ailment and numbers of children referred for treatment are shown below.

Number of children referred for treatment of minor ailments

Squint	71
Other eye affections	1
Otorrhoea	1
Other ear affections	2
Impetigo	3
Other skin affections	1
Miscellaneous	5

Welfare foods

There has been no change in the arrangements for the distribution of welfare foods and articles. The national welfare foods are available at the centres to all beneficiaries irrespective of whether or not they attend the sessions.

In addition to the 29 maternity and child welfare centres at which the national welfare foods may be obtained, there are 8 other distributing points in the city. Of these, 3 are at hospitals for those attending the out-patient departments, 2 at large factories for issues to employees, and 3 from premises from which the general public are able to obtain supplies.

Parents who attend the centres regularly are able to purchase proprietary brands of foods and articles on the recommendation of the centre medical officer. Milk foods are supplied free of charge in necessitous cases; the cost to the Corporation of such issues in 1957 was £204.

Figures showing the issues of national welfare foods to beneficiaries since the department took over the distribution from the Ministry of Food in June 1954, are shown below.

Period	National dried milk tins	Cod liver oil bottles	"A & D" vitamin tablets packets	Orange juice bottles
1954 (6 months)	214,223	48,707	16,734	208,356
1955	384,896	94,638	37,999	468,322
1956	362,936	86,924	38,911	490,787
1957	286,929	70,505	37,708	509,526

The figures do not include issues to hospitals, day nurseries or non-maintained nurse schools.

The table shows a reduction in the issues of welfare foods, except orange juice and vitamin tablets, year by year, since the local authorities took over the distribution arrangements in 1954. The substantial reduction in the issues of national dried milk during 1957 took place after the cost was increased in April from 10½d. to 2s. 4d. per tin. With regard to the increase in the issues of orange juice, it is anticipated that the figures will be reduced in consequence of the restriction imposed in November whereby issues to children must cease when they attain the age of 2 years. Previously, children up to 5 years of age were entitled to the orange juice.

Voluntary workers

The Health Department is indebted to 24 ladies who undertook voluntary work at the centres. They made a total of 648 attendances during the year.

"Homecraft" teaching exhibition

During the past six months this exhibition has been replanned and reorganised, and now comprises:—

Home Safety and prevention of accidents, Housecraft, Baby care, Toddlercraft (Training in good habits, Development through play), Fathercraft, Family Occasions, Seasonal Exhibitions, Party Time, "Kites that Fly" and Clean food.

Each exhibition has models and explanatory posters.

The exhibition is on display at the Annual Refresher Course held in the Health Department, which is attended by large numbers of workers in the field of health from other local authorities in the North West area.

Sections of the exhibition are displayed in the child welfare centres and used also for demonstration by health visitors called upon to carry out health education to groups or organizations outside the Health Department.

During 1957, sections of the exhibition were loaned to other local authorities, and to individuals giving lectures to various groups and organisations, on eight occasions.

Homecraft classes

These classes were continued at four of the welfare centres until June, 1957, when the health visitor concerned retired. They have not been resumed since that date.

During the period the classes were held, there were 152 attendances.

Mothers' evening clubs

The evening clubs at Cheetham and Northenden maternity and child welfare centres, which are used for the purpose with the consent of the Health Committee, continued during the year.

Mothers who normally attend the centres meet in the evenings, once a fortnight, in a happy social atmosphere. The activities of the clubs are educational and social.

Cheetham club

Club members	.. .. .	51
New members..	.. .. .	7
Retiring members	.. .. .	7
Attendances	.. .. .	653
Average attendance	.. .. .	27
Sessions held	.. .. .	24
Talks held	.. .. .	7
Discussions	.. .. .	4
Socials	.. .. .	4
Outings	.. .. .	1
Parties	.. .. .	1
Play readings	.. .. .	2
Demonstrations	.. .. .	2
Harvest festival	.. .. .	1
Easter fayre	.. .. .	1
Jumble sale	.. .. .	1

The proceeds of the Harvest Festival were distributed amongst the aged and infirm in the district. Donations have been sent to the Family Service Unit and other deserving causes.

Visits have been paid by members to the Northenden Club and the Cheetham Club has in turn been visited by members of the Northenden Club.

The club magazine and library have been continued.

Flowers and fruit have been taken to sick members and their families.

Many members of the Club have benefited by the "Family Help Service."

Visits have been paid to members when they have been in hospital.

The Club has continued in its aim to make of Club members and their families good citizens both now and in the future.

They have been able to meet fortnightly, and have been able to relax and enjoy talks and demonstrations on a variety of subjects, take part in discussions between themselves and other health visitors, student health visitors and their tutors, to have hobbies and to take an interest in others as well as their own families.

The Club is now approaching its 11th year and maintains a great interest and enthusiasm.

Northenden club

The Club has a membership of 44 and there was an average attendance of 22 at meetings during 1957.

The Mothers' Club met 28 times in 1957, and enrolled 11 new members.

As in previous years the Club has filled the need for a place of social contact for the mothers, many of whom have few opportunities for meeting people outside their own homes.

The Mothers' Club provides the opportunity to make friends, provides mental stimulation in the way of talks and discussions, and perhaps most important of all, the Club is a place where the mothers can relax and forget for a few hours, the frustrations and stresses of the day.

The activities in 1957 consisted of:—

- 10 talks
- 11 social evenings
- 2 discussions
- 1 jumble sale
- 1 coach outing
- 1 observation visit
- 1 musical evening

Talks on the following subjects were given:—

- | | |
|---|--|
| " A hopeful view on cancer " | By a doctor from the Manchester Committee on Cancer. |
| " An interesting career " | By a lecturer from the College of Housecraft. |
| " The care of your gardens " | By a head gardener from Wythenshawe Park. |
| " Parent and Child " | By a Headmaster at a local school. |
| " Footwear " | By a shoe firm's footwear consultant. |
| " The Citizens Advice Bureau " | By a Secretary of a large voluntary organisation. |
| " The training and work of the Health Visitor " | By a Health Visitor. |
| " Preparing your child for school " | By the Headmistress of an infant school. |
| " Adolescence " | By a headmaster from a local school. |

Nurseries and Child-Minders Regulation Act, 1948

There was no addition to the number of registered child-minders during the year and the number remained at seven, to care for 80 children.

Two factory nurseries, registered under the Act, provide accommodation for 60 children.

One voluntary nursery registered also has places for 40 children. The City Council pays for the maintenance of this nursery under the provisions of Section 22 of the National Health Service Act, 1946.

The registered persons and premises were visited regularly by medical officers and health visitors of the department.

Care of illegitimate children and their mothers

The departmental arrangements for the care of illegitimate children and their mothers include investigation, advice, and assistance, and duties in connection with the Health Committee's Hostel at Knowle House, Handforth.

The health visitor specially appointed for these duties has been assisted by a health visitor and a clinic nurse both engaged in part-time duties.

During the year 24 student health visitors and 2 social science students gained experience in this work.

The sources of reference of new cases were as follows:—

Health visitors	204
General practitioners .. .	59
Hospital almoners .. .	71
Voluntary .. .	57
Staff of maternity and child welfare centres .. .	63
Moral welfare and social workers .. .	44
Children's Department .. .	12
National Assistance Board .. .	19
Probation Officers .. .	7
Mental Health Section .. .	4
Councillors .. .	3
Midwives section .. .	13
Total .. .	<u>556</u>

The following particulars indicate the extent of the department's activities in connection with special problems concerning married, unmarried women and widows with their illegitimate children, and comparison with the previous year:—

	1957	1956
(1) Office interviews .. .	1,036	920
Home visits .. .	520	642
Visits to hospitals .. .	77	72
Visits to Knowle House .. .	97	72
Visits to other hostels .. .	7	3
Interviews—social workers and health visitors .. .	300	369
Attendances at Magistrates Courts .. .	45	51
Total visits and interviews .. .	<u>2,082</u>	<u>2,129</u>

(2) Health visitors reports dealt with 2,709 2,899

(3) Number and classification of persons dealt with during the ante-natal period and results of confinement:—

	Live Births	Births pending	Still-births	Mis-carriages	Not pregnant	Total
Single	189	59	4	1	1	255
Married	25	7	2	—	—	34
Widow	5	1	1	—	—	7
Divorcee	3	1	—	—	—	4
Parents married before birth of baby ..	—	11	—	—	—	11
Mother removed	—	14	—	—	—	14
Total	222	93	7	1	1	324

(4) Number of mothers dealt with who had illegitimate children, 661.

(5) Illegitimate children:—

Total number dealt with by Welfare Officer—867, comprising:—

232 children of mothers seen in the post-natal period only.

222 children of mothers seen in the ante-natal period 1957.

50 children of mothers seen in the ante-natal period 1956.

363 children whose cases were re-investigated or carried forward from previous years.

Particulars of illegitimate children remaining with their mothers

Mother	In lodgings or absorbed into family	With mother and putative father	With mother in a hostel	Parents subsequently married	Removed from Manchester	No trace	Deaths	Total
Single	367	113	8	19	31	14	11	563
Married	72	47	1	—	2	2	1	125
Widow	14	3	—	1	—	—	—	18
Divorcee	6	2	—	—	1	—	—	9
Totals	459	165	9	20	34	16	12	715

Particulars of illegitimate children apart from their mothers

Mother	With adopters	With relatives	With foster mothers	In the care of the Children's Committee	In residential nurseries (private)	Deaths	Total
Single	28	24	16	22	28	—	118
Married	6	5	3	7	8	1	30
Widow	—	—	—	—	1	—	1
Divorcee	2	—	1	—	—	—	3
Totals	36	29	20	29	37	1	151

(6) The action taken by the Welfare Officer as regards cases referred was as follows:—

Accompanied mother and babies and expectant mothers to hostels and hospitals.. .. .	152
Admission arranged to—	
Knowle House Hostel	150
Voluntary Hostels	3
Ante-natal care arranged	20
Cases referred to—	
Children's Department	55
Welfare Services Department	9
Mental Health Service	2
National Assistance Board	37
Catholic Moral Welfare Council	44
Catholic Protective and Rescue Society	27
Diocesan Council for Moral Welfare	9
Manchester and Salford Methodist Mission	5
National Society for Prevention of Cruelty to Children	8
Police	5
Other organisations	20
Assistance given—	
To book a hospital bed	76
To obtain a vacancy in a day nursery	16
To obtain legal advice	3
To find lodgings.. .. .	5
To secure employment	4
Provision of perambulators and cots—departmental and voluntary services	6
Provision of clothing—departmental sources.. .. .	40
Advice given regarding—	
General matters	171
Adoption	153
Hostel accommodation	179
National Health Insurance Benefits	137
Affiliation Orders	107
Day nurseries	120
National Assistance	86
Residential nursery accommodation	10
Institutional accommodation	9

Regular visits were paid to 43 families requiring close supervision.

(7) Affiliation order cases—

55 applications for affiliation orders were heard by the Manchester Magistrates Court and were dealt with as shown:—

Assistance given by	Orders granted
Welfare officer	28
Welfare officer and National Assistance Board	23
Welfare officer and private solicitor	2
Welfare officer and Poor Man's Lawyers Association	2
Total	55

(8) Girls under the age of consent—

During the year 8 unmarried mothers under the age of 16 years were referred to the Welfare Officer for help and advice.

The difficulty experienced during previous years in obtaining maternity beds for the unmarried expectant mother is still present.

The tendency for these girls to leave arrangements for their confinement to the later stages of pregnancy continues and this adds to the problem.

Mother and baby home, "Knowle House," Handforth

This hostel provides accommodation for expectant mothers, mothers with babies, and for mothers who require a period of recuperation. The hostel has accommodation for 22 mothers and 16 babies.

The Warden (who is a State registered nurse and State certified midwife) and staff give instructions to the mothers in child care and housecraft. A physiotherapist holds a session once a week for the purpose of giving the mothers ante-natal and post-natal exercises.

The Welfare Officer arranges for the admissions of mothers and babies, accompanies them to the hostel, and is responsible for making suitable arrangements for them on their discharge.

The following table shows the admissions and discharges during the year :

	Carried forward from 1956	Admissions	Discharges	Number in Home at the end of the year
Babies	8	101	101	8
Mothers	8	80	80	8
Expectant mothers	2	50	48	4
Recuperating mothers	—	20	20	—

The following particulars show the arrangements made for the care of the 101 babies discharged :—

Babies remaining with mothers :—

in homes of relatives	24
in lodgings	17
in Mayfield House (Part III Accommodation)	1
in residential employment	2

Babies apart from mothers :—

in homes of adopters	14
in care of the Children's Committee	4
in private residential nurseries	16
(most of these were admitted to nurseries pending adoption being arranged through a registered adoption society).	
in hospital	3
in care of a foster mother	1

Babies with recuperating mothers 19

Requests were received from doctors and health visitors for periods of recuperation for 19 married mothers with legitimate children and for 4 married women with legitimate pregnancies. Of these, 18 mothers with babies and 2 expectant mothers were admitted to "Knowle House," but 1 mother and baby and 2 expectant mothers did not avail themselves of the vacancies allotted to them.

A range of garden frames used in connection with the kitchen garden activities, which had become dilapidated, was demolished and replaced by a range of modern concrete-sided frames.

Recuperative Centre

By arrangement with the Community Council of Lancashire, mothers and children are admitted to the Brentwood Recuperative Centre, Marple, Cheshire, on recommendations of the Nursing Service Division, the cost of maintenance being borne by the Health Committee. Since the 5th July, 1948, provision for these arrangements has been made in the City Council's Scheme for prevention of illness, care and after-care under Section 28 of the National Health Service Act, 1946.

Admissions to the Centre during 1957 comprised 12 families, mothers whose ages were from 29 to 38 years, 3 children were under 1 year and 27 children from 1 to 7 years.

One family remained at Brentwood for over 6 weeks and one for 5 weeks, and the others ranged from 2 to 4 weeks. One mother became home-sick and left after 6 days, the reason probably being that it was the Christmas season.

The four primary reasons for recommending the mothers for admission to Brentwood are:—

- (1) Lack of training and experience in housewifery and child management.
- (2) Ill-health and lowered vitality, due to too-rapid child-bearing, depressing surroundings and environment and, possibly, in the case of some mothers, malnutrition.
- (3) Unsatisfactory home conditions, including lack of domestic facilities.
- (4) Difficulties between parents, causing the mother to lose interest in her home and children.

The majority of the 12 mothers derived some benefit from their stay in Brentwood. When all their circumstances are taken into consideration it is surprising how well some of them responded to the treatment in such a short space of time. Most of them were in rather poor physical health and in addition some were emotionally disturbed. All were unable to cope with their many responsibilities.

Often the husband could give the wife more support than he does and in every case an effort is made to encourage him to co-operate in the general rehabilitation of the family and home.

Irregular financial support is one of the main factors in reducing the morale of the housewife and this is difficult to overcome.

After discharge from Brentwood the families are followed up closely by the health visitor and encouragement and advice given in maintaining the improved routine learned at the Centre.

DENTAL CARE OF MOTHERS AND YOUNG CHILDREN

(Principal School Dental Officer—G. L. Lindley, L.D.S.)

During the year two events materially improved the dental service for mothers and young children. The first was the completion of the dental suite at Rosamund Street Centre, making available for the first time a comprehensive dental service to a large area of the city. Secondly, following the extensive modernisation of dental equipment in the school dental clinics during 1956, the service was reorganised so that cases could be referred to any of the twelve school dental clinics instead of five as previously. After a rather hesitant start, there was no doubt in the later part of the year, this proved to be of great benefit to the expectant and nursing mother in substantially reducing the travelling involved.

The work was undertaken by school dental officers working in twelve school clinics and in the dental rooms in two of the Committee's centres. Despite the widening of the service, general anaesthetics when necessary were given by medical practitioners and trained nurses were available at all times. One full-time dental technician was employed on mechanical dentistry in the laboratory at Shakespeare Street School Clinic. In June, after a break of fifteen months, Oral Hygienist Service recommenced and an Oral Hygienist, working one quarter of her time for the Committee, joined the staff.

Evening dental sessions were maintained throughout the year though at a reduced number.

It is once again pleasing to report that during the year all cases referred by medical officers were inspected promptly. Nearly 100 per cent. of these cases, mothers (1,304 out of 1,334) and children (1,414 out of 1,466) were found to require treatment. Cases in need of urgent treatment received prompt attention; later appointments were offered to the less urgent cases. Approximately 30 per cent of these mothers and children failed to keep their appointments.

The work done during the year followed closely the pattern of previous years. Extraction (1,106) for pre-school children for relief of pain and the elimination of sepsis played the most prominent part in the treatment provided. A limited but important amount of conservative and prophylactic treatment was also provided. In the case of mothers, the main emphasis of treatment was still confined to extractions (3,099) and provision of dentures (404) an increase of 20 per cent. and 30 per cent. respectively over 1956. It is disappointing to report this type of treatment was the only possible way of making dentally fit a large number of cases. Other cases with a better dental condition that would have easily responded to treatment now available, were very averse to conservative treatment. The Oral Hygienist Service, which started again after a break of fifteen months, made slow but steady progress. This service required complete rebuilding.

It is hoped, in future, that mothers will take advantage of the recent improvements in the service which now offers comprehensive treatment at many more centres. In order to bring this about, an increase in the Hygienist's services from one quarter up to one half of her time for the Committee would be an advantage—this extra time spent in dental health education at the various maternity and child welfare centres.

It is sad to report that Mr. Stirling, part-time dental officer for over 20 years, and a pioneer in the maternity and child welfare dental service, was taken seriously ill and died early in 1958. His loss will be felt. Recruitment of dentists is still a major problem.

The table attached gives details of the year's activities.

(a) Number provided with dental care

	Number examined	Number needing treatment	Number treated	Number made dentally fit
Expectant and nursing mothers	1,334	1,304	1,044	374
Pre-school children	1,466	1,414	1,059	704

(b) Forms of dental treatment provided

	Extractions	Anaesthetics		Fillings	Crowns	Inlays	Scaling and gum treatment	Silver nitrate	Dressings	Radio-graphs	Other operations	Dentures	
		Local	General									Complete	Partial
Expectant and nursing mothers	3,099	880	267	158	—	—	98	2	35	8	1,064	299	105
Pre-school children	1,106	102	427	413	—	—	—	2,970	179	—	168	—	—

(c) Work undertaken by the oral hygienist

(From June, 1957)

	Number treated	Number of visits	Number completed
Expectant and nursing mothers	28	45	21

(d) Mechanical dentistry

Dentures completed	413
Retrys	65
Repairs	9
Bites	440
Special trays	20
Metal plates	1
Models cast	513

HEALTH VISITING

A wider knowledge of the work of the health visitor among general practitioners, social workers, and the public, increases the demand for his services for all age groups and particularly in relation to families with social problems beyond their own competence, which have a marked effect on the general well-being of both children and parents, thus endangering the maintenance of the family as a social unit. Everything possible is done to prevent the break-up of the family circle, and much time is taken up by family casework and attendance at case conferences.

Home visits to babies from 15 days to the age of one year continue to be the health visitors' main responsibility and during that period, bringing to the notice of parents the importance of taking advantage of all prophylactic measures available through the epidemiology section of the health department.

Parents are guided to recognise the value and importance of watching the health and development of the toddler by the birthday summaries carried out at home visits, and by inviting attendance at the Toddlers Clinics. Health Education and the Prevention of Accidents in the Home are subjects well to the fore during home visits and at the child welfare centre clinics.

In December, 1957, the health visitors had under observation 52,109 children under 5 years of age, compared with 55,195 for the previous year.

Notification of births

The total number of notifications adjusted by transfer was 12,755, comprising 12,426 live births and 329 still-births.

Total registered births numbered 12,424, and of these 1,017 were illegitimate.

It has been possible in 12,355 (12,113 live births and 242 still-births), representing 97 per cent of the total registered births in the City, to consider the place in the family of each birth, and this is shown in the following tables.

Full-time and premature births have been separated, the standard birth weight of 5½lbs. or under having been adopted in 1938.

Births investigated during 1957 to show place in family

Place in family	Live births				Live births		Still-births				Still-births		Live and still-births			
	Legitimate		Illegitimate		1957		1956		Legitimate		Illegitimate		1957		1956	
	Full time	Pre-mature	Full time	Pre-mature	Per cent.	Per cent.	Full time	Pre-mature	Full time	Pre-mature	Full time	Pre-mature	Per cent.	Per cent.	Per cent.	Per cent.
1st	3,509	315	291	41	34.31	34.63	49	40	3	4	39.67	36.93	34.41	36.93	34.41	
2nd	2,935	218	139	20	27.34	27.66	16	22	2	—	16.53	17.84	27.13	17.84	27.13	
3rd	1,688	124	88	15	15.81	15.85	19	16	—	3	15.70	13.69	15.81	13.69	15.81	
4th	964	96	77	7	9.44	9.57	8	13	2	—	9.51	10.79	9.44	10.79	9.44	
5th	570	63	49	5	5.67	5.36	6	5	1	1	5.37	8.30	5.67	8.30	5.67	
6th	327	20	17	—	3.01	2.96	1	10	2	—	3.72	2.07	3.05	2.07	3.05	
7th	178	13	17	1	1.73	1.90	6	3	—	—	0.83	2.07	1.76	2.07	1.76	
8th	109	8	9	4	1.07	0.95	1	1	—	—	2.89	2.07	1.07	2.07	1.07	
9th	70	8	9	—	0.72	0.51	2	5	—	—	—	—	0.76	—	0.76	
10th	39	5	3	—	0.39	0.31	—	—	—	—	—	—	0.38	—	0.38	
11th	22	5	—	—	0.22	0.12	—	—	—	—	—	—	—	—	—	
12th	10	2	4	—	0.13	0.08	1	—	—	—	—	—	0.42	0.42	0.42	
13th	10	1	1	—	0.10	0.07	—	—	—	—	—	—	—	—	0.10	
14th	3	1	—	—	0.03	—	—	—	—	—	—	—	—	—	0.03	
15th	1	—	1	—	0.02	0.02	—	—	—	—	—	—	—	—	0.02	
16th	—	—	—	—	—	0.01	—	—	—	—	—	—	—	—	—	
17th	1	—	—	—	0.01	—	—	—	—	—	—	—	—	—	—	
18th	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	
Totals	10,436	879	705	93	100.00	100.00	109	115	10	8	100.00	100.00	100.00	100.00	100.00	

12,113

12,355

242

It is interesting to compare the size of the average family and the age of the mother of each new investigated birth in 1957 as compared with 1935 when the analysis was first made. Tables for these two years are as follows:—

(1) Age of mothers at birth of children during 1957 showing place in family of each birth

Age groups Years	Place in family																Total births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	
15—	555	106	18	2	1	—	—	—	—	—	—	—	—	—	—	—	60
20—	2,049	1,118	366	111	31	11	5	3	1	—	—	—	—	—	—	3,69	
25—	1,089	1,138	693	375	166	72	32	4	8	—	1	—	2	—	—	3,5	
30—	388	672	531	370	258	147	81	48	32	14	5	2	1	1	1	2,5	
35—	140	266	275	245	177	104	69	55	33	20	14	7	5	2	—	1,4	
40—	29	50	66	61	63	41	30	19	18	10	6	8	4	1	1	4	
45—	2	2	4	3	4	2	1	3	2	3	1	—	—	—	—	—	
	4,252	3,352	1,953	1,167	700	377	218	132	94	47	27	17	12	4	2	12,3	

(2) Age of mothers at birth of children during 1935 showing place in family of each birth

Age groups Years	Place in family																	Total births	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		19
15—	294	25	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
20—	1,617	718	184	39	9	9	1	—	—	—	—	—	—	—	—	—	—	—	2
25—	1,419	1,054	540	253	97	44	19	2	2	—	—	—	—	—	—	—	—	—	3
30—	489	627	486	337	207	140	74	50	17	7	5	1	—	—	—	—	—	—	2
35—	118	288	235	194	159	132	111	88	65	30	16	6	4	1	2	—	—	—	1
40—	18	40	50	68	69	53	53	40	31	32	18	6	7	5	1	1	1	1	1
45—	—	2	—	5	9	6	4	1	6	7	5	5	4	3	1	—	—	—	—
	3,955	2,754	1,496	896	550	376	262	181	121	76	44	18	15	9	4	1	1	1	10

The 1957 births are further analysed to show the difference between legitimate and illegitimate births and live and still-births.

Age of mothers at birth of live children during 1957

(A) Place in family of each investigated birth (legitimate)

Age groups Years	Place in family																Total births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	
15—	450	93	15	2	1	—	—	—	—	—	—	—	—	—	—	—	
20—	1,853	1,036	336	101	28	10	5	3	1	—	—	—	—	—	—	3,	
25—	1,012	1,091	646	337	147	61	28	4	6	—	1	—	2	—	—	3,	
30—	361	641	493	331	235	139	71	42	26	11	5	2	1	1	—	2,	
35—	125	247	261	229	165	98	58	47	30	20	14	4	4	2	—	1,	
40—	21	45	58	57	55	37	29	18	13	10	6	6	4	1	1	1	
45—	2	—	3	3	2	2	—	3	2	3	1	—	—	—	—	—	
	3,824	3,153	1,812	1,060	633	347	191	117	78	44	27	12	11	4	1	11,	

(B) Place in family of each investigated birth (illegitimate)

Age Groups Years	Place in family														Total births
	1	2	3	4	5	6	7	8	9	10	11	12	13	15	
5-19..	92	12	2	—	—	—	—	—	—	—	—	—	—	—	106
20-24..	158	69	27	7	3	1	—	—	—	—	—	—	—	—	265
25-29..	53	30	38	30	18	7	3	—	—	—	—	—	—	—	179
30-34..	18	27	24	34	16	4	6	5	5	3	—	—	—	1	143
35-39..	7	15	10	12	10	5	8	7	3	—	—	2	1	—	80
40-44..	4	4	2	1	5	—	—	1	1	—	—	2	—	—	20
45-49..	—	2	—	—	2	—	1	—	—	—	—	—	—	—	5
	332	159	103	84	54	17	18	13	9	3	—	4	1	1	798

Age of mothers at birth of still-born children during 1957

(A) Place in family of each investigated still-birth (legitimate)

Age groups Years	Place in family												Total births	
	1	2	3	4	5	6	7	8	9	10	11	12		
15— ..	12	1	1	—	—	—	—	—	—	—	—	—	—	14
20— ..	35	13	3	3	—	—	—	—	—	—	—	—	—	54
25— ..	23	16	8	8	1	4	1	—	2	—	—	—	—	63
30— ..	8	4	12	4	6	4	4	1	1	—	—	—	—	44
35— ..	8	4	4	4	2	1	3	1	—	—	—	—	1	28
40— ..	3	—	6	2	2	2	1	—	4	—	—	—	—	20
45— ..	—	—	1	—	—	—	—	—	—	—	—	—	—	1
	89	38	35	21	11	11	9	2	7	—	—	—	1	224

(B) Place in family of each investigated still-birth (illegitimate)

Age Groups Years	Place in family						Total Births
	1	2	3	4	5	6	
5— ..	1	—	—	—	—	—	1
0— ..	3	—	—	—	—	—	3
5— ..	1	1	1	—	—	—	3
0— ..	1	—	2	1	1	—	5
5— ..	—	—	—	—	—	—	—
0— ..	1	1	—	1	1	2	6
5— ..	—	—	—	—	—	—	—
	7	2	3	2	2	2	18

Special visits are paid by health visitors following a still-birth or neo-natal death. At the end of six months the health visitor re-visits the mother in order to ensure that she is aware of the importance of obtaining ante-natal care early in pregnancy should she again become pregnant.

As a result of visits paid for this purpose, 55 expectant mothers were brought to the notice of the department during 1957.

Found children

The health visitors found 2,059 other children belonging to families which had moved into Manchester during the year. The year of their birth was as follows:—

990	born	1957
415	„	1956
295	„	1955
201	„	1954
158	„	1953

Deaths

Deaths occurred amongst children under 5 years of age.

The classification according to age is:—

Children under 1 year	.. .. .	374
„ 1—2 years	.. .. .	17
„ 2—3 years	.. .. .	11
„ 3—4 years	.. .. .	9
„ 4—5 years	.. .. .	6
		417

The distribution according to age of children who died under 1 year was as follows:—

Died under 1 day	Died 1 to 7 days	Died 1 week to 4 weeks	Died 1 month to 3 months	Died 3 months to 6 months	Died 6 months to 9 months	Died 9 months to 12 months	Total
133	91	37	53	38	10	12	374

Infant and child mortality rate per 1,000 live births and case mortality rates for measles and whooping cough

Year	Infant mortality rate	Mortality rate 1—2 years	Mortality rate 2—5 years	Mortality rate 1—5 years	Total cases of measles		Total known cases of whooping cough	
					Cases	Mortality per cent	Cases	Mortality per cent
1948..	42.12	3.2	3.9	7.1	10,650	.16	2,612	.73
1949..	38.24	2.7	4.5	7.2	6,485	.11	2,749	1.05
1950..	37.87	2.7	3.4	6.1	9,798	.08	4,187	.41
1951..	35.29	3.1	2.0	5.1	8,953	.01	2,255	.13
1952..	34.28	3.2	2.8	6.0	10,035	.06	2,636	.30
1953..	30.53	1.8	2.9	4.7	6,798	.03	2,112	.19
1954..	29.47	1.9	2.8	4.7	9,844	.03	1,642	.24
1955..	28.37	1.1	3.2	4.4	6,514	.03	1,166	.18
1956..	29.92	1.5	1.9	3.4	2,203	—	1,751	—
1957..	30.10	1.4	2.1	3.5	11,896	.04	1,051	.19

Prevention of break-up of families (Circular 27/54)

Case Conferences are held once a month, and during 1957 reports of families known to health visitors have been brought before the co-ordinating committee for consideration, through the co-ordinating officer. The circumstances of these families are reviewed at intervals as considered necessary. The health visitor concerned attends to present her own report on the family and to take part in the discussions, and put forward her views for consideration. Close co-operation with other social workers in the statutory and voluntary services is an important feature of the work of the co-ordinating committee, and the personal contact round the conference table has proved to be of great value.

With some of the families, particularly where the parents are of low mentality, concentrated help and supervision must be maintained over a long period, and visits to these families take up much of the health visitor's time.

By courtesy of the Chairman, student health visitors are allowed to sit in as observers at each conference to gain experience. This is very valuable to them during training and a good initiation into Case Conference work in relation to their duties when they become qualified health visitors.

The prevention of accidents in the home

Reports of all burns and scalds accidents taking place in the home, and referred to the hospitals in the City for treatment either as in-patients or out-patients, are sent to this department, and the health visitor pays a visit of investigation to the home where measures are taken to prevent future accidents. These reports are examined by the health visitor responsible for the preparation of the Parentcraft Teaching Exhibition material, and any relevant findings are embodied in the exhibition.

The prevention of accidents in the home is a matter for serious attention on all home visits. The health visitor is in a privileged position to be able to detect the hazards in the home, yard, garden, etc., in the course of her home visits, in relation to all age groups, and to give sound practical advice and help.

Burns and scalds are the most numerous and most serious of all home accidents, and those most frequently involved are the very young and the aged (see table below). Help is sought from various sources for the provision of fireguards and particular acknowledgement is due to the N.S.P.C.C. officers for the provisions of this service for the young, and to the Old People's Welfare Committee for the loan of fireguards for the aged. The latter service has extended greatly over the past year.

The following figures show the number of accidents, in age groups, and of different categories, brought to the notice of this department either through the hospitals, or by the health visitors in the course of their home visits.

Domestic burns, scalds, and other domestic accidents, 1957

Reported by hospitals

Age	Burns			Scalds			Other Domestic accidents			Grand Total
	January-November	December	Total	January-November	December	Total	January-November	December	Total	
5	76	15	91	84	14	98	5	—	5	194
16	51	8	59	25	4	29	—	—	—	88
60	21	7	28	23	9	32	1	—	1	61
Over 60	11	4	15	7	1	8	—	—	—	23
Total:	159	34	193	139	28	167	6	—	6	366

*Discovered by health visitors
in the course of their duties*

0—5	26	2	28	19	1	20	2	—	2	50
5—16	7	—	7	5	—	5	—	—	—	12
16—60	—	—	—	2	—	2	—	—	—	2
60+	2	—	2	2	1	3	—	—	—	5
Total:	35	2	37	28	2	30	2	—	2	69
Grand Total:	194	36	230	167	30	197	8	—	8	435

Screening tests of hearing in babies and young children

Sessions for screening tests of hearing are held each week at two of the Child Welfare Centres by health visitors specially trained for the work. These sessions are made use of from time to time by the Director of the Department of Education of the Deaf, Manchester University, in connection with training courses arranged for medical officers and health visitors.

Guidance to parents of deaf children under the age of five years is carried out in the child's home by health visitors specially trained for this work under the supervision of the Director and his staff.

Four medical officers have received a short course of training, and three health visitors a three-week course, during 1957, at the Department of Education of the Deaf.

Work carried out by health visitors at Northenden Child Welfare Centre for Screening Tests of Hearing:—

290 were tested in 1957; of these:—

245 passed at the first test.

42 failed (for reasons such as catarrhal colds, lack of co-operation, etc. and passed at subsequent tests.

3 failed all tests and were referred to the Diagnostic Clinic, at the Department for the Education of the Deaf at Manchester University

Of this latter group:—

1 child was found to require a hearing aid.

1 child is thought to have conductive deafness and has been referred to an otologist.

1 child was found to be satisfactory at subsequent tests.

Work was carried out by health visitors at Chorlton-on-Medlock Child Welfare Centre, where a room was equipped for this specialised field at the end of May, 1957. Since that date 50 children have been tested; of these, 43 passed the tests satisfactorily on first tests, and the remainder were re-tested or are awaiting further tests.

Guidance to parents of 9 deaf children has involved the following work by one health visitor specially trained for this purpose:—

14 visits to the Department of Education of the Deaf.

87 home visits.

The nature of the home visits:—

1. Help in general management of the child.
2. Encouragement to parents who tend to become easily despondent.
3. Observation of difficulties which delay the progress of the child and advice given:—
 - (a) Home conditions.
 - (b) Anxiety of parents.
 - (c) Health problems.
4. Co-operation between Department of Education of the Deaf and the Health Department.
5. General guidance to parents in helping child to lip-read and use hearing aid.

This work should have far-reaching beneficial effects on babies and young children found to have defective hearing, because of early diagnosis and early treatment readily made available through the Director of the Department of Education of the Deaf, Manchester University.

Co-operation with hospitals in the region

A health visitor is attached to the hospitals and clinics named below and the liaison with the health department thus formed has proved of great value to patients and to staff on both sides:—

St. Mary's Hospital (Department of Child Health).

Duchess of York Hospital for Babies.

Booth Hall Hospital for Babies and Children.

St. Luke's Clinic—On July 1st, 1956, a health visitor was seconded to the Regional Hospital Board for duties mainly in connection with contact tracing work at the V.D. Clinics. This health visitor is based on St. Luke's Clinic (see venereal diseases, page 143).

Diabetic Clinic, Manchester Royal Infirmary

From the 15th September, 1956, a health visitor has attended the Diabetic Clinic, one half day each week, and carries out follow-up visits to patients of varying age groups, in their own homes.

The average number of follow-up home visits is three per week; 147 visits of this type were paid during 1957.

The consultant regards the work of the health visitor of value in the education of the diabetic patient in the management of his diet, and his treatment, within his family circle and home environment. The health visitor is also able to help with the investigations being carried out by a Paediatrician, in the Department of Child Health, relating to children born of diabetic parents.

Lectures and practical experience

Lectures to student nurses in hospital, and practical experience in home visits with health visitors, also visits of observation to infant clinics at Child Welfare Centres, are arranged each year, and for 1957 the figures were:—

Lectures of the Social Aspects of Disease:—

415 students attended one lecture (11 groups).

Lectures on the work of the Public Health Nurse:—

139 students attended one lecture (12 groups).

Practical Work

103 student nurses were taken into the homes on the district for a half day by the health visitors.

83 student nurses spent a half day at a Child Welfare Centre Infant Clinic.

Refresher courses

Health visitors have attended refresher courses arranged by professional organisations as follows:—

4 to Oxford
1 to London

The 19th Annual Post Certificate Refresher Course arranged in the health department for health visitors, school nurses, tuberculosis visitors and other nurses engaged in health education work, was held on the 5th and 6th April, 1957, in the Lesser Free Trade Hall, and was well attended from many workers in the fields of work named, in the North West area, in addition to members of the staff. The theme chosen was "Personal Relationships within the Family."

Co-operation with School Health Service

A report on every child reaching school age, and known, on the health visitor's final visit, to be suffering from medical defect, or to have an unsatisfactory family history, or unsatisfactory home conditions, is referred to the School Health Service.

883 such summaries were forwarded during 1957, classified as follows:—

Unsatisfactory condition in the health of the child ..	620
Unsatisfactory condition in the family, either of health or of home conditions	50
History of tuberculosis in child	18
History of tuberculosis in family	186
History of rheumatism in child	3
History of rheumatism in family	6
Total	<u>883</u>

Children with physical or mental defects

Number of defective children 0-5 years brought forward to 1st, January 1957	1,033
Number of defective children born during 1957	193
	<u>1,226</u>
—of these 1 recovered 72 died 7 removed out of Manchester ..	80
Number who reached the age of 5 years during 1957	284
	<u>364</u>
Number of defective children 0-5 years remaining on the register 31st December, 1957	862

Included in the numbers quoted above, 228 children reached the age of 2 years and were referred to the School Health Service in accordance with Section 34 of the Education Act, 1944.

Welfare of women and children on canal boats

Manchester canal carrying companies do not allow women and children on their boats, but women and children are still found on some of the "narrow boats".

Arrangements are made for an official of the Docks to inform the Health Department when these boats are in the Docks and, in addition, the health visitor makes an investigation each time she is in the area.

During the year visits were paid weekly, but only on five occasions were there boats with families on board.

Family 1. Accommodation—three boats for one family; condition clean; occupants—father and mother; children—boy 17 years, boy 16 years, boy 13 years, boy 3 years and girl 15 years, girl 13 years, girl 7 years, girl 5 years and girl 1 year—all well, apart from dental caries in most of the family. The youngest child had an operation for cleft palate in the Duchess of York Hospital. Family seen twice.

Family 2. Accommodation—two boats for one family; condition very clean; occupants—father and mother and child 9 months. All appeared very well—family seen once.

Family 3. Accommodation—two boats for one family; condition clean; occupants—father and mother, children—boy 9 years, girl 5 years, girl 3 years and girl 2 years. All well; toys provided by parents for the children. Family seen once.

Family 4. Accommodation—three boats; occupants—father and mother; children—boy 15 years, boy 13 years, boy 6 years and boy 1 year, girl 14 years, girl 13 years and girl 11 years; condition—clean. Family well—seen once.

These boats tied up at the docks on other occasions but the health visitor was not able to contact them owing to their short stay, which sometimes was for only a few hours.

Only one mother out of the four families visited collected the Government vitamins at the child welfare centre.

All the school children visited were rather illiterate and only attended school on an average of one or two days a week during the year.

The importance of arranging for the education of the children is stressed by the health visitor, in her contacts with parents living on the boats. Some of the parents who have lived almost all their lives on the boats are illiterate, and so are unable to help the children in their education.

Care of aged and infirm persons and the sick

Visits and other duties in connection with aged and infirm persons continue to form a heavy part of the health visitors' work and is very time consuming. Generally speaking, the numbers referred for help are greater in the poorer areas of the city.

Requests for service to the aged and sick come from general practitioners, hospital almoners, members of statutory and voluntary organisations, as well as from the general public, relatives, and by personal application for help. Those under supervision include persons on the waiting list for admission to hospital, those discharged home after treatment in hospital and still needing supervision, also patients attending hospital as out-patients, those being cared for by relatives in their own homes, and the most difficult and often the most distressing, persons living alone and unable to care for themselves but wishing to remain in their own homes.

Special provision is made in the National Assistance Act, 1948, for securing the necessary care and attention for persons who—

- (a) are suffering from grave chronic disease, or being aged, infirm or physically incapacitated, are living in insanitary conditions; and
- (b) are unable to devote to themselves and are not receiving from other persons proper care and attention.

7,488 individual visits were paid by health visitors to 1,872 persons whose circumstances were reported to be unsatisfactory and were brought to the notice of the department, including 1,031 brought forward from last year.

In dealing with these cases the Department continued to maintain close liaison with the Welfare Services Department, the Manchester District Nursing Institution, Hospital Almoners, and Voluntary Organisations interested in the aged.

During the year 43 persons, all over the age of 70 years, were sent to "Binswood" for a recuperative holiday.

Details follow with regard to the action taken to deal with the cases reported, and the comparable figures for 1956 and figures showing the number of persons referred to the department and visits paid from 1948 to 1957.

Aged and infirm persons dealt with by health visitors

		1948—1957			
1948	New patients	14		Visits paid ..	123
1949	Brought forward from 1948	8			
	New patients	279	287	Visits paid ..	680
1950	Brought forward from 1949	51			
	New patients	469	520	Visits paid ..	1,592
1951	Brought forward from 1950	172			
	New patients	701	873	Visits paid ..	2,738
1952	Brought forward from 1951	336			
	New patients	722	1,058	Visits paid ..	3,211
1953	Brought forward from 1952	521			
	New patients	945	1,466	Visits paid ..	5,302
1954	Brought forward from 1953	593			
	New patients	985	1,578	Visits paid ..	6,449
1955	Brought forward from 1954	756			
	New patients	975	1,731	Visits paid ..	6,333
1956	Brought forward from 1955	885			
	New patients	965	1,850	Visits paid ..	7,887
1957	Brought forward from 1956	1,031			
	New patients	841	1,872	Visits paid ..	7,488

Details given below show the action taken to deal with aged and infirm persons with the comparable figures for 1956 :—

	1956	1957
Voluntary admissions to hospitals—		
Crumpsall	93	105
Withington	202	153
Manchester Royal Infirmary	21	20
St. Thomas Hospital, Stockport	1	—
Salford Royal	1	—
Monsall	5	1
Bridgewater	2	4
Royal Eye	1	—
Ancoats	2	8
Hope	2	1
Wythenshawe	5	—
Christie	1	1
Park Hospital, Davyhulme	2	—
Lake Hospital, Ashton-under-Lyne	1	—
Wrightington Sanatorium	1	—
Lancaster Infirmary	1	—
St. Josephs	3	2
Jewish	—	—
Northern	—	—
Birch Hill Hospital, Rochdale	—	—
Chronach Hospital, Chorley	—	—
Fairfield Hospital, Bury	—	—
Chester Hospital	—	1
Admitted to nursing homes—		
Little Sisters of the Poor	7	5
Alexian Brothers	1	—
Brantingham	2	—
Methodist Mission Home	1	—
Jewish Home for the Aged	2	4
Salvation Army Home	2	2
Private	7	10
Langho Epileptic Colony	—	1
Transferred to—		
Mental Health Section	9	11
Welfare Services Department	78	73
Sanitary Services Division	7	2
Tuberculosis (Care and After-care)	1	1
Deceased at home	158	214
Deceased in street accident	1	—
Deceased removed to care of relatives	14	30
Deceased unable to trace	4	10
Deceased asphyxiated due to drowning	—	—
Deceased removed outside Manchester area	13	19
Deceased recovered (nursed at home)	4	5
Deceased suicide	—	1
Compulsory removals under Section 47 of the National Assistance Act, 1948	26	20
Discharged—no further action necessary	138	107
Carried forward at 1st January, 1957 and 1st January, 1958.. .. .	1,031	1,061
	1,850	1,872
Total number of visits paid during period 1st January, 1956 to 31st December, 1956	7,887	—
Total number of visits paid during period 1st January, 1957 to 31st December, 1957	—	7,483

Particulars of persons dealt with under Section 47 of the
National Assistance Act, 1948, and (Amendment) Act, 1951,
during the year 1957 and those carried forward
from 1954, 1955, and 1956

6 persons were still under supervision on 1st January, 1957.

Brought forward from 1954	2
" " " 1955	0
" " " 1956	4
Total	

		<i>Brought forward</i>
1954 cases brought forward to 1st January, 1957..	2	
Settled in accommodation during 1957 and renewal of court order not necessary ..	1	
Died during 1957	1	
Court order still in force		0
1955 No cases brought forward to 1st January, 1957		0
1956 Cases brought forward to 1st January, 1957 ..	4	
Settled in accommodation and renewal of court order not necessary	2	
Court orders still in force		2
1957 New cases	20	
Settled in accommodation and renewal of court order not necessary	9	
Died during 1957	6	
Court order still in force		5
Number carried forward to 1958		7
Summary of cases still in accommodation under court order from 1954 and 1956 and those dealt with for the first time during 1957:—		
Settled in accommodation and renewal of Court order not required	12	} 26
Died	7	
Court orders still in force	7	
Number carried forward to 1st January, 1958		7

Section 47—National Assistance Act, 1948, and (Amendment) Act, 1951—cases dealt with during 1957

Sex	Age Years	Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Result of Council's action	Other information of interest	Ultimate result
F.	78	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Chronic sick bed, Crumpsall Hospital	Court Order taken out 16th April, 1957	Senile and confused. Had frequent falls and condition deteriorated after fall on 21st, December 1956. Unfit to live alone	Settled in Newholme, 26th June, 1957
F.	89	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 16th January, 1957	Very senile, mentally confused, deaf, eyesight poor. Risk of fire. Refused help from relatives. Refused Part III accommodation	Died in Newholme, 19th March, 1957
F.	94	Aged and infirm. Suffering from grave chronic disease	3 weeks	Chronic sick bed, Withington Hospital	Court Order taken out 19th February, 1957	Very senile. Mentally confused and very unsteady on her feet. Used an umbrella to poke the fire and on one occasion the rug on the couch was found smouldering. Grave risk of fire	Died in Withington Hospital on the 6th March, 1957
M.	75	Aged and infirm. Living in insanitary conditions. Unable to devote to himself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court order taken out 24th April, 1957	Refused to let anyone do anything for him or to have medical treatment. Unfit to live alone	Settled in Newholme, 26th June, 1957
M.	76	Aged and infirm. Living in insanitary conditions	3 months	Part III accommodation, Newholme	Court Order taken out 15th May, 1957	Very dirty. Refused to wash himself or to allow anyone to help him. Mental condition deteriorated. Aggressive at times	Settled in Newholme, 25th July, 1957
F.	77	Suffering from grave chronic disease. Physically incapacitated	3 weeks	Chronic sick bed, Withington Hospital	Court Order taken out 21st May, 1957	Suffered from Parkinson's disease. Frail and ill. Extensive bed sores. Son who is mentally deficient refused to let his mother go to hospital and was incapable of giving her adequate care	Settled in Newholme, 3rd June, 1957

Sex	Age Years	Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Result of Council's action	Other information of interest	Ultimate result
F	76	Aged and infirm. Living in insanitary conditions. Unable to devote to herself, and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 15th May, 1957	Very feeble and condition deteriorated rapidly. Unfit to live alone	Settled in Newholme, 25th July, 1957
F	80	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 weeks	Part III accommodation, Newholme	Court Order taken out 21st June, 1957	Very weak and undernourished. Not getting any food. Preferred alcohol. Accommodation very unsuitable. Unfit to live alone	Died in Newholme 22nd June, 1957
F.	80	Aged and infirm. Living in insanitary conditions	3 months	Part III accommodation, Newholme	Court Order taken out 26th September, 1957	Alcoholism. Objectionable habits in the home and in public	Settled in Newholme, 3rd December, 1957
M.	66	Suffering from grave chronic disease	3 weeks	Chronic sick bed, Withington Hospital	Court Order taken out 4th September, 1957	Had a stroke. Weak and ill. Wife very confused mentally and unable to give adequate care to the patient	Died in Withington Hospital, 19th October, 1957
M.	84	Aged and infirm. Living in insanitary conditions	3 months	Part III accommodation, Newholme	Court Order taken out 21st August, 1957	Senile. Very undernourished and unfit to live alone	Settled in Newholme, 30th October, 1957
F.	90	Aged and infirm. Suffering from grave chronic disease	3 months	Chronic sick bed, Withington Hospital	Court Order taken out 21st August, 1957	Extreme senility. Refused to let daughter wash her or give her general care. Daughter's husband a cardiac case	Died in Withington Hospital, 24th August 1957
F.	76	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 18th December, 1957	Very senile and confused. Wandered about the streets at all hours of the night. Unfit to live alone	Court Order to be renewed at appropriate date if still required
M.	68	Aged and infirm. Living in insanitary conditions. Unable to devote to himself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 18th September, 1957	Mentally confused and unfit to live alone. Was admitted to Withington Hospital after being found collapsed in room. Later transferred to Part III accommodation	Settled in Newholme, 3rd December, 1957

Sex	Age Years	Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Result of Council's action	Other information of interest	Ultimate result
F.	75	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 18th September, 1957	Very senile. Wandered from home. Home conditions deteriorated rapidly. Unfit to live alone.	Settled in Newholme. 3rd December, 1957
M.	77	Suffering from grave chronic disease. Aged and infirm. Living in insanitary conditions	3 weeks	Chronic sick bed, Crumpsall Hospital	Court Order taken out 31st October, 1957	Very Senile. Confused and wandered away from home. Refused admission to hospital. Daughter who cared for her father died	Court Order to be renewed at appropriate date if still required
F.	76	Aged and infirm. Living in insanitary conditions	3 months	Part III accommodation, Newholme. Transferred to Withington Hospital	Court Order taken out 20th November, 1957	Very senile. Dirty habits. Wandered out into the street undressed	Died in Withington Hospital, 26th November, 1957
F.	74	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 20th November, 1957	Extremely senile. Blind and deaf. Refused to let anyone but her husband do anything for her. Refused to let doctor, district nurse, health visitor or home teacher for the blind go near her. Strain too much for husband	Court Order to be renewed at appropriate date if still required
F.	80	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 18th December, 1957	Senile. Abusive at times. Refused to let anyone enter the house. Unfit to live at home	Court Order to be renewed at appropriate date if still required
F.	89	Aged and infirm. Living in insanitary conditions. Unable to devote to herself and not receiving from other persons proper care and attention	3 months	Part III accommodation, Newholme	Court Order taken out 18th December, 1957	Very senile and confused. Condition deteriorated rapidly, mentally and physically. Turned gas taps on without lighting them. Unfit to live alone.	Court Order to be renewed at appropriate date if still required

Verminous conditions and scabies

Persons treated for verminous conditions at Monsall Clinic

Year	Males adult	Females adult	School children	Children under 5	Total persons
1953	382	106	181	26	695
1954	426	128	404	12	970
1955	323	113	457	19	912
1956	262	112	474	11	859
1957	330	98	486	8	922

The Department has a scheme for supplying special steel combs at cost price to mothers and 1 steel comb was so distributed during 1957.

Scabies

The main source of notification of scabies is the School Health Service but many cases are brought to the notice of health visitors, either as contact of those notified by the School Health Service or as new cases.

The source and number of notifications received during 1957 and the preceding years were as follows:—

Sources of notification of scabies

	1953	1954	1955	1956	1957
School Health Service	149	268	162	128	85
Hospitals	30	26	28	31	53
General practitioners	118	145	96	125	163
Centre Medical Officers	1	8	4	—	—
Health visitors	25	13	20	8	7
Children's Department	—	3	3	—	—
Applied voluntarily	42	75	69	42	94
Discovered at Monsall Clinic	17	28	23	3	—
Salvation Army	—	1	4	4	8
Ministry of Health	2	—	—	—	—
Business Houses	—	—	—	—	—
Day Nurseries	—	4	—	—	—
Welfare Services Department	—	—	—	—	—
Totals	384	571	409	341	415

The number of persons treated at Monsall Clinic is shown in the following table:—

Treatment for scabies

Year	Males adult	Females adult	School children	Children under 5	Total persons
1953	161	164	131	95	551
1954	149	167	195	141	652
1955	121	163	161	97	542
1956	123	142	119	70	454
1957	104	118	82	67	371

Scabies is treated by two applications of an emulsion of benzyl benzoate with an interval of from one to four days between the first and second treatments.

The health visitors paid 212 visits to homes in which scabies occurred in 1957.

The clinic received 156 visitors during the year for purposes of receiving instruction and information. These included student health visitors, hospital student nurses and their tutor, nursery nurse students, nursing cadets, hospital and social welfare trainees and a doctor from Hungary.

Monsall cleansing clinic

Summary of work carried out at Monsall Clinic for aged and infirm persons

1ST JANUARY—31ST DECEMBER, 1957

100 persons were cleansed; of these 80 were verminous.

Included in this number were 11 persons, dealt with as compulsory removals, to either Part III accommodation or to chronic sick beds in hospital under Section 47 of the National Assistance Act, 1948.

Referred for cleansing by:—

General practitioners	8
Hospitals (from out-patient departments or request for cleansing of a patient listed for admission to hospital and known to be verminous)	13
Welfare Services Department	22
Health visitors	40

Referred from hostels:—

Salvation Army hostels	5
Church Army hostels	—
Corporation hostels	—
Privately owned hostels	1
Persons being dealt with under Section 47 of the National Assistance Act, 1948	11

100

Care is taken that persons referred for cleansing are treated according to their physical condition, i.e. ill patients are only blanket bathed. All are given cup of tea.

National Society for the Prevention of Cruelty to Children

The department is again indebted to this Society for assistance in dealing with many difficult problems and in the carrying out of helpful preventive measures by working in close co-operation with the health visiting staff throughout the City.

Personal contact at the various child welfare centres with health visitors and at Case Conferences, leads to a good understanding of the work each doing and fosters the team spirit.

Training of student health visitors

The course is a full-time one, covering one academic year and is arranged by the Manchester College of Science and Technology, in co-operation with the Health Department. It is carried out in accordance with the Memorandum and Circular of the Ministry of Health No. 101/M.C.W. (February, 1925) on a block system of education.

The students gain their basic practical experience with the health visitors and in addition to this they are able to experience the work of many other departments of the local authority, such as the School Health, Mental Health, Tuberculosis and Welfare Services Departments.

They are given an insight into the work of a rural health visitor and of a neighbouring County Borough and also into the work of a hospital for sick children, the work of a hospital almoner and that of a local authority day nursery.

A variety of interesting observation visits are arranged and these prove of great value to the students.

The theoretical training is given at the College of Science and Technology and all modern educational methods are used. Skilled and experienced lecturers give their valuable services, and tutorials, debates and discussion groups are a regular feature of the educational programme. All types of visual aids are available and are freely used. The principles of report writing and family casework are taught, and this year each student has prepared an individual family thesis as her social work project.

An exhibition of some aspects of the students' work is held yearly at the same time as the departmental refresher course for public health nurses and health visitors. It is arranged and staffed entirely by the students, and is on a theme previously determined, which illustrates their group thesis. The exhibits have been prepared by the students as part of their educational programme, and each student has undertaken a great deal of reading and research as a part in the project. Many of the exhibits are made by the students themselves and show evidence of careful thought and planning. This usually proves to be a most interesting exhibition, and is very well attended.

Thirty students were entered for the examination of the Royal Society of Health at the end of June, 1957, and 26 of them were successful at the first attempt.

On the course now in progress 31 students are enrolled, of whom 13 are sponsored by the City Council.

NURSING HOMES REGISTRATION

(Public Health Act, 1936, Sections 187-194)

One nursing home was discontinued and another, being run on a non-profit basis, was granted exemption from registration. No new application for registration was received and the number on the register at the end of the year was 10. Of these, three were registered for maternity patients; one for maternity medical and surgical patients; one for medical cases only; three for medical and surgical cases and two for medical or chronic patients.

Exemptions granted to voluntary hospitals under Section 192 of the Public Health Act, 1936, were increased by one, referred to above, making a total of six.

A medical officer of the department made visits to the registered homes regularly during the year.

DAY NURSERIES

27 day nurseries with a capacity for 1,360 children were maintained by the Local Authority during 1957, and continued to provide a necessary service for the parents in the City.

The number of children on the registers has been increased to 20 per cent over place capacity in order that full use may be made of the nurseries. 1,512 children were admitted and 1,459 discharged and a waiting list of 1,242 remains fairly constant. The charge of two shillings and threepence per day where only one parent is gainfully employed and three shillings per day where both parents are gainfully employed is still in operation. Where financial difficulties have arisen in the home the City Council have given approval for a free place for a temporary period.

The incidence of measles in the early part of the year and the effect of the number of cases of Asian influenza reduced the daily average of attendance to the lowest recorded for some years. The number of cases of other types of infection was almost negligible.

Attendance of children in 1957				Place Capacity
0—2 years	2—5 years	Total attendance— 248 days	Average daily attendance	
78,543	214,971	293,514	1,183	1,360

Each child is medically examined before admission to the day nursery and medical officers of the Department made 4,953 routine examinations. Whooping cough and diphtheria prophylactic injections were carried out at the request of the parents.

Requests from hospital almoners and voluntary bodies are dealt with almost daily, and children in urgent need of daily care have been admitted for temporary periods. Applications have also been received from Hospital Medical Officers and psychiatrists for accommodation for certain children as the presence of other children and the play facilities provided at the day

nurseries assist in their recovery to normal health. Where either parent has been admitted to hospital, father's enforced absence from home, and in some cases where extreme hardship has arisen, assistance has immediately been given. Accommodation has also been found for children whose mothers have needed to take up employment as an aid to recovery from ill-health ; in all 333 such applications were granted.

The experiment of granting accommodation for three months, which was introduced in 1956, has proved invaluable where the marriage has been endangered through accumulation of debts and other causes. All these children have been admitted in addition to the normal intake.

All the educational equipment has been overhauled in order to obviate accidents, but despite precautions taken, minor accidents have occurred which receive immediate attention.

The number of burglaries increased in 1957, but were more of a malicious character. The theft of property was small compared with the amount of damage to the buildings and equipment. In some instances there have been police proceedings.

After a careful survey by the Health Committee the hours of opening in the nurseries were reduced to 7-20 a.m. to 6-15 p.m. from the original hours of 7 a.m. to 6-30 p.m.

Seven students successfully completed the training for the National Nursery Examination Board certificate. Three nursery assistants obtained the Class I certificate and nineteen nursery assistants obtained the Class II certificate. Two matrons and eight deputy matrons attended a Matrons' course arranged by the Manchester Education Committee.

Facilities were made available for visits to nurseries by medical students, students from the Department of Social Administration, student health visitors, and teachers and pupils from the Education Committee schools in order to observe the work. Arrangements have also been made for four senior medical officers from Thailand and a group of trade union officials from India and Viet Nam to visit the nurseries.

Introduction of contemporary colour schemes has done much to improve and brighten the nurseries. Play areas have been improved and new types of children's washbowls (island type) and sandpits have been installed.

Difficulties continue to be met in maintaining the buildings used for day nursery purposes, many of which are of the pre-fabricated type, erected during World War II as a temporary measure.

TUBERCULOSIS SERVICE

The administrative offices for this section of the Health Department are situated at 352, Oxford Road, Manchester, 13. The Manchester Chest Clinic is in the same building and the Regional Hospital Board pay an agreed rent to the Health Committee for the premises they occupy. The Local Authority pays a proportion of the Chest Physicians' salaries for their work in the preventive aspects of the disease.

Under Section 28, Part III of the National Health Service Act, 1946, the following services are provided :—

The visiting and supervision of patients and their families by 12 tuberculosis health visitors and 1 tuberculosis inspector.

The loan of beds and bedding, free of charge, to assist treatment and to secure isolation of the patient

The provision of food grants and clothing to patients and their families whose incomes fall below a set scale.

The loan of nursing requisites, free of charge, to patients on domiciliary care.

The free distribution of sputum boxes.

The disinfection of premises, bedding and clothing.

The rehabilitation and colonization of patients in village settlements.

Assistance in rehousing.

Financial advice in regard to entitlement to National Assistance etc.

Co-operation with the Ministry of Labour in regard to placing selected patients in employment.

Tuberculosis health visiting

During the year, at the request of the Manchester Regional Hospital Board, the tuberculosis health visitors were withdrawn from duty in the Chest Clinic and no longer take any part in the work of the Out-patient Department. This necessitated a reduction of the visiting staff by two, but it is gratifying to note that by a redistribution of districts the visiting has been increased by 755 over the 1956 figure.

National Assistance Board

The close liaison with the officers of the National Assistance Board has been continued and they have at all times been co-operative and understanding in their assessment of assistance to patients and their families, who, by reason of tuberculosis, require immediate and long term financial help. This is particularly important when the admission of the wage earner to hospital is advised.

Food grants

In those cases where an income is insufficient, patients and families are assisted by grants of food and, during the year, the expenditure has slightly increased over that for 1956.

Home helps

The Home help section has once again assisted in those tuberculous households where outside aid is required, and Home helps who undertake this particular duty have periodical X-rays at the Chest Clinic as a safeguard.

Housing

The chronic infectious cases living under overcrowded and insanitary conditions are still a problem and, although rehousing on medical grounds is frequently recommended, the provision of more adequate housing for these families is an urgent necessity. Every application for rehousing on the ground of tuberculosis is carefully examined by the Section. The Chest Physician then reports on the medical aspects of the disease and the application is finally considered by the Medical Officer of Health. During the year under review 461 applications were reported upon by the section.

Employment

Interviewing panels have been held at the Chest Clinic during the year. These are attended by the patient, the Chest Physician, the Disablement Rehabilitation Officer of the Ministry of Labour, and a member of the After care staff. Patients have been placed in suitable work and, if required, course of training and/or rehabilitation have been arranged. The finding of suitable employment is becoming more difficult, particularly when chest disease limits the working capacity of these disabled persons, but the Ministry of Labour do give valuable co-operation in this regard.

Colonization

At 31st December, 1957, there were two patients in the East Lancashire Tuberculosis Colony, near Chester, one in the British Legion Village at Preston Hall, Maidstone, Kent, one in the Papworth Village Settlement, Cambridge shire, and two in the Cheshire County Colony, Wrenbury Hall. There was also one patient undergoing observation with a view to colonization in Barrowmore Hall. One man was discharged from Papworth during 1957 after a stay of two years.

Children

Special attention is paid to tracing child contacts and every effort is made to see that they attend at the Chest Clinic for examination and B.C.G. vaccination if required. The Children's Department arranges for the care of children whilst a parent is in hospital and will also take into care those children who must be segregated from an open case of tuberculosis whilst they have B.C.G. vaccination.

B.C.G. vaccination

5,407 vaccinations have been carried out since the scheme commenced in 1951, most of these on contacts of tuberculous patients. Mantoux negative student nurses and staff from local hospitals are also given B.C.G. vaccination. The following table is a record of the work of the B.C.G. Clinic since 1951 :-

Year	Number of B.C.G. sessions	Number of Mantoux and Jelly Patch Tests	B.C.G. vaccinations
1951	64	2,044	507
1952	99	3,093	881
1953	93	3,382	872
1954	89	3,536	777
1955	94	3,612	788
1956	93	4,268	745
1957	96	4,414	837

Mass miniature radiography

The following report has been supplied by Dr. R. Walshaw, the Medical Director of No. 2 Mass Radiography Unit, and is complementary to the details of his first survey published in the Annual Report for 1956.

Mass Radiography Health Survey, Manchester—Zone 1

This Zone consisted of the following Municipal Wards : New Cross, St. Peters, All Saints, St. Georges, Moss Side East and Moss Side West.

The survey commenced on the 15th November, 1955, and was ended on the 11th January, 1957. During this period examinations were carried out at the following sites :—

- New Islington Public Hall, Ancoats.
- Mayfield House, Ancoats.
- Wood Street Mission, Deansgate.
- Territorial Drill Hall, Stretford Road, All Saints.
- Zion Institute, Stretford Road, Hulme.

and the Radiography Unit also visited industrial concerns in the Zone. For two months during this period the Unit was occupied with its annual visit to Salford. A short time was also devoted to the routine annual survey of H.M. Prison.

For three months the Unit was reinforced by the Regional Hospital Board's No. 3 Unit, to whose Medical Director, Dr. J. Rimington, and Organizing Secretary, Mr. H. Winstanley, we are indebted, both for their help in the planning of the examinations and for the provision of statistics.

Among the groups examined in the Zone were National Service recruits, industrial and office workers, school leavers, cases referred by private practitioners, employees of Local Authorities whose work brings them into close contact with children, together with individual members of the general public. In addition crews of merchant vessels in which cases of tuberculosis had been found also attended the Unit.

An analysis of the significant and interesting abnormalities discovered during the course of this Health Survey of Zone 1 follows :—

Total number of examinations carried out— 52,259

Of these, 10,395 were resident in Zone 1.

Respiratory Tuberculosis requiring treatment—

		<i>per thousand</i>
All examinations	118	— 2.26
Residents in Zone 1	43	— 4.14

Respiratory Tuberculosis requiring periodic supervision at Chest Clinics—

All examinations	159	— 3.04
Residents in Zone 1	66	— 6.35

Bronchiectasis—

All examinations	124	— 2.37
Residents in Zone 1	43	— 4.14

Carcinoma Bronchus—

All examinations	22	—	0.42
Residents in Zone 1	10	—	0.96

Rates per thousand in respect of these significant abnormalities for the 274,010 examinations carried out by the Manchester Regional Hospital Board's six Units in the year 1956 were :

Respiratory tuberculosis requiring treatment	1.38
Respiratory tuberculosis requiring periodic supervision at Chest clinics	1.24
Bronchiectasis	1.28
Carcinoma bronchus	0.28

Among other abnormalities discovered were :—

Benign tumours (including 1 hydatid cyst)	6
Mediastinal dermoid	1
Neurofibroma	2
Sarcoidosis	4
Lymphadenoma	1
Spontaneous pneumothorax	4
Diaphragmatic hernia	2

Notification

Respiratory tuberculosis

In the year 1957 there was a very slight increase in the number of new cases of respiratory tuberculosis notified, the figure being 597 as compared with 592 in 1956. 363 cases were notified amongst males, an increase of 9 over the 1956 figure. Females numbered 234, a reduction of 4 over the total for 1956.

Non-Respiratory tuberculosis

The number of notified cases has decreased from 56 in 1956 to 54 during 1957, males numbering 25 and females 29.

Mortality

Respiratory tuberculosis

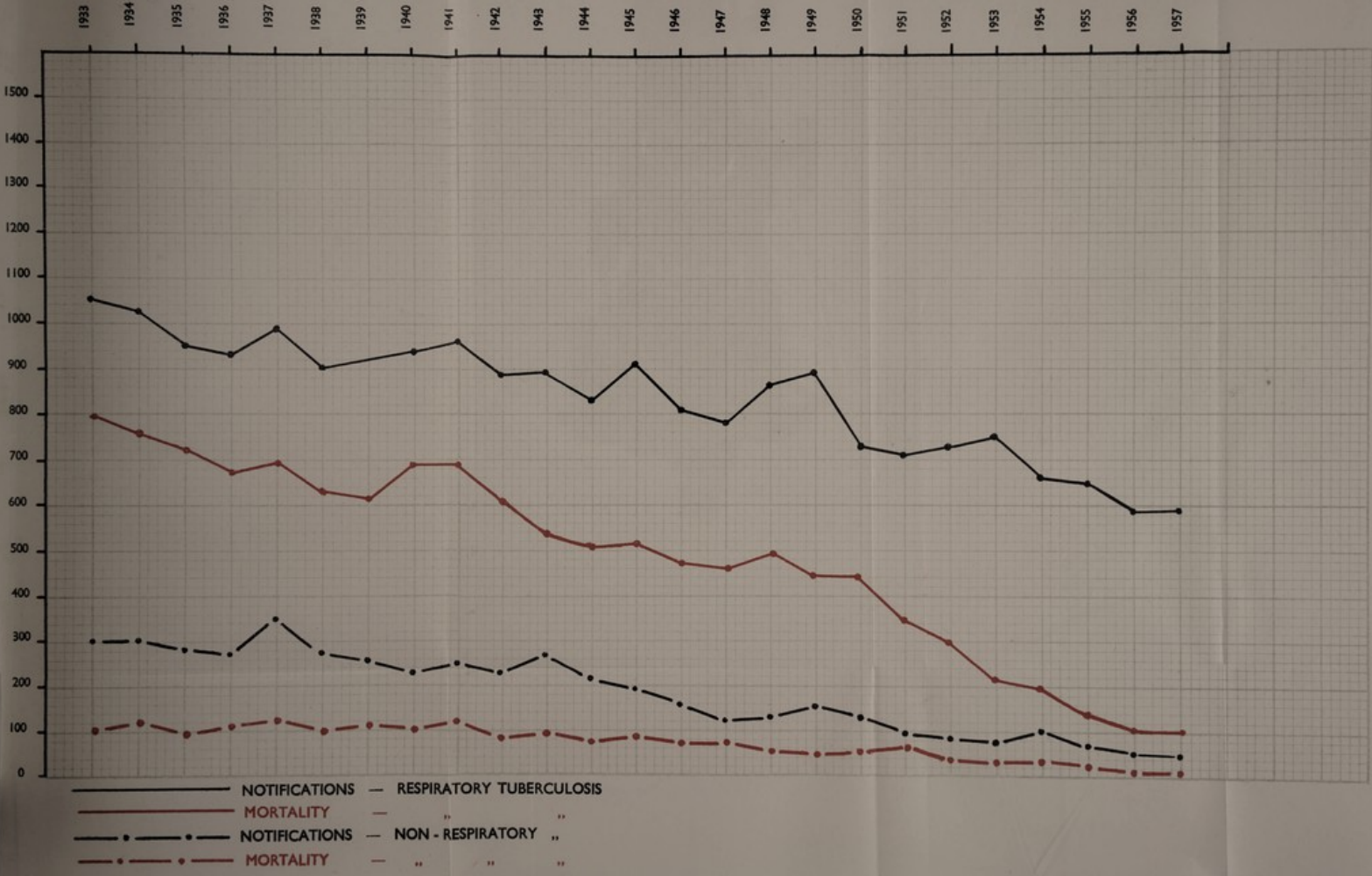
The deaths from respiratory tuberculosis numbered 97, a reduction of 10 from the figure for 1956. There were 76 male and 21 female deaths.

Non-Respiratory tuberculosis

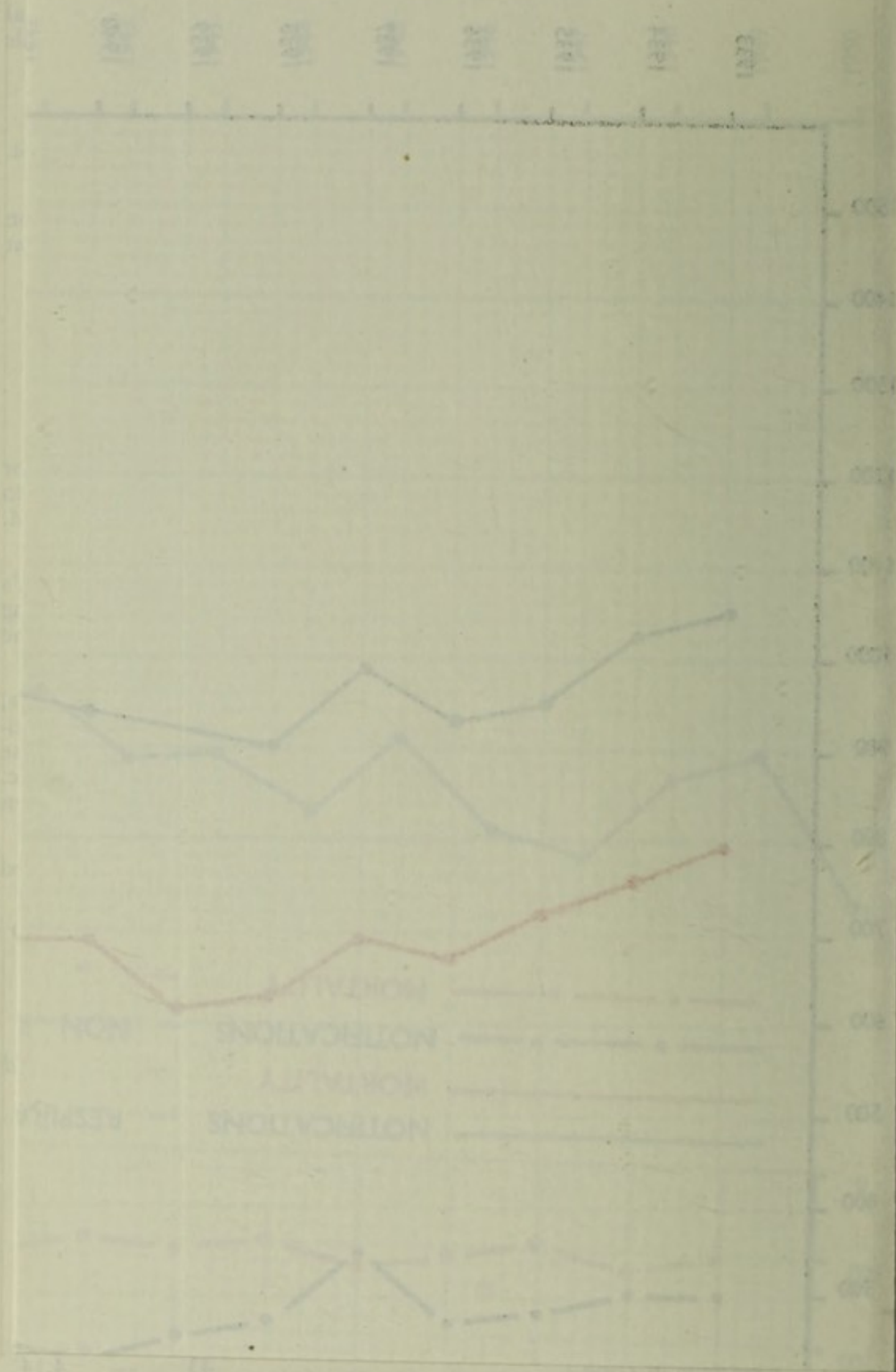
7 males and 5 females died from non-respiratory tuberculosis, one less than the total for 1956.

In both respiratory and non-respiratory tuberculosis the mortality figures are the lowest ever recorded in Manchester.

INCIDENCE AND MORTALITY FROM RESPIRATORY AND NON-RESPIRATORY TUBERCULOSIS 1933-1957



CLARIBUT TUBERCULOSIS INCIDENCE AND MORTALITY



summary of the work of the Section

tuberculosis health visitors:—

Primary investigations	788
Domiciliary visits	23,244
Post-death visits	66
Ineffective visits	3,993
Chest clinic sessions	378

assistance to patients and families:—

Food grants	77
Loan of beds and bedding	50
Loan of nursing requisites	7

putum boxes issued

26,550

disinfections by Corporation:—

Premises	266
Bedding	17

The statistics for the year are shown in the following tables:—

Primary notifications of and deaths from tuberculosis

Comparative figures 1937—1957

(Rates per thousand of the population)

Primary notifications						General death rate, M/cr.	Death rate all respiratory diseases except tuberculosis (M/cr.)	Death rates, tuberculosis Manchester						Death rate, respiratory tuberculosis, England and Wales
Respiratory			Non-respiratory					Respiratory			Non-respiratory			
M. Rate	F. Rate	Persons Rate	M. Rate	F. Rate	Persons Rate			M. Rate	F. Rate	Persons Rate	M. Rate	F. Rate	Persons Rate	
1.73	1.03	1.36	0.52	0.46	0.49	13.87	1.70	1.14	0.72	0.92	0.18	0.14	0.16	0.566
1.52	0.98	1.24	0.41	0.36	0.38	12.61	1.32	1.07	0.66	0.86	0.14	0.13	0.14	0.516
1.49	0.96	1.21	0.40	0.36	0.38	13.39	1.30	1.10	0.64	0.86	0.16	0.13	0.14	0.522
1.95	1.13	1.51	0.41	0.36	0.38	17.98	4.00	1.43	0.78	1.09	0.16	0.13	0.15	0.588
2.12	1.16	1.61	0.45	0.41	0.43	16.64	2.81	1.45	0.84	1.13	0.19	0.19	0.19	0.602
1.78	1.22	1.48	0.37	0.41	0.39	14.72	2.13	1.23	0.76	0.99	0.14	0.12	0.13	0.542
1.78	1.25	1.50	0.41	0.49	0.45	15.50	2.64	1.14	0.71	0.91	0.16	0.15	0.16	0.557
1.62	1.14	1.37	0.33	0.36	0.34	14.20	2.04	0.95	0.66	0.80	0.13	0.10	0.11	0.524
1.73	1.23	1.46	0.34	0.31	0.32	14.41	2.33	1.00	0.62	0.80	0.16	0.10	0.13	0.515
1.56	0.89	1.20	0.28	0.22	0.25	13.52	2.09	0.92	0.48	0.69	0.08	0.12	0.10	0.468
1.41	0.91	1.15	0.21	0.18	0.19	13.79	2.11	0.88	0.46	0.66	0.11	0.08	0.09	0.473
1.50	1.01	1.24	0.19	0.21	0.20	12.27	1.80	0.89	0.50	0.69	0.06	0.08	0.07	0.440
1.58	1.02	1.28	0.20	0.24	0.22	12.91	2.10	0.76	0.45	0.60	0.06	0.04	0.05	0.403
1.28	0.84	1.05	0.21	0.17	0.19	12.77	1.86	0.77	0.42	0.58	0.07	0.06	0.07	0.321
1.23	0.82	1.02	0.13	0.17	0.15	13.82	2.50	0.61	0.32	0.45	0.05	0.06	0.06	0.275
1.32	0.75	1.02	0.13	0.14	0.14	12.16	1.70	0.59	0.20	0.38	0.04	0.03	0.03	0.212
1.32	0.83	1.06	0.12	0.14	0.13	12.31	1.86	0.39	0.19	0.28	0.04	0.02	0.03	0.179
1.20	0.75	0.96	0.15	0.16	0.15	12.20	1.73	0.40	0.15	0.27	0.03	0.03	0.03	0.232
1.16	0.78	0.96	0.13	0.09	0.11	12.68	1.93	0.26	0.12	0.19	0.02	0.02	0.02	0.131
1.09	0.66	0.86	0.06	0.10	0.08	12.35	1.77	0.21	0.09	0.15	0.02	0.01	0.02	0.121
1.13	0.65	0.88	0.08	0.08	0.08	12.40	1.94	0.24	0.06	0.14	0.02	0.01	0.02	0.095

Tuberculosis (pulmonary and non-pulmonary)
Incidence and deaths in age groups for the years 1933 to 1957

Year	0 —				1 —				5 —				15 —				45 —				65 —				Total			
	Pul.		Non-pul.		Pul.		Non-pul.		Pul.		Non-pul.		Pul.		Non-pul.		Pul.		Non-pul.		Pul.		Non-pul.		Cases		Deaths	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1933	3	2	6	8	11	10	46	19	44	13	110	15	498	120	45	268	245	21	10	26	23	1,053	791	304	100	1,357	891	
1934	4	4	7	9	8	8	52	23	54	12	105	27	666	120	50	258	252	17	9	40	36	1,026	761	303	120	1,329	881	
1935	5	4	8	10	9	11	45	17	61	15	98	15	430	120	42	253	230	22	16	20	37	937	714	294	94	1,251	808	
1936	6	1	4	6	5	3	50	21	49	17	98	25	615	109	36	235	233	25	15	32	31	937	671	289	105	1,226	776	
1937	7	1	2	9	6	11	53	22	48	5	100	19	635	165	44	261	213	22	17	45	51	1,001	674	358	115	1,359	789	
1938	8	6	1	9	10	7	38	15	54	8	87	24	577	124	29	231	235	18	15	32	30	907	627	282	99	1,189	726	
1939	9	3	1	3	8	3	43	23	34	6	66	14	559	126	41	205	202	22	14	40	34	849	601	265	100	1,114	701	
1940	3	3	2	3	2	4	28	21	31	6	68	13	620	112	39	242	208	23	11	43	52	943	678	239	91	1,182	769	
1941	3	1	3	3	2	14	5	46	35	6	68	18	610	124	42	266	241	13	11	39	61	968	679	258	115	1,226	794	
1942	1	1	1	2	5	1	31	15	35	5	57	12	615	119	34	209	206	24	9	30	41	7	894	592	234	80	1,128	672
1943	2	1	1	4	3	11	29	20	29	4	68	14	614	138	41	211	212	26	13	34	36	900	546	272	93	1,172	639	
1944	2	3	3	5	18	3	32	13	41	4	59	12	522	114	21	213	174	20	14	44	35	840	491	211	68	1,051	559	
1945	3	3	6	4	19	2	28	22	35	7	57	14	606	257	91	28	213	177	15	8	37	50	913	496	200	81	1,113	577
1946	5	3	5	9	12	5	29	14	44	3	44	10	517	232	71	22	195	171	13	11	32	51	805	460	168	67	973	527
1947	3	3	4	6	24	5	17	14	60	1	38	9	482	236	59	25	190	176	13	6	27	28	786	450	134	64	920	514
1948	4	2	3	5	33	5	16	8	42	3	36	8	545	261	66	14	198	176	18	6	41	30	863	477	141	49	1,004	526
1949	7	1	1	3	29	4	17	7	62	3	36	4	566	220	81	14	194	150	12	6	41	43	890	418	154	38	1,053	456
1950	6	2	1	2	32	3	32	3	43	2	34	2	449	210	61	23	166	159	10	8	36	37	737	411	132	47	869	458
1951	11	2	2	2	38	3	13	7	48	—	20	6	449	134	56	15	146	134	11	7	19	48	711	318	105	39	816	357
1952	4	—	1	1	40	4	14	5	76	—	27	4	416	91	46	5	151	130	6	6	30	44	717	269	96	24	813	293
1953	7	—	2	2	33	1	7	2	63	—	28	8	460	67	38	8	143	96	14	7	36	34	742	198	93	18	835	216
1954	6	—	2	2	22	1	7	1	54	—	17	2	406	67	58	8	149	79	13	3	35	42	672	188	107	21	779	209
1955	7	—	1	—	38	—	7	4	54	—	10	1	381	43	44	4	161	55	6	1	21	32	662	130	77	14	739	144
1956	9	—	1	—	24	—	4	1	39	—	4	1	339	18	39	5	152	48	7	2	29	35	592	101	56	13	648	114
1957	8	—	2	—	21	—	4	4	45	—	7	—	354	27	36	3	140	51	6	5	29	19	597	97	54	12	651	109

Tuberculosis (non-respiratory)—new cases notified during 1957—age groups and site

Age groups	LOCATION OF DISEASE														Totals						
	Meninges		Miliary		Abdomen		Bones joints		Vertebral column		Lymphatic system		Genito-urinary				Other sites				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
0-4	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	1	2	2
5-9	—	1	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	1	2
10-14	—	1	—	—	1	—	—	—	—	—	—	2	—	—	—	—	—	—	—	3	1
15-19	1	2	—	—	1	2	—	—	2	—	—	—	—	—	—	—	—	—	—	4	7
20-24	—	—	—	—	—	—	1	1	—	—	—	1	3	—	—	—	—	—	—	2	4
25-34	—	—	—	—	1	—	2	1	—	2	2	2	2	—	—	—	—	—	—	5	9
35-44	—	—	—	—	—	—	—	—	—	—	—	1	1	2	1	—	—	—	—	3	2
45-54	—	—	—	—	—	—	1	—	—	1	—	—	1	—	—	—	—	—	—	1	2
55-64	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	3	—
65—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Totals ..	1	5	—	—	3	2	6	3	3	3	9	10	3	5	—	—	—	1	25	29	

Sources of notification of tuberculosis during 1957

Source	Respiratory	Non-respiratory	Total
Private practitioners	210	16	226
Chest Clinic staff	231	4	235
General hospitals	86	25	111
Mental hospitals	—	—	—
Sanatoria	61	9	70
H.M. Forces	9	—	9
Other sources	—	—	—
Totals	597	54	651

Tuberculosis

Primary notifications and deaths—1957

Classification in municipal wards

Ward	Estimated population	Persons per acre	NOTIFICATIONS					Rate per 1,000 pop.	DEATHS (all forms)	
			Respiratory		Non-respiratory		Total all forms		No. (Manchester figures)	Rate per 1,000 pop.
			M.	F.	M.	F.				
Alexandra Park	21,324	27.34	4	5	1	—	10	0.47	2	0.09
All Saints'	17,323	54.99	13	11	—	1	25	1.44	4	0.23
Ardwick	16,615	38.11	5	9	1	1	16	0.96	2	0.12
Baguley	18,889	13.44	17	9	1	2	29	1.54	2	0.11
Barlow Moor	15,246	13.61	8	4	3	—	15	0.98	1	0.05
Benchill	19,333	18.82	11	11	1	1	24	1.24	5	0.26
Beswick	18,418	75.79	9	5	1	2	17	0.92	3	0.16
Blackley	21,850	17.82	11	7	—	1	19	0.87	6	0.31
Bradford	21,756	28.18	14	3	—	—	17	0.78	3	0.15
Burnage	21,447	29.10	4	3	—	1	8	0.37	2	0.10
Cheetham	13,707	30.73	9	4	1	—	14	1.02	3	0.14
Chorlton-cum-Hardy	19,543	23.02	7	4	2	—	13	0.67	1	0.05
Collegiate Church	12,329	24.61	11	1	1	—	13	1.05	3	0.14
Crumpsall	23,457	13.00	10	4	—	1	15	0.64	4	0.18
Didsbury	17,409	14.74	5	1	—	—	6	0.34	1	0.05
Gorton North	22,397	41.48	6	4	—	1	11	0.49	6	0.27
Gorton South	16,758	26.56	8	7	—	—	15	0.90	6	0.30
Harpurhey	17,193	46.22	12	6	—	1	19	1.11	3	0.14
Hugh Oldham	16,667	33.47	9	8	—	1	18	1.08	4	0.19
Levensbulme	18,609	30.71	8	6	1	—	15	0.81	3	0.14
Lightbowne	19,381	49.69	8	3	—	1	12	0.62	2	0.10
Longsight	14,982	42.20	6	9	—	—	15	1.00	3	0.14
Miles Platting	13,489	30.38	4	6	—	1	11	0.82	2	0.10
Moss Side East	18,035	65.11	12	9	—	1	22	1.22	2	0.10
Moss Side West	17,240	64.33	19	10	1	3	33	1.91	2	0.10
Moston	20,418	17.45	11	3	1	2	17	0.83	3	0.14
New Cross	12,852	36.31	17	6	2	—	25	1.95	8	0.36
Newton Heath	18,027	19.92	6	5	2	—	13	0.72	3	0.14
Northenden	21,177	12.01	7	6	1	2	16	0.76	4	0.19
Old Moat	16,662	26.70	5	8	—	1	14	0.84	1	0.05
Openshaw	21,655	39.88	9	8	—	2	19	0.88	3	0.14
Rusholme	16,615	22.89	10	2	—	—	12	0.72	—	—
St. George's	17,148	53.92	16	8	2	—	26	1.52	3	0.14
St. Luke's	17,048	59.40	17	11	3	1	32	1.88	3	0.14
St. Mark's	20,268	39.20	17	9	—	—	26	1.28	3	0.14
St. Peter's	9,952	11.89	4	5	—	—	9	0.90	—	—
Withington	15,439	27.57	4	4	—	—	8	0.52	—	—
Woodhouse Park	21,342	14.96	10	10	—	2	22	1.03	3	0.14
Unclassified	—	—	—	—	—	—	—	—	—	—
CITY OF MANCHESTER	682,000	25.02	363	234	25	29	651	0.95	109	0.48

Return showing the work of the Manchester Chest Clinic

	Respiratory			Non-respiratory			All forms			Totals
	M.	F.	C.	M.	F.	C.	M.	F.	C.	
	Number of patients diagnosed as tuberculous	355	220	57	7	5	4	362	225		61	648
Number of patients taken off the register as "recovered"	97	87	35	2	1	2	99	88	37	224
Number of cases on the register at 1st January, 1956	2347	1845	364	24	15	9	2371	1860	373	4604
Number of cases on the register at 31st December, 1957	2361	1861	340	5	5	9	2366	1866	349	4581
Number of patients on the register awaiting admission to sanatoria at 31st December, 1957	10	2	—	—	—	—	10	2	—	12

Total attendances	28,326
Total new patients seen	7,969
Total X-ray examinations	37,677
Total clinical sessions	1,514

Cases on the notification register at January, 1958

City ward	Respiratory		Total	Non-respiratory		Totals	Grand totals
	Males	Females		Males	Females		
Alexandra Park	70	54	124	6	5	11	135
All Saints'	78	70	148	6	10	16	164
Ardwick	62	53	115	7	8	15	130
Baguley	149	152	301	6	8	14	315
Barlow Moor	50	34	84	4	4	8	92
Bechill	153	139	292	14	14	28	320
Beswick	58	30	88	4	8	12	100
Blackley	87	78	165	4	4	8	173
Bradford	65	57	122	6	5	11	133
Burnage	77	51	128	5	5	10	138
Cheetham	55	32	87	2	3	5	92
Chorlton-cum-Hardy	68	37	105	4	3	7	112
Collegiate Church	58	33	91	3	1	4	95
Crumpsall	84	53	137	6	8	14	151
Didsbury	49	23	72	1	5	6	78
orton North	68	49	117	7	3	10	127
orton South	63	43	106	5	5	10	116
Parpurhey	66	36	102	1	8	9	111
Rough Oldham	61	43	104	6	7	13	117
Sevenshulme	46	37	83	4	7	11	94
Sightbourne	45	31	76	2	8	10	86
Songhsight	58	54	112	3	6	9	121
Stiles Platting	36	31	67	3	8	11	78
Stoss Side East	94	59	153	6	4	10	163
Stoss Side West	77	60	137	7	9	16	153
Stoston	62	51	113	6	8	14	127
Stew Cross	55	39	94	7	3	10	104
Stewton Heath	50	39	89	6	8	14	103
Storthenden	123	126	249	9	5	14	263
Stord Moat	57	55	112	6	4	10	122
Stopenshaw	74	42	116	6	6	12	128
Stasholme	52	31	83	3	7	10	93
St George's	63	57	120	5	5	10	130
St Luke's	75	73	148	8	13	21	169
St Mark's	80	62	142	5	8	13	155
St Peter's	36	22	58	2	2	4	62
Stithington	33	23	56	—	—	—	56
Stoodhouse Park	196	192	388	7	8	15	403
Unclassified	—	—	—	—	—	—	—
Totals—January, 1958 ..	2,733	2,151	4,884	192	233	425	5,309

Summary of notifications of tuberculosis during the period
1st January to 31st December, 1957, in the City

Age periods	FORMAL NOTIFICATIONS												
	Number of primary notifications of new cases of tuberculosis												
	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-
Respiratory, males	2	3	4	9	12	33	44	67	46	61	59	16	7
Respiratory, females	6	4	10	11	13	33	40	49	42	13	7	6	—
Non-respiratory, males	—	—	2	1	3	4	2	5	3	1	3	—	1
Non-respiratory, females	—	1	1	2	1	7	4	9	2	2	—	—	—

New cases of tuberculosis coming to the knowledge of the Medical
Officer of Health during the above-mentioned period, otherwise
than by formal notification

Source of information		NUMBER OF CASES IN AGE GROUPS													
		0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	
Death returns from local registrars	Respiratory	{ M.	—	—	—	—	—	1	—	—	3	4	4	3	—
		{ F.	—	—	—	—	—	—	—	1	—	—	—	—	—
	Non-respiratory	{ M.	—	—	—	—	—	—	—	—	—	—	1	—	1
		{ F.	—	—	—	—	—	—	—	—	—	—	—	—	—
Death returns from Registrar General (transferable deaths)	Respiratory	{ M.	—	—	—	—	—	—	—	—	—	—	—	1	—
		{ F.	—	—	—	—	—	—	—	—	—	—	—	—	—
	Non-respiratory	{ M.	—	—	—	—	—	—	—	—	—	—	—	—	—
		{ F.	—	—	—	—	—	—	—	—	—	—	—	—	—
Posthumous notifications	Respiratory	{ M.	—	—	—	—	—	—	—	—	—	—	1	—	—
		{ F.	—	—	—	—	—	—	1	—	—	—	—	—	—
	Non-respiratory	{ M.	—	—	1	—	—	—	—	—	1	—	—	—	—
		{ F.	—	—	—	—	—	—	—	1	—	—	—	—	—
" Transfers " from other areas (excluding transferable deaths)	Respiratory	{ M.	—	—	2	—	—	2	12	25	10	8	5	2	1
		{ F.	—	—	1	1	2	4	18	16	10	—	1	—	—
	Non-respiratory	{ M.	—	—	—	—	—	1	—	2	—	—	—	—	—
		{ F.	—	—	—	—	—	—	1	2	—	—	—	—	—
Other sources	Respiratory	{ M.	—	—	—	—	—	—	—	—	—	1	—	—	—
		{ F.	—	—	—	—	—	—	—	—	—	—	—	—	—
	Non-respiratory	{ M.	—	—	—	—	—	—	—	—	—	—	—	—	—
		{ F.	—	—	—	—	—	—	—	—	—	—	—	—	—

Totals of cases (A) Respiratory, male
(B) Respiratory, female
(C) Non-respiratory, male
(D) Non-respiratory, female

EPILEPSY AND CEREBRAL PALSY

All cases brought to the notice of this department are referred, between the ages of 2 and 16, to the School Health Service in accordance with Section 34 of the Education Act, 1944. During the year 3 cases of epilepsy and 9 cases of cerebral palsy were referred. All were under the age of five years.

The following statement relates to Manchester children known to the School Health Service during 1957 to have epilepsy and cerebral palsy:—

Epilepsy—

Children in Soss Moss Residential School	46
Children attending ordinary schools but under supervision because of convulsions	82

Cerebral palsy—

Children in Margaret Barclay Residential School	17
Children at Special Schools	83
Children under orthopaedic treatment at clinics	44
Children in schools not administered by Education Committee	0

The figures relate to children found to be suffering from the two defects and do not necessarily indicate the incidence of either disease in the city as neither condition is notifiable. There may be, for example, children suffering from slight epilepsy or birth injury that may never have been brought to the notice of the department.

Residential provision for sane epileptics aged 15 years or over, of both sexes, is made under the terms of Part III, National Assistance Act, 1948, at the Corporation's Langho Colony for sane epileptics. Details of the accommodation and facilities provided at this establishment are given elsewhere in the report.

HOME NURSING SERVICE

The work of nursing patients in their own homes—expressed in terms of patients on the nurses' books and the volume of nursing visits—continues to increase. In fact the number of patients on the books has risen every year since the introduction of the National Health Service. At 31st December, 1957, there were 3,171 patients on the books compared with 2,819 a year before—an increase of 12·5 per cent. This compares with a 5·7 per cent increase recorded at 31st December, 1956.

The number of new patients referred for home nursing, however, fell by comparison with the previous year, 12,976 as against 13,320—a fall of 2·6 per cent which followed a fall of 7·7 per cent in the previous year. Thus, over the past two years, whereas patients on the books have increased by 505 (19 per cent), new cases referred for home nursing have fallen by 1,461 (10 per cent). The explanation of this seeming paradox is that many of the new patients stay

on the books for long periods, in the case of aged patients often until death. In fact, of the total of 15,795 patients nursed during the year 3,952 patients (one-quarter) received more than 24 visits each, several patients running into the hundreds. One may draw the conclusion that the volume of home nursing has not yet reached its peak.

As regards new cases referred for home nursing during the year, there were markedly fewer patients suffering from pulmonary tuberculosis—415 compared with 579 in the previous year. This continues the fall recorded last year from the highest number reached—817 in 1955. From 1953 the percentages of new patients suffering from this disease have been as follows—4.0, 4.5, 5.7, 4.3, 3.2 (1957). There was, however, a substantial increase in new patients during the year suffering from non-pulmonary tuberculosis—85 (0.7 per cent) compared with 45 (0.3 per cent). The nursing visits given to all tuberculosis patients are still proportionately higher than those given to other patients. In 1957, 43,142 visits were given, representing 11.2 per cent of all visits, and each tuberculosis patient received on the average 62 nursing visits during the year. Wythenshawe has easily the highest incidence with no less than 1 in every 6 patients suffering from tuberculosis compared with 1 in 22 over the rest of the city.

Fewer new patients also were referred suffering from bronchitis—952 (7.2 per cent) compared with 1,152 (8.7 per cent), and from varicose ulcers—96 compared with 147 in the previous year.

Two recorded increases may be mentioned—anaemias and heart diseases. Patients with anaemia referred for home nursing have increased absolutely and proportionately over the past four years—249, 300, 458 and 652, or, in percentages, 1.9, 2.0, 3.4, and 5.0. In particular, many injections of imferon are now being passed on to the district nurse for administering to expectant mothers. The proportion of new cases of heart disease continues to increase. Over the last five years the percentage has risen from 8.4 to 14.0, many of these patients require injections extending over a period of years.

The work of the district nurse continues to be dominated by the nursing care of the aged and the administering of injections. Sometimes the aged patient requires both nursing care and an injection: but in the middle age group especially, the giving of an injection frequently constitutes the sole reason for the nurse's visit. The injections are generally of penicillin, streptomycin, mersalyl, insulin, cytamen, imferon, or morphia. On the average, out of the nurse's daily round of about 20 visits, 14 patients will require an injection. The phenomenal increase in the number of injections, along with the rise in the number of aged patients needing to be nursed at home, are the two main factors in the growth of home nursing over the past ten years.

Undoubtedly an efficient home nursing service does something to relieve pressure on hospital accommodation by providing nursing care at home for patients who might otherwise have to be admitted to hospital. These patients are generally the senile and incontinent or those who are otherwise incapable of looking after themselves or of being cared for properly by relatives or friends. The daily visit of the district nurse to wash and make the patient comfortable, sometimes to administer an injection, is frequently the main reason for the patient being kept out of hospital. Yet the home nursing service cannot be viewed in isolation. It must be considered along with the Home Help service and the service for the laundering of incontinent patients' linen, to mention but two other essential domiciliary services.

	1957	1956	Differ- ence	Per cent differ- ence	Per cent increase on 1948
Patients on books 1st January, 1957	2,819	2,666	+153	+5.7	364
Add new patients	12,976	13,320	-344	-2.6	142
Total patients nursed	15,795	15,986	-191	-1.2	165
Deduct—patients taken off books	12,624	13,167	—	—	—
Patients on books 31st December ..	3,171	2,819	+352	+12.5	321
Nursing visits	383,787	365,667	+18,120	+5.0	191

Classification of patients and nursing visits

A Patients on books—

	At 31st December				1955
	1957	Per cent	1956	Per cent	Per cent
Medical	2,764	87.2	2,360	83.7	82.3
Surgical	204	6.4	247	8.8	7.7
Infectious diseases	—	—	—	—	0.3
Tuberculosis	195	6.1	201	7.1	9.3
Maternal complications	8	0.3	11	0.4	0.4
Others	—	—	—	—	—
	3,171	100.0	2,819	100.0	100.0

B Patients nursed—

	1957	Per cent	1956	Per cent
Medical	13,536	85.7	13,368	83.6
Surgical	1,291	8.2	1,445	9.0
Infectious diseases	37	0.2	41	0.3
Tuberculosis	701	4.4	872	5.5
Maternal Complications	230	1.5	260	1.6
Others	—	—	—	—
	15,795	100.0	15,986	100.0

C Nursing visits—

	1957	Per cent	1956	Per cent
Medical	295,472	77.0	274,848	75.2
Surgical	43,045	11.2	38,951	10.7
Infectious diseases	262	0.1	495	0.1
Tuberculosis	43,142	11.2	49,582	13.6
Maternal Complications	1,866	0.5	1,791	0.5
Others	—	—	—	—
	383,787	100.0	365,667	100.0

**Classification of new patients referred to the
Home Nursing Service during the year**

A Diagnosis—

	1957	Per cent.	1956	Per cent.	1955 Per cent.	1954 Per cent.
(1) Infectious and notifiable diseases :						
(a) Influenza	124	0.9	24	0.2	0.3	0.1
(b) Primary pneumonia	309	2.3	363	2.7	2.8	3.1
(c) Bronchopneumonia	246	1.9	199	1.5	1.5	1.1
(d) Measles	13	0.1	6	0.1	0.1	0.1
(e) Whooping cough	9	0.1	5	—	0.2	0.1
(f) Pulmonary tuberculosis	415	3.2	579	4.3	5.7	4.1
(g) Non-pulmonary tuberculosis	85	0.7	45	0.3	0.4	0.3
(h) Erysipelas	8	0.1	12	0.1	0.1	0.1
(i) Other notifiable diseases	7	0.1	11	0.1	0.1	0.1
Totals of (1)	1,216	9.4	1,244	9.3	11.2	10.0
(2) Diabetes	173	1.3	185	1.4	1.6	1.1
(3) Anaemias	652	5.0	458	3.4	2.0	1.1
(4) Bronchitis	952	7.2	1,152	8.7	8.9	8.1
(5) Other respiratory diseases	570	4.4	595	4.5	4.4	3.1
(6) Heart diseases	1,815	14.0	1,618	12.2	11.5	10.0
(7) Cancer	575	4.4	607	4.6	3.9	3.1
(8) Diseases of the circulatory system	342	2.6	341	2.6	2.3	2.1
(9) Diseases of the nervous system	65	0.5	86	0.7	0.6	0.4
(10) Uro-genital	79	0.6	94	0.7	0.8	0.6
(11) Complication of pregnancy	85	0.7	64	0.5	0.2	0.1
(12) Complication following childbirth	134	1.0	186	1.4	1.4	1.1
(13) Other medical cases	5,274	40.7	5,451	40.9	41.6	41.1
(14) Post-operative	499	3.8	513	3.9	4.0	3.1
(15) Varicose ulcers	96	0.7	147	1.1	1.0	0.8
(16) Other surgical	449	3.5	575	4.3	4.5	3.1
(17) Operations	—	—	4	—	0.1	0.1
Totals	12,976	100.0	13,320	100.0	100.0	100.0

B Age groups—

Age group	1957	Per cent.	1956	Per cent.	1955 Per cent.	1954 Per cent.
0—4	622	4.8	601	4.5	5.5	8.1
5—14	459	3.5	531	4.0	4.6	5.1
15—64	6,576	50.7	6,835	51.3	51.8	49.1
65—74	2,720	20.9	2,804	21.1	20.4	} 37.1
75 and over	2,599	20.1	2,549	19.1	17.7	
Totals	12,976	100.0	13,320	100.0	100.0	100.0

Nursing staff

The average number of district nurses at work during 1957 was 102 of whom 80 were whole-time and 22 part-time, giving an equivalent whole-time strength of 91.

This figure of 91 is analysed into:—

(a) *Nursing grades—*

	1957	1956	At 31-12-57
Queen's Senior Superintendent	1	1	1
Queen's superintendents	4	4	4
Queen's assistant superintendents	2	1 $\frac{3}{4}$	2
Queen's district nurse tutor	1	1	1
Queen's female nurses	41	38	44
Queen's male nurses	10 $\frac{1}{2}$	9	10
Student district nurses	6	5	7
State-registered nurses	22 $\frac{1}{2}$	25 $\frac{3}{4}$	21 $\frac{1}{2}$
State-enrolled assistant nurses	3	3 $\frac{1}{2}$	2
	<hr/>	<hr/>	<hr/>
	91	89	92 $\frac{1}{2}$

(b) *Accommodation—*

	1957	1956
Resident in district nurses' home or centre under control of a superintendent	20 $\frac{1}{2}$	19
Non-resident, but working from nurses' home or centre under control of a superintendent	63 $\frac{1}{2}$	63
Operating on "single" or "double" districts under ultimate control of a superintendent	7	7
	<hr/>	<hr/>
	91	89

Training

State-registered nurses are trained in district nursing for the Queen's Roll at the Ardwick and Harpurhey Training Homes. During 1957, 12 Manchester students (4 taking the full six-months training and 8 the abridged four-months training) were trained, in addition to 3 students trained on behalf of the Oldham and Cheshire Health Authorities. All students sat for the Queen's Roll examination and passed successfully. The four-weeks lecture block organised by the Institution was attended by 26 other students from Bolton, Bury, Stockport, Rochdale and Salford.

Transport

At 31st December, 1957, there were in use on the district 25 motor cars and 8 power-assisted cycles (the comparable figures for 1956 being 25 cars, 3 motor cycles and 9 power-assisted cycles). Of the cars, 7 are the property of the Institution, 4 the property of the Corporation, and 14 are owned by nurses who claim travelling allowance for their use on the district. Of the 104 nurses at work at the close of the year, 33 made use of mechanized transport, most of the remainder using bicycles; a few used public transport and walked.

Sickroom equipment loans service

This service operated by the Institution in conjunction with the British Red Cross Society makes available the following articles for loan to patients—air rings, bed bottles, bed cradles, bed pans, back rests, bed tables, feeding cups, rubber sheets, bed linen (in emergency cases), lifting pole stands, special-type beds, air beds, commodes, sanitary chairs, walking aids, and crutches.

A small weekly hire charge is levied in respect of the more expensive articles, but this is waived where it would inflict hardship. The district nursing centres loan out equipment only to persons being nursed by them. Other patients must apply to the Red Cross Depots. These are open at certain times of the day in Chorlton-on-Medlock, Crumpsall, Didsbury, Newton Heath, and Baguley. Addresses and times of opening are available from the Red Cross Headquarters, 3, The Parsonage, Manchester, 3, or from the head office of the District Nursing Institution, 3 St. James's Square, Manchester, 2. The University Settlement in Every Street, Ancoats, has also acted as a loans depot but towards the end of the year expressed a wish to be relieved of the work. In the circumstances the head office of the Institution is temporarily undertaking the loan of all the heavier items of equipment.

DARBISHIRE HOUSE HEALTH CENTRE

Darbishire House Health Centre is the first project of its kind to be opened in Manchester. The building which has been adapted and equipped as a Health Centre, is situated in Upper Brook Street, Chorlton-on-Medlock, and provides accommodation for four medical practitioners working together in group practice, together with ancillary services, maternity and child welfare clinic and school health clinics. It also provides for the medical care for the inhabitants of a densely populated area, and for the teaching of final year medical students.

The Centre opened in April, 1954, for the medical practitioner service and in April, 1955, maternity and child welfare sessions were commenced. The general practitioners at the Centre take the clinics and are paid by the local authority.

The Nuffield Provincial Hospitals Trust and the Rockefeller Foundation financed the equipping and adaptation of the Centre, which is administered by a Board of Management set up by the Manchester University.

The research and teaching expenses are borne by the University and an annual grant is made by the Manchester City Council in addition to meeting the cost of staffing the maternity and child welfare and school health clinics. The cost of providing one of the district nurses employed at the centre is met by the Manchester District Nursing Institution which provides the district nursing service in Manchester as agents of the Corporation and the cost is reimbursed to the Institution by the Corporation.

The clinics have now been in operation for nearly three years and it is gratifying to report that the relationship between the medical practitioners, district nurses, health visitors and the social worker at the Centre has been most cordial. The majority of the mothers and children attending are patients of the general practitioner in attendance as the medical officer (they usually select the day for attendance when he is present), and problems raised by the mother at these times can be discussed there and then with the family doctor and the health visitor.

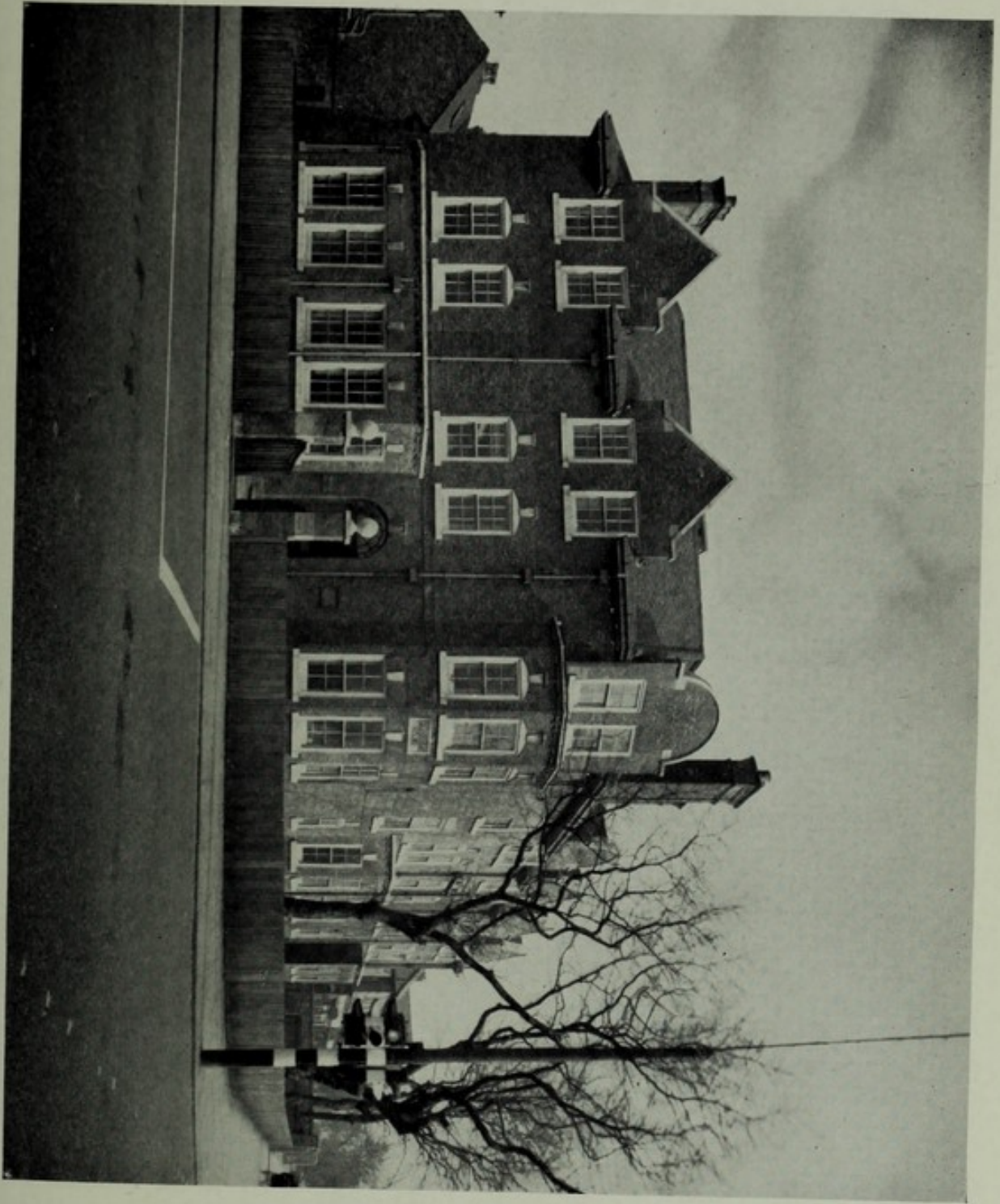
Joint discussions with each member of the team contributing his or her background knowledge of the situation, produce a pool of information which is of great benefit to them all in dealing with the problems of the families concerned.

The number of attendances at the infant clinics has risen during the past 18 months, since the area around the Health Centre has been covered by two full-time health visitors. Mainly through the health visitors, parents have become aware of the fact that they can attend the infant sessions, even though they are not on the list of the general practitioners attached to the Centre.

The relationship between all working at the Centre is strengthened by the informal contacts at lunch time etc., when discussions take place, opinions are voiced, and each becomes more aware of the work of the others within the team, and its value to the service which the Centre can provide for the families.

The close contact between the district nurse and the health visitor is a special feature of the Centre.

There is no delay in the contact between the general practitioner and the health visitor in relation to the work because they are all working in the same building. This is a very important factor where immediate help is necessary for either the very young or the aged and infirm.



1875

Other workers from statutory and voluntary organisations come to the centre, so personal contact is readily available, and is more satisfactory than contact by telephone or letter, and the team is further strengthened in the interest of the family.

Expectant mothers have expressed their satisfaction in being able to obtain the services of their family doctor, and those of an ante-natal clinic, in one journey and at the same place. This applies particularly to those who have had previous pregnancy, and where the combined service was not available before.

The population of the district covered is about 14,000. Particulars of attendances at the maternity and child welfare centres and numbers on the register are shown elsewhere in this report.

CONVALESCENCE

Recuperative holidays were arranged at various convalescent homes on provision of the necessary medical recommendations.

Particulars of the numbers of admissions to the various homes during the year are shown below:—

West Hill Convalescent Home, Southport	323
Blackburn and District Convalescent Home, St. Annes	5
"Binswood" British Red Cross Home, Manchester	48
Jewish Blind Society's Home, Cliftonville	6
Hillary Nursery Home, Prestatyn (children)	18
Sefton House, Birkenhead (children)	6
"Beachways," Southport	2
"Broomgrove," Liverpool (children)	1
"Llys Delys," Prestatyn (mother and child)	1
Total	<u>410</u>

Beds for convalescent mothers are provided at Knowle House, Handforth, and children are admitted to the Dr. Garrett Memorial Home, Conway, North Wales. Information relating to these homes is given elsewhere in this report.

HOME HELP SERVICE

During the year a further expansion of the service took place and the establishment was increased from 50 part-time home helps to 150, the full-time number of home helps remaining at 100. The part-time employees work a 40-hour week, the full-time 44-hours.

The actual numbers recruited during the year were 19 full-time and 96 part-time helps, but as there were 14 resignations of full-time workers and 38 resignations of part-time workers, the average number employed during the year was 86 full-time and 84 part-time helps. At the end of the year, the actual number employed was 86 full-time and 122 part-time home helps, compared with 81 full-time and 64 part-time helps at the end of the previous year.

More applications are received in response to advertisements in the press when there are vacancies, but it is essential to try to select a good type of person who is considered to have the patience, tact and ability to fit in with the requirements of the households to which they are allotted.

The increased numbers now provide for a night sitting service wherein the home helps are allocated to households where a person requires company and assistance during the night. The home help attends from 10 p.m. until 8 a.m. for which she receives a higher rate of pay than the help working normal hours. This service was utilized on 7 occasions and in each instance the person attended was not in a physical condition to be left alone, pending admission to hospital.

Confinement cases are given priority in the services of home helps and always have a full-time home help for a week or two weeks, or longer if necessary.

Contributions towards the cost of the service are recovered from householders and may be assessed according to scales authorized by the City Council. In the case of persons whose sole income is derived from Old Age Pensions and/or National Assistance, no charge is made.

The service is co-ordinated by an Organizer and an Assistant Organizer who visit the homes of persons requesting assistance, supervise the work and allocate duties to the home helps, deal with case work and supervise administrative work of the section. During 1957 a total of 1,725 visits were made by the two officers.

The demands on the service continue to increase. In 1957 the applications totalled 2,403 compared with 2,043 in 1956. The number of 2,403 is made up of 625 cases where confinements were expected and 1,778 cases where they were persons suffering from sickness, old age or infirmity. Cancellations of applications were less in 1957 than in 1956 and totalled 406 as compared with 420 in 1956, 157 of these being confinement cases and 249 being sickness cases.

The sources of application during the past two years are shown in the following table :—

The sources of application for the services of home helps

Source	Number in cases following confinement		Number in cases of sickness, old age, etc.		Totals	
	1957	1956	1957	1956	1957	1956
Personal application by letter, telephone, or visit to the office by applicant or a representative ..	401	360	916	704	1,317	1,064
Child welfare centres, health visitors, or midwives	215	177	216	174	431	391
Hospital almoners	4	5	190	210	194	215
Medical practitioners	5	1	199	199	204	200
Tuberculosis Centre	—	—	14	3	14	7
District Nursing Institution	—	—	95	64	95	129
Welfare Services Department	—	—	40	32	40	72
National Assistance Board	—	—	64	62	64	126
Cripples Aid Society	—	—	—	3	—	3
Blind Aid Society	—	—	22	20	22	42
City councillors	—	—	—	19	—	19
Mental Health Section	—	—	2	3	2	5
Children's Department	—	—	—	5	—	5
Council of Social Service	—	—	20	2	20	22
Totals	625	543	1,778	1,500	2,403	2,043

The number of households where Home Helps were in attendance totalled 3,157 whereas in 1956 this figure was only 2,266. The number of cases attended comprises 402 confinement cases and 2,748 cases of sickness, old age or infirmity and 7 night sitting cases. Of the 2,748 cases of sickness, 698 households were assisted on more than one occasion and 632 were provided with help on only one occasion.

A comparison between the figures of 1956 and 1957 shows that applications have increased by 360 and 891 more cases were attended; it indicates how greatly the service is required and how the further expansion has been amply justified.

The following table gives full details of the increase in the service which has taken place during the last 5 years.

	1953	1954	1955	1956	1957
Average number of helps employed:					
Full-time	64	67	68	79	86
Part-time	—	—	13.5	40	84
Types of cases attended—					
Confinement cases	166	211	311	330	402
Sickness cases and those of old age and infirmity	F.T. 102 P.T. 1,073	F.T. 127 P.T. 1,160	F.T. 66 P.T. 1,366	F.T. 70 P.T. 1,866	F.T. 69 P.T. 2,679
Night sitting	—	—	—	—	P.T. 7
	1,175	1,287	1,432	1,936	2,755
Totals	1,341	1,498	1,743	2,266	3,157

NOTE—F.T. indicates full-time. P.T. indicates part-time.

FAMILY WELFARE SERVICE

The Family Welfare Service commenced in 1948 at Ardwick and Northenden maternity and child welfare centres. A third centre was commenced at the maternity and child welfare centre, Withington, in April, 1951. In November, 1954, the sessions held at the Ardwick Centre were transferred to the Darbshire House Health Centre, Chorlton-on-Medlock.

The Family Welfare Service receives an annual grant from the City Council under powers conferred by Section 28 of the National Health Service Act, 1946.

It is a preventive and constructive service which aims at stabilizing family life by preventing, if possible in the early stages, wrong tendencies which if allowed to continue are likely to lead to nervous breakdowns, broken marriages, delinquency and much general unhappiness, especially where there are children.

The service is directed by Lady Gertrude Jefferson, M.R.C.S., D.P.M., who is assisted by doctors and a psychiatric social worker. No physical examinations are made.

The Medical Officer of Health is indebted to Lady Gertrude Jefferson for the following report :—

	1957	1956
Total number of Interviews	1,896	1,880
Total number of New Cases	310	327
Total number on books	490	475
1st six months—Interviews	1,087	974
New Cases	172	165
2nd six months—Interviews	809	906
New Cases	138	162

CENTRES

Darbshire House—Interviews	1,047	1,030
New Cases	154	178
Yew Tree Lane—Interviews	429	435
New Cases	78	81
Withington—Interviews	420	415
New Cases	78	68

Figures alone give an inadequate idea of the amount and value of the work done by the Family Welfare Service. Difficult cases of which we have many are time consuming, and we often wish we could give longer to those in need of help. Where there is profound disharmony in the home it is not a question simply of giving psychotherapy to either or both partners, but of helping each partner to understand the effect on the other one of cruel or thoughtless behaviour. Where there is an underlying mental disturbance due to emotional conflicts in childhood, the cause must be sorted out and explained. Some degree of neurosis, although perhaps slight is almost invariably present in one if not in both partners of those who come to us. It is therefore most important that those dealing with them should be doctors trained in psychological medicine, assisted (as we are) by an experienced Psychiatric Social Worker. This makes the service different from others in this field. We have been building up trainees who could follow in this work, and in this connection it is pleasant to report that Dr. Elizabeth Gregson who has been with us in this capacity since 1955, has amply proved her ability to deal with cases and to handle them successfully.

During my absence on a visit to Australia from August to December 1956, Dr. Gregson attended the Monday evening sessions at Darbshire House regularly, as well as my sessions at Withington on alternate Thursday afternoons. Dr. May Duddle acted as my locum at Wythenshawe on Wednesday afternoons. Dr. Duddle is working to complete her course for D.P.M., and will I hope one day be able to join our service on a permanent basis.

The friendly informal settings of our centres in Maternity and Child Welfare buildings, and in the attractive quarters we occupy in Darbshire House on Monday evenings, make the applicant feel at once relaxed and welcomed and they are able to pour out their troubles to us more freely and fully than in any hospital clinic. We are on the best of terms with the doctors in Darbshire House who are finding our service useful, and we work in helpful co-operation with Miss Dongray, their University Social Worker. Other General Practitioners are sending increasing numbers to us.

There was a significant increase of work in the first six months in 1957 over the equivalent period in 1956, but in the second half, largely because of the severe influenza epidemic, and also because I was away, there was a reduction. On the whole year we came out about even.

All along we have been working to full capacity as I have reported in previous years, and the increased case load bears particularly heavily on Miss Lingard, our Psychiatric Social Worker. We shall have completed in April ten years of work, much of it voluntary, and we are now wondering how much longer we shall be able to continue on this basis.

We have received from the Nuffield Provincial Hospitals Trust a generous grant of £500 a year for three years of which we have had the last payment. We anticipate that this grant will be extended for a further year or the equivalent amount spread over two years, but that no further financial help will be given thereafter. The policy of the Nuffield Provincial Hospitals Trust is to give temporary help over a limited period where there is a reasonable prospect of the work being consolidated independently, or by adequate support from other sources—in this case, for us surely, the Manchester Corporation.

I would like to add that when I was in Australia the press took a great interest in the Family Welfare Service as started in Manchester and sponsored by the Corporation. I was asked to broadcast in Sydney on our work, and it seems probable that this valuable experiment will be copied there.

VENEREAL DISEASES

Treatment for venereal diseases in mothers and young children was discontinued in May, 1955, at the two centres formerly used for the purpose, but follow-up visits are still paid, on request, by health visitors, to defaulters from the V.D. Clinics in the City. 9 primary and 14 subsequent visits were paid in 1957.

On 1st July, 1956, a health visitor was seconded to the Regional Hospital Board as contact tracer in the field of venereal diseases. During 1957 she paid 318 visits to contacts and defaulters and attended two evening sessions and one afternoon session weekly at St. Luke's Clinic, and one evening session weekly at the Manchester Royal Infirmary.

PROFESSIONAL CONFERENCE ON ANTE-NATAL CARE IN MANCHESTER

In May, 1956, a letter was addressed by the Ministry of Health to Chairmen of Boards of Governors of teaching hospitals and Chairmen of Hospital Management Committees with substantial maternity units, on the subject of ante-natal care. The letter enclosed a copy of a memorandum on ante-natal care related to toxæmia of pregnancy by the Standing Maternity and Midwifery Advisory Committee which had been endorsed by the Central Health Services Council.

It was suggested that the medical issues raised by the memorandum should at the first instance be discussed locally at hospital group level between professional representatives of the three parts of the National Health Service involved, i.e. the hospital and specialist service, the local health authority services and the general practitioners. These representatives would report to the administrative bodies concerned any conclusions reached at the meeting which have administrative implications so that consideration could be given to any action needed to give effect to them.

Upon receipt of the Ministry's letter, the Chairman of the Board of Governors of the United Manchester Hospitals convened a meeting of professional representatives in Manchester of the three parts of the National Health Service. The representatives concerned were as follows:—

United Manchester Hospitals—Consultants in Obstetrics and Gynaecology and Paediatricians.

North Manchester Hospital Management Committee—Consultants in Obstetrics and Gynaecology and Paediatricians.

South Manchester Hospital Management Committee—Consultants in Obstetrics and Gynaecology and Paediatricians.

Manchester Executive Council—Representatives of Local Medical Committee.

Manchester Local Health Authority—The Medical Officer of Health, the Deputy Medical Officer of Health, and the Senior Medical Officer—Nursing Services.

Manchester University Department of Social Medicine—Representatives.

The professional conference met under the Chairmanship of Dr. E. A. Gerrard, of United Manchester Hospitals, in July, September, December, 1956, and February, 1957, and summarised its deliberations and recommendations in a report dated 16th February, 1957, a copy of which was forwarded to each of the administrative bodies.

The report was submitted to the Health Committee on 12th March, 1957.

The professional conference considered the memorandum of the Standing Maternity and Midwifery Advisory Committee and discussed in detail the recommendations and their relation to ante-natal care in Manchester. The conference was in general agreement with the terms of the memorandum and the conclusions may be summarised as follows:—

Ante-natal care in Manchester

It was agreed that an imperfection of hospital ante-natal care was lack of information regarding non-attending patients. The Medical Officer of Health undertook to arrange for a health visitor's or midwife's call upon any ante-natal patient whose failure to attend was reported to the Health Department by the hospitals.

It was felt that some of the difficulties of seeing ante-natal patients in general practitioners' surgeries might be mitigated if the ante-natal patients asked to attend the surgeries could be restricted to those whom it is necessary to see at frequent intervals. If general practitioners could conduct monthly ante-natal clinics in other premises a better service could be given to patients whom they had to see more frequently.

All general practitioners having ante-natal patients in the City have been asked whether they wished to make use of the Health Committee's clinic for seeing their patients.

Some favour this arrangement whilst others do not and the matter is receiving further consideration.

Shortage of ante-natal beds in Manchester

The Conference concluded that there is a serious shortage of ante-natal beds in Manchester. Due to shortage of beds, it was in fact necessary to restrict the admission of toxæmic patients to those in whom the condition was well established and the admission of patients to hospital at an early stage of the disease was seldom possible.

The Medical Officer of Health indicated that a study of maternal deaths in Manchester showed that a number of deaths from toxæmia in pregnancy had occurred in circumstances where there was reason to believe that the patient had not been admitted to hospital at the right time.

It was felt to be impracticable to suggest that the number of ante-natal beds could be increased by a reduction in the number of lying-in beds, since there has been no increase in the latter in recent years despite an increase in deliveries in institutions of all types and a continuing unsatisfied demand.

This problem was examined in relation to groups of the population sufficiently endangered in childbirth to make it desirable that their ante-natal care and delivery should be in hospital and regard was paid to the fact that in Manchester it is necessary also to make provision for a disproportionately large number of patients whose home conditions are unsuitable for delivery, though the patient might not qualify for admission to hospital on purely medical grounds.

The possibility of an increase in the availability of ante-natal beds through improved booking procedures, earlier discharge of patients or early discharge to some alternative lying-in accommodation was considered to be impracticable.

It was concluded that an increase in ante-natal beds can only be attained by an increase in the general total of maternity beds which can be best accomplished by opening sufficient general practitioner maternity homes to relieve hospitals of present overcrowding.

The possibility of such maternity homes being provided by the Local Health Authority is under consideration by the Health Committee.

Staffing difficulties

The Conference appreciated that an increase in maternity beds was dependent on sufficient midwives being available and the situation is not favourable because there is a shortage of midwives in industrial areas. The possibility of finding hospital staff by reducing the number of midwives in domiciliary practice was examined, but there is no machinery whereby this can be accomplished, even if considered desirable. It is, however, the policy of the Local Health Authority to regulate its staff of domiciliary midwives according to the case load.

Detection of pregnancy anaemia

The main conclusions reached in this matter were—

- (a) that hospital laboratories should be asked to increase the facilities offered for haemoglobin investigation of ante-natal patients;
- (b) that arrangements should be made by the Local Health Authority to facilitate routine haemoglobin investigations on patients referred for that purpose to Local Health Authority Clinics by general practitioners;
- (c) practitioners should be invited to accept assistance from Health Visitors in regard to the follow-up of patients found to be anaemic.

Arrangements in this behalf have been implemented and the Local Health Authority's clinic premises are being utilised as collecting points for patients whose haemoglobin is to be estimated. The clinics have been grouped and linked for this purpose with the nearest hospital laboratory. The Local Health Authority have provided containers for the blood samples and the hospital pathologists report the results of haemoglobin estimations to the clinics. The clinic medical officers then inform the patients' general practitioners. Health Visitors are available to follow up by home visits any patients found to be anaemic.

Chest X-ray examinations

The Conference recommended that practitioners should be invited to make fuller use of existing services for radiography of the chests of ante-natal patients.

The facilities in this regard are reasonably adequate.

General conclusions

The Professional Conference on Ante-natal Care decided to remain in session and to meet from time to time to consider what further services it can render towards the co-ordination of maternity services in Manchester.

The Conference expressed the intention to examine at an early date the possible expedients to improve the situation regarding midwifery staff, the appointments systems in ante-natal clinics and general methods of improving hospital booking facilities.

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Sanitary Services Division

INTRODUCTION

WATER SUPPLY

FOOD SUPPLY:

- Hygiene
- Milk and ice cream control
- Adulteration

SMOKE PREVENTION:

- Industrial
- Prior approval of the installation of furnaces
- Smokeless zones
- Recording of atmospheric pollution

HOUSING CONDITIONS:

- Clearance areas
- Re-housing: medical circumstances
- Abatement of overcrowding
- Houses let-in-lodgings
- Repairs
- Certificates of disrepair
- Improvements or conversion grants
- Common lodging-houses
- Caravan dwellings
- Canal boats

OCCUPATIONAL CONDITIONS:

- Factories
- Factory outworkers
- Shops and employment of young persons

GENERAL SANITARY CONDITIONS:

- Infectious diseases
- Rodent control
- Eradication of insect pests
- Drainage works (defects and repairs)
- Stopped up drains and sewers
- Sanitary accommodation
- Disposal of refuse
- Offensive trades
- Effluvium nuisances
- Noise nuisance
- Land used for pleasure fairs
- Rag flock and other filling materials
- Export of rags and second-hand clothing
- Swimming baths
- Establishments for massage or special treatment
- Hairdressers or barbers
- Sale of certain poisons
- Exhumations
- Public Conveniences

SANITARY SERVICES DIVISION

J. Graham, F.A.P.H.I., F.R.S.H., Chief Public Health Inspector

Bad housing conditions continued to make the greatest demands on the staff of the Division and the seriousness of the defective conditions of much of the property in the City is shown by the demolition of more than 700 unfit houses each year because of their dangerous condition. The pressing need for a large number of new houses is generally recognised and was reflected in arrangements during the year for a public inquiry at Chester in January, 1958, into the Corporation's desire to acquire land at Lymm for overspill development.

The Housing Act, 1957, which became operative on the 1st September, as a consolidating measure did not increase the Department's responsibilities. The Rent Act, 1957, however, from the 6th July, introduced numerous procedural changes in dealing with applications for the granting or revocation of certificates of disrepair. This expanded work for the Department, where the landlord and tenant fail to agree, resulted in 1064 applications for certificates of disrepair under the Rent Act. These were preceded by 334 applications under the earlier Housing Repairs and Rents Act, mainly immediately before the passing of the Rent Act of 1957.

The implementation of a clean air policy, through the Clean Air Act, 1956, especially in respect of smoke control areas was taken a stage further with the assignment of an additional public health (smoke) inspector, four technical assistants and an administrative assistant to the staff of the Division. This enabled a large-scale survey to commence at the southern-most boundary of the City which will proceed downwind with the object of the City progressively securing the cumulative benefits of successive smoke control areas.

More attention was also directed to food hygiene and there was an increase in the number of inspections of food premises.

The number of vacancies in the inspectors' establishment tended to remain constant with an overall deficiency of 30, some resignations of experienced staff being offset by recruitment of newly qualified inspectors.

The Department's special establishment of student inspectors was increased with a further intake of five and there are seventeen students in training on the "sandwich" principle between the Department and Salford Royal Technical College.

Inspections and visits

Water

To obtain samples of water for chemical and bacteriological examination	137
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Food supply

Restaurants and snack bars	762
Factory canteens	71
Bakehouses	280
Food preparation premises	434
Markets re sale of food	42
Shops re sale of food	2484
Hotels, beerhouses	267
Hawkers of food and storage premises	68
Dairies and milk shops for milk samples	259
Shops for other food and drugs samples	433
Shops, markets, etc., re sampling	960
Farms : "Appeal to Cow" samples, etc.	8
Dairies and milk distribution premises	242
Pasteurizing and sterilizing plants	2170
Hospitals, schools and day nurseries	308
Imitation cream premises	20
Premises used for the manufacture of ice cream	331
Premises used for the sale of ice cream	989

Smoke abatement

Works, etc.	2260
Premises re survey for smoke control areas	1149

Housing conditions

Primary inspections of dwelling-houses (Public Health Act, 1936, Housing Act, 1957, etc.)	15187
Subsequent inspections of dwelling-houses	24688
Overcrowding	2140
Re-housing and medical cases	2200
Applications for certificates of disrepair	1400
Applications for cancellation of certificates of disrepair	8
Applications for improvement grants	11
Houses let-in-lodgings	22
Common lodging houses	4
Caravan dwellings	71
Canal boats	26
Supervision of work in default	635

Occupational conditions

Homes of outworkers	249
Factories	92
Shops re Shops Act	108
Other business premises	101

Infectious diseases

Primary visits after notification	1069
Subsequent visits	81
Contacts	131
Food poisoning	179

General sanitary conditions

Burial grounds, exhumations, etc.	8
Cesspools, pailclosets, etc.	352
Cinemas, theatres, dance and billiard halls	44
Effluvium nuisances	704
Establishments for massage or special treatment	111
Export of washed rags and second-hand clothing	58
Hairdressers and barbers shops—Manchester Corporation Act, 1950	101
Hospitals, institutions, nursing homes and agencies	94
Infirm persons	7
Land used for pleasure fairs	21
Land, refuse deposits, etc.	1093
Noise	116
Offensive trades	65
Premises for the purpose of examination of drains	311
Piggeries	16
Public sanitary conveniences	43
Rag and bone dealers' barrows	3
Rag flock and other filling material	146
Railway stations	44
Rat infestation	1040
Refuse tips	160
Sale of certain poisons—Pharmacy and Poisons Act, 1933	136
Sanitary accommodation, etc., at parks	27
Sanitary accommodation etc., at schools, churches.. .. .	48
Slaughterhouses	3
Stables	17
Streets, passages, roadways and footpaths	626
Swimming baths	90
Verminous premises	249
Water courses	34
Miscellaneous	9622

WATER SUPPLY

Manchester derives the main part of its water supply from the two widely separated areas of the Lake District (Haweswater and Thirlmere), 80 to 100 miles north of the City, and the lesser and older source from a series of artificial reservoirs in the Longdendale Valley rather less than 20 miles from Manchester in an easterly direction.

Service reservoirs on the outskirts of the City and trunk mains are used to effect distribution and water pressure in the higher level districts is increased by means of booster stations.

28 complaints were received during the year, largely but not entirely concerning the discoloration of the Longdendale supply.

Public Health Inspectors took 48 samples of water for bacteriological examination and 47 for chemical analysis from 34 different premises which included building sites, factories, hospitals, public institutions, residential homes, and schools in addition to dwelling-houses.

43 (90 per cent.) of the 48 samples taken for bacteriological examination did not contain any coliform organisms. The figures in 1955 and 1956 were 85 per cent. and 82.5 per cent. respectively. Of the remaining 5 samples, 3 contained non-faecal coli only and 2 each contained very small counts of both faecal and non-faecal coli as indicated in the following table. Further samples were taken after each unsatisfactory bacteriological report and these subsequent samples were satisfactory in all cases. The Engineer and Manager of the Manchester Corporation Waterworks was informed of all complaints received and also of the results of all examinations, chemical and bacteriological.

District	No. of samples	Samples free from coliform bacteria	Faecal coli found		Non-faecal coli found		Service reservoir	Source
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.		
Baguley	1	1	—	—	—	—	—	Lake District
Blackley	2	2	—	—	—	—	Heaton Park	Lake District
Burnage	2	2	—	—	—	—	Audenshaw	Longdendale
City	3	3	—	—	—	—	Audenshaw	Longdendale
Clayton	1	1	—	—	—	—	Godley	Longdendale
Crumpsall . . .	4	4	—	—	—	—	Heaton Park	Lake District
Didsbury	7	7	—	—	—	—	Audenshaw	Longdendale
Gorton	4	3	—	—	1	5	Audenshaw and Godley	Longdendale
Hulme	2	1	—	—	1	1	Audenshaw	Longdendale
Miles Platting .	1	1	—	—	—	—	Godley	Longdendale
Newton Heath . .	10	9	—	—	1	1	Godley	Longdendale
Northenden . . .	4	2	2*	1 : 1	2*	1 : 7	—	Lake District
Openshaw	1	1	—	—	—	—	Godley	Longdendale
Rusholme	2	2	—	—	—	—	Audenshaw	Longdendale
Sharston	1	1	—	—	—	—	—	Lake District
Whalley Range . .	2	2	—	—	—	—	Audenshaw	Longdendale
Withington . . .	1	1	—	—	—	—	Audenshaw	Longdendale

*2 samples each contained both faecal and non-faecal coli.
Further samples were satisfactory.

One sample of drinking water was taken from an artesian bore at a Manchester works and found to be wholesome.

In the early part of the year 3 notices were served under Section 138 of the Public Health Act, 1936, and Section 30 of the Water Act, 1945, with regard to absence of or inadequate water supply to 4 dwelling-houses. In each case the necessary work was carried out by the Department in default of the owner. Section 25 of the Manchester Corporation Act, 1956, however, now provides more expeditious powers to restore a sufficient supply of water to houses and in accordance with the provisions of that section the supply to 188 houses was restored by the Department.

The Engineer and Manager of the Manchester Corporation Waterworks has supplied the following information on the water supply of the Manchester area:—

The water supply has been satisfactory both in quality and quantity.

Regular supplies are taken for bacteriological examination of the raw water and of the treated water going into supply. Out of 1,016 samples examined in 1957, 873 were found to be free from coliform bacteria. Typical chemical analyses of the sources of supply are attached.

The Thirlmere and Longdendale supplies are treated with hydrated lime. This has proved effective in limiting the maximum lead content found in samples given overnight contact with lead service pipes to less than 0.2 p.p.m Pb. which is considered very satisfactory.

It has proved impracticable to prevent access of seagulls to the large service reservoirs, but pollution from this source is dealt with by chlorination at the outlets of the reservoirs.

TYPICAL ANALYSES

January to December, 1957

THIRLMERE AND HAWESWATER LAKES

The supply from these lakes is subject only to slight variations and the following analyses are typical:—

	Thirlmere	Haweswater
pH value	6.0	6.8
Colour as p.p.m. platinum	12	9
Turbidity p.p.m. silica scale	2.5	2.0
	<i>Parts per million</i>	
Total solids dried at 180°C.	30	32
Free acidity as CO ₂	4	2
Alkalinity as CaCO ₃	5	8
Total hardness as CaCO ₃	11	16
Chlorides as Cl ₂	7	7
Nitrates as N ₂	0.17	0.14
Ammoniacal nitrogen as N ₂	0.02	0.01
Albuminoid nitrogen as N ₂	0.03	0.04
Oxygen absorbed test, 4 hours at 27°C.	0.78	0.57
Silica as SiO ₂	2.5	1.5
Iron as Fe	0.06	0.12
Manganese as Mn	nil	0.03

The water leaving Thirlmere lake is treated with hydrated lime to correct the pH value and sterilized by chloramine. It is again treated with chloramine before it enters the Manchester area of supply.

The water from Haweswater lake is sterilized by treatment with chlorine.

THIRLMERE SUPPLY (with admixture from Haweswater).

Typical analyses of samples taken from house taps, January to December, 1957.

Date	March 13th	Sept. 11th
Lab. No.	5301	5621
pH value	7.0	7.1
Colour as p.p.m. platinum	8	11
Turbidity p.p.m. silica scale	1.5	0.7
Odour or taste: Hot or cold	nil	nil
	Parts per million	
Total solids dried at 180°C.	43	41
Free acidity as CO ₂	2	2
Alkalinity as CaCO ₃	14	15
Total hardness as CaCO ₃	20	19
Chlorides as Cl ₂	10	7
Nitrates as N ₂	0.15	0.02
Nitrites as N ₂	0.009	0.01
Ammoniacal nitrogen as N ₂	0.01	0.01
Albuminoid nitrogen as N ₂	0.01	0.02
Oxygen absorbed test, 4 hours at 27°C.	0.54	0.46
Silica as SiO ₂	2.5	3
Iron as Fe	0.11	0.08
Manganese as Mn	nil	0.03

HAWESWATER SUPPLY. Taken at inlet into Heaton Park reservoir.

TYPICAL ANALYSES. January to December, 1957.

Date	March 11th	Sept. 2nd
Lab. No.	5299	5591
pH value	7.4	7.0
Colour as p.p.m. platinum	8	4
Turbidity p.p.m. silica scale	1.5	0.7
	Parts per million	
Total solids dried at 180°C.	56	47
Free acidity as CO ₂	2	4
Alkalinity as CaCO ₃	24	20
Total hardness as CaCO ₃	26	22
Chlorides as Cl ₂	10	8
Nitrates as N ₂	0.05	—
Nitrites as N ₂	0.006	—
Ammoniacal nitrogen as N ₂	nil	—
Albuminoid nitrogen as N ₂	0.01	—
Oxygen absorbed test, 4 hours at 27°C.	0.66	0.52
Silica as SiO ₂	3	2
Iron as Fe	0.08	0.08
Manganese as Mn	nil	0.02

LONGDENDALE AQUEDUCT SUPPLY. *Raw water.*

TYPICAL VARIATIONS

This supply, derived from the peaty Longdendale gathering ground, is subject to wide seasonal variations as indicated by the following results for the past year:—

pH value	4.0	to	6.5
Colour as p.p.m. platinum	39	to	60
Turbidity p.p.m. silica scale	4	to	15
	<i>Parts per million</i>		
Total solids dried at 180°C.	56	to	65
Free acidity as CO ₂	4	to	13
Alkalinity as CaCO ₃	nil	to	5
Total hardness as CaCO ₃	25	to	33
Chlorides as Cl ₂	8	to	12
Nitrates as N ₂	0.3	to	0.6
Ammoniacal nitrogen as N ₂	0.02	to	0.05
Albuminoid nitrogen as N ₂	0.05	to	0.11
Oxygen absorbed test, 4 hours at 27°C.	1.8	to	3.6
Silica as SiO ₂	5	to	12
Iron as Fe	0.17	to	0.72
Manganese as Mn	0.06	to	0.18

LONGDENDALE AQUEDUCT SUPPLY. *Taken at Godley reservoir outlet as entering the distribution system.*

TYPICAL ANALYSES. January to December, 1957.

	Date	March 4th	Aug. 12th	Dec. 2nd
	Lab. No.	5297	5515	5694
pH value		8.5	8.4	6.8
Colour as p.p.m. platinum		39	45	45
Turbidity p.p.m. silica scale		5.3	9.2	9.0
		<i>Parts per million</i>		
Total solids dried at 180°C.		72	72	71
Free acidity as CO ₂		nil	nil	5
Free alkalinity as CaCO ₃		2	1	nil
Total alkalinity as CaCO ₃		11	14	11
Total hardness as CaCO ₃		39	37	35
Chlorides as Cl ₂		12	11	10
Nitrates as N ₂		0.52	—	—
Nitrites as N ₂		0.008	—	—
Ammoniacal nitrogen as N ₂		0.26	—	—
Albuminoid nitrogen as N ₂		0.07	—	—
Oxygen absorbed test, 4 hours at 27°C.		2.02	2.12	3.58
Silica as SiO ₂		11	7	5
Iron as Fe		0.21	0.72	0.30
Manganese as Mn		0.11	0.12	0.12

The supply is sterilized by the chloramine process, which accounts for the bulk of the ammoniacal nitrogen present, as well as any traces of nitrites which may be present at times.

PLUMBO-SOLVENCY

LONGDENDALE SUPPLY

The raw water has a marked plumbo-solvent action. The supply is treated with hydrated lime so as to raise the pH value of the distributed water to 7.0 to 8.5. Records show that such treated water left in contact with lead service pipes overnight has a lead content not exceeding 0.2 p.p.m. Pb.

THIRLMERE SUPPLY

The untreated lake water has a fairly low plumbo-solvent action. The water is treated with hydrated lime so as to raise the pH value of the distributed water to around 7. Records show that the lead content of the water after standing in contact with lead service pipes overnight is definitely less than 0.2 p.p.m. Pb.

HAWESWATER SUPPLY

The untreated lake water has a low plumbo-solvent action. After flowing down the aqueduct the pH value of the distributed water is 7.0 or over and its plumbo-solvent action is very low; water after overnight contact with lead service pipes shows less than 0.1 p.p.m. Pb.

BACTERIOLOGICAL REPORT. JANUARY TO DECEMBER, 1957.
LAKES, AQUEDUCTS AND SERVICE RESERVOIRS

	Total number of samples	Samples free from coliform bacteria	Faecal coli present		Non-faecal coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
<i>Lakes</i>						
Haweswater	—	—	—	—	—	—
Thirlmere	—	—	—	—	—	—
<i>Aqueducts</i>						
Haweswater	45	37	3	1-2	8	1-2
Thirlmere & Haweswater	22	19	0	—	3	1-13
Longdendale	50	5	40	1-90	45	1-160
<i>Service reservoirs</i>						
Audenshaw No. 1 ..	50	5	41	1-3,500	45	1-3,500
Audenshaw No. 2 ..	50	9	36	1-90	41	1-90
Audenshaw No. 3 ..	50	4	43	1-350	46	1-350
Denton No. 1	24	13	6	1-90	11	1-90
Denton No. 2	23	11	11	1-160	12	1-250
Godley Inlet	50	43	6	1-5	7	1-7
Godley Outlet	50	42	6	1-2	8	1-13
Heaton Park	35	1	33	1-600	34	1-600
Prestwich	33	18	7	1-13	15	1-13

Water from Haweswater lake is chlorinated in the aqueduct at Garnett Bridge, some 10 miles below the lake

Water from Thirlmere lake is chlorinated in the aqueduct near the headworks and it is re-chlorinated before it enters the Manchester area of supply. Results from the supply distributed direct from the aqueduct are given in the next table.

Longdendale aqueduct results represent the water prior to chlorination. The chlorinated supply enters Godley reservoir and sufficient chlorine is added (as chloramine) to maintain a chlorine residual in the water leaving the reservoir for distribution.

The water leaving the service reservoirs, except in the case of Godley reservoir, is sterilized with chlorine or chloramine prior to distribution. Audenshaw No. 1 reservoir is not in direct supply, but feeds Audenshaw Nos. 2 and 3 reservoirs.

Audenshaw reservoirs continue to be seriously polluted by gulls, but the protection mentioned in previous reports has been more effective this year than previously. The results for January, February and August to December inclusive are as follows:—

	FAECAL coli counts		NON-FAECAL coli counts	
	Range	Average	Range	Average
Audenshaw No. 1	5-3500	660	5-3500	710
Audenshaw No. 2	0- 90	17	1- 90	23
Audenshaw No. 3	1- 350	39	1- 350	43

Heaton Park reservoir also continues to be polluted by gulls. It was taken out of service in September for a special reason. Faecal coli counts of 160, 160, 600 and 600 per 100 mls. occurred on 4 occasions, on all other occasions the faecal coli were not more than 100 per 100 mls. High non-faecal coli counts were obtained on 5 occasions—160, 160, 350, 600 and 600 per 100 mls. and on other occasions they did not exceed 100 per 100 mls.

CHLORINATED WATER SUPPLIES ON DISTRIBUTION

	Total number of samples	Samples free from coliform bacteria	Faecal coli present		Non-faecal coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
Audenshaw	244	208	2	2	36	1-160 <i>a</i>
enton	123	114	1	8 ^b	9	1- 11 <i>b</i>
odley	193	166	4	1-5	27	1-180+ <i>c</i>
aweswater	47	25	1	1	22	1- 90 <i>d</i>
eaton Park	151	125	7	1-5	26	1- 5 <i>e</i>
estwich	151	137	1	1	14	1- 25 <i>f</i>
hirlmere aqueduct ..	107	98	1	1	9	1- 3
Totals	1016	873	17	—	143	—

NOTES:—

- (a) All the coliform bacteria found in these samples were derived from aftergrowths in deposits in the mains as 2 to 9 other samples taken on the same dates as those containing coli were found to be coli-free. Of the 36 samples with non-faecal coli present, the majority contained only 1 or 2 coli per 100 mls. of water. Here is a summary of the coli present:—

No. of samples	NON-FAECAL coli per 100 mls.
16	1
8	2
5	3 to 8
7	11 to 160

The 7 samples with high counts gave the following numbers:—11, 13, 13, 25, 35, 50 and 160. These especially were all associated with disturbed conditions in the mains.

- (b) A single sample on one day was found to contain 8 faecal and 11 non-faecal coli per 100 mls., but three repeat samples were coli-free. The remaining samples contained 1 to 8 non-faecal coli per 100 mls. as follows:—

5 samples	1 coli
1 sample	2 coli
1 sample	3 coli
1 sample	8 coli

All of these were derived from aftergrowths in deposits in mains.

- (c) Due to disturbed mains conditions, 4 samples from 1 locality during August and 1 sample in another locality in October gave high coli counts (non-faecal type) of 180+, 90, 13, 13 and 25 per 100 mls. respectively. 5 faecal coli per 100 mls. were found in the sample that gave 180+ non-faecal coli. All these were derived from aftergrowth in the disturbed mains deposits.

The remaining 22 samples gave the following non-faecal coli counts per 100 mls.

12 samples.. .. .	1 coli
4 samples.. .. .	2 coli
2 samples.. .. .	3 coli
1 sample	5 coli
3 samples.. .. .	8 coli

Associated with 4 of these samples, 1 faecal coli per 100 mls. was found. These results were again due to aftergrowths in the mains deposits. 44 samples free from coli were taken on the same dates as those containing coli.

- (d) When Heaton Park reservoir was taken out of service, water from Haweswater aqueduct was put into supply direct. As will be seen from the table on page 157, water from the aqueduct is of very good quality, but on supply some disturbances of deposits in the mains gave rise to a number of samples showing non-faecal coli which were derived from aftergrowths in the deposits. The samples with coli are summarized as follows:—

Samples	NON-FAECAL coli per 100 mls.
4	1
3	2
3	3
4	5
5	8
1	25
1	35
1	90

The last 3 results were caused by very strong local disturbances. On the dates that the above 22 samples were taken, 9 other samples were excellent, i.e. coli-free.

- (e) The results for Heaton Park supply show a great improvement on last year. Of the 26 samples containing coliform bacteria, 9 were taken at a booster station prior to distribution and 17 were taken from house taps. The results are summarized as follows:—

	Samples with FAECAL COLI present		Samples with NON-FAECAL COLI present	
	No. of samples	No. per 100 mls.	No. of samples	No. per 100 ml
Booster Station samples	3	1	6	1
	2	2	1	2
	1	5	1	3
	—	—	1	5
Samples from House Taps	1	2	4	1
	—	—	8	2
	—	—	3	3
	—	—	2	5

On the 21 dates that coli were found in the booster station and/or house tap samples, 36 samples were also taken, which were free from coli. Residual chloramine was found at the booster station on all dates and the coli found in the distributed supply were essentially if not entirely derived from aftergrowth in mains deposits.

(f) The 14 samples with non-faecal coli present gave the following results:—

Samples	NON-FAECAL coli per 100 mls.
4	1
2	2
1	5
3	8
1	13
3	25

The above samples were all free from faecal coli, except one and that contained only 1 per 100 mls. These coli were derived again from aftergrowths in deposits in the mains, as on numerous occasions the reservoir water, even prior to chlorination and distribution, contained either no coli or less coli than samples on distribution. On the 11 dates covered by the above samples, 19 other samples were excellent, i.e. coli-free, confirming the above conclusion. The 7 samples containing 8 to 25 non-faecal coli per 100 mls. were caused by strong local disturbances in mains on three occasions.

GENERAL

Chlorination of all supplies has been maintained throughout the year and the flushing of mains has been continued as a general practice.

Aftergrowths of coliform bacteria in deposits in the mains have resulted again in some samples of the distributed water containing coliform bacteria and, on occasions, when these deposits have been disturbed, samples have given high coliform counts. In all cases, the coliform bacteria have been predominantly non-faecal types. Faecal coli, when present, have been found in minimal numbers.

The general water supply has given the following results. The results for water entering the distribution system are included with those obtained for samples upon distribution.

Total number of samples..	1,088	
Samples free from all coli in 100 mls.	934	85.9 per cent.
Samples free from faecal coli in 100 mls.	1,065	97.9 per cent.
Samples free from or containing only 1 faecal coli per 100 mls.	1,078	99.1 per cent.
Samples free from or containing not more than 2 faecal coli per 100 mls.	1,084	99.6 per cent.
Samples free from or containing not more than 3 faecal coli per 100 mls.	1,085	99.7 per cent.

The bacteriological quality of the distributed water supply has been maintained at a very satisfactory standard throughout the year despite the pollution of the large service reservoirs.

FOOD SUPPLY

Hygiene

8,309 inspections were made to supervise the preparation, handling or storage of food in shops, restaurants, bakehouses, markets, factory canteens and warehouses.

With few exceptions the unsatisfactory conditions found at some premises did not warrant court proceedings and were remedied promptly on cautions by inspectors.

Conditions at a restaurant, bakehouse, butcher's and a greengrocer's shop, however, were such as to require court action for contraventions of the Food Hygiene Regulations, 1955, and penalties were imposed as follows: the proprietor of the restaurant was fined one pound on each of 15 summonses; the bakehouse one pound on each of 12 summonses; and the butcher's and greengrocer's shop four pounds on each of 12 summonses.

140 cases of food poisoning were investigated, of which 63 occurred as three outbreaks; one of 30 cases at a works canteen with *clostridium welchii* as the causal organism and roast veal the food concerned; another of 18 cases (and 12 known outside the City) was caused by *staphylococcus aureus* in a vanilla filling of a "sponge sandwich"; a third involved 15 cases with mild symptoms at a school canteen in which there were 295 diners, but the causal agent was not identified and examination of the sample foods retained as a routine measure and of faeces specimens proved negative.

There was one fatal case, toxæmia due to salmonella infection being the secondary cause of death of a man whose illness was not known to be associated with any other case of food poisoning.

A summary of all the cases is included in the epidemiology section of the report.

The methods used by one firm in the preparation of liquid egg in bulk for supply to bakers and confectioners were investigated and exception taken to the use of a centrifuge for the mass breaking of shell eggs with the separation of the shells and debris from the liquid content by the action of the centrifuge. The firm discontinued the use of this method.

534 persons are registered with the Department as food hawkers under the provisions of Section 41 of the Manchester Corporation Act, 1946. These registrations include 26 mobile canteens and 7 fried fish and chipped potato vans. No condition was found requiring action by the Department in respect of risk to public health.

The registration of street traders, most of whom are also food hawkers is also dealt with by the Department under the provisions of Section 61 of the Manchester Corporation Act, 1950, and at present there are 416 registered street traders. Registration may be refused or revoked if the Corporation consider a person to be unsuitable on account of misconduct or for "any other sufficient reason." In that regard by reason of proceedings instituted by the Watch Committee concerned with trading in prohibited streets or causing obstructions, 38 traders were cautioned and 5 ultimately were removed from the register as their appeals to the Court against the Committee's decision to delete their names were unsuccessful.

Milk and ice cream control

The work directed to ensuring the safety and purity of milk and ice cream included the frequent inspection of dairies and other premises, of equipment, methods of distribution and regular sampling for bacteriological and biological examination and chemical analysis.

Dairies

In the course of more than 3,000 visits to dairies and milk distribution depots the general standard of cleanliness was found to be good and it was not necessary to institute legal proceedings in respect of any contravention of the Milk and Dairies Regulations.

The inspection and checking of the 11 licensed pasteurizing plants and six licensed sterilizing plants was carried out at least once each month and each of 118 samples of pasteurized milk taken at the dairies satisfied the prescribed tests. Of 537 samples of the processed milk taken on the road whilst the milk was in course of delivery to hospitals, schools and the general consumer five (9 per cent.) were unsatisfactory in that they failed to pass the prescribed tests laid down by the Ministry, viz.:—the phosphatase test for efficiency of that treatment and the $\frac{1}{2}$ -hr. methylene blue test for keeping quality. Three of these were from a dairyman from outside the City and subsequent samples from the same source were found to be satisfactory.

The number of distributors of milk registered in the City is now 2,077. This figure includes 23 dairymen retailing milk in Manchester and whose premises are situate outside the City.

Milk supply to hospitals, schools and day nurseries

In addition to the bacteriological examinations of samples of the pasteurized milk supplied to various hospitals, schools and day nurseries in the City, 29 samples were also biologically examined by the Public Health Laboratory for the presence of tubercle bacilli and on no occasion was the milk found to contain any such bacilli.

Samples of raw milk supplied to the Langho Epileptic Colony and Booth Hall Hospital from the attested herds at the Langho Colony farms taken both at the farms and on arrival at Booth Hall Hospital showed a high standard of quality and cleanliness and in no case was there any tuberculous infection of the milk.

General

Concerning the washing of milk bottles approximately 700,000 are washed daily in the City for which purpose the dairies are equipped with modern washing machines and employ staff solely for the inspection of washed bottles. Occasionally, however, improperly washed bottles do reach the public and in such instances were dealt with. Every opportunity is taken of urging that the utmost care should be taken by those responsible and the general public could be of great assistance by rinsing empty bottles promptly and ensuring that they are not misused.

No case of infectious disease implicating milk occurred during the year.

Ice cream

The number of premises registered for the manufacture and/or sale of ice cream is 2,125. The majority of these premises are equipped with totally enclosed automatic cabinet refrigerators which sell only pre-packed ice cream. There is only a very small number of premises from which loose ice cream is sold and on these premises effective provision is made for the satisfactory cleansing and sterilizing of utensils separate and distinct from the domestic hot water supplies.

Regular inspections have been made of ice cream premises, their equipment and methods, and the general standard of cleanliness has been good. In no instance was it necessary to institute legal proceedings. Similarly improvement in the equipment of vehicles used for the sale of loose ice cream with particular regard to hand washing facilities have been maintained.

Of the samples of ice cream taken during the year for bacteriological examination, 92.0 per cent. were placed in Grades 1 and 2 and were, therefore, satisfactory. The remaining 8.0 per cent. came into Grade 3 which is fairly satisfactory. Thorough investigation was made at the factories from which the Grade 3 samples came and repeat samples of the ice cream taken until Grade 1 samples were obtained in each case.

TABLE I.
Milk (Special Designation) Regulations, 1949

LICENCES ISSUED DURING THE YEAR

Dealer's licence to use the designation:

Pasteurized—

(A) Pasteurizing establishments	1
(b) Other dairies and bottled milk shops.. .. .	1,610

Sterilized—

(A) Sterilizing establishments	6
(B) Other dairies and bottled milk shops.. .. .	1,980

Tuberculin tested—

Dairies and bottled milk shops	551
--	-----

Supplementary licences to use the designation:

Pasteurized	20
Sterilized	20
Tuberculin tested	20

TABLE II.

Bacteriological and biological examination of pasteurized and sterilized milks

Place of collection of sample	BACTERIOLOGICAL, ETC., EXAMINATION *				BIOLOGICAL EXAMINATION FOR PRESENCE OF TUBERCLE BACILLI					
	No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Positive		Negative	
		No.	Percentage	No.	Percentage		No.	Percentage	No.	Percentage
	Pasteurizing plant at dairy..	118	100.0	—	—	—	—	—	—	—
Hospitals	137	97.8	**3	2.2	139	—	—	139	100.0	—
Schools and day nurseries . .	127	100.0	—	—	130	—	—	130	100.0	—
On road during distribution.	273	99.3	2	0.7	—	—	—	—	—	—
Totals	655	99.2	5	0.8	269	—	—	269	100.0	—

In addition to the above samples, 283 samples of milk were taken at hospitals, schools and day nurseries in the City and submitted for chemical analyses. The results of the analyses showed that all the samples came up to the legal standard with the exception of two informal samples one of which (taken at one of the City hospitals) was 3.1 per cent. deficient in non-fatty solids and the other (taken at a school) was deficient in fat to the extent of 25 per cent. Subsequent samples, taken formally and informally, from the dairymen concerned, proved to be satisfactory.

** These 3 unsatisfactory samples were from an "Outside the City" dairymen.

* OFFICIAL TEST : (1) Pasteurized and Tuberculin Tested (Pasteurized) Milk to pass the phosphatase and $\frac{1}{4}$ hour methylene Blue tests.
(2) Sterilized and Tuberculin Tested (Sterilized) Milk to pass the turbidity test.

Food and drugs adulteration

Duties directed to the prevention of adulteration of, or irregularities in food or drugs are carried out under the Food and Drugs Act, 1955, with its associated Regulations and Orders concerned with the nature, substance, or quality of food or drugs demanded by the purchaser, and the detection of adulteration or misrepresentation. Samples of food and drugs customarily purchased by a family were procured by sampling officers and submitted to the Public Analyst for examination.

The total number of samples obtained was 2,273 of which 884 were milk samples including 2 "Appeal to Cow" samples. 239 of the milk samples were purchased from retailers and 3 were found on analysis to be below the prescribed standards. Two of these samples, however, were informal and formal samples taken from the same source were found to be satisfactory. The third was a formal sample of Guernsey T.T. milk containing 3.65 per cent of fat. As the Milk and Dairies (Channel Islands and South Devon Milk Regulations, 1956, specified that all milk for human consumption sold as Guernsey T.T. milk shall contain not less than 4 per cent of milk fat the producer and purveyor were cautioned and the Ministry of Agriculture Fisheries and Food were informed. The owner of a Snack Bar was fined £5 for selling "hot milk" containing 44.0 per cent of added water and in two instances lesser irregularities were dealt with by cautioning the owners.

640 samples of milk were taken from farmers' consignments on arrival at dairies in the City and of these 83 (12.9 per cent.) proved on analysis to be below the presumptive standard. It will be noted that this percentage is of the 640 samples taken on arrival at dairies before treatment and distribution, and therefore of a selective nature directed to the control of individual supplies. When expressed as a percentage of all milk samples viz., 1,165 including those taken at random throughout the City, the figure of adulteration or other irregularity is 7.81 per cent.

30 of the samples taken from farmers' consignments on arrival at dairies were deficient in fat but as the average of the respective consignments of which they formed a part exceeded the presumptive standard of the Sale of Milk Regulations, 1939, no action was necessary.

Cautions were sent to 18 farmers in respect of 37 samples which were not seriously below the presumptive standard and legal proceedings were instituted against one farmer in respect of 4 samples found to be substantially adulterated: fines and costs totalled £30 1s. There were 12 samples of milk with minor deficiencies of non-fatty solids, but further samples from the same source proved to be satisfactory.

In addition to the work of the sampling officers 283 informal samples of milk were submitted by the Milk Control Inspectors of which one sample was slightly deficient in fat and another in solids not fat. Further samples from the same dairies were satisfactory.

1,389 samples of food (other than milk) and drugs were procured and submitted to the Public Analyst, of these 790 were formal samples and 599 were informal.

The Food and Drugs Act, 1955, requires a notification to the packer or manufacturer of a pre-packed food when formal sampling has been carried out if the name and address of the manufacturer or packer appears on the wrapper or container; 145 notifications were sent in accordance with this requirement.

Irregularities

Irregularities disclosed in samples of food and drugs (other than milk) were dealt with as follows:—

Samples of pickles, sauce and sweets contravened the Labelling of Food Order, 1953, i.e., the ingredients were not stated on the label correctly, or not in the quantitative order. The manufacturer or packer was cautioned and the commodities relabelled.

Two formal samples of dried fruit contained larvae and another a small percentage of tea. Each vendor was cautioned and remaining stocks were withdrawn from sale.

A sample of sago was found to consist of tapioca and the retailer was informed of his error.

The meat content of three formal samples of pork sausage was considered to be inadequate though not warranting prosecution in the absence of a prescribed standard, two manufacturers were cautioned. In the remaining instance the meat content of the pork sausage was only 48 per cent and prosecution resulted in the manufacturer being fined £5.

A sample of flour examined by the Public Analyst for calcium in relation to the Flour (Composition) Regulations, 1956, which require not less than 35 and not more than 390 milligrams of pure calcium carbonate as "creta praeparata" per 100 grams of flour, contained 186 milligrams. Another sample of the same brand of flour was unsatisfactory in a minor degree being found to contain 420 milligrams of "creta praeparata" per 100 grams of flour.

Informal samples of liquid paraffin and camphorated oil were found on analysis to be below the British Pharmaceutical standards. Further formal samples taken from the same source were satisfactory.

An informal sample of canned cream submitted in a bottle by a member of the public was found to be thin in consistency and possessing a bitter taste. The Public Analyst found that the chemical composition was normal and that bacterial contamination was likely to have been the cause of the irregularity. From investigation at the retailers and wholesaler's premises it appeared that the complaint was an isolated one; samples of the canned cream from the same batch were examined and found to be normal.

Members of the public also submitted a number of samples of food found to contain extraneous matter. The circumstances of each case were investigated and resulted in either withdrawal and destruction of stocks, cautions to manufacturers or where the places of preparation or packing were situated elsewhere than Manchester, the circumstances were reported to the Health Authorities concerned.

Legal proceedings were instituted in five instances and fines of £20; £5 and £2 respectively were imposed on manufacturers for (1) Chocolate Easter Egg containing particles of transparent plastic material (2) Malt loaf containing a nail and (3) Fruit tart containing a cockroach. The two remaining cases were dismissed on a submission that the informations and summonses were incorrect.

There were no contraventions of the Public Health (Preservatives in Food Regulations), 1925-1953.

Public Health Condensed Milk Regulations, 1923-1953

Public Health Dried Milk Regulations, 1923-1948

31 samples of condensed and dried milks were submitted to the Public Analyst for examination. One sample of Sweetened Condensed (Skimmed) milk was found to be abnormally thickened and slightly stale. A percentage of the remaining stock was examined, found to be of a similar nature and the whole of the stock was withdrawn from sale.

All samples of ice cream submitted for analysis complied with the prescribed standard.

The samples of food and drugs which failed to meet the requirements of the Acts, Regulations and Orders are detailed in the following tabular statement.

Adulterated and other unsatisfactory samples and action taken

Private and informal samples										Forma samples							
Adulterated or unsatisfactory	Formal samples obtained	Further samples pending	Cautioned	Stocks withdrawn	Notified to other local authority for investigation	Legal proceedings				Article	Adulterated or unsatisfactory	Cautioned	Stocks withdrawn	Legal proceedings			
						Summons	Dismissed	Fined	Amount of fines					Amount of costs	Summons	Fined	Amount of fines	Amount of costs
16	15	—	1	—	—	—	—	—	—	Milk	45	—	—	5	5	£ s. d. 31 0 0	£ s. d. 4 1 0
6	—	—	6	—	—	—	—	—	—	Bread	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—	Bread (fancy)	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—	Bottled fruit	—	—	—	—	—	—	—
1	1	—	—	—	—	—	—	—	—	Canned cream	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	Cheese	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	Dried fruit.. .. .	3	3	3	—	—	—	—
2	—	2	—	—	—	—	—	—	—	Flour	—	—	3	—	—	—	—
5	—	—	3	—	1*	—	—	—	—	Flour confectionery	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	Jam	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	Pickles	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	Pork sausage	1	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	Sago	3	—	—	1	1	5 0 0	—
1	—	—	1	—	—	—	—	—	—	Salad sandwich	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	Sauce	—	—	—	—	—	—	—
4	—	—	3	—	3*	—	—	—	—	Sugar confectionery	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	Soft drink	1	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—	Condensed milk	—	—	—	—	—	—	—
1	1	—	—	—	—	—	—	—	—	Camphorated oil	—	—	—	—	—	—	—
1	1	—	—	—	—	—	—	—	—	Liquid paraffin	—	—	—	—	—	—	—

SMOKE PREVENTION

The Clean Air Act, 1956, became operative in part on the 31st December, 1956, the remainder awaiting the second appointed day in 1958.

The provisions now applicable deal with the establishment of smoke control areas ; the notification of new furnaces ; the requirement that new furnaces shall be smokeless as far as is practicable ; the height of new industrial chimneys to be sufficient to prevent as far as is practicable, any emissions from becoming injurious to health or a nuisance ; certain deposits of refuse from quarries and mines to be subject to means directed to preventing combustion or minimizing the emission of smoke or fumes ; and authority to make byelaws requiring that in new buildings, heating and cooking installations should be smokeless as far as is practicable.

Section 23 of the Act requires that a consultative council to be known as the Clean Air Council shall be appointed for the purposes of keeping under review the progress made in abating air pollution and obtaining advice on its prevention. This was formed during the year by the Minister of Housing and Local Government, who appointed the Town Clerk to its membership.

The innovation under Section 10 of the Act, whereby the local authority empowered to require that new industrial chimneys shall be of sufficient height to avoid prejudice to health or be a nuisance, is of considerable significance to a clean air policy. The desire to erect buildings with architectural features undisturbed by a tall chimney and thereby also greatly economising in constructional costs, conduce to the provision of the lowest chimney with which it is possible for a boiler plant to operate. Prior to the Clean Air Act coming into operation, it was possible to insist that chimneys of new furnace installations should at least be of sufficient height to ensure efficient combustion, which in turn would lead to smoke reduction, but no power provided that the products of combustion, smokeless or otherwise, should be emitted at sufficient height to ensure safe diffusion into the atmosphere. With the new provisions, during prior discussion with those concerned in new boiler installations, where proposed chimneys have not been deemed to be of sufficient height, it has been possible to secure agreement that the height should be increased so as to comply with the requirements of the section. There have been 7 such cases.

With the object of encouraging public interest in clean air, the Department co-operated with the National Smoke Abatement Society, professional associations, and local authorities in a campaign in the North West inaugurated at Manchester with an exhibition opened at the Free Trade Hall by Lord Mills, Minister of Fuel & Power. The British Oil Burner Manufacturers' Association, Fuel Research Station of the Department of Scientific and Industrial Research, North Western Electricity Board, North Western Gas Board and the Solid Smokeless Fuels Federation, each actively participated with display stands and there was a central exhibit from the Department with the Libraries Department also providing a display of information sources. The best attended sessions were those organised jointly by the Women's Gas Federation and the Electrical Association for Women with the support of the Lady Mayoress and Alderman Mrs. Evelyn Hill, M.P., who presided.

The attention of industrialists continues to be directed to forthcoming legislation under the Clean Air Act, 1956, in which "dark smoke" as distinct from "black smoke" will constitute an offence as from a "second appointed day." Where hand-firing with bituminous coal is still carried out, they are urged to consider the installation of suitable types of mechanical stokers, and to obtain the assurance from their fuel suppliers that the correct grades of coal for the proposed appliances will be available.

Although the firing equipment of boiler plant continues to be improved it is regretted that the low standard of boiler stoking shows little if any improvement over the past years, the main cause for undue smoke emission still being due to bad firing. Educational courses in boiler-house practice have been in operation for many years at the Manchester College of Science and Technology and more recently independent courses have been carried out by the National Industrial Fuel Efficiency Service, the National Coal Board and the Central Electricity Authority. It would appear that in many instances the lure of more congenial and rewarding work removes many skilled men from the heat and grime of furnace stoking. It also must be admitted that the absence of instrumentation to many plants cannot arouse enthusiasm in a skilled fireman to maintain a high efficiency, when so little assistance is provided for him. In this connection it is noteworthy that when automatic smoke alarms are installed, it is rare for an offence to be committed, a fireman, no matter how unskilled, generally endeavouring to comply with the audible warning of excessive smoke emission. Correspondingly it is reasonable to conclude that if the provision of audible smoke alarms were compulsory, the incidence of smoke offences would be greatly diminished.

The following statement relates to the work of the Smoke Inspectors under the provisions of the Public Health Act, 1936 :—

1957

Timed observations taken	679
Black smoke, two minutes and over in half-hour periods	42
Smoke other than black and causing nuisance	5
Black smoke under two minutes	243
Dense smoke other than black not in such quantity as to be a nuisance	11
Total amount of black smoke observed in minutes	431
Average amount of black smoke observed (in minutes) per observation revealing black smoke	1.51
Total amount of dense smoke other than black observed (in minutes) per observation revealing dense smoke other than black	79
Average amount of dense smoke other than black observed (in minutes) per observation revealing dense smoke other than black	4.00
Complaints from all sources	90
Visits to works <i>re</i> smoke abatement	2,260
Premises where inspectors recommended plant to be altered, improved or repaired	43
Premises where plant was found to have been altered, etc., as a result of inspector's recommendation	35
Cases reported to Committee	51
Cases cautioned or excused	16
Statutory notices served—black smoke	17
Statutory notices served—other than black	9
Prosecutions for smoke nuisances, penalties imposed	7
Magistrates Orders granted—black smoke	1
Magistrates Orders refused—black smoke	—
Amount of penalties and costs	£27 14s. 0d.
Statutory notices expiring without further action	20
Approximate number of industrial chimneys, including "exempted" chimneys	1,701

Cases reported to Committee—causes of emission :—

Bad firing	39
Unskilled fireman	2
Unsuitable fuel	4
Bad firing and unsuitable fuel	1
Fireman having other duties to perform	2
Insufficient boiler plant	—
Defects in plant	2
Accidental causes beyond control of fireman	1

Prior approval of the installation of furnaces

Under the provisions of Section 36, Manchester Corporation Act, 1946, the Corporation obtained powers to insist that all new industrial furnace installations and furnaces for steam raising installed in any building should be as far as is practicable capable of being operated continuously without emitting smoke.

Section 42 of the Manchester Corporation Act, 1950, extended those provisions by removing the restriction of only steam raising furnaces being within the scope of prior approval. It also allowed the approval provisions to extend to furnaces not necessarily within buildings provided that they were on premises, the definition of which includes land.

In considering proposals submitted for prior approval the practice of prompt, full discussion with the owners' representatives has continued and their co-operation has obviated the necessity for the rejection of any proposals.

The Manchester Corporation Acts, 1946 and 1950, do not require the compulsory notification of new furnaces, and it was therefore possible that a new installation might occur without the knowledge of the Department. Section 6 of the Clean Air Act, 1956, however, now requires the notification of any proposal to install a furnace to which the section applies, although it is still not obligatory to secure the prior approval of the installation.

Section 3 of the Clean Air Act applies to any furnace without the exemptions specified in the Manchester Corporation Act, 1950, Section 42, provided the furnace is not designed solely or mainly for use for domestic purposes and is not of a boiler with a maximum heating capacity of 55,000 or more British thermal units per hour.

There is also a distinction between the actual powers granted under the Manchester Corporation Acts, 1946 and 1950, and those under Section 3 of the Clean Air Act. Under the Manchester Acts, the furnace (subject to certain provisos) must be as far as practicable capable of being operated continuously without emitting smoke. Under the Clean Air Act, however, the furnace must be capable of being operated continuously without emitting smoke, *when burning fuel of a type for which the furnace was designed*. It would appear that whilst the Manchester Corporation Acts could be interpreted to require, where reasonable, the use of smokeless fuels in a new installation, no such power is granted under Section 3 of the Clean Air Act, which enables any fuel for which the furnace was designed to be used.

The Department obtains knowledge of proposed installations by perusal of plans of new buildings submitted to the City Architect ; from information obtained by the Public Health Inspectors engaged on smoke prevention duties ; and by notification required under Section 3 of the Clean Air Act.

During the year, 28 official notices of approval were granted. It may be of some significance to prevailing trends that of these 28 installations, 14 referred to oil firing, 9 to coke, 3 to coal gas, and only 2 to bituminous coal.

Smokeless Zones and Smoke Control Areas

Manchester Corporation Act, 1946, Section 35

Clean Air Act, 1956, Sections 11-15

Under the provisions of the Manchester Corporation Act, 1946, Section 35, the Corporation, subject to the consent of the Minister of Housing and Local Government, has power to declare areas in which no smoke shall be emitted.

The central area of the City was declared a smokeless zone in 1952 and three marginal extensions to this area were created in 1955. The extended central smokeless zone now covers an area of 412 acres.

In 1955, five redevelopment areas were also declared smokeless zones, the total area being approximately 33 acres.

In 1956, two small areas at Wythenshawe, with a total acreage of 13.41 were declared smokeless zones and the orders became operative during 1957.

During 1957 the following three redevelopment areas were also declared smokeless zones under the provisions of the Manchester Corporation Act 1946, and will become operative during 1958.

Miles Platting Area

Area within the boundary of Naylor Street along Oldham Road to Varley Street, Cash Street and along the rear boundary of the premises occupied by Messrs. Henry Tetlow & Sons (M/c.) Ltd., to Silver Street, Varley Street, Lower Russell Street, Sho Street, William Street, Lime Street, Lewis Street, Sycamore Street, Lower Vickers Street to Fraser Street, along Fraser Street to a distance of 28 yards, thence in a south-westerly direction to Naylor Street at a point formerly occupied by the house numbered 10 Naylor Street, and back to Oldham Road—26.5 acres.

Mill Street (Ancoats) Area

Area within the boundary of the Rochdale Canal Bridge adjoining 68, Butler Street along Butler Street to Mill Street and crossing Mill Street to Beswick Street, thence along Piercy Street to the boundary of premises occupied by Joseph Stubbs Ltd., Upper Kirby Street, Kirby Street to Cannel Street, Woodward Street, Woodward Place and St. Vincennes Street to the Rochdale Canal, thence along the canal to Butler Street Bridge—29.7 acres.

Harpurhey Area

Area within the boundary of the Manchester General Cemetery and 55, Boardman Street, along Woodland Street to No. 38 and in a general north-easterly direction across hilly ground to the Harpurhey Road, Rochdale Road, the Boundary of the Manchester General Cemetery—8 acres.

In addition to the extended smokeless central area, there are now 7 smokeless zones in operation, making a total area of 458.44 acres.

The Clean Air Act, 1956, now enables any local authority to establish "smoke control areas," subject to the consent of the Minister of Housing and Local Government and contains the significant difference from the smokeless zone provisions of the Manchester Corporation Act, Section 36, in an Exchequer contribution being available to the Corporation towards the cost of approved expenditure at dwellings in the conversion of appliances to smokeless operation. It will be recollected that under the Manchester Corporation Act, the Corporation may contribute the whole or part of the expenses necessarily incurred by any person in converting to smokeless operation, but provision is not made for any Exchequer contribution to the Corporation for that expenditure. Further, under the Clean Air Act it is obligatory that the owner or occupier of the dwelling subject to a smoke control order shall be repaid seven-tenths of the expenditure he has incurred on such work of conversion.

Another difference is that Section 11 of the Clean Air Act, 1956, whilst prohibiting smoke emission in "smoke control areas" provides that it shall be a valid defence if it can be proved that the smoke was caused by the use of an "authorised fuel." "Authorised fuels" are defined in The Smoke Control Areas (Authorised Fuels) Regulations, 1956, as: anthracite, briquetted fuels carbonised in the process of manufacture, coke, electricity, gas, low temperature carbonisation fuels, low volatile steam coals.

In addition The Smoke Control Areas (Exempted Fireplaces) Order, 1957, which became operative on the 8th April, 1957, exempts fireplaces specially designed or adapted for combustion of liquid fuel from the provisions of the Clean Air Act in respect of smoke control areas, provided that the fireplaces "are so installed, maintained and operated as to minimise the emission of smoke."

Following the policy of preventing smoke emissions in redevelopment areas, the Health Committee approved a report submitted regarding St. George's area. In this case, however, as some existing buildings would be included in the area, instead of proceeding under Section 35, Manchester Corporation Act, 1946, the necessary action was taken under the provisions of Section 11 of the Clean Air Act, which became available on the 31st December, 1956, and the area declared to be a "Smoke control area," with conditional exemptions in respect of industrial furnaces at two premises.

The following details refer to this area :—

The area is of approximately 43 acres bounded by City Road from Linby Street to the easterly boundary of the curtilage of the dwelling-house, 328a, City Road and the rear of 328a and 330, City Road to the municipal boundary between Manchester and Stretford, along that boundary to Chester Road, Chester Road to Linby Street, Linby Street to City Road.

The prescribed area contains :—

Buildings	Owned by		Totals
	Corporation	Others	
Dwellings	192	29	221
Commercial premises with living accommodation	1	14	15*
Commercial premises without living accommodation	—	1	1
Industrial premises	—	32	32
Other premises	4	5	9
	197	81	278

*This total includes 3 premises which are unoccupied, two of which are to be demolished.

In addition, in accordance with the City Council's redevelopment plan, the area will contain 479 dwellings, the erection of which has commenced and each of these will be provided with an approved solid fuel burning appliance complete with gas ignition and capable of being operated smokelessly. Accordingly no adaptation of appliances will arise in respect of these new dwellings.

It is estimated that at present the amount of bituminous coal burned in domestic appliances in the area is 553 tons and in industrial appliances 179 tons. Correspondingly 553 tons of coal at present burnt in domestic appliances will have to be replaced by smokeless fuel and 13 tons of coal burnt in industrial appliances similarly replaced. The remainder being burnt in appliances subject to a conditional exemption.

102 back-to-back grates would require to be adapted to enable solid smokeless fuel to be burned, 19 open grates and 112 combination grates to be replaced by the approved coke burning open fire grates, all with gas ignition. The total estimated cost would be £6,145.

During the year consideration was given to the implications of a programme for elimination of the major source of atmospheric pollution in the area—the domestic coal-burning fire. An Exchequer grant only being available for adaptations in dwellings when proceeding under the Clean Air Act, future action in built-up areas generally will be taken under the Act. In determining the area most suitable for the beginning of a large scale change regard has been had not only to the immediate benefits in the smoke control area, but also to the potential value downwind to the City in general. Thus with the prevailing south, south-westerly wind the most suitable area clearly is on the southerly perimeter of the City, Wythenshawe, especially as practically the whole of the post-war municipal housing estate forming most of that district, had smokeless solid fuel burning appliances, thereby reducing the overall capital cost of conversions or replacements.

The house to house survey of the area, with the estimation of the approximate costs of adaptations has been commenced and continued at the end of the year.

Recording of atmospheric pollution

Systematic observations of atmospheric pollution have been carried out by local authorities for many years and since 1927 the co-ordination of the measurements has been supervised by the Department of Scientific and Industrial Research. The number of authorities co-operating has greatly increased during the past few years and is indicative of the greater interest in the subject of atmospheric pollution.

The main instruments used for this measurement are the deposit gauge and the smoke filter for deposited and suspended matter respectively, and the lead peroxide coated porcelain cylinder and the hydrogen peroxide volumetric apparatus for sulphur dioxide.

The deposit gauge consists of a bowl twelve inches diameter suitable for protection and designed to collect solid and liquid matter falling into it from the atmosphere. The larger particles of grit falling from a chimney may be collected but the amount of fine particles and smoke collected will depend on other factors such as rainfall and wind direction. Before any reliable conclusion can be drawn, a long period of observation is necessary, and for the purpose of this report the yearly averages are compared with the average of the five previous years.

The Corporation maintains seven deposit gauges within the municipal area, and one gauge, for the purpose of comparison at Knowle House, Handforth. The following table shows the amount of insoluble and soluble matter collected in the gauges, along with the rainfall at each station. It will be seen that there was a reduction in the amount of deposited pollution measured at each station, including that at Knowle House, Handforth.

1957

Deposited atmospheric pollution

(Tons per square mile)

Monthly averages together with the averages for the previous five years

Station	Rainfall (inches)		Insoluble matter		Soluble matter		Total solids	
	1957	Five yearly average	1957	Five yearly average	1957	Five yearly average	1957	Five yearly average
Baguley	2.4	2.6	4.73	5.54	5.53	6.63	10.27	11.57
Booth Hall	3.3	3.1	8.39	9.61	6.97	7.06	15.36	16.67
Heaton Park ..	3.5	3.2	5.54	6.16	5.75	6.0	11.29	12.16
Monsall	2.7	2.7	10.05	10.6	8.08	8.15	18.13	18.75
Philips Park	3.3	3.0	18.68	22.37	10.21	10.52	28.89	33.89
Rusholme	2.9	2.9	10.73	12.28	7.43	8.21	18.16	20.48
Withington	2.5	2.6	8.94	10.21	5.89	6.23	14.83	16.43
Average for all gauges	2.9	2.8	9.58	10.97	7.12	7.45	16.70	18.42

Station at Knowle House, Handforth

Station	Rainfall (inches)		Insoluble matter		Soluble matter		Total solids	
	1957	Five yearly average	1957	Five yearly average	1957	Five yearly average	1957	Five yearly average
Knowle House ..	2.5	2.6	2.99	3.81	4.14	4.55	7.13	8.36

Sulphur pollution

(Measurements by the lead peroxide method)

Weight in milligrams SO₃ per 100 square centimetres exposed surface per day

Monsall		Rusholme		Withington	
1957	Five yearly average	1957	Five yearly average	1957	Five yearly average
3.5	3.8	1.9	2.3	1.4	1.5

1957

D.S.I.R. deposit gauge

Tons of deposit per square mile

Monthly averages

Station	Rainfall (inches)		Insoluble matter		Soluble matter		Total solids	
	1957	1956	1957	1956	1957	1956	1957	1956
Baguley	2.4	2.8	4.73	5.10	5.53	6.05	10.27	11.15
Booth Hall	3.3	3.3	8.39	9.52	6.97	7.20	15.36	16.72
Heaton Park	3.5	3.3	5.54	6.15	5.75	6.09	11.29	12.24
Monsall	2.7	3.0	10.05	11.22	8.08	8.64	18.13	19.86
Philips Park	3.3	3.2	18.68	27.70	10.21	10.97	28.89	38.67
Rusholme	2.9	3.1	10.73	13.14	7.43	8.85	18.16	21.99
Withington	2.5	2.7	8.94	9.27	5.89	6.81	14.83	16.08
Average for above gauges	2.9	3.0	9.58	11.73	7.12	7.80	16.70	19.53
Knowle House* (Handforth)	2.5	2.6	2.99	4.22	4.14	4.60	7.13	8.82

* This station is situated in Cheshire, outside the City boundary, and is about eight miles south from the City centre. Results are recorded for comparison.

The smoke filter draws a measured quantity of air through a filter paper, the filtered smoke producing a circular stain which is compared with a standard scale of shades and the pollution estimated. Usually this smoke filter is combined with the volumetric method of measuring sulphur dioxide, by drawing the air which has passed through the filter into a bubbler containing a solution of hydrogen peroxide. This provides a measure of the acidity of the air. Another method developed by the Fuel Research Station is to expose a cylinder of 100 sq. cm. surface coated with a paste of lead peroxide to the air for a month, and the reaction between sulphur dioxide and the lead peroxide enables an estimate to be made of the relative concentration of sulphur dioxide in the air. Results are expressed in units of sulphur trioxide per 100 square centimetres per day.

It will be seen from the previous tables that the measured amount of sulphur pollution by the lead peroxide method at all three stations decreased compared with the average of the previous five years.

A volumetric sulphur dioxide apparatus and smoke filter is installed at the City Analyst's laboratory at High Street. The diagrams which follow illustrate the reduction in measured smoke and sulphur pollution during the warmer periods of the year. This type of fluctuation, which is consistent, appears to demonstrate that the measured pollution in this area is mainly derived from domestic sources.

The heaviest smoke and sulphur pollution was on November 8th, 1957 when 1.953 milligrams of smoke per cubic metre, and 71.3 parts of sulphur dioxide per 100 million parts of air were measured.

The least smoke was measured on 14th August, 1957, with 0.042 milligram per cubic metre, the lowest sulphur dioxide measured occurring on 28th June 1957, with 1.4 parts per 100 million of air.

1957

Daily mean concentration of smoke and sulphur dioxide pollution by volumetric apparatus

Rusholme

	Daily average smoke parts per cubic metre	Daily average sulphur dioxide parts per 100 million
January	0.253	11.7
February	0.255	11.8
March	0.272	8.7
April	0.173	8.7
May	0.208	6.9
June	0.158	5.4
July	0.157	5.5
August	0.157	5.7
September	0.213	7.2
October	0.328	10.0
November	0.384	15.8
December	0.387	15.5

Heaviest Pollution:—

Smoke, 8th November, 1957, 1.953 milligrams per cubic metre.

S.O.₂, 8th November, 1957, 71.3 parts per 100 million.

Lightest Pollution:—

Smoke, 14th August, 1957, 0.042 milligrams per cubic metre.

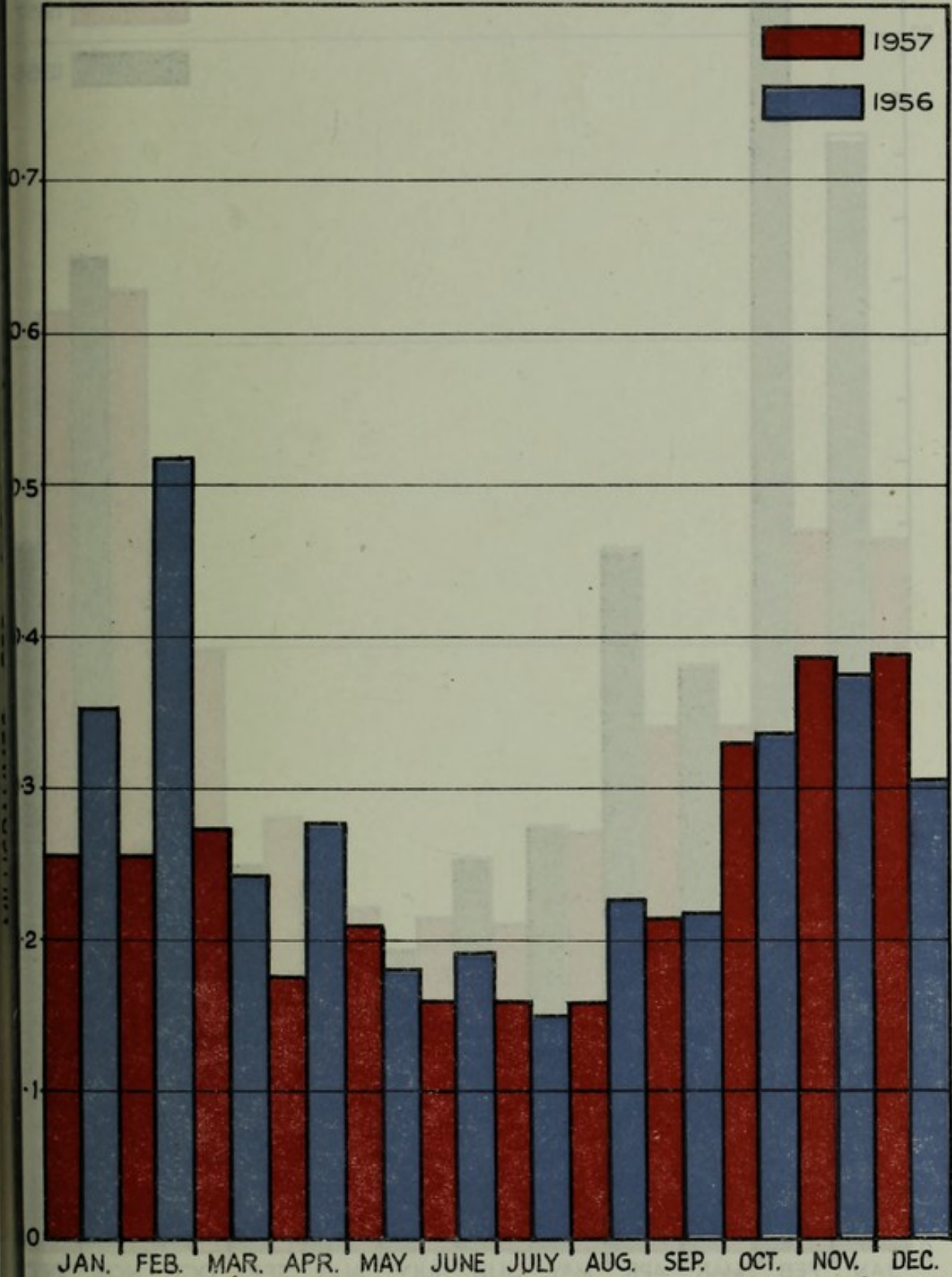
S.O.₂, 28th June, 1957, 1.4 parts per 100 million.

ATMOSPHERIC POLLUTION

SMOKE

MONTHLY AVERAGE - DAILY MEAN CONCENTRATION.

RUSHOLME

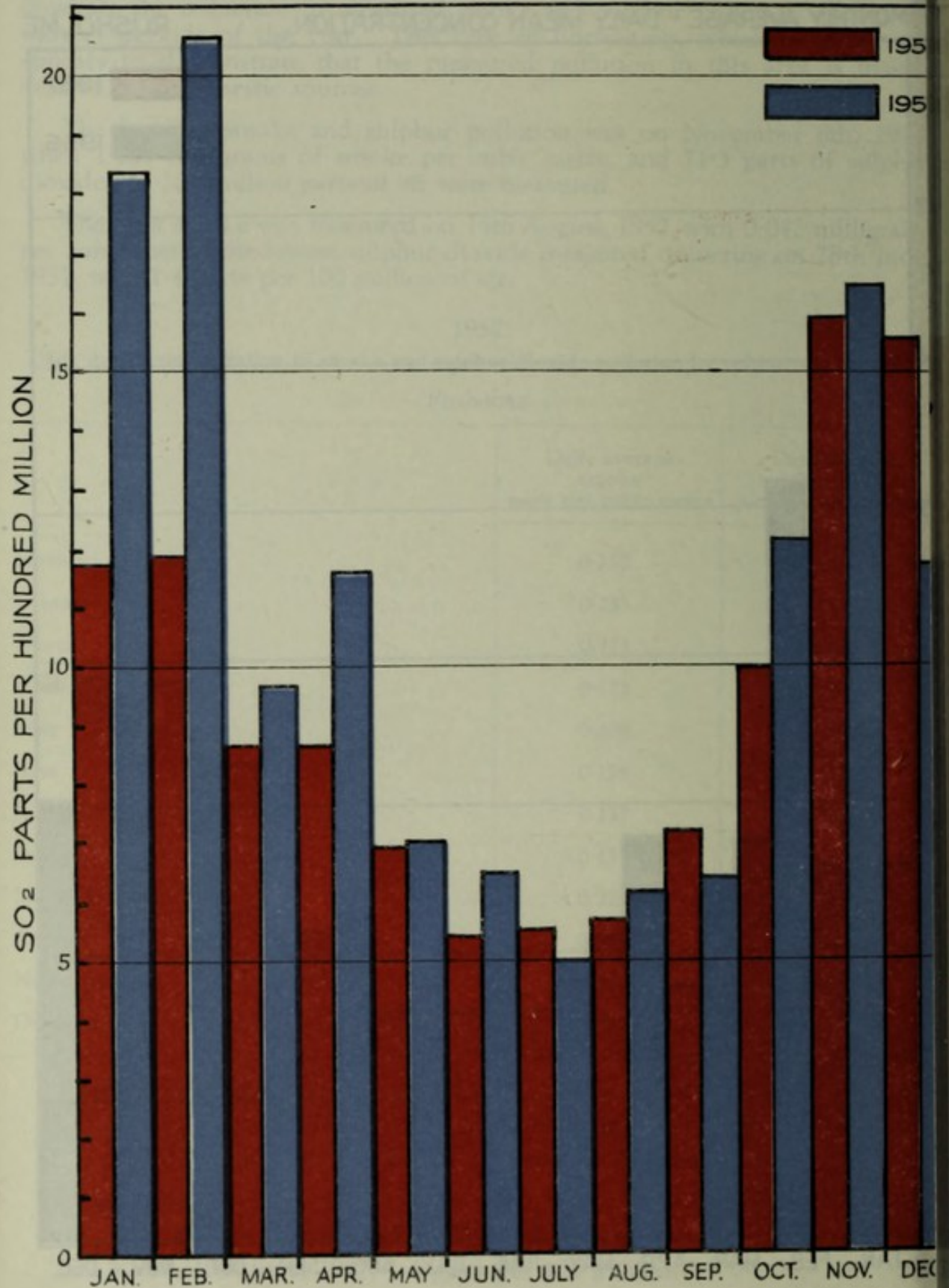


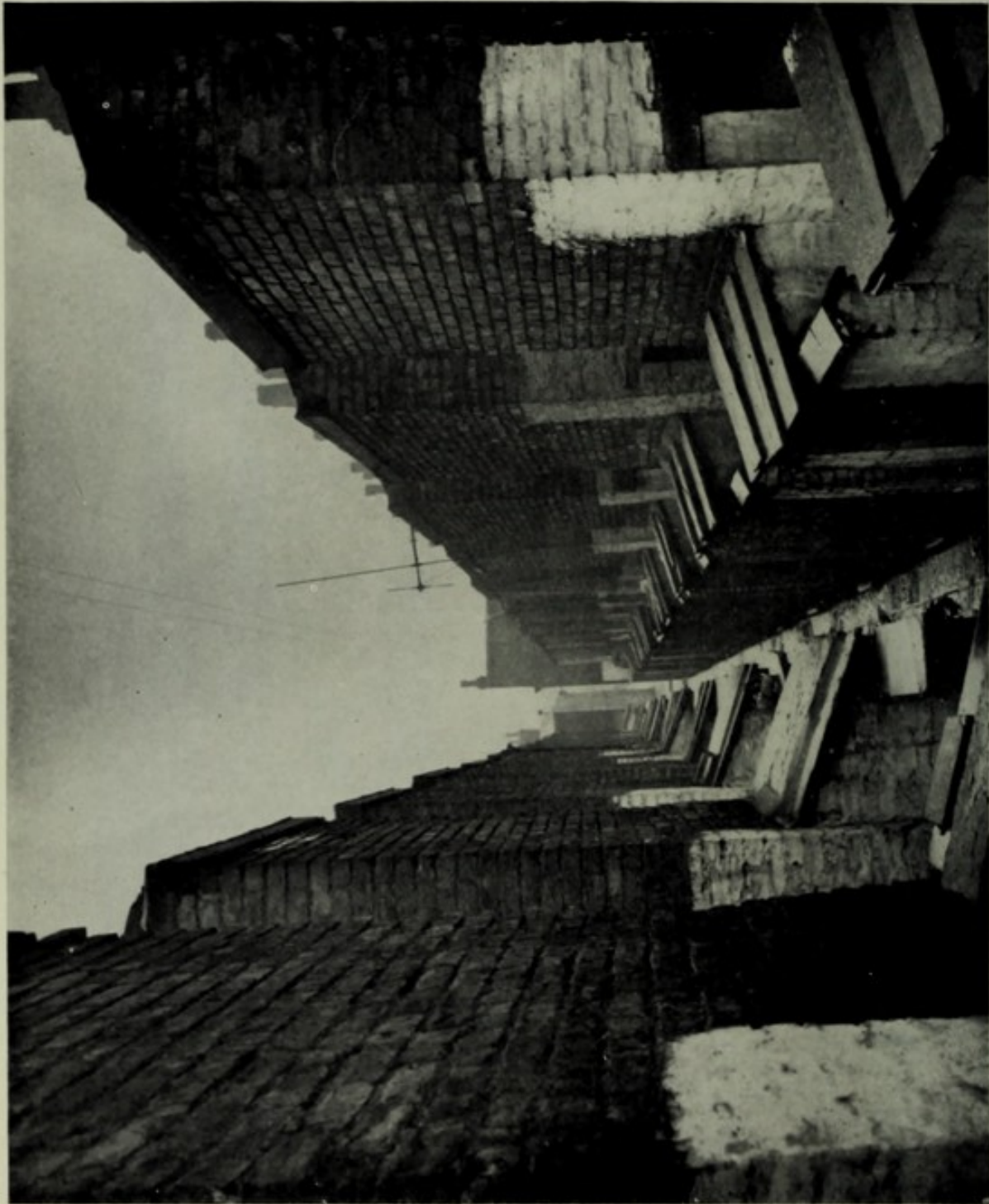
ATMOSPHERIC POLLUTION

SULPHUR DIOXIDE

MONTHLY AVERAGE - DAILY MEAN CONCENTRATION.

RUSHOLM





Unfit houses and bad arrangement

HOUSING CONDITIONS

Inspections and the procedural work for the clearance of areas of unfit houses, the demolition of individually unfit houses and for essential repairs to secure wind and weathertight conditions in large numbers of unfit and sub-standard houses, continued as a major part of the Department's responsibilities.

Clearance areas

St. George's Housing Compulsory Purchase Order, 1955

The rehousing of all the remaining families in the Clearance Areas within the scope of the compulsory purchase order has now been completed.

126 families were rehoused by the Corporation and 28 families found their own accommodation.

282 vacated houses in the Clearance Areas were demolished.

Miles Platting Housing Compulsory Purchase Order, 1955

The rehousing of the displaced families in the Clearance Areas and the demolition of the vacated houses has continued during the year.

364 families were rehoused by the Corporation and 28 families found their own accommodation.

321 houses in the Clearance Areas were demolished.

Mill Street (Ancoats) Housing Compulsory Purchase Order, 1955

The rehousing of the occupants of houses in the Clearance Areas commenced in January and the demolition of vacated houses began a month later.

145 families were rehoused by the Corporation and 12 families found their own accommodation.

113 houses in the Clearance Areas were demolished.

Harpurhey Housing Compulsory Purchase Order, 1955

The rehousing of displaced families in the Clearance Areas and the demolition of vacated houses is proceeding.

62 families were rehoused by the Corporation and 7 families found their own accommodation.

76 houses in the Clearance Area were demolished.

Bradford Road Clearance Areas numbers 1 to 9, 1956

The City Council decided on the 6th March, 1957, to deal with the houses included in the Bradford Road Clearance Areas by making two Compulsory Purchase Orders.

Compulsory Purchase Order Number 2 was made on the 20th May, 1957, and related to 192 unfit houses to the south of Bradford Road which the Corporation intend to acquire in exercise of powers—contained in section 2 of the Housing Repairs and Rents Act, 1954—and retain the houses after patching for temporary accommodation.

A local public inquiry was held on the 27th August, 1957, and the Minister confirmed the Order on the 28th October, 1957, without modification, but directed that payments under Section 60 of the Housing Act, 1957, be made in respect of 4 "well maintained" houses.

7 structurally dangerous and unfit houses have been demolished and displaced families rehoused by the Corporation.

Compulsory Purchase Order Number 1 was made on the 1st July, 1957, and related to 728 unfit houses for clearance to the north of Bradford Road. A local public inquiry was held on the 16th October, 1957, and the decision of the Minister is awaited.

19 structurally dangerous and unfit houses have been demolished and displaced families rehoused by the Corporation.

Collyhurst Street Clearance Areas numbers 1 to 10, 1956

The City Council on the 6th March, 1957, determined to proceed to secure the clearance of the Areas by making on the 2nd September, 1957, two Clearance Orders—Clearance Order Number 1 in respect of Clearance Area 1 (3 houses) and Clearance Order Number 2 in respect of Clearance Area 2 (4 houses)—requiring the owners to demolish the buildings, and a Compulsory Purchase Order in respect of Clearance Areas 3 to 10 (569 houses), to enable the Corporation to purchase the land and themselves secure the demolition of the buildings thereon.

A local public inquiry was held on the 18th December, 1957, in connection with Clearance Order Number 2 and the Compulsory Purchase Order, no objections having been submitted in respect of Clearance Order Number 1. The decision of the Minister is awaited.

12 structurally dangerous and unfit houses have been demolished and 8 displaced families rehoused by the Corporation.

Rusholme Road Clearance Areas numbers 1 to 33, 1957

The inspection and survey of this part of the Chorlton-on-Medlock district was completed and an official representation dated 2nd May, 1957, involving 1,110 unfit houses, occupied by 1,172 families comprising 3,913 persons was submitted to the Health Committee and the City Council later declared the areas to be Clearance Areas.

Since the date of representation, 20 structurally dangerous and unfit houses have been demolished and 20 displaced families rehoused by the Corporation.

The appended statement shows the extent of slum clearance in the City since the first post-war clearance area in 1951 at Ridgway Street.

Individually unfit houses

Housing Act 1957, Sections 16 and 17. Manchester Corporation Act, 1946 Section 31

3 unfit houses have been demolished under the provisions of Sections 16 and 17 of the Housing Act, 1957, and the families rehoused by the Corporation.

12 unfit houses vacated in previous years under Section 11 of the Housing Act, 1936, are still unoccupied and the entrances bricked up. As their demolition would affect the stability of the adjoining occupied premises such action remains deferred.

When in accordance with the requirements of Section 31 of the Manchester Corporation Act, 1946, applications are received from property owners for permission to demolish occupied houses in the City, the Corporation will not undertake to rehouse the occupant families unless the houses are found to be structurally dangerous and unfit for human habitation.

CLEARANCE AREAS	OFFICIAL REPRESENTATION				HOUSES NOT INCLUDED IN THE ORDER				HOUSES IN THE AREA ON MAKING OF ORDER		ORDER CONFIRMED BY MINISTER			NUMBER OF HOUSES DEMOLISHED			NUMBER OF FAMILIES REHOUSED BY CORPORATION		
	Date	Number of Houses	Number of Families	Number of Persons	Demolished Prior To Order			Other	Date	Number of Houses	Date	Number of Houses		To 31-12-1956	During 1957	Total to 31-12-1957	To 31-12-1956	During 1957	Total to 31-12-1957
					To 31-12-1956	During 1957	Total					Included	Excluded						
Ridgway Street, 1 to 14	5-10-1951	257	259	824	19	—	19	—	C.P.O., 16-3-1953	238	25-3-1954	238	—	238	—	238	231	—	231
St. George's, 1 to 24	3-7-1953	504	502	1,595	68	—	68	1	C.P.O., 27-5-1955	435	29-2-1956	427	8	116	282	398	263	126	389
Miles Platting, 1 to 14	16-2-1954	771	779	2,400	48	—	48	1	C.P.O., 2-8-1955	722	18-6-1956	722	—	26	321	347	75	364	439
Mill Street, 1 to 13	15-7-1954	570	582	1,827	9	—	9	2	C.P.O., 26-9-1955	555	23-7-1956	558	1	24	113	137	40	145	185
Harpurhey	14-4-1955	269	269	849	35	—	35	—	C.P.O., 19-12-1955	234	16-10-1956	231	3	49	76	125	66	62	128
Bradford Road, 1 to 9	12-4-1956	954	998	2,942	25	9	34	—	C.P.O. No. 1, 1-7-1957 ..	728	—	—	—	10	10	—	—	11	11
									C.P.O. No. 2, 20-5-1957 ..	192	28-10-1957	192	—	7	7	—	—	4	4
Collyhurst Street, 1 to 10	14-7-1956	594	597	1,847	6	12	18	—	C.P.O. No. 1, 2-9-1957 ..	3	—	—	—	—	—	—	—	—	—
									C.P.O. No. 2, 2-9-1957 ..	4	—	—	—	—	—	—	—	—	—
Rusholme Road, 1 to 33	2-5-1957	1,110	1,172	3,913	—	20	20	—	C.P.O., 2-9-1957	569	—	—	—	—	—	—	—	—	—
Totals	—	5,029	5,158	16,197	210	41	251	4	—	3,684	—	2,368	12	453	809	1,262	675	712	1,387

No.	Name	Age	Sex	Occupation	Remarks
1
2
3
4
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664 houses were deemed to be unfit and certified by the City Architect as structurally dangerous necessitating the urgent rehousing of 606 families by the Housing Committee.

654 vacated houses were demolished during the year, 534 families have been rehoused by the Corporation and 44 families found their own accommodation.

Manchester Corporation Act, 1946, Section 32

Public Health Act, 1936, Section 58

Manchester Waterworks and Improvement Act, 1867, Section 38

108 structurally dangerous, unfit houses were demolished under the provisions of these three Acts and 70 families were rehoused by the Corporation.

Rehousing on Medical Grounds

During the year, the City Council recommended that medical evidence in support of applications for Corporation houses should, in future, be submitted direct to the Medical Officer of Health and all medical practitioners and Hospital Authorities within the area were notified accordingly on the 15th May, 1957. Previously, in the majority of cases, medical certificates in connection with rehousing were issued by Doctors to the applicants and these certificates were handed in or sent to the Housing Department.

The number of applications for rehousing on medical grounds again shows a steep rise and stresses the urgency of the need for more houses. The case files reflect the unsatisfactory housing conditions under which thousands of families are living, many of whom are suffering from ill-health associated with damp, dilapidated, overcrowded and unfit dwellings. There is, however, delay in these families being offered rehousing accommodation by the Corporation, owing to the acute shortage of new houses.

Medical certificates and other correspondence are received daily from Hospital Authorities, Specialists, Doctors, Almoners, Welfare Organisations and other sources giving medical and sociological reasons in support of applications for rehousing.

Every case brought to the notice of the Department is investigated in detail to ascertain the actual living conditions and the health circumstances of the families desiring rehousing.

Of the 3,787 cases dealt with, which represents an increase of 347 on the previous year, 2,864 applications were in respect of families seeking to be rehoused by the Corporation.

1,828 applications had not been previously considered for rehousing on medical grounds ; 16 were recommended for immediate rehousing and degrees of priority were recommended in 1,592 cases.

1,036 applications which had been previously considered were reviewed by reason of additional medical evidence being submitted or changed circumstances ; 14 were recommended for immediate rehousing and additional degrees of priority were recommended in 335 cases.

923 applications were from Corporation tenants who desired to transfer from one type of accommodation to another. Approximately 50 per cent wished to transfer, for medical reasons, from upper floor flats without lifts to ground floor flats or houses.

729 applications had not been previously considered for a transfer on medical grounds ; 4 were recommended for immediate transfer and degrees of priority were recommended in 591 cases.

194 applications which had been previously considered for a transfer were reviewed ; 1 case was recommended for immediate transfer and additional degrees of priority were recommended in 105 cases.

The Director of Housing is informed of the Medical Officer of Health's recommendation in all cases and his attention directed to the applicant families who are found to be living in overcrowded conditions.

During the year 466 families recommended for rehousing on medical grounds were rehoused by the Corporation.

Abatement of overcrowding

It has not been practicable for the Department to carry out comprehensive surveys for the purpose of keeping up-to-date the records of the number of overcrowded houses in the City, but it is known that at least 2,456 dwelling houses were overcrowded under the National Standard on the 31st December, 1957.

118 new cases of overcrowding were reported during the current year.

Approximate number of overcrowded houses	Number of families	Adults	Children
1,398 houses with 1 family	1,398	8,370	2,927
742 „ „ 2 families	1,484	5,106	1,656
215 „ „ 3 „	645	1,516	462
101 „ „ 4 or more families	441	1,000	439
2,456	3,968	15,992	5,484

1,398 of the above families are occupying houses which are too small for their requirements and 1,058 houses are overcrowded by reason of lodger families.

In all cases of overcrowding brought to the notice of the Department the Director of Housing is informed if the tenant and/or lodger families are registered for a Corporation house.

Houses let in lodgings

A "house let in lodgings" was defined in the byelaws relating to houses let in lodgings (repealed by the Housing Repairs and Rents Act, 1954) as a house with two or more lodger families additional to the tenant family. The Department is aware of 1098 of these houses, including 352 where, the "occupier" not being resident, registration is required under the Manchester Corporation Act, 1950, section 57. The actual extent of the letting of houses in lodgings, however, is considered to be greatly in excess of that total.

It was not necessary to take formal action in respect of the prescribed standards under section 9 of the Housing Repairs and Rents Act, replaced by section 4 of the Housing Act, 1957, but both informal and formal action was taken to deal with nuisances arising from defects of a structural character.

Repairs

It was necessary to serve 11,048 preliminary and statutory notices with resort to court proceedings in 178 instances to secure repairs to houses. In addition default powers were applied in respect of general repairs and plumbing or drainage defects at 831 houses, including 192 houses where the owners were not known. Work was also carried out at 166 houses on behalf of and at the request of the owners upon whom statutory notices had been served. In addition the repair or maintenance of public sewers in connection with 613 premises, mainly dwellings, had also to be undertaken.

The total cost of all the works so carried out by contractors on behalf of the Department was £12,373, of which £12,141 was recoverable from the owners concerned and the balance of £232 charged to the City Fund.

Prior to the 6th July, 1957, the procedure relating to applications for certificates of disrepair was that prescribed by the Housing Repairs and Rents Act, 1954, and during the year up to that date 338 applications were received from tenants and granted. 7 applications were received from owners for revocation of certificates and 6 were granted. From the commencement of the operation of the 1954 Act on the 30th August, 1954, until the 6th July, 1957, when the relevant sections of the Act were repealed, 884 applications for certificates of disrepair were received from tenants and 879 granted. 201 applications were made by owners for revocation of certificates and 189 were granted.

On the 6th July, 1957, the Rent Act, 1957, became operative and deals *inter alia* with adjustment of rent in respect of repairs and the granting of certificates of disrepair. In the period 6th July to the 31st December, 1957, applications for certificates of disrepair and cancellation of certificates were received as follows:—

Part I—Applications for Certificates of Disrepair

(1) Number of applications for certificates	1064
(2) Number of decisions not to issue certificates	1
(3) Number of decisions to issue certificates—	
(a) in respect of some but not all defects	482
(b) in respect of all defects	249
(4) Number of undertakings given by landlords under paragraph 5 of the First Schedule	266
(5) Number of undertakings refused by Local Authority under proviso to paragraph 5 of the First Schedule	nil
(6) Number of certificates issued	167

Part II—Applications for Cancellation of Certificates

* (7) Applications by landlords to Local Authority for cancellation of certificates	80
(8) Objections by tenants to cancellation of certificates	24
(9) Decisions by Local Authority to cancel in spite of tenants' objection	3
(10) Certificates cancelled by Local Authority	35

*The 80 applications by landlords for cancellation of certificates related to:—

6	certificates which were issued under the	Rent Act, 1957.
72	" " " " " "	Housing Repairs and Rents Act, 1954.
and 2	" " " " " "	Rent and Mortgage Interest Restrictions Acts, 1920 to 1939.

Improvement Grants. Housing Acts 1949 and 1957, Housing Repairs and Rents Act, 1954

A grant may be made by a local authority to assist a private owner in modernising his house either by improvement or conversion provided the house is suitable for the purpose and has a useful life of more than 15 years.

In order to earn a grant it must be shown that when the proposed work has been done the dwelling will :—

- (1) be in a good state of repair and substantially free from damp;
- (2) have each room properly lighted and ventilated;
- (3) have an adequate supply of wholesome water laid on inside the dwelling;
- (4) be provided with efficient and adequate means of supplying hot water for domestic purposes;
- (5) have an internal or otherwise readily accessible watercloset;
- (6) have a fixed bath or shower, preferably in a separate room;
- (7) be provided with a sink or sinks with suitable arrangement for the disposal of waste water;
- (8) have a proper drainage system;
- (9) be provided in each room with adequate points for gas or electric lighting (where reasonably available);
- (10) to be provided with adequate facilities for heating;
- (11) have satisfactory facilities for storage, preparing and cooking of food;
- (12) have proper provision for the storage of fuel where required.

Applications for improvement grants are dealt with by the Director of Housing and in each case he seeks the views of the other Departments concerned regarding the suitability of the premises for improvement prior to the application being considered by the Housing Committee. 89 such cases, principally from owner/occupiers, were referred to this Department during the year. 7 were in respect of the conversion of larger type houses into flats and 82 for the modernisation of older houses by way of additional amenities such as the provision of bathrooms, hot water supply, etc., but adverse reports had to be given in 37 cases owing to the houses not being suitable for improvement by reason of unfitness, bad arrangement or limited residual life.

Common lodging houses

A common lodging house is defined in the Public Health Act as a house other than a public assistance institution provided for the purpose of accommodating by night poor persons, not being members of the same family who resort thereto and are allowed to occupy one common room for the purpose of eating or sleeping.

8 such lodging houses are registered, 7 providing accommodation for 1,385 men and one, owned by the Department, with accommodation for 210 women. One of the houses accommodating 464 men is also owned by the Department.

Regular visits are made by the district public health inspectors to secure compliance with the appropriate statutory and byelaw provisions concerning sanitary accommodation, water supply, washing facilities, overcrowding, cleanliness and the prevention of the spread of infectious diseases and vermin infestation. No formal action was necessary in respect of conditions found.

Common lodging houses being particularly liable to vermin infestation, especially from body lice introduced by casual lodgers, special care is directed to preventing any infestation becoming established. As a routine measure, keepers are required to use insecticides with a residual toxicity. In addition, lodgers are encouraged to attend the Department's Clinic at Monsall Road for personal cleansing and disinfection of their clothing. 149 lodgers received such treatments during the year.

Moveable dwellings

8 different sites were used by moveable dwellings without the consent of the Corporation and in the particular circumstances, including the absence of proper facilities for the disposal of refuse or offensive matter, nuisance arose. Action was taken against 96 occupiers, mainly under the more expeditious powers made available in the Manchester Corporation Act, 1956, and this resulted in the removal of the dwellings from the land and abatement of the nuisances. These, however, included 30 cases where it was necessary to institute proceedings in the Magistrates' Court for orders prescribing removals and prohibition of future use of the dwellings on the particular sites or elsewhere in the City.

Canal boats

The living accommodation on canal boats used for conveyance of goods and plying on canals within the city is supervised under the provisions of the Public Health Act, 1936, and regulations made in 1878 under the Canal Boats Act.

267 inspections were made and the general standard was found to satisfy the requirements of regulations made over three-quarters of a century ago, and it was necessary to serve only five notices respecting seven infringements of a minor character which, with one exception at the end of the year, were promptly remedied.

Four new boats were registered and there are now 163 boats on the register.

Manchester Companies owning canal boats do not allow women and children on their boats, but if others in which women and children do live reach the canals within the city the occupiers are advised as to the welfare services available.

Two cases of measles reported during the year were children from a large family occupying three boats; the two children were isolated in one of the boats.

OCCUPATIONAL CONDITIONS

Factories

Factories Act, 1937—inspections of mechanical and non-mechanical factories, etc.

Premises	Number on register	Inspections	Number of written notices	Occupiers prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are enforced by local authorities	483	48	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the local authority	4786	872	25	—
(iii) Other premises in which Section 7 is enforced by the local authority (excluding outworkers' premises)	183	67	—	—
Totals	5452	987	25	—

Cases in which defects were found

Particulars	Defects				Number of cases in which prosecution were instituted
	Found	Remedied	Referred to H.M. Inspector	by H.M. Inspector	
Want of cleanliness (Section 1)	6	1	—	6	—
Overcrowding (Section 2)	—	—	—	—	—
Unreasonable temperature (Section 3)	1	1	—	1	—
Inadequate ventilation (Section 4)	—	—	—	—	—
Insufficient drainage of floors (Section 6)	—	—	—	—	—
Sanitary conveniences (Section 7)					
(a) Insufficient	*6	5	—	5	—
(b) Unsuitable or defective	†74	43	—	73	—
(c) Not separate for sexes	3	1	—	3	—
Other offences against the Act (not including offences relative to outworkers)	2	—	2	—	—
Totals	92	51	2	88	—

* Included 3 from previous years.

† Included 20 from previous years.

Factory outworkers

The inspection of premises in which specified classes of outwork are carried on is undertaken in accordance with the relevant provisions of the Factories Act and Public Health Act dealing with the employment of persons in unwholesome premises and the prevention of the spread of infectious disease.

408 firms in the City employ 2,221 outworkers of which 1,529 are resident in Manchester. The remaining 692 live outside the City boundaries and the appropriate local authorities have been notified.

These figures represent a further decrease in the number of outworkers employed, mainly in the clothing trade, and although this maybe indicative of a reduction in the output in the different trades, the movement of some firms to larger premises thereafter employing all or more workers in the factory and not at their homes is of some significance.

2,485 inspections of outworkers houses were made and revealed a good standard of cleanliness.

Trades	Outworkers	
	Inside City	Outside City
Clothing	1,157	555
Umbrellas	134	36
Household linen	82	77
Soft furnishings	148	23
Soft toys	6	—
Lampshades	2	1
Totals	1,529	692
	2,221	

Shops and employment of young persons

With the exception of the closing of shops in the evening and on Sundays, which is dealt with by the Chief Constable, all provisions of the Shops Act, 1950, and the Young Persons (Employment) Act, 1938, are administered by the Department.

Visits were made by the district inspectors, disclosing 4 cases of unsatisfactory ventilation, 2 of unsuitable temperatures, 2 of unsatisfactory sanitary conveniences, 3 of inadequate facilities for washing and 1 of lack of provisions for the taking of meals. In these cases informal action produced satisfactory conditions without recourse to legal proceedings. In 13 cases necessary forms were not exhibited, 8 in respect of assistants weekly half holiday, 3 as to seats for female shop assistants and 2 concerned with the records of employment of young persons. These forms were obtained promptly upon the attention of the occupier being drawn to the necessity for their provision.

A complaint was received of excessive hours being worked by a young person employed by a transport contractor. Investigation elicited that there was a prima facie case to warrant legal proceedings under the Young Persons (Employment) Act, 1938, in respect of employment in excess of the permitted hours of overtime, failure to keep records in the prescribed form and to exhibit requisite notices. The Department was not successful in proving that there had been a contravention of the Act in respect of overtime worked in particular weeks. Convictions were secured, however, on the failure to keep records and exhibit notices, fines totalling £9 being imposed.

3 applications were received from persons observing the Jewish Sabbath requesting exemption from compulsory closing on Sundays under Section 53 of the Shops Act, 1950. 298 persons are now registered for this purpose.

On the grounds that the retail trade carried on was subsidiary or ancillary to the main purpose, 6 applications were received from promoters regarding exemption from half day closing at exhibitions. Certificates of exemption were granted.

An application was received on behalf of the boot and shoe retailers of the central area of the City for an Order to be made exempting them from compulsory half day closing which in accordance with an Order made on the 3rd February, 1955, is Wednesday or Saturday for that trade or business. With a view to ascertaining the wishes of the shopkeepers so concerned and after advertisement in the press, a poll was taken of all boot and shoe retailers in the City. The results showed that in a central area bounded by Liverpool Road, Water Street, Albert Bridge, the River Irwell to New Bridge Street, Cheetham Hill Road, Miller Street, Swan Street, Great Ancoats Street, Store Street, London Road, the railway viaduct, Deansgate and thence back to Liverpool Road, all shops fronting on to these streets being deemed to be within the prescribed area, 84 per cent of boot and shoe retailers were in favour of the proposed Order and 16 per cent against, whilst outside that area 55 per cent were against and 45 per cent for the change. Accordingly the City Council has since made an Order which becomes operative on the 1st March, 1958, and exempts boot and shoe retailers within the defined central area of the City from compulsory half day closing of their shops.

GENERAL SANITARY CONDITIONS

Infectious diseases

Under the provisions of the Public Health Act relating to the prevention of the spread of infection, the district inspectors made 1,056 investigations of the circumstances connected with the following notifiable infectious diseases:—acute encephalitis, acute poliomyelitis, cerebro-spinal fever, diphtheria, dysentery, erysipelas and scarlet fever.

Their enquiries were directed particularly to discovering the possible sources of infection and to securing maintenance of isolation of persons nursed at home. In addition 95 visits were made in tracing contacts with infected persons.

Two rag gatherers were prosecuted under the provisions of Section 154 of the Public Health Act for giving toys and balloons to children in exchange for rags and old clothes, one was fined 10s. on each of three summonses and the other £1 on each of two summonses.

Rodent control

Complaints of infestation and survey of the City

In accordance with the provisions of The Prevention of Damage by Pests Act, 1949, rodent operators employed under the supervision of the Rodent Executive Officer and an Assistant investigated 3,370 complaints of infestations and maintained a survey of the City. 69,188 premises were visited in the course of the survey and 14,391 other premises (11,078 dwellings and 3,313 business premises) in respect of complaints.

Rat infestations were found at 1,941 premises (1,389 dwelling-houses and 552 business premises), 13 being of a major character; and mice infestations at 2,660 premises (1,953 dwellings and 707 business premises), including 72 major infestations.

The varying nature of the premises concerned is shown in the following statement:

TABLE I
Nature of premises infested

Type of premises	Number of premises				Totals
	Rat infested			Mice infested	
	Internal	External	Total		
Dwelling-houses	513	876	1,389	1,953	3,342
Factories, workshops, workplaces	116	23	139	128	267
Shops	42	14	56	83	139
Premises where food is prepared, sold or stored	62	35	97	184	281
Warehouses	45	2	47	75	122
Offices	28	3	31	91	122
Restaurants, licensed premises, clubs ..	26	11	37	24	61
Hospitals, welfare centres, public institutions	18	14	32	30	62
Schools	15	10	25	68	93
Churches	2	3	5	7	12
Sheds, wooden structures	4	7	11	7	18
Cinemas, theatres, public halls	6	—	6	6	12
Waste disposal works, slaughterhouses, abattoirs	4	—	4	—	4
Parks, sports grounds	—	4	4	—	4
Ports	—	3	3	2	5
Buildings	—	45	45	—	45
.. .. .	—	8	8	—	8
Fire station	—	—	—	1	1
Bus	2	—	2	1	3
Totals	883	1,058	1,941	2,660	4,601

Sources and causes of infestation

Defective or disused drains or sewers continued to be a common direct cause of rat infestation and structural defects, such as broken basement windows, sub-floor space ventilators and short doors were often contributory causes.

In the cases of mice infestations of dwelling-houses, the neglect of occupying to observe elementary hygiene in the proper storage of food and the disposal of food scraps was often a primary cause of infestations.

TABLE II
Classification of causes of rat infestation in premises primarily visited during 1957

Cause	Rat-infestation				Total premises rat-infested	Percentage of total rat-infested	Premises infested
	Internal		External				
	Business premises	Dwelling-houses	Business premises	Dwelling-houses			
Directly due to or associated with defective or disused drains or sewers A	55	90	79	238	272	14.95	
Nature of business in premises or vicinity B	102	—	18	5	225	12.37	2
Tips, refuse accumulations, market areas C	57	34	4	39	134	7.37	1
Neglect in protecting food and food scraps D	169	329	52	510	1,050	57.72	1,88
Poultry kept E	2	1	6	20	29	1.59	
Dilapidated premises, defects in structures F	1	2	1	4	8	0.44	
Building operations, demolitions G	1	12	2	4	20	1.10	
Vicinity of open or culverted watercourses H	5	9	3	27	44	2.42	
Railway sidings I	—	1	—	2	3	0.17	—
Casual infestation J	2	9	3	20	34	1.87	—
Totals	394	487	169	869	1,819	100.00	2,24

Extermination service of the Department

This service is available without charge in respect of dwelling-house business premises being treated on request of owners or occupiers subject the cost being recoverable on the basis of the operator's time and the material used.

The methods of treatment continued in accordance with the standard guidance of the Ministry, including the common use of the anti-coagulant "Warfarin."

3,464 premises were treated as follows:—

1,201 (34.67 per cent.) for rats.

2,263 (65.33 per cent.) for mice.

3,437 were by poisoning (3,407 by "Warfarin.")

27 were by trapping.

94 were by a combination of poisoning and trapping.

In the course of these treatments, 34,276 baits, including preliminary and post-baits, were laid; 33,359 of these were poison baits, of which 19,774 (59.18 per cent.) were taken.

extermination by private operating companies

It is neither obligatory nor customary for private operating companies or individuals to notify the Department when carrying out treatments, and except when ascertained in the course of visits made by its operators the Department is not aware of the extent or effectiveness of these treatments, which are virtually limited to business premises.

The absence of such knowledge and the possible use of certain methods known to be fraught with risk to public health have prompted the inclusion of a clause in the Manchester Corporation Bill to seek powers of registration of persons engaged in the destruction of rats or mice, and to make byelaws to control the methods used for the eradication of those rodents.

extermination by other Corporation departments and nationalised undertakings

Other Corporation Departments and nationalised undertakings who carried out eradictory measures at their own premises reported that 547 dead rats and numerous mice were destroyed, mainly by poisoning.

extermination of rats in public sewers

This work was undertaken by the City Surveyor's Department, baiting of the sewer chambers of the city being carried out as a routine measure.

Particulars of the work done during 1957 are tabulated below:—

TABLE III

Treatments	Number of manholes test baited	Number of manholes baited	Number of manholes showing bait taken
Number of initial treatment—			
No. 2 maintenance from 1956	—	1,037	179
Test bait	1,619	—	169
No. 1 maintenance treatment	—	4,751	723
No. 2 maintenance treatment	—	2,228	465
Totals	1,619	8,016	1,536

Re-visits to treated premises

Where treatment is carried out, re-visits are made to determine the efficacy of the work. These were continued until there was neither evidence of bait being taken nor other visible sign of infestation.

8,139 re-visits were made by the operators to infested premises and at 967 of these premises it was found that the treatment had cleared up the infestations. This total included 3,464 premises cleared by the Corporation's treatments, the remainder having been dealt with satisfactorily by occupiers or private operating companies. The availability of the rodenticide "Warfarin" appears to be of some relevance to an increase in the number of persons who undertake treatment of their own premises.

TABLE IV
Tracing of rat burrows in relation to drainage infestation

Conditions found and action taken as a result of examinations	By City Surveyor	By owners and occupiers	By Sanitary Services Division	Totals
Number of examinations made	119	65	39	223
Sewers reconstructed	2	—	—	2
Minor defects in sewers repaired	75	—	—	75
Disused privy-midden drains removed	16	—	—	16
Other disused drains or sewers removed or otherwise dealt with	15	8	15	38
Defective drains remedied	1	39	10	50
Defective drains and sewers repaired by Corporation at owner's expense	—	—	5	5
Street drain inlets repaired	2	—	—	2
Outward burrows consolidated	3	2	—	5
Surface burrows consolidated	34	17	—	51
Undermining found to be due to causes other than rats	3	—	—	3
Totals	149	66	30	245

Eradication of insect pests

Cockroaches (*blatta orientalis*), bed bugs (*cimex lectularius*), and fleas (*pulex irritans*) continued to be the most common household insects to which the advice of inspectors was sought as to eradication. Clothes moths and wood-boring beetles were also the subject of numerous enquiries, while the ubiquitous "spider beetles" (*ptinidae*) were still the cause for the unnecessary alarm of some housewives who confused this virtually harmless insect with the bed bug.

Although it does seem that the incidence of infestations especially with the bed bug is falling and is considerably less than pre-1939 there is not yet sufficient evidence on which to reach any firm conclusion.

473 (43 per cent) of the dwelling houses in clearance areas were found to be infested with bed bugs. The percentage is lower than that for 1956 (49 per cent) and considerably below the figure prior to 1939 (70 per cent). Advice on the eradication of bed bugs and the prevention of re-infestation was given to the tenants of 76 privately owned houses.

The furniture and effects of 987 families were disinfested on allocation to Corporation houses and 102 Corporation dwellings were found to be infested with bed bugs and the necessary eradictory measures were applied.

The selective treatment of timbers in clearance areas during demolition continued with the use of D.D.T. insecticidal spray for salvaged timber and the destruction of the remainder by burning on the site.

Representations were made by the department to the British Transport Commission (British Waterways) with regard to a further infestation of mosquitoes associated with a length of canal which is no longer navigable. Mechanical methods of weed removal together with spraying by insecticide were undertaken by the Waterways Executive.

Three flour mills infested with flour pests and weevils were satisfactorily fumigated, two with hydrogen cyanide and one with methyl bromide by specialised fumigation contractors.

Drainage and sewerage work (defects and repairs)

Examination of drains

The examination of drains, after the service of formal notice under the Public Health Act, 1936, was carried out at 181 premises, following evidence of percolations of water or offensive effluents into floor cavities and cellars, subsidences in yards and passages, etc., offensive smells, blocked drainage systems, rat burrowing and undermining in close proximity to drains. Numerous informal examinations were also undertaken and in each instance appropriate action ensued for defective conditions to be remedied.

Stopped up drains and sewers

At 315 premises the serious nuisance arising from choked drains warranted the use of the expeditious action with the service of notices on owners by the public health inspectors under Section 41 of the Manchester Corporation Act, 1950, rather than the more protracted procedure of the Public Health Act. In 229 instances the owners thereupon carried out the necessary works promptly and in the remaining 86 the work was attended to by the Department on the default of some owners and at the request of others.

The Department also carried out work of repair or maintenance of lengths of public sewers in respect of 613 premises, the cost of which is recoverable from the owners concerned.

Sanitary Accommodation

Although there are still some pailclosets within the City the properties concerned are either of limited residual life by reason of unfitness or contemplated re-development, or are not within reasonable distance of sewers.

Most of the properties concerned are in Wythenshawe where there are 37, 178 being dwelling-houses, of which 128 are remote from sewers. The future of some of the remaining properties is in doubt, dependent on rate of re-development and consequent demolition, but wherever possible, arrangements are proceeding for conversion to waterclosets to be undertaken.

Elsewhere in the City there are 93 premises with pailclosets; 68 are dwelling-houses, mainly unfit and intended to be demolished or without accessible sewers.

The total number of premises with pailclosets was reduced during the year 1948, 23 being in Wythenshawe (5 demolished and 18 converted to waterclosets) and 25 in the remainder of the City (3 converted and 22 demolished).

There are also some temporary pailclosets on building sites but wherever reasonably practicable, in accordance with the Manchester Corporation Act, 1934, Section 68, the Department insists that waterclosets shall be provided for the use of operatives.

At 74 premises voluntary alterations or additions were made to sanitary accommodation by owners' contractors under the supervision of district public health inspectors.

Disposal of refuse

The care taken by the Cleansing Department in the proper disposal of refuse by controlled tipping is reflected in the complete absence of complaints on their work at the six sites in use in the City. The Director has reported on the amount and method of disposal of refuse by his Department as follows: 166,127 tons (77.53 per cent.) by controlled tipping; 31,197 tons (14.56 per cent.) by separation plant treatment; 6,104 tons (2.85 per cent.) by direct incineration and 10,837 tons (5.06 per cent.) by utilization, salvaged materials, etc.

Privately owned sites were used for the tipping of trade refuse without the necessity for any formal action by the Department except on three sites where the spontaneous ignition of colliery waste has occurred. At one site the particular circumstances not coming within the scope of the Section of the Clean Air Act directed to colliery spoilbanks, action is being taken by the Department in default of the owners to enforce the requirements of a nuisance order. In the other instances the owners are applying the standard technique of water spraying to deal with the nuisance.

Offensive trades

Offensive trades, as defined in the Public Health Act and the Manchester Order of 1921, are established at 57 registered premises within the City and were carried on without giving rise to complaint. These trades are the manufacture of manure and fertilisers from animal matter, etc. (1); block boiler (1); bone boilers and fat extractors (2); fat melters (2); fish cure (2); fish curer and pickle manufacturer (1); gut scraper (1); oil distiller (1); pickle and sauce manufacturers (2); rag and bone dealers (21); rubber spreaders (7); rubber substitute spreaders (3); size maker (1); soap boiler (2); tallow melters (2); tanners (3); and tripe dressers and boilers (5).

It was not necessary to take formal action regarding any of the registered premises. One person, however, was prosecuted for establishing an offensive trade, rag sorting, without consent and was fined £5.

Limited licences previously granted in connection with 15 premises were renewed for a further period of two years, the businesses at these premises having been carried out in a satisfactory manner during the period of registration.

Effluvia and dust nuisances

The detection of sources of malodorous emissions often presents considerable difficulties in an industrial district. Except in the case of more fleeting, transient emissions, it is generally possible to trace the sources of complaints and to investigate the causes with the object of preventing their recurrence. Close liaison exists between the Department and H.M. Alkali, etc., Works Inspector of the Ministry of Housing and Local Government who is responsible for appropriate action if the process is scheduled under the Alkali, etc., Works Regulation Act, 1906.

Five different industrial sources were the subject of complaints of effluvia nuisance. Two complaints concerned the heat treatment of oil but there was no recurrence of emissions and the findings on investigation were inconclusive. The temporary breakdown of a digester and chlorinator was found to have been responsible for the emission of offensive odours from a plant dealing with animal waste. The two remaining cases dealt with processes scheduled under the Alkali, etc., Works Regulation Act and required reference to an

investigation by H.M. Inspector. In one instance offensive smells of the nature of hydrogen sulphide occurred intermittently and affected a considerable area at different times and detailed observations by inspectors of the Department have been necessary at varying times both by day and night. The second case was also concerned with the emission of hydrogen sulphide which appeared to have arisen during repairs to chemical plant.

Another complaint dealt with offensive smell from the River Irwell during mild weather. The Mersey River Board as the statutory authority deals with the pollution of rivers and have indicated the long term nature of the work required to abate the heavy pollution. This is apparent to the public only on the exceptional occasions of abnormally low dry weather flow in the rivers concerned.

Serious nuisance arose from coal dust arising mainly during the delivery of unwashed coals to two stock piling sites. The nuisance was abated by cessation of stock piling at one site and the installation of water spraying equipment at the other.

Noise nuisance

The sources of "unwanted sound" which were the subject of complaint to the department involved both domestic and industrial usage.

Twenty-four complaints were received; six relating to the use of sewing machines which together with several other complaints were resolved more by the exercise of good neighbourliness in the extent of the working of the machines than the use of technical measures to place or insulate the machines against noise and vibration. Others dealt with noise from more industrial sources, including a sheet metal works, a factory press, dairy, two laundrettes, air compressors temporarily in use on building sites and motor vehicles at depots.

In some cases investigations of the particular circumstances entailed numerous visits at irregular hours but in general the co-operation of managements or individuals concerned was forthcoming to remove cause for complaint. Formal action under the Manchester Corporation Act, 1946, Section 40, was not necessary.

Land used by pleasure fairs

In 1956, the Showmen's Guild gave an undertaking to the Corporation that its members would not set up fairs on other than "agreed" sites. This undertaking was observed and during 1957 pleasure fairs were held on 8 different sites, of which 7 were public parks—used on 9 separate occasions and also on 1 occasion on land owned by the Estates Management Committee.

The use of each site was preceded by an agreement signed by the proprietors and conditions of use included requirements on the siting of generators, playing of music, hours of opening, water supply and sanitary conveniences.

Only one complaint was received during the year and this anticipated that noise nuisance would arise. By arrangement with the district public health inspector the proprietor placed and screened the diesel generator and controlled the music so that no nuisance occurred.

No nuisance was reported at any of the fairs held during 1957.

The agreement whereby the holding of pleasure fairs has become limited to particular sites, especially public parks and open spaces and away from undesirable sites abutting dwelling houses does seem to have removed the cause of many complaints formerly received by the department.

Rag flock and other filling material

93 premises were registered under the provisions of the Rag Flock and other Filling Materials Act, 1951, as being premises at which designated filling materials are used in the manufacture of bedding (53), upholstery (32), cushions (3), soft toys (4) and baby carriages (1). There was one new registration and several premises were removed from the register.

Four premises are licensed for the storage of rag flock for distribution to the users at their registered premises.

No rag flock is manufactured within the City.

35 samples of designated filling materials were taken and examined by the prescribed analysts, who found that the appropriate standards prescribed by the Regulations were satisfied.

Export of washed rags and second-hand clothing

Supervision of treatment of these materials is undertaken as a hygienic measure to assist firms in complying with the requirements of import conditions made by the Governments of the respective countries concerned. Dependent on the particular materials involved it is customary for one of the following treatments to be applied, either by or under the supervision of the Department:—

- (a) high pressure steam disinfection at the Monsall Disinfecting Station; or
- (b) washing and sterilising by boiling in soda solution; or
- (c) formalin disinfection.

Inspections were made and certificates issued in respect of the following:—

Articles	Quantity	Destination
Washed rags or cotton waste	2 tons 5 tons 22 tons 1 ton 8 tons $\frac{1}{2}$ ton 18 tons	Australia Cyprus Eire Kenya Labuan New Zealand South Africa Czechoslovak
Second-hand clothing	2,695 articles	Eire Kenya Latvia Rhodesia South Africa

Swimming baths

The pH value, free residual chlorine and bacteriological content of sample of the water from the pools of the 14 Corporation and 7 privately owned swimming baths were found to be consistently satisfactory.

In each instance, generally with the pools in full use, the samples were taken at the outlet end and with one exception, appertaining to a small capacity private tuition pool, the chlorine dosage is by modern gas chlorinators.

Establishments for massage or special treatment

The control of establishments for massage or special treatment in the City is governed by Part IX of the Manchester Corporation Act, 1924, and Byelaws made in 1925.

7 applications for licences in regard to chiropody and 2 for massage were approved, the persons possessing appropriate qualifications and experience and the respective premises and facilities being deemed to be suitable. There are 61 licensed establishments for chiropody, 10 for physiotherapy and chiropody and 20 for physiotherapy.

Hairdressers or barbers

Section 42 of the Manchester Corporation Act, 1946, requires the registration of hairdressers, barbers and their premises, and byelaws are in operation concerning the cleanliness of the premises, equipment and persons employed.

A number of ladies' hairdressers carry on business in dwellinghouses having first obtained the consent of the Town Planning Committee for the use of the premises for the purpose. The Health Department supervises to ensure that equipment and conditions satisfy the Department's standards.

701 persons are registered and during the year 101 visits were made by the inspectors, in the course of which 3 cases of defective and 2 of dirty conditions were found. These were remedied after verbal cautions had been given, and no case was it found necessary to institute legal proceedings.

Sale of certain poisons

The provisions of the Act and the Poisons Rules as to the sale by retail of the poisons specified in Part II of the Poisons List are administered by the Department.

The major proportion of poisons sold by listed sellers are those contained in household disinfectants, stocked mainly by grocers and hardware dealers. The decline in the number of those selling this class of poisons continues, many intending that sales are insufficient to make the annual fee worth while. Horticultural poisons, hair dyes and photographic materials remain constant.

1,041 sellers were listed at the end of the year, as compared with 1,097 in 1956. 94 new applications were received. 150 persons discontinued the sale of poisons. Fees received totalled £273 15s. 0d.

No contravention in regard to labelling, packaging, storage or recording was reported during the year.

Exhumations

In accordance with Section 25 of the Burial Act, 1857, licences are issued by the Home Office for the removal of human remains from burial grounds. A condition of each licence requires observance of prescribed precautions connected to the removals being effected with due care and decency and without risk to public health. During 1957, 2 licences were issued and public health inspectors attended in each case and reported that the exhumations had been carried out in accordance with the terms of the licences and also that re-interments took place in other graves in the respective burial grounds.

Burial Grounds

A complaint was received with regard to the condition of the privately owned Ardwick cemetery in which Section 50 of the Manchester Corporation Act, 1950, prohibits further burials. Inspection revealed desolation and neglect but no nuisance actionable under the Public Health Act.

Provision has been made in the Manchester Corporation Bill of 1958 for the transfer of the undertaking to the Corporation and for the winding up of the owning company, together with the future use of the land as an open space or school playing field.

This Corporation Bill also contains provisions with regard to the use of Christ Church grave yard (formerly known as the Swedenborgian Burial ground) Hulme, and the rebuilding of Cross Street Chapel, and the removal of human remains where made necessary by reason of proposed widening of Cross Street.

The large privately owned burial ground of the Manchester General Cemetery, Harpurhey, has been taken over by the Corporation with the object of development of portions as an open space.

Dispatch of Bodies overseas

In two instances arrangements for the dispatch of two bodies overseas one to South America and the other to Cyprus, were subject to surveillance by an inspector of the Department to ensure that the requirements of the receiving country and transport undertaking were satisfied.

The requirements dealt with medical certification of the cause of death not being a communicable disease, a certified copy of the death certificate issued by the registrar, the coroner's authorisation of removal of the body, certification of embalming and certification of the body having been duly hermetically sealed in a metal casket.

Public conveniences

New conveniences for men and women have been opened during the year the Newall Green and Northern Moor neighbourhood units, Wythenshaw and at the end of the year work had commenced on the construction of conveniences at West Gorton for men and women, at Chorlton for women and at Crumpsall for men.

Restrictions in capital works expenditure continued to cause the deferment of the scheme for the improvement of the Piccadilly conveniences, where the existing accommodation fails to meet increasing demands.

During 1957 there were 348 incidents involving deliberate damage to theft of essential fittings from public conveniences, and the cost of making good such damage represented approximately 15 per cent. of the total expenditure on maintenance. In some instances the extent and nature of the damage necessitated closure of conveniences for several days pending the completion of repairs.

There are now 167 conveniences with accommodation as follows :—

Males—

With urinal, watercloset, washing and parcel storage accommodation	4
With urinal, watercloset and washing accommodation	6
With urinal and watercloset accommodation	48
With urinal accommodation	58
	<hr/>
	116

Females—

With watercloset, washing and parcel storage accommodation	4
With watercloset and washing accommodation	4
With watercloset accommodation	43
	<hr/>
	51
TOTAL	<hr/>
	167

Facilities for free hand-washing have been extended to provide hot and cold water, paper towels and liquid soap at seventeen of the conveniences in the central area, where there are attendants on regular duty, and the public have made considerable use of the facilities so offered. As an alternative to paper towels, electric hand-driers are being tried at three conveniences.

Some of the suburban conveniences also have been provided with paper towels and liquid soap dispensers. In the absence of a regular attendant, however, there is considerable misuse and damage to fittings, and the maintenance of the service necessitates increasing the frequency of supervisory visits by the Department's employees.

Amongst other work undertaken, progress has been made with the lagging of water fittings and the encasement of pipes, both as a precaution against frost and some protection against wanton damage.

There are now 167 countries with representation in the following table:

1. A. ...
2. B. ...
3. C. ...
4. D. ...

5. E. ...
6. F. ...
7. G. ...
8. H. ...

9. I. ...
10. J. ...
11. K. ...
12. L. ...

13. M. ...
14. N. ...
15. O. ...
16. P. ...

17. Q. ...
18. R. ...
19. S. ...
20. T. ...

21. U. ...
22. V. ...
23. W. ...
24. X. ...

25. Y. ...
26. Z. ...
27. AA. ...
28. AB. ...

29. AC. ...
30. AD. ...
31. AE. ...
32. AF. ...

33. AG. ...
34. AH. ...
35. AI. ...
36. AJ. ...

37. AK. ...
38. AL. ...
39. AM. ...
40. AN. ...

41. AO. ...
42. AP. ...
43. AQ. ...
44. AR. ...

REPORT OF THE PUBLIC ANALYST

A. N. LINDEN, B.Sc., F.R.I.C.

Section 4

Public Analyst

ADULTERATION OF MILK

FOOD AND DRUGS ADULTERATION

MEASUREMENT OF ATMOSPHERIC POLLUTION

ADULTERATION OF MILK
FOOD AND DRUG ADULTERATION
MEASUREMENT OF ATMOSPHERIC POLLUTION

REPORT OF THE PUBLIC ANALYST

A. N. Leather, B.Sc., F.R.I.C.

One factor had a considerable influence on all the work of the laboratory during the year, and it may be recalled that the preceding year's work was affected by the same factor, that of staff shortage. After a period lasting 19 months in which the post of qualified assistant analyst remained vacant, an appointment was made and the vacancy was filled from the 7th January. A vacancy existing for a student technician for 11 months from November, 1956, was filled during three of those months by a temporary appointment. Finally the vacancy was filled from the 7th October.

The total number of samples submitted was again rather lower than in earlier years, reflecting continued staff shortages in the Sanitary Services Division of the Health Department. Although it may be considered satisfactory that only routine sampling was reduced, while complaints and special investigations received full normal attention, there may be some danger that unless a certain level of random sampling is maintained, the enforcement of the law regarding food and drugs may tend to be weakened.

It is acknowledged later in this report that the public is taking a very proper and increasing interest in the purity of food and is submitting a growing number of questionable samples to the Health Department. This public-spirited action in some instances can lead directly to proceedings for a breach of the law, but in most instances it clearly needs to be supplemented by investigation and action by those appointed to procure official samples for the purposes of the Food and Drugs Act and related legal provisions.

Not many new statutory provisions came into force during the year. One new statutory instrument having an important bearing on the work of the laboratory was the Colouring Matter in Food Regulations made in June. These Regulations change the mode of legal control over the use of artificial colouring matter in food. Whereas formerly only a few dyestuffs known to be harmful were forbidden, now all dyestuffs are forbidden except about 30 selected dyes which are scheduled in the Regulations as permitted coal tar colours. From 1st January, 1958, food may not be imported if it contains dyestuffs other than those on the permitted list, and from 1st July, 1958, food sold by retail must comply with the same requirements. To enable the laboratory to carry out its duties under the new Regulations it was necessary to work out suitable methods for the extraction and identification of dyes from foods. Much valuable pioneer work was done in this laboratory and in other food laboratories, and there was a useful exchange of information among the workers. In this connection I wish to acknowledge the initiative and persistence of my colleague Mr. F. Dixon, who has made a very practical contribution to the preparedness of this laboratory for what will often be difficult work when applied to a diverse range of foodstuffs. At the time of writing (starting from the 1st January, 1958) samples from the Manchester Port Health Authority are being examined in connection with the enforcement of the Regulations, which are already in force in respect of imported food.

The addition of colouring matter to foods was first regulated by the 1925 Public Health (Preservatives, etc., in Food) Regulations. There is no doubt that these Regulations have served a very valuable purpose, particularly in controlling the use of preservatives. Before the Regulations were made, there was a growing danger of the widespread and indiscriminate use of undeclared

preservatives. The Regulations had the virtue that they were based upon the principle of a general prohibition of preservatives in food, the general prohibition being modified by the provision of a limited schedule of foodstuffs to which, under safeguards and within quantitative limits, certain named preservatives might be added. Throughout the existence of these Regulations (which are now kept in force by the 1955 Food and Drugs Act), there have been Ministerial powers to vary the details of the control of the addition of preservatives to food by amending the Regulations, and these powers have been invoked from time to time. With the exception of some war-time changes now revoked, these amendments have usually been of a very minor kind, and it has been generally found very difficult to induce changes in the Regulations by making representations to Ministers. Taking into account newer knowledge of the effects of preservatives upon the consumer, and more modern techniques of both chemical and non-chemical preservation, it may now be desirable to reconsider from first principles the whole subject of the legal control of the addition of preservatives to foodstuffs.

From practical considerations relating to the work of the public analysts the provisions of the Labelling of Food Order and of the Pharmacy and Medicines Act have been explained and commented upon in previous annual reports. The checking of labels upon pre-packed compounded foods and upon pre-packed proprietary medicines continues to present many difficult problems of analysis and interpretation, and the number and complexity of such problems is increasing.

Of all samples submitted and examined under the Food and Drugs Act and related Acts, the proportion of samples found to be "adulterated or otherwise giving rise to irregularity" was 4.6 per cent.

Analytical notes and some other comments are made upon unsatisfactory samples and upon a few samples recorded as genuine. Information about subsequent legal and administrative action has been provided by the Medical Officer of Health and by the Sanitary Services Division of the Health Department.

Adulteration of milk

It is one of the duties of a Food and Drugs Authority, such as Manchester, to enforce the law relating to milk within its own area. Broadly the duty regarding chemical analysis may be carried out in two complementary ways, by exercising supervision over the milk firstly as it is brought into the area (usually to be delivered at dairy factories where it is treated and bottled) and secondly as it is sold by retail in shops or from delivery vehicles.

Because Manchester has been declared a "specified area," that is to say, because it is only lawful to sell milk under a "special designation" within the City area, and because in practice by far the commonest special designation is that of pasteurized milk, it follows that a very high proportion of milk entering the City is destined for pasteurization. The pros and cons of compulsory pasteurization have been debated mainly on hygienic grounds, the intention being to minimise the risks of milk-borne disease. But an important result of widespread pasteurization is the uniformity of composition of the product. The purchaser of an "ordinary" bottle of milk in this area receives pasteurized milk. But the milk before treatment has been transported to City dairies from farms or collecting centres, and after delivery has been bulked in large holders. In other words the composition of the milk is averaged out

and the purchaser has very little chance of obtaining milk either far below or far above the average. His expectation of receiving visibly rich and creamy milk (containing more than his own proportional share of butter-fat) is almost nil, but his consolation is that there is an equally small likelihood that he will receive "blue" creamless milk or thin watery milk.

It is found in practice that samples representing milk as sold by retail are nearly uniform in composition, and that actual deficiencies in fat or in non-fatty solids are very rare (such deficiencies being assessed in relation to the presumptive minimum limits fixed by the Sale of Milk Regulations 1939; namely 3.5 per cent. non-fatty solids, 3.0 per cent. fat). On the other hand individual samples representing milk as received at pasteurizing-dairies vary much more widely. Yet obviously the overall average composition of the milk input at a properly operated plant governs, and in fact is identical with, the overall average composition of the output, when any complete set of operations is considered.

Whenever practicable in the laboratory, and that means in almost every instance, if a sample of milk is found upon analysis to contain less than 8.5 per cent. of non-fatty solids, the freezing-point of the sample is determined.

The freezing-point of fresh genuine milk usually lies between -0.540°C . and -0.550°C . (determined by the Hortvet method, with reference to zero taken as the freezing-point of pure water under the same conditions). If water is mixed with milk the freezing-point of the mixture will be found to lie between that of the original milk and that of water. (Thus, for example, freezing-points of, say, -0.510°C . or -0.450°C . would indicate the presence of added water in a milk sample). Experience in this laboratory over many years, and study of the published results of many thousands of tests, lead to the conclusion that when the freezing-point (Hortvet) of a sample of milk is found to be nearer to zero than -0.529°C . it may be taken as very strong evidence that the sample contains added water. Conversely, if the freezing-point of a sample is found to be further from zero than -0.529°C ., then it may be taken as unlikely that the sample contains more than a negligibly small proportion of extraneous water, even though it is found to contain less than 8.5 per cent. of non-fatty solids (so that in accordance with the Sale of Milk Regulations a presumption is raised until the contrary is proved that the sample contains added water).

In their statutory quarterly reports public analysts are required to report in the case of samples below the presumptive limits of the Sale of Milk Regulations, whether they were adjudged genuine by the analyst on other grounds."

The following table gives details of 75 samples which were adjudged to be free from extraneous water as a result of the freezing-point test. Where the fat was found to be below 3.0 per cent., the samples were deemed to be "adulterated" from the point of view of fat-deficiency, though not from the point of view of added water.

Samples adjudged by the freezing-point test to be free from added water

The following samples of milk showed figures for non-fatty solids below the presumptive limit of 8.5 per cent. non-fatty solids fixed by the Sale of Milk Regulations, 1939, but were adjudged genuine (apart from any deficiency of fat) on the Hortvet freezing-point tests:—

Serial number	Total solids per cent.	Fat per cent.	Non-fatty solids per cent.	Freezing point °C. (Hortvet)	Acidity *Richmond
531b	10.73	2.60	8.13	-0.547	17
552b	11.54	3.40	8.14	-0.539	17
553b	12.80	4.65	8.15	-0.556	18
555b	11.88	3.75	8.13	-0.557	15
556b	11.27	2.95	8.32	-0.560	17
84A	11.33	2.90	8.43	-0.547	19
89A	11.88	3.60	8.28	-0.532	17
606b	11.79	3.50	8.29	-0.532	16
607b	11.11	2.85	8.26	-0.533	16
629b	11.48	3.20	8.28	-0.529	18
632b	11.51	3.35	8.16	-0.544	17
634b	10.90	2.65	8.25	-0.545	18
637b	11.22	2.90	8.32	-0.544	17
147A	10.54	2.35	8.19	-0.534	17
652b	11.20	2.85	8.35	-0.545	19
170A	11.09	2.95	8.14	-0.539	18
675b	11.01	2.85	8.16	-0.542	18
676b	10.88	2.70	8.18	-0.545	17
681b	11.35	2.90	8.45	-0.548	17
195A	11.08	2.85	8.23	-0.542	17
196A	11.28	2.90	8.38	-0.549	17
708b	11.54	3.30	8.24	-0.551	17
710b	11.42	3.25	8.17	-0.546	18
217A	11.43	3.30	8.13	-0.533	16
727b	11.27	3.10	8.17	-0.550	17
244A	11.21	3.10	8.11	-0.542	17
754b	11.18	3.05	8.13	-0.545	16
755b	11.23	3.00	8.23	-0.550	16
756b	11.01	2.70	8.31	-0.546	19
787b	12.68	4.40	8.28	-0.539	19
329A	11.53	3.30	8.23	-0.543	18
331A	11.36	3.10	8.26	-0.542	17
332A	11.16	3.00	8.16	-0.542	17
333A	10.89	2.75	8.14	-0.538	18
850b	11.34	2.90	8.44	-0.548	18
361A	11.90	3.70	8.20	-0.538	18
362A	11.61	3.65	7.96	-0.540	18
870b	11.28	3.30	7.98	-0.544	16
871b	11.39	3.35	8.04	-0.545	16
872b	11.63	3.55	8.08	-0.541	16
873b	11.02	2.95	8.07	-0.540	16
874b	10.74	2.85	7.89	-0.543	16
875b	10.88	2.85	8.03	-0.534	17
892b	11.31	2.90	8.41	-0.545	18
893b	11.34	2.85	8.49	-0.539	19
457A	11.41	3.40	8.01	-0.536	17
458A	11.35	3.05	8.30	-0.537	16
560A	11.03	2.75	8.28	-0.542	18
563A	11.72	3.45	8.27	-0.541	19
1106b	11.32	3.25	8.07	-0.540	18
1107b	11.53	3.20	8.33	-0.531	19
1108b	11.74	3.50	8.24	-0.535	18
1109b	11.42	3.20	8.22	-0.534	18
592A	11.38	3.15	8.23	-0.551	18
593A	11.84	3.45	8.39	-0.551	19
594A	11.81	3.65	8.16	-0.549	19
595A	11.15	3.40	7.75	-0.553	18
596A	10.98	3.20	7.78	-0.536	18
1135b	12.17	3.80	8.37	-0.535	18
1137b	11.80	3.55	8.25	-0.549	18
1138b	11.74	3.50	8.24	-0.536	18
1140b	11.91	3.70	8.21	-0.530	18
1141b	11.47	3.35	8.12	-0.530	19
1142b	11.37	3.20	8.17	-0.529	18
651A	11.51	3.40	8.11	-0.539	18
652A	11.89	3.60	8.29	-0.543	18
654A	11.14	2.75	8.39	-0.554	19
1186b	11.08	2.60	8.48	-0.548	18
779A	11.06	2.70	8.36	-0.555	19
880A	11.52	3.30	8.22	-0.529	18
1423b	10.98	2.50	8.48	-0.551	18
1458b	12.46	4.05	8.41	-0.551	18
964A	11.83	3.40	8.43	-0.556	18
997A	11.60	3.30	8.30	-0.554	17
1569b	11.44	3.30	8.14	-0.541	18

Proportion of samples naturally poor in non-fatty solids

In relation to the total number of milk samples, the proportion of samples having less than 8.5 per cent. of non-fatty solids but recorded in the last few years (as a result of the freezing-point test) as genuine, apart from any deficiency of fat, has been as follows:—

Year	1950	1951	1952	1953	1954	1955	1956	1957
Percentage	4.6	5.7	6.0	7.3	6.5	7.9	8.5	6.5

It should be noted that these figures are not based on purely random sampling. Some of the samples were procured to investigate complaints that poor milk was being delivered in the City.

As might be expected, and as may be observed in the freezing-point table above, milk which is naturally poor in non-fatty solids is often found to be poor also in fat, probably as a result of similar natural causes. The average fat-content of the 75 samples recorded in that table is actually only 3.19 per cent., while the average fat content of all milk samples for the same period is 6.0 per cent. But while the freezing-point test can be used to make a distinction between milk naturally poor in non-fatty solids and milk which has been rendered poor in non-fatty solids by the addition of water, there is no parallel test which can distinguish between milk naturally poor in fat and milk which has been rendered fat-deficient by skimming. Therefore every sample having less than 3.0 per cent. of fat is recorded as fat-deficient.

Deficiency in fat

The total number of milk samples recorded during the year as deficient in fat was 65. The deficiencies, expressed as a proportion of 3.0 per cent. of fat (the minimum presumptive limit), varied between 1.6 and 25.0 per cent. Of the 65 fat-deficient samples, seven were also reported to contain relatively small proportions of extraneous water.

With one exception, all these fat-deficient samples were procured during the sampling of consignments of milk transported in milk-cans (usually holding 10 gallons). The consignments involved numbered 38. The consignment-average for fat-content was higher than 3.0 per cent. in 37 of these consignments. The remaining consignment had an average fat-content of 2.98 per cent.

One sample of milk, considered in a separate category because it was sold "hot milk," was found to be deficient in fat. Expressed as a proportion of 3.0 per cent., the deficiency amounted to 26.6 per cent.

In addition, two samples of bottled "Channel Islands" milk were reported to contain slightly less than the required 4.0 per cent. of fat.

Added water

The presence of extraneous water, judged by deficiency in non-fatty solids and taking into account the result of the freezing-point test, was reported in 28 samples of milk. In 24 of these samples the proportions of extraneous water were relatively small, ranging between 3.2 per cent. and less than 1 per cent. In four samples, representing milk from each of four milk-cans forming the consignment, the proportions of added water were found to be 7.5, 8.4, 17.8 and 21.1 per cent. respectively.

Two samples of milk sold as "hot milk" contained respectively 6.9 and 44 per cent. of extraneous water.

[In respect of four samples of milk representing a complete consignment and each containing extraneous water, proceedings were instituted against a farmer. Fines totalling £26 were inflicted and payment of £4 1s. costs was ordered. In respect of a sample of milk sold as "hot milk" and containing 44 per cent. of added water, the vendor was fined £5. In other instances where milk samples failed to satisfy presumptive standards, it was deemed appropriate to administer cautions.]

A new development affecting milk quality

Since the last great war, the sale of milk by farmers has been under the control of the Milk Marketing Board, and the conditions of sale are governed by the terms of contracts which are agreed from time to time. Technically the farmer sells milk to the Board, and the Board may direct the farmer to consign the milk to a place chosen by the Board. It is under such direction that milk comes to Manchester from farms more or less distant.

In carrying out its duties, a Food and Drugs Authority should supervise the quality of such milk, and if and when such milk is found to be adulterated, should take appropriate action which may result in the prosecution of the person responsible. This person is usually charged with a breach of Section 1 of the 1955 Food and Drugs Act, and for this purpose it is necessary to prove the sale of the article. But usually a farmer sells the milk technically to the Board, and this gives rise to a somewhat ponderous procedure whereby a witness must be called from some probably distant office of the Board to prove the contract of sale.

In carrying out its functions, the Milk Marketing Board buys milk under contract from producers. It also sells milk under contract to distributors. Recently the opportunity has been taken to put into contracts of the second kind clauses whereby buyers of milk from the Board undertake to have certain milk samples tested for butter-fat. The scheme now in operation covers all "wholesale ex-farm supplies" and is called the Butterfat Testing Scheme. For the first full year, running from 1st October, 1957, to 30th September, 1958, it is proposed that each producer's annual average butterfat result shall be calculated, and that thereafter any producer whose annual butterfat average falls below 3.3 per cent. shall be placed on a special list. During the next year of operation, starting from 1st October, 1958, it is intended that producers on the special list are to have their milk output tested four times a month. If the average of a producer's four tests in any one month falls below 3.2 per cent. between September and March or below 3.1 per cent. between April and August, the price he will receive for his milk will be lower than the standard price, the price reduction to be determined according to a published scale.

It is clear from the beginning that this scheme has been designed to discourage the production of milk of the poorest quality, while at the same time making the least possible change in the general system of payments. Those who have for some years advocated a system of "payment for quality" will be disappointed for two principal reasons; there is to be no reward for producing milk having more fat than a certain moderately low percentage (for which a figure of 3.3 has been chosen), and no account is to be taken of non-fatty solids for the purpose of the scheme.

If milk containing 3.0 per cent. of butterfat is worth less than milk containing 3.3 per cent., then is not the latter milk logically and obviously worth less than milk containing 3.6 per cent. butterfat ?

No doubt there have been difficulties in launching any scheme at all, and for many reasons the present scheme will be welcomed. The knowledge that samples are being regularly tested will make every producer "butterfat-conscious." There appears also to be a likelihood that the knowledge that samples are being taken, and could be tested also in other ways, will make many producers "quality-conscious" in a broad sense. Such knowledge will tend to have a deterrent effect upon the consigning of milk containing extraneous water, for once the presence of such water is detected or suspected, the procedure under the Food and Drugs Act is likely to be set in motion.

Adulteration of food (other than milk) and drugs

The table which follows immediately shows the classification of samples found to be adulterated or unsatisfactory, and also shows the kind of subsequent action taken.

Samples other than milk

Adulterated and other unsatisfactory samples and action taken

Informal samples					Formal samples											
Formal samples obtained	Further samples pending	Cautioned	Remaining stock withdrawn	Insufficient cause for action	Legal proceedings			Article	Adulterated or unsatisfactory	Cautioned	Remaining stock withdrawn	Legal proceedings				
					Summonses	Fined	Amount of fines					Summonses	Fined	Amount of fines		
1	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	Bread
—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	Canned cream
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Cheese
—	2	—	—	—	—	—	—	3	3	3	—	—	—	—	—	Dried fruit
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Flour, plain
—	—	—	—	—	—	—	—	3	2	—	—	1	1	£5	—	Meat products, sausages
—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	Milk, condensed
—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	Pickles
—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	Sago
—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	Sauce
—	—	1	—	—	1 (p)	1	£20	—	—	—	—	—	—	—	—	Soft drinks
—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	Sweets (one p)
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Liquid paraffin
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Oil, camphorated

Private complaint made to Health Department. Sample submitted to laboratory as informal. Foreign body present. Proceedings instituted by Corporation. Complainant asked to attend as witness.

Food and Drugs Act, 1955

Summary of samples examined

Article	Number examined				Number adulterated or otherwise giving rise to irregularity			
	Formal	Informal	Private	Total	Formal	Informal	Private	Total
Milk*	417	627	—	1,044	60	26	—	86
Milk (sterilized)	81	31	—	112	—	—	—	—
Milk (Channel Islands)	2	4	—	6	1	1	—	2
Milk (sold as hot milk)	3	—	—	3	3	—	—	3
Ice cream	6	—	—	6	—	—	—	—
Alcoholic liquids:—								
Spirits	11	—	—	11	—	—	—	—
Wines	2	4	—	6	—	—	—	—
Wine cocktails	4	—	—	4	—	—	—	—
Others	10	13	—	23	—	—	—	—
Arrowroot	—	1	—	1	—	—	—	—
Bacon and ham	8	—	—	8	—	—	—	—
Baking and golden raising powder	—	5	—	5	—	—	—	—
Barley	9	1	—	10	—	—	—	—
Biscuits	28	—	—	28	—	—	—	—
Blancmange powder	—	4	—	4	—	—	—	—
Bottled fish	—	1	—	1	—	—	—	—
Bread	—	10	—	10	—	4	—	4
Bread, fancy	—	7	—	7	—	1	—	1
Bread, proprietary	—	1	—	1	—	—	—	—
Butter	25	—	—	25	—	—	—	—
Cakes, Eccles	—	4	—	4	—	—	—	—
Cake filling	—	1	—	1	—	—	—	—
Cakes (flour confectionery)	6	5	—	11	—	—	—	—
Cake and pudding mixtures	—	9	—	9	—	—	—	—
Canned:—								
Cereal products	—	7	—	7	—	—	—	—
Cream	—	17	—	17	—	1	—	1
Fish	—	8	—	8	—	—	—	—
Fruit and fruit juice	—	23	—	23	—	—	—	—
Meat and meat products	—	14	—	14	—	—	—	—
Pudding, sweet	—	3	—	3	—	—	—	—
Soup	—	15	—	15	—	—	—	—
Vegetables and vegetable products	—	33	—	33	—	—	—	—
Celery salt	—	2	—	2	—	—	—	—
Cereals (prepared)	16	3	—	19	—	—	—	—
Cheese	13	2	—	15	—	1	—	1
Cheese spread	—	8	—	8	—	—	—	—
Christmas pudding	—	2	—	2	—	—	—	—
Cocoa	8	—	—	8	—	—	—	—
Cocoa, sweetened	2	2	—	4	—	—	—	—
Coconut, desiccated	11	—	—	11	—	—	—	—
Coffee	22	2	—	24	—	—	—	—
Coffee and chicory	—	2	—	2	—	—	—	—
Coffee and chicory essence	—	12	—	12	—	—	—	—
Coffee and chicory extract, dry	—	1	—	1	—	—	—	—
Coffee extract, dry	—	2	—	2	—	—	—	—
Colouring matter	—	1	—	1	—	—	—	—
Cooking oil	1	1	—	2	—	—	—	—
Cornflour	11	—	—	11	—	—	—	—
Custard powder	23	—	—	23	—	—	—	—
Dried fruits:—								
Vine fruits	51	1	—	52	3	—	—	3
Others	4	6	—	10	—	—	—	—
Dried herbs	—	2	—	2	—	—	—	—
Dried pulses	41	—	—	41	—	—	—	—
Dried soup	—	3	—	3	—	—	—	—
Dripping	3	3	—	6	—	—	—	—
Fish cakes	—	1	—	1	—	—	—	—
Fish dressing	—	4	—	4	—	—	—	—
Fish paste	2	—	—	2	—	—	—	—
Flavouring	—	1	—	1	—	—	—	—
Flour, plain	—	9	—	9	—	2	—	2
Flour, self-raising	10	—	—	10	—	—	—	—
Food beverage powder	1	—	—	1	—	—	—	—
Frosted food:—								
Peas	—	1	—	1	—	—	—	—
Fruit juice	2	5	—	7	—	—	—	—
Gelatine	—	2	—	2	—	—	—	—
Golden syrup and treacle	—	8	—	8	—	—	—	—
Gravy browning	—	5	—	5	—	—	—	—
Gravy powder and gravy salt	—	3	—	3	—	—	—	—
Ground almonds	3	1	—	4	—	—	—	—
Ground rice	6	—	—	6	—	—	—	—

Article	Number examined				Number adulterated or otherwise giving rise to irregularity				Percentage of samples unsatisfactory
	Formal	Informal	Private	Total	Formal	Informal	Private	Total	
... ..	—	7	—	7	—	—	—	—	—
... powder	—	1	—	1	—	—	—	—	—
... ble	—	16	—	16	—	—	—	—	—
... nd cooking fat	24	2	—	26	—	—	—	—	—
... flavoured barley crystals	—	1	—	1	—	—	—	—	—
... ni and vermicelli	7	1	—	8	—	—	—	—	—
... ine	24	—	—	24	—	—	—	—	—
... an	—	1	—	1	—	—	—	—	—
... products:—									
... k puddings	11	—	—	11	—	—	—	—	—
... n	9	—	—	9	—	—	—	—	—
... r sausage	1	—	—	1	—	—	—	—	—
... heon sausage	1	—	—	1	—	—	—	—	—
... t paste	—	1	—	1	—	—	—	—	—
... pie	—	1	—	1	—	—	—	—	—
... ed meat	1	—	—	1	—	—	—	—	—
... s (tripe, etc.)	21	—	—	21	—	—	—	—	—
... vy	6	1	—	7	—	—	—	—	—
... d meat	2	1	—	3	—	—	—	—	—
... ges	11	—	—	11	3	—	—	3	27
... ried	—	4	—	4	—	—	—	—	—
... vaporated	—	8	—	8	—	—	—	—	—
... sweetened condensed	—	19	—	19	—	1	—	1	5
... uce	—	5	—	5	—	—	—	—	—
... rved condiment	—	8	—	8	—	—	—	—	—
... ..	—	2	—	2	—	—	—	—	—
... d oatmeal	7	—	—	7	—	—	—	—	—
... butter	—	5	—	5	—	—	—	—	—
... and chutney	9	31	—	40	1	1	—	2	5
... s	83	9	—	92	—	—	—	—	—
... , sweet	—	1	—	1	—	—	—	—	—
... ..	26	—	—	26	—	—	—	—	—
... ..	6	—	—	6	1	—	—	1	16
... eam and mayonnaise	—	7	—	7	—	—	—	—	—
... ..	—	3	—	3	—	—	—	—	—
... (other than tomato)	—	14	—	14	—	1	—	1	7
... o tomato	—	6	—	6	—	—	—	—	—
... ..	12	—	—	12	—	—	—	—	—
... nks	21	24	—	45	—	1	—	1	2
... nk powder	—	7	—	7	—	—	—	—	—
... ..	—	36	—	36	—	—	—	—	—
... ..	—	8	—	8	—	—	—	—	—
... red	14	1	—	15	—	—	—	—	—
... ..	41	—	—	41	—	—	—	—	—
... (sugar confectionery)	22	6	—	28	1	2	—	3	11
... ..	13	—	—	13	—	—	—	—	—
... ..	31	1	—	32	—	—	—	—	—
... ..	27	4	—	31	—	—	—	—	—
... al foods*	1,272	1,183	—	2,455	73	42	—	115	4.7

* Not including 2 "appeal to cow" samples of milk.

Article	Number examined				Number adulterated or otherwise giving rise to irregularity				Percentage unsatisfactory
	Formal	Informal	Private	Total	Formal	Informal	Private	Total	
Ammoniated tincture of quinine	2	—	—	2	—	—	—	—	—
Ammoniated quinine tablets	—	1	—	1	—	—	—	—	—
Antiseptic throat tablets	—	1	—	1	—	—	—	—	—
Aspirin tablets	1	2	—	3	—	—	—	—	—
Bicarbonate of soda	—	4	—	4	—	—	—	—	—
Boric acid	—	1	—	1	—	—	—	—	—
Calamine lotion	—	2	—	2	—	—	—	—	—
Cascara sagrada	1	1	—	2	—	—	—	—	—
Compound codeine tablets	—	1	—	1	—	—	—	—	—
Compound glycerine of thymol	—	2	—	2	—	—	—	—	—
Compound glycerine of thymol pastilles	—	1	—	1	—	—	—	—	—
Cough mixture	—	8	—	8	—	—	—	—	—
Cream of tartar	—	1	—	1	—	—	—	—	—
Digestive tablets	—	3	—	3	—	—	—	—	—
Energy tablets	—	1	—	1	—	—	—	—	—
Epsom salts	—	2	—	2	—	—	—	—	—
Friars balsam	—	1	—	1	—	—	—	—	—
Gee's linctus	—	6	—	6	—	—	—	—	—
Glauber's salt	—	1	—	1	—	—	—	—	—
Glucose (powdered)	—	2	—	2	—	—	—	—	—
Glycerine	4	1	—	5	—	—	—	—	—
Halibut liver oil capsules	—	1	—	1	—	—	—	—	—
Herbs, slimming	—	1	—	1	—	—	—	—	—
Hydrogen peroxide	—	2	—	2	—	—	—	—	—
Indigestion mixture	—	1	—	1	—	—	—	—	—
Laxative pills	—	1	—	1	—	—	—	—	—
Liquid paraffin	3	2	—	5	—	1	—	1	—
Malt extract with cod liver oil	—	3	—	3	—	—	—	—	—
Malt extract with halibut liver oil	—	1	—	1	—	—	—	—	—
Milk of magnesia	—	2	—	2	—	—	—	—	—
Oil:—									
Camphorated	2	4	—	6	—	1	—	1	—
Castor	3	—	—	3	—	—	—	—	—
Cod liver	—	1	—	1	—	—	—	—	—
Olive	2	7	—	9	—	—	—	—	—
Olive oil and raspberry vinegar	—	3	—	3	—	—	—	—	—
Parrish's chemical food	—	3	—	3	—	—	—	—	—
Raspberry vinegar	1	1	—	2	—	—	—	—	—
Saline, effervescent	—	1	—	1	—	—	—	—	—
Saline, non-effervescent	—	1	—	1	—	—	—	—	—
Tincture of iodine	2	—	—	2	—	—	—	—	—
Yeast tablets	—	1	—	1	—	—	—	—	—
Total drugs	21	78	—	99	—	2	—	2	—
Add total foods*	1,272	1,183	—	2,455	73	42	—	115	—
Total food and drugs* ..	1,293	1,261	—	2,554	73	44	—	117	—
All milk (including sterilized, Channel Islands and milk sold as hot milk)*..	503	662	—	1,165	64	27	—	91	—

* Not including 2 "appeal to cow" samples of milk.

Composition of milk

The average values for the percentage content of fat and non-fatty solids for the four quarters and for the whole year are set out in tabular form.

Quarterly average table

Quarter	All milks				Genuine milks				Adulterated milks			
	No.	Non-fatty solids %	Fat %	Total solids %	No.	Non-fatty solids %	Fat %	Total solids %	No.	Non-fatty solids %	Fat %	Total solids %
First	324	8.66	3.55	12.22	296	8.70	3.62	12.32	28	8.30	2.91	11.21
Second	240	8.78	3.43	12.21	214	8.80	3.51	12.31	26	8.53	2.78	11.31
Third	306	8.75	3.59	12.34	285	8.77	3.64	12.41	21	8.53	2.94	11.47
Fourth	286	8.80	3.82	12.62	275	8.84	3.85	12.69	11	7.91	3.03	10.94

Annual average table

Year	All milks				Genuine milks				Adulterated milks			
	No.	Non-fatty solids %	Fat %	Total solids %	No.	Non-fatty solids %	Fat %	Total solids %	No.	Non-fatty solids %	Fat %	Total solids %
1957	1,156	8.75	3.60	12.35	1,070	8.78	3.66	12.44	86	8.37	2.90	11.27

Some notes on particular cases of adulteration or irregularity

In the following notes each sample is introduced by the heading under which it was classified in the earlier table, "Summary of samples examined," and the heading is immediately followed (where necessary) by the name of the article. In the last few years a commendable interest has been shown by the public in food hygiene. This interest is reflected in the number of samples containing (or thought to contain) foreign matter submitted by members of the public to the Health Department. If foreign matter may be taken to include also the products of infestation by insects and by moulds, the presence of foreign matter of various kinds is recorded below in the notes on the following 6 samples: bread (four samples), fancy bread, cheese, vine fruits (three samples), soft drink, sweets (two samples). In three cases out of 13, foreign matter was first discovered in the laboratory in samples procured in the ordinary way. (It is obvious that if occasional contamination with foreign matter occurs, it is more likely to be found among the bulk of the product sold to the general purchaser than in the relatively small proportion contained in samples procured purely at random in the course of a sampling officer's duties).

Bread.—At various times during the year, purchasers complained to the Health Department that they had found foreign matter in bread. Four of these complaints led to the submission of samples. When the nature of such foreign matter has been ascertained, it may be possible to infer the source of contamination and the mode of entry into the food, but sometimes on the other hand there appears to be no clue as to how or when a contaminant has gained access. The foreign matter is there, and how it got there may be an unexplained mystery. In any case, it is "matter in the wrong place" and as such qualifies to be described as "dirt." The finding of foreign matter raises questions of factory hygiene, including the personal hygiene of workers, and leads further to questions as to whether the contaminant is "injurious to health" or whether it is harmless and the result of an unavoidable accident.

One informal sample consisted of a loaf already sliced at the time of sale, and wrapped in waxed paper bearing a proprietary name. The purchaser had begun to butter a number of the slices, had then seen the object complained of and had re-wrapped the whole in the waxed paper. The complaint was that the foreign matter consisted of a piece of "used" chewing gum. Near the middle of the crumb of one slice was a rounded "lump" darker and more gummy in colour than the surrounding bread. This object easily separated from the bread and then was seen to have a slightly convoluted appearance. On further examination it was found to consist of a rough ball of vegetable fibres (resembling jute) embedded in a friable mass of baked dough. Such fibres might have been derived from a flour sack.

On another occasion the sample, submitted informally, consisted of a white "two-pound" loaf which appeared to be completely intact. On one side of the loaf there was just distinctly visible about level with the crust, the metallic rim of some embedded object. The object, when cut out of the loaf, was recognised as a screw-cap made of "tin" (that is, tinned iron), with a diameter of about five-eighths of an inch. It could have come from a screw-necked bottle or can.

Another informal sample as submitted consisted of about half a white loaf which had apparently been originally of the "two-pound" size. Near the centre of the cut surface of the loaf, embedded in the "crumb," was a dead insect larva resembling the common flour-moth larva. A search in the remaining portion of the loaf failed to reveal any other foreign matter. The presence of a flour-moth larva in the loaf was regarded as sufficient to warrant an inspection of the bakery and any flour-stocks from which the bakery had been directly supplied.

A fourth informal sample consisted of four slices cut apparently by hand from a white loaf of about "two-pound" size. Near the centre of one of the slices, embedded in the crumb and strongly adherent to it, was a small object very dark brown, roughly spherical and about an eighth of an inch in diameter. This consisted of a piece of hard siliceous gravel coated with a viscous and sticky greasy layer, the coating being very deeply coloured with oxide of iron. The greasy matter was probably of mineral origin. Nothing indicating the source of the foreign matter, nor its route of entry into the bread, was observed.

[In respect of all the flour findings of foreign matter in specimens of bread, appropriate cautions were administered to the respective bakers. In addition, after inspections of premises, recommendations were made for the prevention of repetitions. Jute-fibres, though less offensive than the suspected chewing-gum, should be removed by sifting. The metallic screw-cap was found to be derived from the container of a (permissible tin-greasing oil. The flour-moth larva did not lead to the finding of an infested stocks, indeed it proved to be an isolated example. The baker in whose bread was found the small oily stone mentioned that his premises had been subject to much window-breaking by malicious stone-throwing, but he could not precisely explain the object found.]

Bread, fancy—bun loaf (informal). A small loaf of fancy bread contained currants and raisins and had a coating of sugar-icing on the top. The sample was accompanied by a match-box containing a rounded body said to have been found in the bun loaf. When gently washed free from starch, sugar and fat this was seen to consist of a small ball of fibrous vegetable tissue about the size of a pea. Within the fibres were a few smooth black seeds, and the whole appeared to have formed part of some structure from a seed pod, though it was not specifically identified. It was regarded as being part of a "weed," probably harvested with the currants, and no further special investigation was recommended since it was likely that any useful information would be available only in the country of origin.

[A suitable caution was administered to the baker.]

Canned cream (informal). A sample was submitted for the investigation of a private purchaser's complaint that the contents of a can of sterilized cream had a thin consistency and a bitter taste. The complainant had transferred the contents to a bottle, and had brought the bottle to the Health Department the day after the can was said to have been opened. The sample reached the laboratory on the day the complaint was made. On examination the samp-

in the bottle was seen to be very much more fluid than is usual for canned sterilized cream, and it was found to have a strongly unpleasant and bitter taste. Yet on analysis the actual percentage composition in terms of fat and non-fatty solids was found to be in the normal range, and the fat percentage complied with the requirements of the Food Standards (Cream) Order that sterilized cream shall contain 23 per cent. of fat. The opened can was submitted with the sample and was apparently in sound and clean condition. As an explanation of the laboratory findings it was suggested that the condition of this cream was due to a bacteriological defect in canning.

[A further sample was requested. A can bearing the same code number (thus representing the same batch) was obtained from the wholesale depot. The contents of this second can were found to be in excellent condition.]

Cheese (informal). A sample was submitted for the investigation of a purchaser's complaint that it contained a foreign body. The cheese was in the form of a cut slice of a firm consistency, not crumbling, but containing many branching crevices, a few up to perhaps a tenth of an inch wide. Firmly pressed into the cheese near a crevice was the greater part of a rounded animal body with numerous legs, the greatest dimension being about a quarter of an inch. This was recognised as part of a wood-louse or slater, and its identity was confirmed by Dr. Hincks, of the Department of Entomology, Manchester Museum. From the appearance of the wood-louse it was judged likely that it had not been present when the cheese was made. Wood-lice are very common and the presence of one upon cheese may be considered as a purely casual event.

Dried fruits—vine fruits (three formal). A formal sample of currants and a formal sample of sultanas were found to contain living larvae and also some moulting and excreta. Both these specimens were reported as spoilt food which should not be offered for human consumption.

Another formal sample of sultanas was found to contain numerous small black particles which were identified as tea leaves. The proportion of tea in the whole sample was found to be 0.24 per cent. The presence of tea appeared likely to be the result of some accident in handling, and it would be quite harmless. But the opinion was expressed that the sultanas had been rendered unsuitable for sale because the tea leaves would probably cause local staining of a cake made with the sultanas.

[Stocks corresponding to all three samples were first withdrawn from sale and later destroyed.]

Flour, plain (two informal). An informal sample, consisting of one pound "white" flour submitted in a paper bag upon which was printed the packer's label, was examined with special reference to the Flour (Composition) Regulations in respect of its iron and calcium content. The iron content was found to be satisfactory. The calcium content was found to be equivalent to only 6 milligrams of creta præparata (CaCO_3) per 100 grams. The regulations require not less than 235 and not more than 390 milligrams of creta præparata per 100 grams. A further informal sample of the same brand was requested.

A second informal sample packed as before was submitted. This was again found to be satisfactory in respect of its iron content, but the calcium content was found to be equivalent to 420 milligrams of præparata per 100 grams (thus exceeding the upper limit of 390 mg. per 100 gm.). This slight excess of creta was not regarded as very serious. It is known that millers

have encountered technical difficulties in securing uniform admixture of the small quantities of nutrients added to flour. The proportion of vitamin B was found to be satisfactory.

[In view of these two results for "creta," one too low and one too high the Sampling Officer was requested to procure several more one-pound bags all of the same brand as before from different shops. He has been unable to find any on sale.]

Meat products, sausages (three formal). There was not in force during the year any explicit standard having the force of law and applicable to the meat content of sausages. In such circumstances it becomes necessary for the public analyst to adopt a reasonable working standard. Sausages of commerce consist essentially of minced meat (part of which consists of fat), rusk (or bread-crumbs) and water. Small quantities of salt, pepper, and possibly other spices, may be present. It has become almost universally customary to adopt a minimum standard of 50 per cent. of meat for beef sausages and 65 per cent. of meat for pork sausages. Meat is understood to mean the sum of lean meat (with its natural moisture) and fat (provided that the proportion of fat to lean is not excessive). The meat should be sound and should not include gristle and tendons, and though it may consist of scraps and trimmings it must not include offals such as liver, lungs and tripe. One of the most powerful sources of support for these "customary" standards has been the publication by the Ministry of Food of the results of analysis of all sausages sampled under the Food and Drugs Act for the last few years. The average meat-content of all samples of beef sausages has been well over 50 per cent. while that of all samples of pork sausages has been 65 per cent. or over. While it is most desirable that a strict legal standard should be imposed and enforced let it be remembered that the suggested "customary" standard is a minimum standard. A means should be found of recognising sausages of higher quality than the minimum by some special designation such as "first quality." It is still within living memory that sausages have been made commercially with 100 per cent. meat-content; and only a generation ago some shops had two grades with 90 and 60 per cent. In these remarks sausages are being considered as "straight" meat products. If special formulations containing ingredients such as dried skimmed milk or soya flour are considered in relation to a proposed standard, then there are strong reasons for maintaining that an explicit declaration of the presence of dried milk or soya flour should be required at the time of sale.

One sample of pork sausages was found to contain only 57 per cent. of meat and this sample was reported as deficient in meat to the extent of 8 parts of meat per 100 parts of the sample. For a pork sausage the sample contained a relatively low proportion of fat, namely 19.4 parts per 100 parts of the sample. In many pork sausages half of the meat-content consists of fat. Thus the addition of a relatively small further proportion of fat would have materially improved the meat content.

Another sample of pork sausages contained a total meat-content of 70.4 per cent., while the proportion of fat was 45.4 parts per 100 parts of the whole sample. Thus the proportion of fat in the total meat was found to be 64.5 per cent. This proportion of fat was considered excessive and the sample was reported to be unsatisfactory.

A third sample of pork sausages was found on analysis to have a total meat content of only 48 per cent. This was certified to be, in the opinion of the analyst, deficient in meat to the extent of 17 parts of meat per 100 parts of the sample.

[In respect of the first two of the above samples the makers were interviewed, and cautions were administered by the Health Department. Both claimed that they had previously adopted 65 per cent. of pork as their regular working standard of meat-content, and undertook to ensure that their products complied with it in future.]

[In respect of the third sample proceedings were instituted and the court was asked by the prosecution to adopt a minimum standard of 65 per cent. meat. Evidence had been prepared in support of such a standard, and at the hearing the defence did not oppose its adoption. A plea of guilty was entered. Defendants were fined £5.]

Milk, sweetened condensed (informal). This product was sampled from stock at the request of a wholesale trader who had received complaints. Three cans whose code-marks were all alike were submitted to the laboratory. Two cans were opened and one kept unopened for reference. The cans were in clean and sound condition. The contents were found to be thick in consistency, slightly discoloured, and slightly "off flavour." These defects in quality were deemed sufficient to render this batch of the product unsuitable for sale.

[All remaining stocks bearing the same code-mark as the sample were at once withdrawn from sale and were finally returned to the canner as unsaleable stock.]

Pickles (informal and formal). A formal sample of pickled onions was submitted. The product at the time of sale was in jars bearing the following declaration: "Onions, caramel, solution of acetic acid, salt, spices, malt vinegar." In order to comply with the Labelling of Food Order it is necessary to declare the ingredients "in the order of the proportion in which they were used, the ingredients used in the greatest proportion (by weight) being specified first." Analysis showed that the following would probably have been the correct order for the declaration of ingredients: onions, solution of acetic acid, malt vinegar, salt, spices, caramel.

An informal sample of pickled red cabbage was submitted in the original jar bearing the following words: "Pickled Red Cabbage processed with solution of acetic acid, salt, spices and PURE MALT VINEGAR" (the last three words being in larger type). As a result of the analysis the opinion was expressed that the label should include a statement in the form immediately following. Ingredients: Red cabbage, solution of acetic acid, malt vinegar, salt, spices. The further opinion was expressed that the label might be considered as misleading if undue prominence were given to the words MALT VINEGAR.

[The respective manufacturers were informed that the labels were considered to be unsatisfactory, and they were cautioned. Both submitted specimens of revised labels which were considered to be satisfactory. With regard to the prominence of the type in which "pure malt vinegar" had been printed on the red cabbage label, the manufacturer wrote that the printer had independently taken it upon himself to use prominent type for these words with a view to improving the appeal of the whole label.]

Sago (formal). A sample consisted of small white pellets resembling "fine sago." On examination the sample was found to be entirely composed of tapioca. In this case the only irregularity was the misdescription of the article, rather too common error in this class of goods.

[The retailer was informed that this product should be sold with a correct description, and a caution was administered.]

Sauce (other than tomato)—mushroom ketchup (informal). This sample was submitted in the manufacturer's bottle bearing his printed label which bore wording including the following: "Prepared from mushrooms, salt brine, sugar and caramel." A second, smaller label recommended the product for flavouring soups, gravies and meat dishes. The product consisted of dark brown, thin liquid and there was a small brown sediment. The following are the results of analysis of the liquid (as per cent. w/v): Total solids, 10.9; mineral matter, 8.0 (including common salt, 7.8); acidity as acetic acid, 1.0. The flavour of the product was strongly salty and the taste of mushrooms, if present at all, was masked by a sharp spicy flavour somewhat similar to that of "Worcester sauce." The Labelling of Food Order schedules "Worcester sauce and similar thin sauces" as exempt to the extent that the ingredients need not be specified. Nevertheless, if a statement of ingredients is given voluntarily, it should be a full statement, with the ingredients in the correct order and one which would not mislead a purchaser.

The statement of ingredients, voluntarily given upon the label, was unsatisfactory for the following reasons: (1) Spices, which account for the principal flavour, were omitted. (2) Acetic acid was omitted. (3) It was confusing and unnecessary to have both "salt" and "brine" declared. Accordingly the sample was classified as one having an unsatisfactory label.

[A suitable caution was administered to the manufacturers. They undertook to print a new label from which the list of ingredients would be omitted, or alternatively upon which the ingredients would be declared in the same order as if the declaration were compulsory.]

Soft drink (informal.) A sample was submitted for the investigation of a private purchaser's complaint that foreign matter was present in the fluid. The soft drink, dark brown in colour, measured about four fluid ounces, and was contained in a crown-corked bottle with a capacity of $6\frac{2}{3}$ fluid ounces. The bottle, which had been opened before receipt at the laboratory, bore the manufacturer's printed paper label. The liquid contained a sediment consisting of shreds of vegetable matter, identified by microscopic examination as tobacco leaf with some small pieces of thin paper showing a charred edge. It was obvious that the sediment consisted of a disintegrated cigarette-end.

[The purchaser was a child whose parents refused to be involved with formal proceedings. The manufacturer was informed of the nature of the foreign matter found in his product and an inspection was made at the works.]

Sweets (sugar confectionery) (one formal, two informal). On submitting a formal sample of "invalid toffee" consisting of individually wrapped pieces of toffee, the Sampling Officer provided a copy of wording appearing upon the container as follows: "Contains: Butter, full cream milk, liquid glucose (corn syrup), sucrose, other fats, salt, flavouring and moisture." Sugar confectionery is exempt from all the provisions of the Labelling of Food Order. Thus it is clear that the packers of this product need not have exhibited a list of ingredients, and that any such list is a voluntary disclosure or a claim that the stated ingredients are present. Such a voluntary statement of ingredients might be held to be "misleading" unless the ingredients were "specified in the order of the proportion in which they were used, the ingredient used in the greatest proportion (by weight) being specified first" (in the same way as if the product were not exempt from the requirements of Labelling of Food Order). On analysis the toffee was found to contain 18.9 per cent. of total fat while the proportion of butter fat was 10.4 expressed as a percentage of the whole sample. Other analytical results led to the conclusion that the following

would probably have been the correct order of ingredients: Sucrose, liquid glucose (corn syrup), full-cream milk solids, edible fat other than butter-fat, butter, salt, flavouring. Thus although the product might properly be called a "butter toffee" in accordance with the Code of Practice MF. 21/51 *Use of the word "Butter" in the Description of Confectionery*, nevertheless the ingredients are not specified in the correct order in the voluntary statement of ingredients. The label was reported to be unsatisfactory.

[The manufacturers were cautioned. They undertook to use an amended label, a specimen of which was considered to be satisfactory.]

An informal sample of wrapped peppermint creams was submitted for the investigation of a private purchaser's complaint. The complaint consisted of two parts. (1) A particular sweet (submitted for examination) had been bitten at one edge. By weighing in comparison with whole sweets from the same batch it was estimated that about one-eighth of the sweet was missing. It was said that a child had noticed a bitter taste in the portion bitten off. On examination in the laboratory neighbouring portions of the same sweet were found to have a normal taste. It was not therefore possible to pursue this part of the complaint. (2) The customer also complained that a number of other sweets contained in the same half-pound carton were seen to have numerous small dark dots on their surface. Microscopic examination of these dots showed them to consist of very small colonies of an actively sporing mould (aspergillus type). An unopened carton was procured from the same batch, having the same code number. Similar dots were seen on the surface of some of the sweets. Examination of the individual wrapping-paper showed similar mould colonies both on the inside and on the outside of the papers. There also appeared to be slight traces of threads resembling "webbing" such as may result from insect infestation. The tentative opinion was reached that the presence of these very numerous small colonies of moulds might be a secondary result of insect infestation, and therefore it was recommended that this occurrence should be reported to the appropriate Authority in whose area the sweets were packed. The total amount of foreign matter in the samples examined was extremely small. Nevertheless the foodstuff was considered as spoilt.

[Remaining retail stocks were withdrawn from sale. Notification was sent to the Medical Officer of Health of the Authority in whose area the product was manufactured. He reported that the factory had been inspected without revealing any cause for the spoilt condition of the product.]

A sample described as "portions of chocolate Easter-egg" was submitted (as an informal sample) for the investigation of a private purchaser's complaint that the product contained particles of glass. The sample was accompanied by an envelope containing fragments of "glass" said to have been found in the product as purchased. The total weight of the fragments was about 65 milligrams (one grain). The two largest fragments had an irregularly rectangular shape and measured respectively about 7 x 5 x 1 millimetres and about 4 x 1 millimetres. Together these two fragments weighed 45 milligrams. Other fragments, about eight in number, varied in size down to thin shreds resembling short fibres. The particle measuring 5 x 4 x 1 mm. was used for testing. It was shown to be composed not of glass, but of a clear, brittle, transparent plastic material. In particular it very closely resembled in properties (combustibility, and behaviour with various solvents) fragments from an

egg-shaped plastic mould submitted for examination by the Sampling Office. This mould had been obtained from the factory where the product was made.

[The Corporation instituted proceedings under Section 2 of the Food and Drugs Act, for selling to the prejudice of the purchaser a food of a different quality from that of the substance demanded. Defendants pleaded guilty, stating quite simply that the foreign particles came from plastic moulds put into use experimentally and subsequently discovered to be liable to chip. A fine of £20 was imposed.]

Drugs

Oil, Camphorated B.P. (informal). On analysis a sample, contained in a small bottle bearing a packer's label, was found to contain only 18.0 per cent. of camphor. The British Pharmacopœia 1953 requires that camphorated oil shall contain 20 per cent. of camphor, but allows the proportion of camphor to vary between the limits of 19.0 and 21.0 per cent.

[The vendor was notified and cautioned. Corresponding stocks were withdrawn. Later a formal sample was procured from the same source and on examination was found to comply with B.P. requirements.]

Liquid Paraffin B.P. (informal). A sample was submitted in a screw-capped bottle bearing the label of a firm of manufacturing chemists. When submitted to the B.P. test for "carbonisable substances" the sample failed. That is, say, when shaken with warm sulphuric acid under the conditions of the test it produced a brown colour in the acid, distinctly stronger than the limiting colour prescribed.

[The packers were advised to look for the cause of the failure, to buy a product which was known to pass the test and to avoid all contamination during bottling. Retail stocks were withdrawn, and later a formal sample was procured of a liquid paraffin packed by the same firm. This formal sample complied with B.P. requirements.]

Notes on some samples which, though not classified as "adulterated otherwise giving rise to irregularity," raised some points of analytical administrative interest.

Canned grapefruit. A private purchaser complained that the product contained white dots, and a specimen was submitted to the laboratory. Some whitish spherical bodies were present, some in the fluid, and some partially embedded in the fruit tissue. Their diameter was generally about a sixteenth of an inch, but occasionally reached an eighth of an inch. These bodies were examined and recognised as masses of microscopic crystals of naringin, a substance natural to grapefruit and believed to be responsible for the bitter flavour. This substance, always present in grapefruit, occasionally crystallises out in the form observed in the present sample, and thus becomes very noticeable. Nodules of naringin crystals cannot be regarded as harmful or foreign. It is not surprising that they occasionally cause some alarm to persons who have not seen them before.

Soft drink. A mineral-water bottle contained a product described as "Dandelion and Burdock." A complainant stated that the contents deposited a sediment, and on examination in the laboratory a distinctly visible but very light and easily dispersible brownish coarsely flocculent sediment was seen in the brown liquid, otherwise clear. The product was of a normal composition for a flavoured aerated water, and of an acceptable flavour. The slight sediment was considered to be negligible on taking into consideration that the beverage was prepared from vegetable extracts.

"*Slimming herbs.*" A sample was submitted for the investigation of a complaint that it contained numerous small insects. It consisted of a mixture of dried vegetable matter, mainly broken leaves and thin stems, and was contained in the packers' original carton (then opened) upon which was printed a statement of composition. No obvious infestation was present at first sight, but, on careful search, a small number of very minute insects was seen, measuring about one twenty-fifth of an inch in length. These were taken to be book-lice. Dr. W. D. Hincks, of Manchester Museum, confirmed this opinion and mentioned that these insects are very abundant everywhere and rarely cause any damage. The infestation was regarded as negligible in degree and in kind, and since the tiny insects could have entered the product at the packers', or at a warehouse, or in the shop, or in the dwelling-house of the purchaser, no further investigation was recommended.

Samples submitted by the Health Department

(a) Investigation of suspected food-poisoning, etc. Chemical analysis (in addition to any bacteriological examination that might have been done at the Regional Public Health Laboratory) was carried out upon the following samples: Three samples of school milk for taint, one school milk for copper, portion of school meal for taint. No significant amounts of any harmful substances were found.

(b) Examination of various materials. Foreign matter in milk was found in one case to be a small ball of vegetable fibres probably from a sack, in another case domestic paraffin or kerosene (thought to be deliberately added to cause annoyance). A foreign substance in chewed gum was found to be paper. Residues of paint from five cans, and two scrapings of paint from internal woodwork were tested for lead in connection with a case diagnosed as lead poisoning at a babies' hospital. It was found that one of the cans had contained a yellow paint rich in lead, and lead was found in scrapings from a window-ledge painted with the same paint and later painted over with another paint. This window-ledge had been chewed by the child. Dust from an air-conditioning ventilating system was found to consist substantially of copper sulphate mixed with sooty matter. Flue-dust was differentiated from leather-dust suspected of causing a nuisance near a shoe-repairing workshop.

Samples submitted by other Corporation departments

(a) Parks and Cemeteries Department. The duties of the Manchester County Borough under the Fertilizers and Feeding Stuffs Act have been delegated by the City Council to the Parks and Cemeteries Committee. Ten samples were submitted comprising three samples each of bone meal and of dried blood, two samples of sulphate of potash, and one each of hydrated lime and sulphate of ammonia. The statutory statements accompanying two of the bone meals, both taken informally, bore no resemblance to the composition of the samples. In other instances where the declared composition differed from that found by analysis, the difference was in favour of the purchaser.

(b) Transport Department. Barrier cream and pale bar soap were examined in relation to specifications. Water percolating into an oil-chamber at a bus-spot yielded on analysis an indication of its probable source.

Samples from other sources

(a) Port of Manchester Health Authority. Samples of imported food stuffs were examined for the following purposes; for preservatives 18, for injurious metallic impurities 12, for prohibited colouring matter 6, for contamination acquired in transit 4. In the last category were three samples of rice stained with a dyestuff found to contain copper.

Also for the Port Health Authority, general chemical analysis was performed on 14 samples of drinking water taken from ships in the docks. (In most instances corresponding bacteriological samples were submitted to the Regional Public Health Laboratory). The general purpose of the examination was to ascertain that wholesome drinking water was available on ships. In two instances specific complaints were investigated.

(b) Public bodies submitted the following samples: Babies' soothing powders for mercury (none present); apricots in "heavy" syrup.

(c) Private firms submitted the following samples for information in relation to statutory requirements: Particles found in canned fish (crystals of struvite) and in dried egg (transparent nodules of sodium silicate); two different trade residues (hide dust, and filter-cake) for statutory analysis as fertilizers; corrosion products from a refrigerator-system for evidence of causation by atmospheric pollution.

Chemical examinations for H.M. Coroner

In connection with four inquests at which evidence was given, nine specimens consisting of human organs or their contents have been examined, together with six exhibits consisting of medicinal tablets.

At one inquest a verdict of "suicide" was returned; at two others the verdict was "death from natural causes." In one case where an examination for poisons was ordered by the coroner in accordance with a request by relative of the deceased, no poisons were found.

Drinking water and other water samples

The water samples examined during the year may be classified thus:—

Samples taken to investigate complaints	28
Routine examination and checks on previous complaints	21
Examination of ships' drinking water	14
Sample other than drinking water	1
Total number of samples	64

When water is sampled by sampling officers of the Health Department it is their practice to procure from any one source two specimens, one for bacteriological examination and one for chemical analysis. The bacteriological specimen is submitted to the Regional Public Health Laboratory while that for chemical examination comes to this laboratory. Information of mutual interest is exchanged between the two laboratories with the aim of assisting in assessing the hygienic condition ("potability") of the water-supply in general or as delivered at particular points.

As a result of water analysis from the health aspect, nothing has come to light that could give rise to any anxiety about the wholesomeness of the supplies in general. Yet in certain areas of the City some opalescence and yellowness continue to be visible in the water as supplied, and the majority of all complaints received by the Health Department are concerned with "discoloration" and "sediment," or less specifically with "dirty water." Of 18 such complaints, three received substantial support from the results of the examination of samples submitted. Other complaints investigated alleged that "insects" were present or that the water had a peculiar taste or smell. No peculiar taste or smell was detected in any sample at the time of receipt at the laboratory. One sample following a complaint of "insects" was found to contain a small number of water-fleas, and in three other similar cases samples contained slight indications that water-fleas had been present.

During the year the Port of Manchester Health Authority organised periodical sampling of drinking water from ships in the port. These samples have been separately noted under the heading "Samples received from other sources." Similarly a sample of water from the Transport Department has been noted earlier in this report.

Measurement of atmospheric pollution

The Corporation has continued to make a specific contribution to the investigation of atmospheric pollution. The whole work is organised on a national scale by the Atmospheric Pollution Research Section of the Department of Scientific and Industrial Research.

As a part of its contribution, the Corporation provides laboratory and staff for the requisite analysis (involving over 1,500 separate standard determinations each year) and maintains the following standard equipment:—

8 deposit gauges, for the full analysis of deposited matter.

3 lead-peroxide cylinders, for the gravimetric determination of sulphur pollution.

1 volumetric apparatus for sulphur dioxide and smoke.

The Department of Scientific and Industrial Research collates results contributed from the areas of some 400 separate Local Authorities and circulates them to those Authorities in the Atmospheric Pollution Bulletin. At five-yearly intervals results are discussed and published in official D.S.I.R. reports "The Investigation of Atmospheric Pollution."

Volumetric apparatus for sulphur dioxide and smoke
Rusholme

	Daily average sulphur dioxide— parts per 100 million					Daily average smoke— milligrams per cubic metre				
	1957	1956	1955	1954	1953	1957	1956	1955	1954	1953
January	11.7	18.3	14.0	18.3	21.1	0.253	0.354	0.330	0.422	0.48
February	11.8	20.6	13.3	15.9	15.3	0.255	0.516	0.225	0.327	0.32
March	8.7	9.7	14.7	11.5	19.7	0.272	0.242	0.313	0.242	0.44
April	8.7	11.6	9.9	10.5	8.9	0.173	0.277	0.193	0.221	0.18
May	6.9	7.0	6.6	7.8	6.3	0.208	0.180	0.133	0.222	0.13
June	5.4	6.5	4.8	4.9	6.8	0.158	0.190	0.090	0.151	0.15
July	5.5	4.9	5.5	5.4	2.9	0.157	0.148	0.118	0.180	0.07
August	5.7	6.2	4.4	5.7	4.6	0.157	0.226	0.129	0.225	0.12
September	7.2	6.3	6.9	5.4	6.2	0.213	0.219	0.175	0.195	0.18
October	10.0	12.1	12.5	6.6	13.4	0.328	0.333	0.279	0.192	0.38
November	15.8	16.4	23.4	12.9	8.8	0.384	0.373	0.543	0.349	0.24
December	15.5	11.7	14.1	9.8	13.9	0.387	0.305	0.299	0.251	0.36
Average daily figure over all year	9	11	11	10	11	0.25	0.28	0.23	0.25	0.2

The highest daily figure for smoke content, namely 1.953 milligrams per cubic metre, was obtained on 8th November when the maximum sulphur dioxide content of 71.3 parts per 100 million was also recorded.

The lowest figure for smoke was 0.042 milligrams per cubic metre recorded on 14th August. The lowest figure for sulphur dioxide content occurred on 28th June and measured 1.4 parts per 100 million.

D.S.I.R. lead peroxide instrument

Sulphur pollution expressed as milligrams SO₃ per 100 square centimetres exposed surface per day. Results reduced to "Batch A" lead peroxide

(louvered cover)

S₅ = mean results May/September.
W₅ = mean results November/March.
Y₁₂ = yearly mean April/March.

Station	Summer—S ₅	Winter—W ₅	Year—Y ₁₂
	1957	1957-58	1957-58
Monsall	2.1	4.8	3.5
Rusholme	1.4	2.8	2.1
Withington	0.8	2.1	1.5

The above table is set out in the form adopted by the D.S.I.R. for this instrument.

D.S.I.R. lead peroxide instrument

Sulphur pollution expressed as milligrams SO₃ per 100 square centimetres exposed surface per day. Results reduced to "Batch A" lead peroxide.

	Monsall		Rusholme		Withington	
	1957	1956	1957	1956	1957	1956
	January	5.1	5.7	2.5	3.7	1.4	2.4
February	5.2	4.6	2.4	4.2	1.8	2.7
March	4.3	3.8	1.9	2.5	1.7	1.8
April	2.8	3.2	2.2	2.3	1.5	1.7
May	2.3	2.4	1.5	1.4	1.1	0.8
June	1.6	2.2	1.1	1.3	0.7	0.7
July	2.0	1.9	1.3	1.2	0.7	0.7
August	2.0	2.3	1.3	1.3	0.6	0.7
September	2.8	2.9	1.8	1.2	1.1	0.9
October	4.3	3.8	2.0	2.2	1.4	1.5
November	4.8	4.5	2.9	3.2	2.2	2.0
December	5.2	5.2	2.1	2.6	2.6	1.9
Overall average	3.53	3.54	1.92	2.26	1.40	1.48

D.S.I.R. deposit gauge

Tons of deposit per square mile

Monthly averages

Station	Rainfall (inches)		Insoluble matter		Soluble matter		Total solids	
	1957	1956	1957	1956	1957	1956	1957	1956
	Bulley	2.4	2.8	4.73	5.10	5.53	6.05	10.27	11.15
Bath Hall	3.3	3.3	8.39	9.52	6.97	7.20	15.36	16.72
Heron Park	3.5	3.3	5.54	6.15	5.75	6.09	11.29	12.24
Monsall	2.7	3.0	10.05	11.22	8.08	8.64	18.13	19.86
Platts Park	3.3	3.2	18.68	27.70	10.21	10.97	28.89	38.67
Rusholme	2.9	3.1	10.73	13.14	7.43	8.85	18.16	21.99
Withington	2.5	2.7	8.94	9.27	5.89	6.81	14.83	16.08
Average for above gauges	2.9	3.0	9.58	11.73	7.12	7.80	16.70	19.53
Kivile House. *(Handforth) ..	2.5	2.6	2.99	4.22	4.14	4.60	7.13	8.82

*This station is situated in Cheshire, outside the City boundary, and is about eight miles south from the City centre. Results are recorded for comparison.

Suburban Pollution Experiment in Millington, Tenn., for 1957
 reported in part by the "South A" Lead Periodic

Month	1957		1958		1959		1960	
	Jan	Feb	Jan	Feb	Jan	Feb	Jan	Feb
Jan	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Feb	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
Mar	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
Apr	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1
May	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
Jun	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
Jul	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4
Aug	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Sep	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6
Oct	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Nov	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
Dec	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9
Annual	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5

The highest daily figure for smoke density was 1.7, observed on 1/15/57. A maximum of 2.8 cubic feet per second was observed on 2/15/58. The maximum of 1.7 for smoke density was observed on 1/15/57.

The following table shows the results of the experiment on 1/15/57. The results are given in cubic feet per second.

Time	1957	1958	1959	1960
8:00	1.1	1.2	1.3	1.4
9:00	1.2	1.3	1.4	1.5
10:00	1.3	1.4	1.5	1.6
11:00	1.4	1.5	1.6	1.7
12:00	1.5	1.6	1.7	1.8
13:00	1.6	1.7	1.8	1.9
14:00	1.7	1.8	1.9	2.0
15:00	1.8	1.9	2.0	2.1
16:00	1.9	2.0	2.1	2.2
17:00	2.0	2.1	2.2	2.3
18:00	2.1	2.2	2.3	2.4
19:00	2.2	2.3	2.4	2.5
20:00	2.3	2.4	2.5	2.6
21:00	2.4	2.5	2.6	2.7
22:00	2.5	2.6	2.7	2.8
23:00	2.6	2.7	2.8	2.9
24:00	2.7	2.8	2.9	3.0

The results are given in cubic feet per second. The results are given in cubic feet per second.

VETERINARY SERVICES

Meat and food inspection

The Chief Veterinary Officer administers the following services in the City of Aberdeen, including work done under the Public Health Act and Orders and other statutory duties:

Section 5

The bulk of the work is Meat Inspection at the City Abattoir. This is a seasonal and the main weight of the work is concentrated in the second half of the year, building up from July to December. In order to guarantee the efficiency of the services for inspection, checks with regard to staff and hours, it is appropriate that the work of the staff should be acknowledged by awarding a high standard of efficiency under the conditions.

Veterinary Services

MEAT AND FOOD INSPECTION

Year	Meat	Food	Total
1941	14,091	74,844	88,935
1942	14,445	75,100	89,545
1943	14,445	75,100	89,545
1944	14,445	75,100	89,545
1945	14,445	75,100	89,545
1946	14,445	75,100	89,545
1947	14,445	75,100	89,545
1948	14,445	75,100	89,545
1949	14,445	75,100	89,545
1950	14,445	75,100	89,545
1951	14,445	75,100	89,545
1952	14,445	75,100	89,545
1953	14,445	75,100	89,545
1954	14,445	75,100	89,545
1955	14,445	75,100	89,545
1956	14,445	75,100	89,545
1957	14,445	75,100	89,545
1958	14,445	75,100	89,545
1959	14,445	75,100	89,545
1960	14,445	75,100	89,545

Table 3
Total consumption of various products, 1941-57

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Meat	14,091	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445	14,445
Food	74,844	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100
Total	88,935	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545	89,545

Table 4
Meat consigned at the City Abattoir and Whitehall Meat Market

	1957	1958
Meat consigned at the City Abattoir and Whitehall Meat Market	2,221 tons	2,284 tons
Meat consigned at other meat consignment points	12 tons	104 tons
Total meat consigned	2,233 tons	2,388 tons

MEAT AND FOOD INSPECTION

ANTHRAX

SWINE FEVER

FOOT AND MOUTH DISEASE

FOWL PEST

VETERINARY SERVICES

Meat and food inspection

The Chief Veterinary Officer submits the following record of the work done by the Meat Inspection Service, including work done under the Diseases of Animals Act and Orders and other ancillary duties.

The bulk of the work is Meat Inspection at the City Abattoir. This work, in a measure, seasonal and the main weight of the work is concentrated in the second half of the year, building up from July to December.

Recognising the inadequacy of the provisions for inspection, chiefly with regard to space and light, it is appropriate that the work of the staff should be more fully acknowledged, for maintaining a high standard of efficiency under the greatest difficulties.

TABLE A
Animals slaughtered at the City Abattoir 1948-57

	Cattle	Sheep and lambs	Calves	Pigs	Goats
1948	75,051	179,350	34,246	752	—
1949	58,645	208,725	39,447	2,659	1,223
1950	72,449	209,048	44,170	3,058	2,674
1951	80,852	216,399	52,259	6,403	4,273
1952	97,467	194,143	44,755	7,718	3,780
1953	68,400	232,182	31,720	17,466	909
1954	65,313	230,662	27,425	31,978	6
1955	72,278	358,426	25,642	48,034	—
1956	73,791	402,691	22,501	46,395	—
1957	77,832	362,914	18,026	33,259	—

TABLE B
Total condemnation of various foodstuffs 1948-57

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Meat (tons)	852½	808	978	954¾	1,113½	775	690	514½	411½	256½
Butter (tons)	387½	284	316¾	16½	79½	57½	55¾	44½	48	41¾
Feathers (tons)	144½	80	136	83¾	91½	81	57¾	64½	85	66¾
Vegetables (tons) ..	326½	131¾	162½	109½	61	23	94½	61¾	86½	146½
Chickens (head) ..	156	524	1,835	675	184	658	704	1,213	593	386
Cows (head) ..	2,812	6,465	15,043	7,419	5,048	4,130	6,712	5,923	3,942	4,468
Pigs (head) ..	2,217	1,731	11,040	12,610	17,372	9,587	9,925	3,967	407	300
Eggs (number) ..	946	40	640	1,614	900	2,198	4,844	2,552	8,846	4,452

TABLE C
Meat condemned at the City Abattoir and Wholesale Meat Market

	1956	1957
Total weight of meat condemned at the City Abattoir and Wholesale Meat Market	275½ tons	226¾ tons
Of which the weight of dressed meat consigned from places other than the city was	12 tons	10½ tons
Included in which were imported offals amounting to ..	1,674 lbs.	2,375 lbs.

Carcases inspected and condemned in 1957

	Cattle excluding cows	Cows	Calves	Sheep and lambs	Pigs
<i>Number killed and inspected—</i>					
At the City Abattoir	55,692	22,140	18,026	362,914	33,259
Brought into City after killing and inspected	12,417		12,041	76,945	38,509
<i>All diseases except tuberculosis—</i>					
Whole carcases condemned:—					
At the City Abattoir	32		40	137	56
Brought into the City after killing	16		17	25	22
<i>Carcases of which some part or organ was condemned:—</i>					
At the City Abattoir	2,193		13	204	977
Brought into the City after killing	50		1	24	42
<i>Percentage of the number inspected affected with disease other than tuberculosis:—</i>					
At the City Abattoir	2.85		0.29	0.09	3.11
Brought into the City after killing . . . . .	.53		0.15	0.063	0.16
<i>Tuberculosis only—</i>					
Whole carcases condemned:—					
At the City Abattoir	27	173	9	—	12
Brought into the City after killing	—		—	—	1
<i>Carcases of which some part or organ condemned:—</i>					
At the City Abattoir	408	2,946	—	—	398
Brought into the City after killing	3		—	—	1
<i>Percentage of the number inspected affected with tuberculosis:—</i>					
At the City Abattoir	0.78	14.08	0.05	—	1.23
Brought into the City after killing	0.024		—	—	Negligible

Amount of unwholesome food condemned

	1956	1957
MEAT :—	lbs.	lbs.
Beef	593,189	488,750
Mutton	10,855	16,633
Veal	5,120	3,688
Pork	48,308	62,247
Imported offal	1,774	2,375
	659,246 = 294½ tons	573,693 = 256½ tons
FISH :—	lbs.	lbs.
Fish	78,826	84,625
Shellfish	10,938	9,201
	89,764 = 40 tons	93,826 = 41¾ tons
BIRDS :—	head	head
ME	326	386
BIRDS :—	head	head
CULTRY	5,114	4,468
REPTILES :—	head	head
RABBITS	Nil	300
FRUIT :—	lbs.	lbs.
FRUIT	160,079 = 71½ tons	149,263 = 66¾ tons
VEGETABLES :—	lbs.	lbs.
VEGETABLES	194,545 = 87½ tons	328,269 = 146½ tons
MISCELLANEOUS :—		
Eggs	No. 8,846	No. 5,936
Evaporated, condensed and other canned milks ..	lbs. 5,174	lbs. 3,057
Canned meats and meat products	4,533	10,913
Sundry provisions	54,079 63,786 = 28¾ tons	48,943 62,913 = 28 tons

Causes of condemnation

Weight of meat and offal condemned from causes specified

	Meat lbs.	Offal lbs.	Total 1957	Total 1956
*Tuberculosis	157,993	242,153	400,146	504,145
Decomposition	62,748	16,582	79,330	66,026
Fever	7,246	1,405	8,651	10,400
Injury	4,726	432	5,158	4,954
Dropsy	14,086	4,241	18,327	9,239
Parasitic	8	5,688	5,696	4,905
Asphyxiation	3,626	560	4,186	5,800
Emaciation	1,522	344	1,866	2,171
Unmarketable	4,311	200	4,511	1,403
Tumours	1,541	1,014	2,555	2,452
Abscesses	4,131	19,174	23,305	26,199
Cirrhosis	—	805	805	1,264
Pleurisy	495	975	1,470	1,295
Congestion	999	1,119	2,118	3,421
Bone taint	2,995	—	2,995	—
Septicaemia	847	101	948	3,364
Actinomycosis	—	2,687	2,687	2,820
Icterus	1,121	61	1,182	461
Inflammation	40	130	170	348
Melanosis	188	73	261	36
Nephritis	1,014	372	1,386	242
Degeneration	57	—	57	101
Peritonitis	413	653	1,066	2,780
Pneumonia	1,083	1,063	2,146	1,277
Johnes	—	140	140	185
Pericarditis	281	841	1,122	1,414
Pyæmia	637	94	731	48
Mastitis	—	56	56	—
Necrosis	14	141	155	—
Swine Fever	94	28	122	263
Immature	85	21	106	—
Uraemia	116	18	134	—
Metritis	95	10	105	2,208
Cysticercus Bovis	—	—	—	25
Total	272,512	301,181	573,693 lbs. =265½ tons	659,246 lb =294¼ to

*NOTE.—The number of condemnations in respect of Tuberculosis was as follows :—

	Year ended	
	1957	1956
	lbs.	lbs.
Whole carcasses of—		
Beef	200	296
Veal	9	8
Pork	13	35
Part carcasses and organs of—		
Beef	3,357	3,620
Veal	—	—
Pork	398	662

The reduction in the weight of condemned meat is mainly in relation to tuberculosis, approximately 46 tons less than the previous year. This position is due to the improved health of the livestock throughout the country arising from the scheme for the eradication of bovine tuberculosis; it is reasonable to assume that this scheme will receive increasing impetus during the next few years with a further diminution of condemnations on account of tuberculosis.

It is particularly gratifying to note the relatively low incidence of tuberculosis in pigs and it is probably true to say that a percentage of those affected are affected with the avian strain only of the bacillus.

From a technical point of view the incidence of tuberculosis in calves, though low, is particularly interesting because so many affected calves have been found to suffer from the avian strain of the bacillus.

The probable continuance of avian tuberculosis may create a minor problem after bovine tuberculosis has been eradicated because the reservoir of infection may continue among wild birds.

Attention should be drawn to the heavy condemnation of 28 tons of miscellaneous goods; these are mainly of packed goods representing individual items ranging from 4-ozs. to a few lbs. in weight.

These figures represent a very large number of items and although there is no way of determining accurately the percentage of spoilage and wastage in this miscellaneous class of goods, it is fair to assume that it is much less than one per cent. of the goods passing through the numerous wholesale provision warehouses in the City.

A close routine inspection of stocks in these warehouses is not practicable and evidence so far does not suggest that it is urgently necessary; the bulk of condemnations arise from requests by the trade for inspection of special items.

The condemnation of rabbits is an indication that larger numbers are being consigned to the Market. In 1956 no rabbits were condemned because that was the year when practically the whole rabbit population was wiped out by myxomatosis. Last year considerable numbers of rabbits appeared on the markets indicating that the rabbit population was increasing again.

anthrax

During the year three cases of sudden death in cattle were reported and dealt with under the Anthrax Order, 1938, all at Mode Wheel Cattle Market. In each case microscopic examination proved negative and certificates were issued accordingly.

All cases of unexplained death occurring in the lairs at the abattoir or among animals arriving at the abattoir were dealt with under the same procedure and examined microscopically for Anthrax before the carcasses were removed—the numbers dealt with in this way were:

Cattle	2
Sheep	23
Pigs	6

As this disease is communicable to men it is important that an early diagnosis should be made and that every case of unexplained death should be examined microscopically to prevent the spread of infection

Swine fever

The incidence of Swine Fever during the year was relatively low in the City, and the following cases were dealt with under the Swine Fever Order, 1938:—

Suspected outbreaks reported at—	
Piggeries in the City	9
Abattoir	2
	— 11
Confirmed cases (2 in abattoir)	5
Number of pigs which died and were examined post mortem	40

Swine Fever is endemic to this country and its incidence varies from year to year. The economic consequence of the disease is considerable not only to the individual stock owner whose pigs may be affected but also to the community.

Effective protection against this disease can be acquired by vaccination, provided the pigs are injected at an early age before coming into contact with infection.

Foot and mouth disease

In December, an outbreak of Foot and Mouth Disease affected the City of Manchester; the outbreak originated in the Bolton area and spread to the surrounding districts. Although no actual cases occurred in Manchester, the City became involved in the control measures imposed by the Ministry of Agriculture to prevent the spread of the disease.

The period prior to Christmas is generally very important to the Livestock Industry and the Meat Trade, and the existence of Foot and Mouth Disease tended to increase the normal activity and tension associated with that time.

The outbreak lasted from 5th December to 23rd December, during which time the movement of all livestock into and within Manchester was controlled by Movement Licences issued by inspectors of the Department. The number of licences issued was—937, in respect of cattle 8,409; pigs 5,256; sheep and lambs 28,822.

While it is always difficult to discover the exact method by which the disease is introduced into a district, circumstantial evidence, in this case, does suggest that swill containing animal material was responsible—the subsequent spread of infection inside the area was by several agencies.

Foot and Mouth Disease is a complex virus infection which produces a highly infectious disease with a short incubation period, so that early diagnosis is of prime importance and in addition the rigid application of control measures is necessary in order to stamp out infection.

The “Slaughter Policy” continues to be the basis of official measures for controlling this disease and so long as the disease continues as an intermittent visitor to this country, this policy is likely to be followed.

From time to time the policy of slaughtering all affected animals and contacts has been challenged as a failure but on the other hand has been claimed as abundantly justified on economic grounds.

The slaughter policy has not been adopted on grounds of expediency but on the loftier plane of national interest.

It might be pertinent to note that the incidence of outbreaks of disease in this country compared to outbreaks in continental countries where alternative methods are employed to deal with this infection, are in the region of 1 outbreak in this country to approximately 100 outbreaks in certain continental countries.

Fowl pest

Fowl Pest continues to trouble agricultural interests in Lancashire

During the year two Orders were made under the Fowl Pest (Infected Areas Restrictions) Order, 1956, as follows:—

1. The Fowl Pest (Mid-Lancashire Infested Area) (Amendment) Order of 1957, dated 19th August, 1957.
2. The Fowl Pest (Mid-Lancashire Infected Area) (Amendment No. 2) Order of 1957, dated 4th October, 1957.

These two Orders reduced the size of the area under restrictions from the previous year.

The effect of these restrictions on Manchester was to increase the area from which supplies of poultry for food can be drawn; even so, Manchester traders collecting poultry on the fringe of a heavily infected area were suspected of being responsible for transmitting infection.

The situation was controlled by routine inspection of poultry slaughter-houses and poultry dealers' premises:—

Visit to poultry slaughter houses	169
Visits to poultry dealers' premises	297

A regular routine of cleansing and disinfection of all premises, vehicles and equipment has been established.

Under the Poultry Premises and Vehicles (Disinfection) Order of 1956, power was granted to require special disinfection where there had been direct contact with diseases.

No. of notices served under the Order were—4.

The Live Poultry Restrictions Order, 1957 came into operation in May, 1957.

The general purpose of this Order is to control the holding of :—

- (a) poultry exhibitions or shows; and
- (b) sales of poultry by auction.

Licences granted for poultry shows—2.

Diseases of Animals (Waste Foods) Order, 1957

The Order came into operation on 1st June, 1957. The purpose of the Order is to control the use of "waste food" of animal origin and intended for animal food because such foodstuffs, if not effectively boiled, may be responsible for the spread of Foot and Mouth Disease, Swine Fever and Fowl Cholera and possibly other diseases.

Under this Order "boiling plant" may be licensed by the Local Authority for the purpose of boiling swill but just as important as effective boiling is the collection and protection of uncooked swill to prevent it coming into contact with livestock while still in a raw state.

The number of licences issued under the Order are—46. These licences are continuous unless withdrawn by the local authority. The premises are kept under regular supervision.

The number of licences issued does not represent all the swill feeders or collectors in the City. The Order only applies to waste food of animal origin and exemptions from licencing under the Order is extended to certain small stock owners.

Pet Animals Act, 1951

The number of premises licenced under the Act is—81.

The Act covers all vertebrates which may be sold as pets, but makes no attempt to lay down standards for the various classes of animals.

Each application is considered in relation to the number and class of animals which it is proposed to stock.

Salmon and Freshwater Fisheries Act, 1922

The following cases were reported under the Act for:—

- (1) "Unclean Salmon, etc." 4
- (2) "Depositing for sale during close season" 1

The offences in these cases are primarily against the Salmon Fishing Industry of the district and country from which the salmon were sent.

In each case the information was sent to the appropriate authority and legal proceedings were instituted in two cases.

In one case a conviction was achieved and a penalty of 40s. with 50s. expenses was imposed.

In the second case the defendant was found not guilty of an offence under the Scottish Law in respect of "Unclean Salmon" but was convicted of a subsidiary offence of failing to label the packages and was fined £15.

The reason for the failure of the case in respect of "Unclean Salmon" was due to the difference in definition between the English and the Scottish Law.

In the remaining two cases the enquiring authority were presumably satisfied that the defendant did not act "knowingly" and no proceedings were taken.

In the last case the fish were perfectly wholesome and the only action taken was to withhold the proceeds of sale pending proof of legal capture; this situation arises because the close season for salmon fishing varies from one river to another and it is customary to withhold the proceeds of sale and place the fish in the Cold Air Store until the position has been clarified by a certificate signed by a local magistrate.

Other information, 1957

Meat, fish, fruit, provision shops, etc.—	
Visits made	3,604
At request of tenants or other sources	248
Miscellaneous markets—	
Visits made	18
Railway station, etc.—	
Visits made	7
Microscopic examinations	522
Bacteriological and chemical examination of shellfish and other foodstuffs	4
Certificates of condemnation	10,239
Education Committee canteens—	
Visits made	216
Livestock market inspection—	
Visits to Mode Wheel	50
Routine clinical examination of dairy herds—	
Ministry of Agriculture, Fisheries and Food—	
Visits	6
Number of animals inspected	110
Packers premises—	
Visits made	15
Animals dressed, dead on arrival—	
Horses	114
Cows	1,140
Pigs	93
Sheep	72
Private slaughterhouses—	
Visits made	256
Animals inspected—	
Cattle	98
Sheep	1,311
Calves	13
Pigs	39
Licences issued—	
Ret animals	81
Slaughtermen	61
Lairages	4
Waste food plants	46

MANCHESTER AND DISTRICT REGIONAL
SMOKE ABATEMENT COMMITTEE

Honorary Secretary - C. Winifred Brown, M.B., B.S.,
Barnsley

Section 6

Manchester and District Regional Smoke Abatement Committee
The committee comprising 29 local authorities in South Lancashire
in Cheshire and covering an area of about 200 square miles. A number
of local authority officers for technical and other projects relating to
smoke abatement.

The extensive programme of atmospheric pollution which have been
started by the Committee for some years were continued. These schemes
are grouped in two main schemes as suggested by the Government
under the Air Pollution and recommended by the Department of Scientific
Industrial Research each district there is a standing committee which

**Manchester and District Regional Smoke Abatement
Committee**

... of the committee for No. 1 scheme and one
... of the committee for No. 2 scheme during the year. The opportunity
was taken at these meetings to consider the practical smoke control
measures to atmospheric pollution circumstances.

The local authorities concerned in the two past schemes and apparatus
installed are as follows:-

No. 1 Scheme	Lead peroxide apparatus	Deposit gauges
Altrincham M.B.	1	1
Barnsley M.B.	1	1
Becklow R.D.	1	1
Blackburn M.B.	1	1
Black M.B.	1	1
Blackburn U.D.	1	1
Blackburn M.B.	1	1
Blackburn U.D.	1	1
Totals	7	7

Two portable volumetric stacks and SO₂ apparatus are also available for
the above districts.

Apparatus at a gas works in Becklow R.D. was moved to a more suitable
site in the Paragon district.

Observations by the lead peroxide method at Barton Airport in the Borough
has been discontinued and new sites were brought into use at the Town
and in Liberty Park in order to give a better indication of pollution in
the Borough.

A lead peroxide apparatus in Great U.D. was moved from the Sewage
works to Calverton Modern Secondary School. Further additional apparatus
was installed as follows:-

- Great M.B. - A deposit gauge in Bowthorpe district.
- Stretford M.B. - A lead peroxide apparatus and deposit gauge in
Liberty Park and lead peroxide apparatus at
Liberty Library.

Section 6

Manchester and District Regional Smoke Abatement
Committee

MANCHESTER AND DISTRICT REGIONAL SMOKE ABATEMENT COMMITTEE

Honorary Secretary:—**C. Metcalfe Brown**, M.D., D.P.H.,
Barrister-at-law

Manchester and District Regional Smoke Abatement Committee is an advisory organisation comprising 79 local authorities in South Lancashire and North Cheshire and covering an area of about 700 square miles. Assistance is available to member authorities for technical and other problems relating to atmospheric pollution.

The extensive observations on atmospheric pollution which have been undertaken by the Committee for some years were continued. These observations are grouped in two joint schemes as suggested by the Government Committee on Air Pollution and recommended by the Department of Scientific and Industrial Research. In each instance there is a standing committee which meets to review the results of observations, the location and installation of apparatus, etc.

There were two meetings of the committee for No. 1 scheme and two meetings of the committee for No. 2 scheme during the year. The opportunity was also taken at these meetings to consider the question of smoke control measures in relation to atmospheric pollution measurements.

The local authorities comprised in the two joint schemes and apparatus maintained are as follows:—

<i>No. 1 Joint Scheme</i>	<i>Lead peroxide instruments</i>	<i>Deposit gauges</i>
Altrincham M.B.	2	2
Bowdon U.D.	1	—
Bucklow R.D.	5	2
Eccles M.B.	4	2
Hale U.D.	1	—
Irlam U.D.	4	1
Sale M.B.	3	2
Stretford M.B.	5	2
Urmston U.D.	6	2
Totals	31	13

Two portable volumetric smoke and SO₂ apparatus are also available for use in these districts.

Apparatus at a gas works in Bucklow R.D. was moved to a more suitable site in the Partington district.

Observations by the lead peroxide method at Barton Airport in the Borough of Eccles were discontinued and new sites were brought into use at the Town Hall and in Ellesmere Park in order to give a better indication of pollution in the borough.

A lead peroxide apparatus in Irlam U.D. was moved from the Sewage Works to Cadishead Modern Secondary School. Further additional apparatus was also installed as follows:—

- Sale M.B. A deposit gauge in Brooklands district.
- Stretford M.B. A lead peroxide apparatus and deposit gauge in Longford Park and lead peroxide apparatus at Lostock Library.

Urmston U.D... A deposit gauge and lead peroxide apparatus
Trafford Park.

No. 2 Joint Scheme	Lead peroxide apparatus	Deposit gauge
Ashton-under-Lyne M.B.	5	4
Audenshaw U.D.	1	—
Bacup M.B.	2	—
Chadderton U.D.	2	—
Crompton U.D.	2	—
Denton U.D.	2	—
Droylsden U.D.	1	1
Dukinfield M.B.	1	—
Failsworth U.D.	1	—
Farnworth M.B.	2	—
Heywood M.B.	2	1
Hyde M.B.	2	—
Lees U.D.	1	—
Littleborough U.D.	2	—
Little Lever U.D.	1	—
Middleton M.B.	2	—
Milnrow U.D.	1	—
Mossley M.B.	2	—
Oldham C.B.	5	—
Prestwich M.B.	2	—
Radcliffe M.B.	2	—
Ramsbottom U.D.	2	—
Royton U.D.	2	—
Rawtenstall M.B.	2	—
Stalybridge M.B.	2	—
Swinton and Pendlebury M.B.	2	—
Whitefield U.D.	2	—
Whitworth U.D.	1	—
Worsley U.D.	2	—
Totals	56	6

Observations were commenced in August, 1957, at two sites in Rawtenstall M.B. and at the end of the year recommendations were under consideration for additional apparatus as follows:—

	Lead peroxide apparatus	Deposit gauge
Audenshaw U.D.	—	1
Chadderton U.D.	—	1
Droylsden U.D.	1	—
Heywood M.B.	1	—
Hyde M.B.	1	—
Prestwich M.B.	1	—
Swinton and Pendlebury M.B.	1	—
Worsley U.D.	1	—
Totals	6	2

together with six volumetric smoke and SO₂ apparatus for general use.

These recommended additional apparatuses are anticipated for use in proposed smoke control areas and "overspill" districts and the demand for additional apparatus for these purposes is expected to increase.

The total number of apparatus maintained by the Committee at the end of the year on behalf of 38 participating authorities was 87 lead peroxide instruments, 19 deposit gauges and 2 volumetric smoke sulphur dioxide instruments.

The results of observations are shown in tables accompanying this report and indicate a trend of decreased pollution due to sulphur dioxide during 1957, compared with 1956.

Experiments were in progress at the end of the year in order to obtain evidence of dust from a rubber grinding process in a factory situate in the area of one of the constituent authorities.

Deposit gauges and petri dishes were in use for this purpose.

The Committee has continued to maintain close collaboration with the Department of Scientific and Industrial Research and other government departments and is an Institution member of the National Society for Clean Air.

Investigation of atmospheric pollution—Joint Scheme No. 1

ESTIMATION OF SULPHUR DIOXIDE—expressed as mgms. SO₂/day/100 cm² Batch A.PbO₂ (louvred cover)

MEAN MONTHLY RESULTS—YEAR 1956-57 AND SUMMER, 1957

SITE	Summer		Winter		Year	
	1956	1957	1955-56	1956-57	1955-56	1956-57
Leamington M.B.						
Wellington Road Secondary School	1.26	1.34	2.74	1.88	1.96	1.54
Oldfield Brow Primary School	1.35	1.32	2.67	2.21	2.01	1.78
Wolverhampton U.D.						
Town's Yard	0.66	0.64	1.66	1.19	1.15	0.93
Walsley R.D.						
Wickers Farm	(a)	(a)	(a)	(a)	(a)	(a)
Moss Hall Farm	1.73	1.89	2.99	2.30	2.27	2.02
Green Lane Farm	1.05	0.92	2.09	1.69	1.43	1.37
Wartington Gas Works	3.85	4.29	7.36	4.43	5.62	4.17
Went Farm, Warburton	0.76	0.71	1.71	1.26	1.21	1.01
Leeds M.B.						
Leeds Airport	1.92	1.83	3.56	2.78	2.81	2.35
Sewage Works	2.36	2.29	4.22	3.50	3.32	2.93
Westwood Park	1.48	1.32	3.33	2.81	2.36	2.14
Leeds U.D.						
Sewage Works	0.95	0.89	1.83	1.33	1.34	1.14
Leeds U.D.						
Princess Park	1.36	1.43	2.68	2.43	2.07	1.89
Railway View Farm	1.28	1.23	2.70	2.16	2.00	1.72
Sewage Works	1.41	1.30	2.32	1.79	1.80	1.60
Woodside Farm	0.98	0.88	2.00	1.40	1.47	1.19
Leeds M.B.						
Grammar School	1.20	1.23	2.77	2.10	2.03	1.61
Highways Depot	1.39	1.43	2.82	2.19	2.01	1.79
Sewage Works	1.59	1.53	2.99	2.45	2.11	2.02
Leeds M.B.						
Victoria Park	1.68	1.50	3.53	2.37	2.45	2.02
Retro-Vick, Mosley Road	9.40	8.24	9.08	8.54	8.01	8.97
Retro-Vick, West Works	5.09	5.37	5.65	4.84	5.33	4.96
Poststock Library	—	1.99	—	3.07	—	—
Longford Park	—	(b)	—	—	—	—
Leeds U.D.						
Howell Road	1.59	1.48	2.89	2.27	2.13	1.93
Ham Road	1.10	0.99	2.31	1.89	1.68	1.49
Wavhulme Sewage Works	2.28	2.31	4.13	3.11	3.15	2.69
Westbourne Park	1.40	1.39	2.73	2.15	1.93	1.78
Leeds Power Station	3.73	3.41	4.93	3.47	4.19	3.60
Max Road, Trafford Park	—	(b)	—	—	—	—
Means—All Sites	2.03	1.97	3.37	2.65	2.61	2.33

(a) Post damaged and removed. (b) Sites to be used January, 1958.

Investigation of atmospheric pollution—Joint Scheme No. 2
 ESTIMATION OF SULPHUR DIOXIDE expressed as mgms. SO₂/day/100 cm.³ Batch A.PbO
 MEAN MONTHLY RESULTS—YEAR 1956-57 AND SUMMER, 1957

SITE	Summer		Winter		Year	
	1956	1957	1955-56	1956-57	1955-56	1956-57
Ashton-under-Lyne M.B.						
Lord Street	2.01	1.94	4.83	3.36	2.52	2.68
Grasmere	1.53 (c)	1.43	2.62	2.53	2.04	2.08
Hartshead Pike	1.81	1.66	3.25	2.35	2.56	2.08
Jubilee Dingle	1.52	1.46	3.20	2.87	2.37	2.19
Limehurst Sewage Works	1.59	1.45	3.32	3.08	2.46	2.34
Audenshaw U.D.						
Rycroft Hall	1.53	1.53	2.89	2.36	2.20	1.94
Chadderton U.D.						
132, Birch Lane	1.25	1.09	2.57	2.43	1.92	1.84
Grammar School	2.43 (c)	2.10 (c)	4.46	4.35 (c)	3.39	3.39
Crompton U.D.						
Croft Bank	1.14	0.96	2.32	2.03	1.73	1.58
Home Farm	*	1.71	3.04	—	2.50	—
Denton U.D.						
Town Hall	1.48	1.54	2.80	2.20	2.11	1.84
Sewage Works	1.03	1.14	1.95	1.89	1.49	1.46
Droylsden U.D.						
Cemetery	1.82	1.60	3.84	3.34	2.83	2.58
Dukinfield M.B.						
Dukinfield Park	1.33	1.44	2.63	2.70	2.06	2.02
Failsworth U.D.						
Highways Depot	1.90	1.79	3.24	2.93	2.56	2.41
Farnworth M.B.						
Sewage Works	1.70	1.58	3.03	2.73	2.41	2.22
Highways Depot	2.55	2.51	4.75	4.39	3.57	3.47
Heywood M.B.						
33, Hopwood Avenue	1.66	1.32	3.39	3.19	2.39	2.42
Queen Street Nursery	1.75	1.66	3.61	3.29	2.58	2.52
Hyde M.B.						
Birch House Yard	1.61	1.66	2.90	2.49	2.27	2.05
Reservoir	1.37	1.52	2.60	2.25	2.03	1.81
Lees U.D.						
Cemetery	1.15	1.03	2.22	1.84	1.69	1.50
Littleborough U.D.						
Sewage Works	1.76	1.50	3.15	2.89	2.55	2.33
New Barn Farm	1.66	1.57	2.64	2.91	2.48	2.28
Little Lever U.D.						
Cricket Ground	2.00	1.73	3.87	3.74	3.00	2.87
Middleton M.B.						
Town Hall	1.10	0.93	2.36	2.04	1.75	1.57
Thornham School	1.86 (a)	1.93	*	3.60	*	2.90
Milnrow U.D.						
Pumping Station	1.45 (a)	1.39	2.51	2.73	1.97	2.22
Mossley M.B.						
Town Hall	1.09	0.98	2.10	1.80	1.61	1.44
Lower Hey Farm	1.36	1.45	2.36	2.24	2.01	1.80
Oldham C.B.						
Haven Lane Nursery	1.76	1.41	2.69	2.53	2.14	2.14
Horsedge Street Nursery	2.79	2.72	5.30 (a)	4.81	3.90 (b)	3.80
Westhooime Hospital	1.98	1.81	3.81	3.55	2.92	2.76
Westlands	2.43	2.44	4.59	3.99	3.62	3.21
Alexandra Park	1.76	1.53	2.81	2.59	2.22	2.17
Prestwich M.B.						
Town's Yard	1.72	1.51	3.32	2.97	2.48	2.34
Sewage Works	1.92	1.75	3.43	3.24	2.74	2.58
Radcliffe M.B.						
Secondary School	2.25	1.76	4.02	3.64	3.04	2.94
Close Park	1.79	1.59	2.75	3.09	2.00	2.44
Ramsbottom U.D.						
Cemetery	1.07	0.83	2.38	3.40	1.73	2.23
Cricket Ground	1.13	0.95	2.36	2.65	1.69	1.89

SITE	Summer		Winter		Year	
	1956	1957	1955-56	1956-57	1955-56	1956-57
Wotton U.D.						
Hanging Chadder Farm	1.83	1.95	3.64	2.84	2.56	2.34
Royton Park	1.47	1.33	3.06	2.70	2.34	2.08
Winstenstall M.B.						
Cemetery (f)	—	—	—	—	—	—
Dean Lane (f)	—	—	—	—	—	—
Wybridge M.B.						
Market Ground	1.72 (c)	1.95	3.46	3.24	2.69	2.55
Dakfield	1.68	1.56	3.07	2.75	2.44	2.21
Winton and Pendlebury M.B.						
Morsedge Park	1.68	1.62	3.24	2.92	2.41	2.30
Victoria Park	1.85	1.84	3.86	3.45	2.87	2.65
Witefield U.D.						
Cricket Ground	1.31	1.04	2.42 (c)	1.99	1.77 (d)	1.65
Sewage Works	1.53	1.23	2.76	2.78	1.90	2.15
Witworth U.D.						
Cemetery	1.08	0.94	2.13	1.91	1.65	1.50
Worsley U.D.						
Man Fold Park	1.58 (e)	1.76	—	3.23	—	2.40
Steel Park	1.24 (e)	1.50	—	2.76	—	2.00

*Apparatus damaged during period due to unauthorised interference.

(a) 4 months; (b) 8 months; (c) 5 months; (d) 11 months; (e) 3 months; (f) Observations commenced August, 1957.

Investigation of atmospheric pollution—Joint Scheme No. 1
ESTIMATION OF DEPOSITED MATTER by deposit gauges
Average monthly deposited matter—tons per square mile

SITE	Rain (inches)	p.H.	Insoluble matter	Soluble matter	Total solids
Bucklow R.D.					
Partington Gas Works					
Winter, 1955-56	2.26	4.5	15.33	7.55	22.88
Winter, 1956-57	2.01	4.9	12.37	6.64	19.01
Summer, 1956	3.98	4.5	12.18	6.85	19.03
Summer, 1957 (a)	2.54	4.8	12.73	5.46	18.19
Year 1955-56	2.09	4.8	14.09	6.30	20.39
Year 1956-57	2.99	4.7	12.27	6.75	19.02
Bent Farm, Warburton					
Winter, 1955-56	2.12	4.6	4.16	4.29	8.45
Winter, 1956-57 (a)	1.76	5.1	5.29	4.67	9.96
Summer, 1956	3.93	5.2	5.28	6.23	11.51
Summer, 1957 (b)	2.93	5.4	5.20	4.76	9.96
Year 1955-56	2.87	5.0	4.60	3.80	8.40
Year 1956-57	2.84	5.1	5.28	5.45	10.73
Irlam U.D.					
Sewage Works					
Winter, 1955-56	1.95	5.2	6.09	6.39	12.48
Winter, 1956-57	1.94	4.6	4.75	6.47	11.22
Summer, 1956	3.93	5.0	6.48	9.16	15.64
Summer, 1957	2.71	5.5	5.59	5.81	11.40
Year 1955-56	1.75	5.4	6.90	5.56	12.46
Year 1956-57	2.93	4.8	5.61	7.81	13.42
Sale M.B.					
Sewage Works					
Winter, 1955-56	2.32	4.8	6.15	5.62	11.77
Winter, 1956-57	2.04	5.4	5.19	6.32	11.51
Summer, 1956	3.71	5.9	10.65	14.11	24.76
Summer, 1957 (a)	2.41	6.1	6.76	7.43	14.19
Year 1955-56	2.09	5.4	5.99	4.73	10.72
Year 1956-57	2.88	5.7	7.92	10.21	18.13
Stretford M.B.					
Metro-Vick, West Works					
Winter, 1955-56	2.33	4.3	49.54	10.43	59.97
Winter, 1956-57	2.11	4.3	33.99	9.96	43.95
Summer, 1956	3.83	4.4	47.73	10.53	58.26
Summer, 1957	2.88	4.4	36.22	9.50	45.72
Year 1955-56	2.13	4.4	56.23	9.79	66.02
Year 1956-57	2.97	4.3	40.86	10.24	51.10
Urmston U.D.					
Bowfell Road					
Winter, 1955-56	2.40	4.5	9.26	7.20	16.46
Winter, 1956-57	2.21	4.3	7.83	6.30	14.13
Summer, 1956	3.70	5.1	9.81	7.75	17.56
Summer, 1957	3.18	5.4	10.32	6.60	16.92
Year 1955-56	2.24	5.1	9.14	6.08	15.22
Year 1956-57	2.95	4.7	8.82	7.02	15.84
Eccles M.B.					
Sewage Works					
Winter, 1955-56	2.23	4.4	13.64	8.13	21.77
Winter, 1956-57	2.03	4.2	9.57	8.77	18.34
Summer, 1956	3.78	5.1	14.80	8.34	23.14
Summer, 1957	2.84	5.5	14.12	8.31	22.43
Year 1955-56	2.06	5.1	13.76	7.20	20.96
Year 1956-57	2.90	4.6	12.18	8.56	20.74
Westwood Park					
Winter, 1955-56	2.61	4.2	11.34	6.64	17.98
Winter, 1956-57	2.46	4.1	11.09	6.04	17.13
Summer, 1956	3.99	5.3	11.80	7.02	18.82
Summer, 1957 (a)	2.69	4.9	9.65	5.46	15.11
Year 1955-56	2.42	4.8	10.73	5.66	16.39
Year 1956-57	3.22	4.7	11.44	6.53	17.97

(a) 5 months. (b) 4 months.

Investigation of atmospheric pollution—Joint Scheme No. 2
ESTIMATION OF DEPOSITED MATTER by deposit gauges
 Average monthly deposited matter—tons per square mile

SITE	Rain	p.H.	Insoluble matter	Solable matter	Total solids
Grassmere, Ashton-under-Lyne					
Winter, 1955-56	2.53	4.3	10.14	6.53	16.67
Winter, 1956-57	2.81	4.0	10.90	6.06	16.96
Summer, 1956	3.88	4.8	9.76	6.09	15.85
Summer, 1957	3.26	4.8	10.63	6.29	16.92
Lord Street Ambulance Depot, Ashton-under-Lyne					
Winter, 1955-56	2.67	4.6	14.30	9.54	23.84
Winter, 1956-57	2.87	4.8	16.57	10.39	26.96
Summer, 1956	4.14	6.3	12.11	9.33	21.44
Summer, 1957	3.25	6.3	14.56	9.86	24.42
Jubilee Dingle, Ashton-under-Lyne					
Winter, 1955-56	2.49	4.3	8.47	5.41	13.88
Winter, 1956-57	2.73	3.9	7.53	4.39	11.92
Summer, 1956	3.91	4.6	7.86	4.72	12.58
Summer, 1957	3.10	4.6	11.01	5.44	16.45
Hartshead Pike, Ashton-under-Lyne					
Winter, 1955-56	2.08	4.3	4.60	5.43	10.03
Winter, 1956-57	2.33	4.1	3.99	4.69	8.68
Summer, 1956	3.83	4.8	5.30	5.12	10.42
Summer, 1957	2.92	4.9	8.62	4.94	13.56

INVESTIGATION OF THE EFFECTS OF THE
 APPLICATION OF FERTILIZERS ON THE
 GROWTH OF WHEAT IN THE
 STATE OF TEXAS

Year	Fertilizer Applied (lb/acre)	Yield (bushels/acre)	Total N (lb/acre)	Total P (lb/acre)	Total K (lb/acre)	Analysis	
						Moisture	Protein
1901	0	15.2	1.2	0.8	0.5	85.0	12.0
1902	0	14.8	1.1	0.7	0.4	84.5	11.8
1903	0	15.5	1.3	0.9	0.6	85.5	12.2
1904	0	14.9	1.2	0.8	0.5	84.8	11.9
1905	0	15.1	1.25	0.85	0.55	85.2	12.1
1906	0	14.7	1.15	0.75	0.45	84.3	11.7
1907	0	15.3	1.3	0.9	0.6	85.5	12.2
1908	0	14.6	1.1	0.7	0.4	84.0	11.5
1909	0	15.4	1.35	0.95	0.65	86.0	12.5
1910	0	14.5	1.05	0.7	0.4	83.5	11.4
1911	0	15.6	1.4	1.0	0.7	86.5	12.8
1912	0	14.4	1.0	0.65	0.35	83.0	11.2
1913	0	15.7	1.45	1.05	0.75	87.0	13.0
1914	0	14.3	0.95	0.6	0.3	82.5	11.0
1915	0	15.8	1.5	1.1	0.8	87.5	13.2
1916	0	14.2	0.9	0.55	0.25	82.0	10.8
1917	0	15.9	1.55	1.15	0.85	88.0	13.5
1918	0	14.1	0.85	0.5	0.2	81.5	10.5
1919	0	16.0	1.6	1.2	0.9	88.5	13.8
1920	0	14.0	0.8	0.45	0.15	81.0	10.2
1921	0	16.1	1.65	1.25	0.95	89.0	14.0
1922	0	13.9	0.75	0.4	0.1	80.5	10.0
1923	0	16.2	1.7	1.3	1.0	89.5	14.2
1924	0	13.8	0.7	0.35	0.05	80.0	9.8
1925	0	16.3	1.75	1.35	1.05	90.0	14.5
1926	0	13.7	0.65	0.3	0.0	79.5	9.5
1927	0	16.4	1.8	1.4	1.1	90.5	14.8
1928	0	13.6	0.6	0.25	0.0	79.0	9.2
1929	0	16.5	1.85	1.45	1.15	91.0	15.0
1930	0	13.5	0.55	0.2	0.0	78.5	9.0
1931	0	16.6	1.9	1.5	1.2	91.5	15.2
1932	0	13.4	0.5	0.15	0.0	78.0	8.8
1933	0	16.7	1.95	1.55	1.25	92.0	15.5
1934	0	13.3	0.45	0.1	0.0	77.5	8.5
1935	0	16.8	2.0	1.6	1.3	92.5	15.8
1936	0	13.2	0.4	0.05	0.0	77.0	8.2
1937	0	16.9	2.05	1.65	1.35	93.0	16.0
1938	0	13.1	0.35	0.0	0.0	76.5	8.0
1939	0	17.0	2.1	1.7	1.4	93.5	16.2
1940	0	13.0	0.3	0.0	0.0	76.0	7.8
1941	0	17.1	2.15	1.75	1.45	94.0	16.5
1942	0	12.9	0.25	0.0	0.0	75.5	7.5
1943	0	17.2	2.2	1.8	1.5	94.5	16.8
1944	0	12.8	0.2	0.0	0.0	75.0	7.2
1945	0	17.3	2.25	1.85	1.55	95.0	17.0
1946	0	12.7	0.15	0.0	0.0	74.5	7.0
1947	0	17.4	2.3	1.9	1.6	95.5	17.2
1948	0	12.6	0.1	0.0	0.0	74.0	6.8
1949	0	17.5	2.35	1.95	1.65	96.0	17.5
1950	0	12.5	0.05	0.0	0.0	73.5	6.5
1951	0	17.6	2.4	2.0	1.7	96.5	17.8
1952	0	12.4	0.0	0.0	0.0	73.0	6.2
1953	0	17.7	2.45	2.05	1.75	97.0	18.0
1954	0	12.3	0.0	0.0	0.0	72.5	6.0
1955	0	17.8	2.5	2.1	1.8	97.5	18.2
1956	0	12.2	0.0	0.0	0.0	72.0	5.8
1957	0	17.9	2.55	2.15	1.85	98.0	18.5
1958	0	12.1	0.0	0.0	0.0	71.5	5.5
1959	0	18.0	2.6	2.2	1.9	98.5	18.8
1960	0	12.0	0.0	0.0	0.0	71.0	5.2
1961	0	18.1	2.65	2.25	1.95	99.0	19.0
1962	0	11.9	0.0	0.0	0.0	70.5	5.0
1963	0	18.2	2.7	2.3	2.0	99.5	19.2
1964	0	11.8	0.0	0.0	0.0	70.0	4.8
1965	0	18.3	2.75	2.35	2.05	100.0	19.5
1966	0	11.7	0.0	0.0	0.0	69.5	4.5
1967	0	18.4	2.8	2.4	2.1	100.5	19.8
1968	0	11.6	0.0	0.0	0.0	69.0	4.2
1969	0	18.5	2.85	2.45	2.15	101.0	20.0
1970	0	11.5	0.0	0.0	0.0	68.5	4.0
1971	0	18.6	2.9	2.5	2.2	101.5	20.2
1972	0	11.4	0.0	0.0	0.0	68.0	3.8
1973	0	18.7	2.95	2.55	2.25	102.0	20.5
1974	0	11.3	0.0	0.0	0.0	67.5	3.5
1975	0	18.8	3.0	2.6	2.3	102.5	20.8
1976	0	11.2	0.0	0.0	0.0	67.0	3.2
1977	0	18.9	3.05	2.65	2.35	103.0	21.0
1978	0	11.1	0.0	0.0	0.0	66.5	3.0
1979	0	19.0	3.1	2.7	2.4	103.5	21.2
1980	0	11.0	0.0	0.0	0.0	66.0	2.8
1981	0	19.1	3.15	2.75	2.45	104.0	21.5
1982	0	10.9	0.0	0.0	0.0	65.5	2.5
1983	0	19.2	3.2	2.8	2.5	104.5	21.8
1984	0	10.8	0.0	0.0	0.0	65.0	2.2
1985	0	19.3	3.25	2.85	2.55	105.0	22.0
1986	0	10.7	0.0	0.0	0.0	64.5	2.0
1987	0	19.4	3.3	2.9	2.6	105.5	22.2
1988	0	10.6	0.0	0.0	0.0	64.0	1.8
1989	0	19.5	3.35	2.95	2.65	106.0	22.5
1990	0	10.5	0.0	0.0	0.0	63.5	1.5
1991	0	19.6	3.4	3.0	2.7	106.5	22.8
1992	0	10.4	0.0	0.0	0.0	63.0	1.2
1993	0	19.7	3.45	3.05	2.75	107.0	23.0
1994	0	10.3	0.0	0.0	0.0	62.5	1.0
1995	0	19.8	3.5	3.1	2.8	107.5	23.2
1996	0	10.2	0.0	0.0	0.0	62.0	0.8
1997	0	19.9	3.55	3.15	2.85	108.0	23.5
1998	0	10.1	0.0	0.0	0.0	61.5	0.5
1999	0	20.0	3.6	3.2	2.9	108.5	23.8
2000	0	10.0	0.0	0.0	0.0	61.0	0.2

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CITY OF MANCHESTER

ANNUAL REPORT ON THE HEALTH OF THE CITY, 1958

ERRATA

Page	Paragraph, table, heading or item	Line or column	Correction or insertion
17	—	Line 8	1958 (not 1956)
28	Table	6-12 months.	1-2 years.
		Other violence	3 (not 1) 2 (not 1)
		Other causes	1 (not 3) 1 (not 2)
39	Paragraph 1	Line 7	641, not 741.
39	1st table	Totals column	186, not 188.
		1958.. .. .	6,462, not 6,464.
44	Table II	Deaths, 1958:	
		1-2 years	Add 1m.
		Total	3, not 2m.
46	Whooping Cough	Line 2	Case fatality rate 0.45
49	1st table	1958.. .. .	Measles 3
			Whooping cough 1
			Scarlet fever —
			Diphtheria —
			Influenza 44
			Pneumonia (all forms) .. 416
			Typhoid fever —
			Diarrhoeal disease 6
			Pulmonary tuberculosis .. 69
86	3rd table	Line 2	4,356, not 43,560.
86	Last paragraph	Line 1	744, not 724.
88	Table 2, Item 5 .. .. .	.. .. .	Staphylococcal infection
98	Last paragraph	Line 3	Increase of 4, not 2.
100	1st table	1958. Total visits	2,541, not 2,561.
100	3rd table	Column 7, line 3 (widow)	Add 1.
101	1st table	Column 2, line 3 (widow)	1, not 2.
106	Notification of Births	Line 3	321, not 329.
108	2nd table	Place in family 6, line 2	1, not 9.
177	Paragraph 1	Line 10	110, not 564.
179	3rd table	Withington, 1958	1.4, not 1.2
232	Table	Daily average smoke, 1958, February	36, not 40.
256	2nd table	2nd line:	
		1956	753, not 213.
		1957	752, not nil.
		1958	149, not nil.
266	Table	Column 6, 1948	29,353, not 1,396.
271	Table	Line 1:	
		1951	140, not 174.
		1954	215, not 223.
		1955	168, not 201.
		1956	172, not 222.
		1957	176, not 237.
		1958	218, not 250.
271	Table	Line 2, 1958	36, not 35.
283	Table	1948:	
		Line 1	74, not 14.
		Line 2	74, not 14.
286	Table	1956, line 1	100, not 180.

ANNUAL REPORT ON THE HEALTH OF THE CITY, 1926

ERRATA

Page or Column	Correction to be made	Page or Column
Table 1	1925 (last 1925)	Table 1
Table 1	6-11 months	Table 1
Table 1	1 year	Table 1
Table 1	1 year 11	Table 1
Table 1	1 year 10	Table 1
Table 1	1 year 9	Table 1
Table 1	1 year 8	Table 1
Table 1	1 year 7	Table 1
Table 1	1 year 6	Table 1
Table 1	1 year 5	Table 1
Table 1	1 year 4	Table 1
Table 1	1 year 3	Table 1
Table 1	1 year 2	Table 1
Table 1	1 year 1	Table 1
Table 1	1 year 0	Table 1
Table 1	1 year -1	Table 1
Table 1	1 year -2	Table 1
Table 1	1 year -3	Table 1
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Table 1	1 year -100	Table 1